BIDDING DOCUMENT NO. JP/B889-000-YE-MR-1500/6

BIDDING DOCUMENT
FOR
PROGRAMMABLE LOGIC CONTROLLERS

FOR

TRINITROTOLUENE (TNT) PLANT AT HIGH EXPLOSIVES FACTORY (HEF) KHADKI OF MUNITIONS INDIA LIMITED (MIL) AT KHADKI, PUNE, MAHARASHTRA

Prepared & Issued by:

इंजीनियर्स इंडिया लिमिटेड
(भारत सरकार का उपक्रम)

ENGINEERS INDIA LIMITED
(A Govt. of India Undertaking)

MASTER INDEX

NAME OF ITEM/ WORK : PROGRAMMABLE LOGIC CONTROLLERS

BIDDING DOCUMENT NO. : JP/B889-000-YE-MR-1500/6

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इंजीनियर्स इंडिया लिमिटेड
(भारत सरकार का उपक्रम)
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ENGINEERS INDIA LIMITED
(A Govt. of India Undertaking)
A Navratna Company
इंजीनियर्स इंडिया लिमिटेड, ईआईएल कार्यालय परिसर, सैक्टर-16, गुरुग्राम - 122 001 (हरियाणा) भारत
Engineers India Limited, EIL Office Complex, Sector-16, Gurugram - 122 001 (Haryana) INDIA
Tel. No.: 0124- 289 1200

REQUEST FOR QUOTATION (RFQ)
(e-Bidding)

Date: 21.03.2025

SL NO.	SALIENT FEATURES		DETAILS
a)	Client	:	EIL (OBE JOB OF MIL)
b)	Project	:	TRINITROTOLUENE (TNT) PLANT AT HIGH EXPLOSIVES FACTORY (HEF) KHADKI OF MUNITIONS INDIA LIMITED (MIL) AT KHADKI, PUNE, MAHARASHTRA
c)	Item	:	PROGRAMMABLE LOGIC CONTROLLERS
d)	EIL RFQ No.	:	JP/B889-000-YE-MR-1500/6
e)	MR Category	:	Packages
f)	Pre-Bid meeting	:	1400 Hrs. (IST) on 01-04-2025
g)	Pre-Bid Meeting Details and Venue	:	Microsoft Teams : https://teams.microsoft.com/l/meetup-join/19%3ameeting_N2QzYzc2YzEtMTZmYy00ZGIxLThjNTMtOTFhY2Y2MjdkMjVm%40thread.v2/0?context=%7b%22Tid%22%3a%226d8d019c-084b-4eb0-8615-09848b9a7d64%22%2c%22Oid%22%3a%22b04d0c7a-7334-4d37-b24d-9cda7b17d1b0%22%7d Meeting ID: 428 345 363 982 Passcode: Mm9BA32A
h)	Last date of receipt for pre-bid queries	:	Within 7 calendar days from the RFQ publish date In case of receipt of queries after this date, EIL reserves the right to not consider such late queries.
i)	Earnest Money Deposit (EMD)	:	Not Applicable
j)	BID DUE DATE (Last date and time of submission of e-Bids)	:	Up to 1200 Hrs. (IST) on 17-04-2025
k)	UNPRICED BID OPENING Opening of Techno-commercial (Unpriced) e-Bids	:	1400 Hrs. (IST) on 18-04-2025
l)	PRICED BID OPENING	:	The date & time to be intimated later on to the technically & commercially acceptable bidders
m)	Contact Person for any query/ clarification	:	Ms. Anwesha Sahoo, Sr.Mgr (SCM), anwesha@eil.co.in;Tel.No.: +91-124- 289 1349 Mr. Bapi Baidya, AGM (SCM), bapi.baidya@eil.co.in;Tel.No.: +91-124- 289 1371 Mr. Jaydip Purkayastha, GM (SCM-C&P), Phone no. 0124 289 1287

SL NO.	SALIENT FEATURES		DETAILS
			E-mail ID: jaydip@eil.co.in
n)	**Delivery Period/ Completion Period**	:	**Supply:** Within **10 Months** on FOT Project Site on freight pre-paid & door delivery basis from the date of issue of LOA/PO. The date of receipt of all material at site shall be considered as the date of delivery. **Site Work :** Within **4 Months** from the date of Site Readiness. Advance intimation for site readiness shall be given 15 days prior to commencement of site work. The date of handing over of the equipment after completion of complete scope of work duly certified by Engineer-in-charge/ Inspection authority shall be considered as the date of completion of site work.
o)	**DEVIATIONS NOT PERMITTED** Bids are invited on **"Zero Deviation Basis". ** Accordingly offer is to be submitted in complete compliance to RFQ Terms & Conditions without any deviation. **Offer with deviation shall be liable for rejection.** Hence, Bidder shall ensure submission of complete bid without any deviation as per requirement of Enquiry document in first instance itself.		
p)	This enquiry is issued on **Limited Bidding basis to EIL Enlisted suppliers for "captioned items mentioned at sl. No. c above" only**. **PROVISIONS OF NON DISCLOSURE AGREEMENT (NDA)** **The detailed Bidding Document is uploaded on e-procurement Portal (https://eprocure.gov.in/eprocure/app).** **Due to confidential information contained in the Technical part/MR of enquiry, NDA/Confidentiality Agreement needs to be executed by all vendors prior to downloading the Technical part/MR on e-procurement Portal. However, initially bidder will be able to download only the commercial section of the bidding document.** **The bidder shall be required to upload the duly signed NDA format on the e-procurement portal under the subject bidding document/tender ID. The acceptance/re-submission or rejection of NDA can be checked from e-procurement Portal and vendor whose NDA is accepted can further download the Technical part of Bidding document, BOQ etc.** **Further, the bidder shall be required to send 02 (Two) hard copies of the duly signed NDA Format to the address mentioned at BDS.** **A link for the bidding document will also be available on EIL tender website http://tenders.eil.co.in.**		

If any of the dates indicated at Sl. No. (j) above happens to be a declared/closed holiday in EIL-Gurugram, the next working day shall be considered.

1. INTRODUCTION

1.1. M/s Engineers India Limited (EIL) has been engaged by the MIL as the Executing Agency for this Project on Open Book Estimate (OBE) Basis.

2. SUBMISSION OF BIDS & VALIDITY:

2.1. E-bids under **single stage two bid system** are requested for the captioned item based on the requirement specified in this MR and in total compliance to technical specifications, scope and terms & conditions of RFQ documents/attachments.

2.2. **EIL registered bidder shall quote only for those Items for which they are registered with EIL as on the date of issuance of RFQ. Items quoted by EIL registered bidder other than the approved range with EIL shall not be considered for evaluation/award. Only the bids received from these eligible empanelled bidders shall be accepted and considered for further evaluation. Bids received from all other bidders shall be rejected.**

2.3. Physical Bids/ Offer sent through Fax/ E-mail/ CD/ DVD/ Pen Drive/ Courier/Post or Bids through any other mode shall not be accepted. However, any specific document required to be submitted in physical form as per RFQ shall be submitted in physical form.

2.4. RFQ Document is non-transferrable.

2.5. Please submit your Acknowledgement against the RFQ on EIL's website http://tenders.eil.co.in within the due date & time, with reason(s) of not participating in the bidding process in case of regret/negative acknowledgment. In case there is no response, the bidder shall be liable for suitable action including review of their enlistment with EIL for the subject item.

2.6. Submission of authentic documents is the prime responsibility of the bidder. Wherever EIL has concern or apprehension regarding the authenticity/ correctness of any document, EIL reserves a right of getting the document cross verified from the document issuing authority.

2.7. Subsequent to the submission of bid, bidders are not allowed to change the price or substance of the bid i.e. scope of work, specifications, delivery schedule, completion period etc.

2.8. Bids received after the due date and time (refer late bids clause of ITB) shall be rejected and representative of such bidders shall not be allowed to attend the bid opening.

2.9. Consortium / Unincorporated Joint Venture Bids are **not acceptable.**

2.10. EIL reserves the right to assess Bidder's capabilities and capacity to execute the work using in-house information and past performance that also includes the performance of the Bidder in any of the contract awarded in the present Project. EIL/ Owner shall reject the Bidder's offer if the performance in the awarded contract in this project is found to be unsatisfactory.

2.11. In case any bidder is found to be involved in cartel formation, his bid will not be considered for evaluation/ placement of order. Such bidder will be debarred from bidding in future.

2.12. Canvassing in any form by the Bidder or by any other Bidder on their behalf may lead to disqualification of their Bid.

2.13. EIL reserves the right to reject any or all Bids received and to annul the Bidding Process at its discretion without assigning any reason, whatsoever.

2.14. Wherever the term – "Black-listing / Holiday Listing" is appearing anywhere in the RFQ/Bidding Document including formats, declaration etc, the same stands replaced by – "Black-listing/ Holiday Listing/Suspension / Banning List".

2.15. Purchase preference to central Public Sector Enterprises (PSUs) or any other government guidelines as applicable from time to time shall be considered applicable.

2.16. Owner/EIL shall follow the prevailing Public Procurement Policy on Procurement of Goods and services from Micro and Small Enterprises (MSEs) Order 2012 as mentioned elsewhere in the Bidding Document. The details are enclosed as Appendices to ITB.

2.17. Owner/EIL shall follow the prevailing Public Procurement (Preference to Make in India) guidelines as mentioned elsewhere in the Bidding Document. The details are enclosed as Appendices to ITB.

2.18. Owner/EIL shall follow the prevailing guidelines for restriction on procurement from Bidders from countries sharing border with India as mentioned elsewhere in the Bidding Document. The details are enclosed as Appendices to ITB.

2.19. For detailed specifications, terms and conditions and other details, refer complete RFQ Document.

This limited invitation for e-bid is open only to suppliers to whom this RFQ is issued.

THIS IS NOT AN ORDER

Very truly yours,
(Jaydip Purkayastha)
GM (SCM-C&P)
Engineers India Limited

CONFIDENTIALITY AGREEMENT

This CONFIDENTIALITY AGREEMENT ("**Agreement**") is effective on the ___ day of ____ , 2025 ("Effective Date"), and is executed by and between

Engineers India Limited, (Corporate Identity No. L74899DL1965GOI004352), a company incorporated under the Companies Act, 1956 having its registered office at 1, Bhikaji Cama Place, New Delhi 110066, India, ("**EIL**" / **"THE DISCLOSING PARTY"**), which expression shall include, unless repugnant to the context, its successors and permitted assigns.

and

_____ (hereinafter referred to as "**THE RECEIVING PARTY**"), a company organized and existing under the laws of _____, and having its registered office at _____ which expression shall include, unless repugnant to the context, its successors and permitted assigns.

EIL and THE RECEIVING PARTY are individually referred to as PARTY or collectively as PARTIES.

WHEREAS,

A. EIL is executing contract for 'TNT Plant at HEF Khadki' ("**Project**") of Munitions India Limited ("**MIL**");
B. EIL is in the process of procurement of equipment for the Project from reputed Contractors / Vendors.
C. In order to provide their quotations, samples, proposals for consideration of EIL and if selected, then to supply equipment as per contractual requirement, THE RECEIVING PARTY requires access to certain information belonging to EIL and MIL which constitutes information of confidential nature (**"Purpose"**);
D. In order to proceed further with the Purpose, THE RECEIVING PARTY requires access to various information which belong to EIL or to MIL, together constituting Confidential Information (as subsequently defined).
E. THE DISCLOSING PARTY is willing to disclose, or permit disclosure of, as applicable, such Confidential Information to THE RECEIVING PARTY for the Purpose on the terms and conditions set out herein, to which both Parties signify their acceptance by way of this Agreement.

NOW, THEREFORE, it is agreed as follows:

1. Definitions

"Affiliate" means any corporation or other legal entity which is controlled by a party, controls a party, or is under the common control with a party. For this definition, control means ownership, directly or indirectly, of fifty percent (50%) or more of the equity interest or shares entitled to vote for the election of directors.

"Confidential Information" means all design, technical specifications, process know-how, data, drawings, IPR, Manufacturing and other information in any form or media and whether such delivered in written, oral, (or other tangible) form or acquired by inspection, and irrespective information being a trade secret under an applicable trade secret regime or not relating to the engineering, procurement and fabrication of a plant

and relating to the process and/or equipment developed or acquired by EIL or MIL or any licensors, and disclosed directly or indirectly by EIL or MIL to THE RECEIVING PARTY or acquired anyhow by THE RECEIVING PARTY in relation to the Project.

2. Obligation of Confidentiality and Limited Use

a. THE RECEIVING PARTY shall hold in confidence all of the Confidential Information for perpetuity and except as provided in Clause 3 and Clause 4 below, there shall be no disclosure of Confidential Information, in whole or in part, to any third party (including Affiliates of THE RECEIVING PARTY).

b. THE RECEIVING PARTY shall use Confidential Information solely for the Purpose. THE RECEIVING PARTY shall not make known nor cause or permit others to make known to any third party any correlation or identity which may exist between: (i) Confidential Information acquired in connection with or as a result of this Agreement; and (ii) any other technical or business information known or made available to THE RECEIVING PARTY from any other source.

3. Exclusions.

THE RECEIVING PARTY's obligations under Section 2 shall not apply to any information which THE RECEIVING PARTY can show by written evidence:
(a) is in the public domain at the time of disclosure;
(b) enters the public domain after disclosure through no fault of THE RECEIVING PARTY;
(c) is in the possession of THE RECEIVING PARTY at the time of disclosure and which THE RECEIVING PARTY, without breach of any obligation, is free to disclose to others, except if previously acquired, directly or indirectly, from a third party under any confidentiality obligation; or
(d) is provided to THE RECEIVING PARTY after disclosure by a third party that is not under any confidentiality obligation or has been independently developed by THE RECEIVING PARTY.
(e) has been independently developed by THE RECEIVING PARTY without relying upon Confidential Information.

Detailed information is not excluded from the obligations of Section 2 merely because such information is embraced by more general information excluded under subparts (a), (b), (c), (d), (e). Neither will a combination of features be excluded unless the combination itself and its principles of operation fall within (a), (b), (c), (d), (e).

THE RECEIVING PARTY may disclose minimal Confidential Information to its subcontractors or vendors ("Third Parties') only in furtherance of the Purpose. However, prior to disclosure to such Third Parties, (1) THE RECEIVING PARTY shall take written consent from THE DISCLOSING PARTY, and (2) sign a confidentiality agreement on terms and conditions as stringent as contained in this Agreement. THE RECEIVING PARTY agrees to submit to THE DISCLOSING PARTY, a copy of such confidentiality agreement it has signed with such Third Parties. THE RECEIVING PARTY shall remain liable for breach of confidentiality obligations by its employees, ex-employees and Third Parties.

Any unauthorized access permitted by THE RECEIVING PARTY shall be deemed to be breach of obligations of THE RECEIVING PARTY under this Agreement.

4. Legally Compelled Disclosure

In the event THE RECEIVING PARTY is required by applicable law or legal process to disclose any Confidential Information, such disclosure shall not constitute a breach of this Agreement provided that, prior to making any such disclosure, THE RECEIVING PARTY (a) provides THE DISCLOSING PARTY with prompt notice of such requirement so that it may seek an appropriate protective order or other remedy, (b) consult with THE DISCLOSING PARTY with respect to taking steps to resist or narrow the scope of such required disclosure, (c) discloses only so much of Confidential Information which is legally required.

5. Return or Destruction of Confidential Information

Upon THE DISCLOSING PARTY's request, THE RECEIVING PARTY shall and shall cause its Third Parties to promptly return or destroy all documents and materials that contain or reflect the Confidential Information.

6. No Grant of Rights

THE RECEIVING PARTY acknowledges and agrees that it does not have any right (except as otherwise expressly set forth herein and limited to the Purpose), title or interest in any Confidential Information or to any of the technology embodied therein. THE RECEIVING PARTY shall not reverse engineer any Confidential Information and shall not use it for any purpose other than the Purpose envisaged herein.

7. No Assignment/Sub-Contracting

Without the prior written consent of THE DISCLOSING PARTY, THE RECEIVING PARTY shall neither attempt to assign any of its rights under this Agreement nor subcontract the performance of this Agreement or part of it which require the use or disclosure of Confidential Information.

8. Injunctive Relief

THE RECEIVING PARTY agrees that due to the unique nature of the Confidential Information, there is no adequate remedy at law for breach of this Agreement and therefore with respect to any actual or threatened violation of this Agreement by or through THE RECEIVING PARTY, in addition to whatever remedies may be available under applicable law, THE DISCLOSING PARTY shall be entitled to specific performance of this Agreement and to injunctive relief to prevent the disclosure or unauthorized use of any Confidential Information.

9. Governing law and Dispute Resolution.

This Agreement is governed by and shall be interpreted in accordance with the laws of India without reference to the provisions of conflict of law, and the Parties agree to subject themselves to jurisdiction of courts at Delhi.

10. Entire Agreement and Severability

This Agreement shall constitute entire understanding of the Parties on the subject matter, and shall supersede any prior understanding oral or written. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision and this Agreement and shall be construed and enforced as if the Agreement did not contain such invalid or unenforceable provision.

11. Notices

All Notices shall be in writing in the English language and shall be addressed to the parties at their respective registered addresses set forth herein. Each Party may change its address for purposes hereof by Notice given to the other Party in the manner prescribed herein. All Notices shall be given by one of the following methods: (a) by registered or certified mail/ email, (b) by facsimile, confirmed by registered or certified mail, or (c) by express courier delivery, confirmed by written proof thereof. All Notices shall be deemed effective on the date that is ten (10) calendar days after (x) the date on which sent by registered or certified mail or (y) the date on which sent by email or facsimile, confirmed by registered or certified mail or (z) the date on which sent by express courier delivery.

12. Counterparts

This Agreement may be signed in two counterparts, each of which shall be deemed an original.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed in **two** originals, effective as of the date first hereinabove written.

_____	**Engineers India Limited**
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____
Email:	Email:

INSTRUCTIONS TO BIDDERS (ITB)

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A. GENERAL

1.0 SCOPE OF BID

1.1 In connection with the Request for Quotation (RFQ), Engineers India Limited (EIL) invites e-Bid(s), under single stage two bid system, for the scope of supply and services covered under the RFQ Document.

1.2 Throughout the Bidding Document:

(a) The **PURCHASER** means Engineers India Limited **(EIL)**, a company incorporated in India having its registered office at Engineers India Bhawan, 1, Bhikaiji Cama Place, RK Puram, New Delhi-110066 and shall include its successors and assignees.

(b) **CLIENT/ OWNER:** Client/ Owner means Project Owner i.e., "Munitions India Limited (MIL), 2nd Floor Nyati Unitree, Nagar Road, Yerwada, Pune, Maharashtra, India. Pin- 411006, India" as mentioned in RFQ.

(c) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and word written in capital or small letter or where the first letter capital have the same meaning; and

(d) "Day" means calendar day.

(e) The term 'Bid Due Date' shall mean the 'Final Bid Due Date'.

(f) the term "bid"/ "tender"/"offer"/ "proposal" and their derivatives ("RFQ/IFB/Bidding/Enquiry" documents, "bidder/tenderer", "Vendor/Supplier/Seller", "Bid/tender", "bidding/tendering", "Contract/Purchase Order" etc.) are synonymous, and day means calendar day. Singular also means plural and vice versa.

(g) **INCOTERM 2020:** INCOTERM 2020 means the terms which shall be applicable for procurement of equipment/material under the subject RFQ / Enquiry document.

(h) Material Requisition (MR) means the Technical Part of RFQ Document.

(i) E-Tendering/ e- procurement website means Government e Marketplace (GeM) Portal (https://gem.gov.in) / Government of India Central Public Procurement (CPP) Portal (https://eprocure.gov.in/eprocure/app) **[Refer BDS for applicability]**

1.3 The successful bidder / "supplier" shall complete the Scope of RFQ within the Time Period/Completion Period stated in RFQ document.

2.0 ELIGIBLE BIDDERS

2.1 An Eligible bidder may be a firm or a company, who, have been issued the RFQ Document on Limited Competitive Basis or a bidder meeting the BQC criteria as per Invitation for Bids (IFB)/ Notice Inviting Tender (NIT) on Open Competitive basis.

2.2 In case of limited competitive basis, the bidding is open only to the bidders to whom Bidding Document has been issued. (Refer BDS for type of bidding)

In case of limited enquiries, bidder to note that this notice is being published for information only and is not an open invitation to quote in this limited tender. Participation in this tender is by invitation only and is limited to the selected suppliers/contractors to whom this enquiry is issued. Unsolicited offers are liable to be ignored. However, suppliers/contractors who desire to participate in such tenders in future may apply for enlistment with Owner/EIL as per procedure.

2.3 In case of open competitive basis, the bidding is open to the bidder who intends to submit the Bid, in response to IFB/NIT.

2.4 A bidder who is on **Black-listing / Holiday Listing /Suspension / Banning List/ Negative List** of EIL/Owner or **debarred and/ or disqualified by GeM (if RFQ published through GeM Portal)** on due date of submission of bid / during the process of evaluation of the bids, the offers of such bidders shall not be considered for bid opening/evaluation/award, as the case may be. Further, in case of a consortium, if any of the member(s) of consortium is on **Black-listing / Holiday Listing /Suspension / Banning List/ Negative List** of EIL/ Owner **or debarred and/ or disqualified by GeM (if RFQ published through GeM Portal)** on due date of submission of bid / during the process of evaluation of the bids, the offers of such consortium shall not be considered for bid opening/evaluation/Award.

If the RFQ Document is/was issued inadvertently to such Bidder/downloaded from website by such Bidder, then Bid submitted by such Bidder shall not be considered for opening/ evaluation/ award.

2.5 Similarly, if a bidder is seeking qualification based on engaging a sub-contractor / sub-vendor who meets stipulated qualification criteria (in case allowed as per IFB/NIT) and such a sub-contractor / sub-vendor is on **Black-listing / Holiday Listing /Suspension / Banning List/ Negative List** of EIL / MIL **or debarred and/ or disqualified by GeM** (if RFQ published through GeM Portal) on due date of submission of bid / during the process of evaluation of the bids, the offer of such bidder shall not be considered for bid opening/evaluation /award , as the case may be.

2.6 If a Bidder / member of the consortium (as per Clause No. **2.4** above) / proposed sub-contractor or sub-vendor (as per Clause No. 2.5 above),is placed on **Black-listing / Holiday Listing /Suspension / Banning List/ Negative List** of EIL/Client after opening of price bid and such Bidder / Consortium happens to be the lowest bidder, the next lowest bidder shall be considered as L1. Further, in case ~~L1 bidder~~ Bidder / Consortium happens to be the lowest bidder but is Suspended / debarred on GeM portal, evaluation and awarding shall be as per GeM Incident Management Policy (if RFQ published through GeM Portal).

2.7 Suspension / Banning in GeM portal:

GeM has a policy of banning / suspending sellers / service providers in case of incidents being raised against them. The status of such bidders is displayed against their name on GeM portal. The bidders suspended by GeM shall be considered for further evaluation and order placement provided they are not on Black-listing/Holiday Listing/ suspension/ Banning List/ Negative List of EIL/OWNER/Client and GeM doesn't disqualify such bidders on Portal and allows further processing on their platform. In case, GeM disqualify such bidders and doesn't allow further processing, they shall be rejected due to disqualification by GeM and shall not be recommended for PBO/Award.

Clause No. 2.4, 2.5 & 2.6 of ITB shall be read in conjunction with Clause No. 2.7 of ITB.

2.8 The Bidder shall not be under a declaration of ineligibility by Purchaser for Corrupt/Fraudulent/Collusive/Coercive practices, as defined in SPC.

2.9 **CONFLICT OF INTEREST (FOR LIMITED ENQUIRIES ONLY):**

The bidder found to have a conflict of interest shall be disqualified.

2.9.1 **Bidder's conflict of interest as Consultant of Owner :**

Consultants or any of their Affiliates will not be considered for any assignment, which by its nature may be in conflict with another assignment of the consultants.

2.9.2 **Bidder's conflict of interest with other bidders:**

A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Owner's interests. The bidder found to have a conflict of interest shall be disqualified.

A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:-

a. they have controlling partner (s) in common; or

b. they receive or have received any direct or indirect subsidy/ financial stake from any of them; or

c. they have the same legal representative/agent for purposes of this bid; or

d. they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or.

e. In cases of agents, quoting on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:

   1. The principal manufacturer directly or through one agent on his behalf; and

   2. Agent on behalf of only one principal.

f. Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid;

g. In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business.

2.10 In addition to above, Bidder has to comply with the policies issued by Government including Purchase Preference policies or any other government guidelines as applicable from time to time. For details refer clause no. 38 below and for applicability refer Bid Data Sheet (BDS).

3.0 FRAUDULENT PRACTICES

Fraudulent Practices clause as per Special Purchase Conditions(SPC) shall be applicable.

B. CONTENTS OF BIDDING DOCUMENT

4.0 BIDDING DOCUMENT

4.1 The RFQ document consisting of Commercial & Technical Section has been hosted on e-procurement website. However, a link shall be provided in EIL website http://tenders.eil.co.in..

4.2 The Bidding Document shall in general consist of the following and should be read in conjunction with any amendment issued in accordance with Clause No. **7.0** of ITB.

i. Request for Quotation (RFQ) / Invitation For Bids (IFB)
ii. Bid Data Sheet (BDS)
iii. Instructions to Bidders and its Appendices
iv. Bidding Forms
v. Special Purchase Conditions (SPC) and its Annexure
vi. General Purchase Conditions (GPC)
vii. Format for Performance Bank Guarantee and Bank Guarantee for Advance
viii. Packing, Marking, Shipping and Documentation Specification
ix. Additional Documents Mentioned in RFQ
x. Price Schedule
xi. Material Requisition (MR)

4.3 Although all the details presented in this Bidding Document have been compiled with reasonable care, the bidder is expected to examine the Bidding Document, including all instructions, forms, terms, specifications and drawings in the Bidding Document and it includes all the documents as per Table of Contents. In case of any ambiguity or incompleteness, the bidder must bring it to the attention of EIL immediately and prior to submission of Bid.

4.4 The bidder is expected to examine the RFQ document downloaded from the e-Procurement Portal, bidding guidelines receipt from EIL or available on EIL website, all instructions, formats, terms, specifications and drawings etc., enclosed in the RFQ documents. The invitation for bid (bidding) together with all its attachment thereto, shall be considered to be read, understood and accepted by the bidder in co-ordination to each other. Failure to furnish all information required by the RFQ documents or submission of a bid not substantially responsive to the RFQ documents in every respect will be at bidder's risk and may result in the rejection of the Bid.

4.5 RFQ document once issued in case of limited competitive bidding is non-transferable. However, in case of Open Competitive Bidding, since the RFQ Document is available for free downloading on the portal, any bidder may submit the Bid and the same shall be evaluated in line with the provisions of the Bidding Document.

4.6 **Order of precedence**

The documents forming the Purchase Order (i.e. LOA/PO/GeM Contracts, as applicable and its Addendums) are to be taken as mutually explanatory of one another. If there is an ambiguity or discrepancy in the Term & Conditions defined in the various documents, the order of Precedence shall be as follows:

i. Purchase Order and its enclosures along with Purchase Requisition
ii. Amendment to Bidding Document, if any
iii. Bid Data Sheet
iv. Job Specifications
v. Drawings
vi. Technical specifications
vii. Special Purchase Conditions (SPC)
viii. General Purchase Conditions (GPC) & Packing, Marking, Shipping and Documentation Specification
ix. Request for Quotation (RFQ) / Invitation For Bids (IFB)
x. Instructions to Bidders (ITB)
xi. Other Documents

A variation or amendment issued after the execution of the formal contract shall take precedence over respective clauses of the formal contract and it's Annexures.

5.0 SITE VISIT

5.1 For Scope involving Site Work, bidder, if required, may visit and examine the Project Site and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid.

5.2 Bidder is advised to visit and examine the site (at his own cost), its surroundings and familiarise themselves of the existing facilities & environment, and collect all other information which he may require for preparing and submitting the bid and entering into the Contract. Claims and objections due to ignorance of existing conditions or inadequacy of information will not be considered after submission of the bid and during implementation. Bidder shall provide at least two days in advance the details of their representatives along with details of laptop, mobile or any other electronic device

or any equipment if any, being carried so as to make arrangement for gate passes. Owner's decision on this regard shall be final and binding upon the bidder.

5.3 Bidder and any of its personnel will be granted permission by EIL/Client to enter upon its premises and lands/ Project Site for the purpose of such visit, but only upon the express condition that the bidder and its personnel will relieve and indemnify EIL/Client and its personnel from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

5.4 For site visit, Bidder may contact the persons in EIL/MIL as per details provided in Bid Data Sheet (BDS).

6.0 CLARIFICATION OF BIDDING DOCUMENT& PRE-BID MEETING

6.1 The enquiry is issued on "***Zero Deviation Bidding***" basis wherein no post bid correspondence of any nature may be entertained. Bidders in their own interest are advised to take part in the pre-bid meeting seriously by issuing their genuine queries and also by attending the pre-bid meeting by their competent personnel. This will help bidder not only to cut short of the evaluation time leading to requirement of shorter bid validity but also enable them to submit their best prices based on the clear techno-commercial scope.

6.2 Bidder's to upload their queries in e-tendering/eprocurement portal strictly within cut-off date specified therein after which EIL shall reserve the right not to entertain any queries. Further, any query received outside of the e-procurement portal may not be entertained.

6.3 Pre-bid meeting shall be attended by competent representative(s) of the bidder.

6.4 Replies to the pre-bid queries will be uploaded in e-procurement portal**.** After pre-bid meeting, no further queries will be entertained from the bidders. The response of pre bid queries shall not form part of the Bidding Document unless issued as an Addendum/ Amendment.

6.5 The bidders may carry their qualification documents in case they desire them to be reviewed by EIL officials during the pre-bid meeting.

6.6 **Any modification to the RFQ document, which may become necessary as a result of the pre-bid queries / pre bid discussion, shall be intimated to all bidders through the issue of an Addendum/Amendment.** Record notes of pre-bid meeting/reply to pre-bid queries shall not be considered as part of RFQ.

7.0 AMENDMENT OF BIDDING DOCUMENT

7.1 At any time prior to the deadline for submission of bids, EIL may, for any reason whether at his own initiative or in response to the clarification requested by the prospective bidder(s), issue amendment in the form of Amendment/ Addendum.

7.2 All Amendments, Clarifications (if any) etc. will be uploaded in e-procurement portal Generally, intimation of uploading of documents in website is sent to the bidders (all bidders in case of Limited bidding and to bidders who have submitted acknowledgement on tender portal in case of NIT) in their email id. It is the responsibility of the bidder to regularly check the website and provide current and authenticated email id. Any amendment thus issued shall become part of Bidding Document. Bidder shall submit a copy of the Addendum duly signed and stamped in token of his acceptance. Any revision, clarification, addendum, corrigendum, time extension, etc. will be hosted on these websites only. Bidders are requested to visit the websites regularly to keep themselves updated. Bidders have to take into consideration of all the addendum(s) / corrigendum (s) / clarifications issued/ web hosted, before submitting the bid.

7.3 To give bidders reasonable time in which to take an addendum into account in preparing their bids, EIL may extend the deadline for the submission of bids, pursuant to Clause No. **24.3** of ITB.

7.4 In case Addendum is issued during the bidding period, Bidder shall consider its impact in his bid. In case Addendum is issued subsequent to receipt of bids, Bidder shall follow the instructions issued along with Addendum with regard to submission of impact on quoted price / revised price, if any.

8.0 ACKNOWLEDGEMENT & CONFIRMATION

8.1 Within 10 days of downloading of Bidding Document, bidder shall acknowledge and confirm his intention to bid for the requested item/work on EIL website http://tenders.eil.co.in.

8.2 In case of limited competitive bidding, Bidders should respond to this enquiry either by submitting their bids or by explaining the reason for non-submission of the offer. In case there is no response either way continuously, the bidder shall be liable for suitable action including review of their enlistment with EIL for that particular item.

C. PREPARATION OF BIDS

9.0 COST OF BIDDING

9.1 Bidder shall bear all direct and indirect costs associated with the preparation and submission of its Bid (including clarification meetings, and site visit, if any), and EIL shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

10.0 LANGUAGE OF BID

10.1 The Bid prepared by the bidder, all correspondence/drawings and documents relating to the bid exchanged by the bidder with the Owner/Consultant shall be in English Language only. In case, any printed literature furnished by bidder written in another language so long as accompanied by an English translation, in which case, for the purpose of evaluation and interpretation of the bid, the English translation shall govern.

10.2 In the event of submission of any document/ certificate by the Bidder in a language other than English, the English translation of the same shall be submitted duly authenticated by either of the following:

a) Local chamber of commerce
b) Indian embassy in bidder's country
c) Bidder's Country's Embassy in India
d) any translator in India recognized/ authorized by Bidder's Country's Embassy.

11.0 DOCUMENTS COMPRISING THE BID

No Physical Bids / Offers shall be permitted (other than the documents which are specifically mentioned to be submitted in physical form for which scanned copy already uploaded along with the bid). The offers/bids submitted online through e-procurement portal as mentioned in clause 1.2 (i) above along with the respective originals as specified under **clause no. 11.3** shall only be considered as bid for evaluation and ordering. Bidders are required to upload the Bid/offer along with all supporting documents including Priced bid on the **E-Tendering website only.** Electronic Bids (e-bid) shall be submitted on e- procurement website as per available functionalities.

Bidders to upload the unpriced bid (comprising of bid security, technical bid, other documents, etc.) and priced bid (offer prices) strictly at designated place on e- procurement website. Offer prices shall not be mentioned at any place other than the designated field(s) provided on e- procurement website.

11.1 **TECHNO-COMMERCIAL/ UNPRICED BID (through e- procurement website)**

a. List of Document required in the UNPRICED BID is as per BDS.

Bidder shall upload above documents at designated field(s) available on e- procurement website.

11.2 **Priced Bid (through e-tender portal)**

Bidder shall fill-in the prices at designated field(s) available on e- procurement website.

Note:

1. Deviation to terms & conditions, presumptions etc. shall not be stipulated in **"FINANCE"** folder in e-tendering portal. In case of any conditions stipulated in price bid, the bids of such bidders shall be summarily rejected and shall not be considered for further evaluation. Evaluation shall be carried out excluding such bidder(s).
2. Bidder to note that if they submit prices in un-priced part of their bid, such prices shall not be considered. The prices as submitted in the priced part in e-tendering portal only shall be considered for evaluation and award. If prices are not found in the priced part and even if mentioned elsewhere, the bid shall be rejected.

11.3 **EMD/Bid Security (to be submitted in original and scanned copy is required to be uploaded on e-tendering portal)[only in case of open competitive bidding (NIT / IFB)]**

11.3.1 In case of open competitive bidding, the following documents shall be submitted in ORIGINAL within the Bid due date and time of e-bid submission in the E-procurement portal & in a sealed envelope, with proper index and covering letter in bidder's letter head. The envelope shall be titled "EMD (IN ORIGINAL)" with the Name of the Work, Bidding Document No., Name of the Project etc. along with the Bidder's name and address with contact no., email Id etc. and shall be submitted to the address as mentioned below:

i) Original Earnest Money Deposit/ Bid Security or exemption certificate in accordance with Clause No. 16.0 of ITB.

ii) In case of limited competitive bidding, bid security shall not be applicable.

Bidder shall be required to submit the copy of the bid security (or authenticated exemption certificate, wherever applicable) within the final extended bid due date and time on the e-tendering portal. In case of bid security in the form of BG/DD/FDR, bidders shall also be required to submit the original BG/DD/FDR to EIL, before the final bid due date and time. If the Bidder fails to submit Bid Security (BG/DD/FDR) physically in original within the above cut-off date, his bid shall be rejected and not considered for further evaluation, irrespective of their status/ ranking in tender and notwithstanding the fact that a copy of Bid Security was earlier uploaded by the bidder on the e-tendering portal.

11.3.2 The address for submission of original documents **is as follow:**

DAK RECEIPT SECTION, ENGINEERS INDIA LIMITED
R&D COMPLEX, SECTOR-16 (On N.H.-8) TOWER-2 (GROUND FLOOR), GURUGRAM - 122 001
HARYANA (INDIA)
Attn.: Mr. Jaydip Purkayastha, GM (SCM-C&P)
Phone No.: +91-124- 289 1304
e-mail: jaydip@eil.co.in

11.3.3 Each envelope shall indicate name and complete address of the bidder with contact details to enable the bid to be returned unopened, if required.

11.3.4 If the envelope is not sealed and marked as above, the Owner / EIL will assume no responsibility for the misplacement or premature opening of the bid.

Document submitted in physical form shall be the exact copy of the documents uploaded on e-procurement portal.

12.0 INTEGRITY PACT

12.1 Bidder shall submit, the scanned copy of the Integrity Pact duly signed and stamped in token of compliance in Part-I of the Bid (**enclosed with RFQ/IFB**), wherever required as per Bid Data Sheet. The bidder shall be required to furnish an undertaking (**Form-D** of Bidding Forms) confirming that he is not involved in any case of transgression in terms of integrity pact. **Non-submission of "Integrity Pact" including "Undertaking w.r.t. Section-5 of Integrity Pact" in the bid shall be a ground of disqualification. However, in case of non-submission of Integrity Pact including Undertaking in the bid, an opportunity shall be given in the CQ to submit the Integrity Pact including Undertaking, provided bidder has declared Integrity Pact submission confirmation in their bid.** Hence, only those bidders shall be given opportunity to submit Integrity Pact who have confirmed to submit the same in their original bid. Copy of the Integrity Pact is provided in Bidding Forms. Further, if the Integrity Pact submitted in the bid is carrying certain shortcomings / deviations, the bidder shall be asked to clarify or make simple corrections through CQs.

12.2 The detail of Independent External Monitors (IEMs), appointed by EIL, in terms of Integrity Pact (IP) are mentioned in BDS.

12.3 No deviations / modifications in IP shall be acceptable. Bidder shall submit the same format of signed integrity pact (as provided in the bidding document duly signed by the buyer), duly filled-in, signed & stamped by the authorised signatory of bidder.

12.4 Integrity Pact shall be signed by the authorised signatory of the bid subject to following:

a) In case of Proprietorship firm IP may be signed by the Proprietor

b) In case of Partnership firm, IP shall be signed by at least two authorized Partners of the firm unless otherwise specified in the IP format.

c) In case of consortium bids, IP shall be submitted by all consortium members.

d) In case of sub-contracting by the contractor, the principal contractor shall take the responsibility of the adoption of IP by the sub-contractor. In view of this, wherever contractor proposes any sub-contractor in the Bid, it shall be ensured that such sub-contractor also sign the Integrity Pact and submit the same in the Bid. However, the affidavit of transgression shall be submitted by principal contractor only including the confirmation of transgression status of sub-contractors.

13.0 MULTIPLE/ALTERNATIVE BIDS

13.1 A bidder (i.e., the bidding entity) shall, on no account submit more than one bid either directly (as a single bidder or as a member of consortium) or indirectly (as a sub-contractor) failing which following actions shall be initiated:

i) All bids submitted by such bidder (say 'A') as a single bidder or as a consortium, shall stand rejected and EMD, if any, in case of all such bids submitted by bidder 'A' shall be forfeited.

ii) If another bidder (say 'B') has proposed bidder 'A' as a sub-contractor then bidder 'B''s bid shall also be rejected. However, in case the bidder 'B' has also proposed an alternative sub-contractor who is other than the bidder 'A', then bidder 'B''s bid shall be evaluated with the proposed alternative sub-contractor only. Hence, every bidder shall ensure in his own interest that his proposed sub-contractor is not submitting alternative/ multiple bids.

Note: However, in case EIL has proposed a list of sub-contractors/ sub-vendors in the enquiry document itself which shall be common for all the Bidders, the provisions at Clause No. **1.1**ii) above shall not be applicable. It is further clarified that:

- A sub-contractor / sub-vendors can be common to more than one Bidder, provided the sub-contractor / sub-vendors themselves are neither a Bidder nor a consortium member.

- Where an Enquiry has multiple Parts, the above condition shall be applicable individually for each Part, as if it is a separate Enquiry.

  However, if any of such sub-contractor/sub-vendor happens to be a bidder also, clause (a) above shall be applicable.

14.0 BID PRICES AND DISCOUNTS

14.1 Prices shall be furnished strictly in the appropriate field(s) available on E-procurement website. Bidder shall not quote any discount separately for any item or on overall price. Conditional discounts, if offered by a bidder, shall not be considered for evaluation.

14.2 If the bidder has quoted prices in typed/excel sheets, .pdf format (other than prices/rates sought separately as per 'Preamble to Submission of Prices on E-procurement website') then same shall not considered for evaluation purpose.

14.3 Rates/ prices quoted by the bidder shall remain **FIRM, FIXED AND VALID** till the completion of the scope of supply/Works (as applicable) and will not be subject to variation on any account except as otherwise specifically provided in the Bidding Documents.

14.4 The bidder shall quote the prices after careful analysis of cost involved for the performance of complete work considering all parts of the RFQ documents. In case, any activity though specifically not covered but is required to complete the work as per scope of work, scope of supply, specifications, standards, drawings, GPC, SPC or any other part of RFQ Document, the prices quoted shall be deemed to be inclusive of full and final cost incurred for such activity(ies).

14.5 It shall be the responsibility of the Bidder to duly enquire of their own and comply with all applicable laws, rules, regulations, orders and formalities applicable to Goods and Services Tax (GST), Custom Duty etc. on the manufacture, sale and/or supply of any material / services to Owner / EIL. It is clearly understood that Owner/ EIL will not have any additional liability towards payment of applicable Taxes & Duties as a result of Bidder's wrong assessment / interpretation of applicable taxes & duties.

14.6 **Price basis w.r.t inclusion/exclusion of taxes and duties**

Refer Clause No. 8.0 of SPC (Special Purchase Conditions).

14.7 All duties, taxes, and other levies payable shall be as per Special Purchase Conditions (SPC).

14.8 It shall be the responsibility of the Bidder to duly enquire on their own and comply with all applicable laws, rules, regulations, orders and formalities applicable to Goods and Services Tax (GST), Customs Duty etc. on the manufacture, sale and/or supply of any material / services to Owner / EIL.

14.9 **The Bidder shall keep the Owner / EIL indemnified from and against any and all claims, demands, prosecutions, penalties, damages, demurrages and/or other levies whatsoever** made or levied by any Court, Tribunal or the Customs or other Authorities with respect to any alleged breach, evasion or infraction of such duties, taxes, charges or levies or any breach or infraction of such laws, rules, regulations, orders or formalities concerning the same and from the consequence thereof.

14.10 Foreign Exchange rate variation shall not be provided.

15.0 CURRENCIES OF BID AND PAYMENT

15.1 Currency of bid and Payment shall be as specified in Special Purchase Conditions/ Price Schedule. Payment shall be made in respective currency of quote only. Change in currency once quoted will not be allowed.

16.0 BID SECURITY [APPLICABLE IN CASE OF OPEN COMPETITIVE BIDDING (NIT/IFB)]

16.1 Details of EMD / Bid Security are specified in the NIT/ IFB. Bidder is required to submit the bid security / EMD accordingly.

16.2 Bids must be accompanied with Earnest Money Deposit / Bid Security. Bids not accompanied with requisite Earnest Money deposit /Bid Security (or authenticated exemption certificate, wherever applicable) shall be considered as non-responsive and such Bids shall be summarily rejected. EMD/ Bid Security shall be in favour of Engineers India Limited in the form of crossed demand draft payable at New Delhi or non-revocable Bank Guarantee on non-judicial stamp paper of value not less than INR 100/- and in the prescribed proforma enclosed with bidding document, from any Indian Scheduled Public Sector or Scheduled Private Sector or Indian branch of Scheduled Foreign Banks as per RBI's List of Scheduled Commercial Banks (SCBs) and valid for 2 (Two) Months beyond the original bid validity or through Net banking or Fixed Deposit Receipts (FDRs) along with a confirmation in the prescribed proforma enclosed with bidding document. In case of extension in original bid validity by more than 15 Days, the Bid Security validity shall be extended accordingly.

EIL shall not pay any interest on Bid Security furnished. Bidder shall be required to submit genuine & valid DD / BG / FDR with the bid meeting the requirements for the same specified in the bidding document in the first instance itself. Bids submitted without Bid Security or Bids submitted with Bid Security for an amount less than the specified amount or Bid Security submitted in favour of beneficiary other than as specified in Enquiry Document or from other than the required bank shall be rejected outright and shall not be considered even for unpriced opening. Further, in case Bank Guarantee / DD/ FDR submitted by the bidder is found to be fake, the bid will be rejected and a suitable action as per provision of Fraudulent Practice shall be initiated.
~~But~~ However, minor typographical deficiencies in the BG, ~~etc~~ if any, may be allowed to be corrected.

In case of a Foreign Bidder, Bid Security may be submitted by their subsidiary or associate Company or their Indian Counter Part/ Agent, on behalf of the Foreign Bidder in US$/ Euro/ INR. In such a case, following conditions must be complied:

(i) Bid Security, if issued in the form of a bank guarantee shall clearly state that it is issued by the Indian Counter Part for & on behalf of the Foreign Bidder.

(ii) The bank guarantee shall contain specific declaration from the Indian Counter Part that the Bank Guarantee shall be liable for invocation in case of any default by the foreign bidder in terms of the bidding document.

(iii) The Indian Counter Part shall be duly authorised by the foreign bidder to issue the bank guarantee on their behalf, on the foreign bidder's letter head. This authorisation shall be appended with the bid security.

Bidder shall be required to submit the original bid security (or documentary proof claiming exemption, wherever applicable) and also upload copy of the same within the final bid due date and time on the e-tendering portal/ GeM Portal, as the case may be. If the Bidder fails to submit Bid Security physically in original or upload copy of the same on the e-tendering portal within the above cut-off date, his bid shall be rejected and not considered for further evaluation. Uploading as well as submitting original Bid Security within the cut-off date, as specified in the Bidding Document is mandatory

16.3 EMD/ Bid securities of unsuccessful bidders will be returned upon placement of order/ award to the successful bidder. Also, EMD of late bids/ where unpriced bids not opened/ price bids are not opened, shall be returned at the earliest after priced bid opening. In case of the successful Bidder, the same will be returned after the order/ contract is effective and Contract Performance Bank Guarantee is submitted. However, in case EIL decides to cancel / annul the Enquiry / bidding document at any stage during the bidding process but before the award of work/ items (as applicable), EMD of the bidders shall be returned at the earliest from the date of such decision.

16.4 The bid security of a bidder shall be forfeited in any of the following situations:

a. If the bidder submits alternative bids; or
b. If the bidder suo moto modifies his bid; or

c. Withdraws his bid during the period of bid validity; or
d. In case, during evaluation of bid, it is found that any forged/fake document has been furnished.
e. In the case of a successful bidder, if the bidder fails or refuses:
   i) to accept the Purchase Order/signing of the Contract
   ii) to furnish Contract Performance Bank Guarantee.
   iii) to accept arithmetical corrections of its bid, as per the terms of the Bidding Document.

In case, any of the above events happens, the bidder shall be given a notice of 7 days to take corrective action and in case corrective action is not taken, the bid security shall be encashed without any further notice.

16.5 In case of a JV/Consortium bid (if permitted in IFB), the Bid Security shall be submitted by Consortium, or the Leader or any of the members of the Consortium on behalf of consortium in original form as follows :

a) Foreign consortium (i.e., consortium formed by foreign companies only) - US$
b) Indian Consortium (i.e, consortium formed by Indian companies only) - Indian Rupees
c) Consortium bid involving at least one Indian entity and one Foreign entity - Indian rupees or US$.

In case of Consortium bids, EMD exemption shall only be allowed wherein;

i. both the Consortium members are MSE; and / or
ii. both the Consortium members are Indian Central PSUs / PSEs; and / or
iii. one member being MSE and the other member being Indian Central PSU / PSE.

The amount of EMD / Bid Security is specified in the **IFB.**

16.6 Bidder's name and RFQ details shall be written on the back side of bid security submitted in the form of DD.

16.7 **Validity of Bid Security** : EMD/ Bid Security shall be valid for a period of **02 months** over and above validity of bid. It shall be ensured that the validity of Bid Security submitted by all the bidder is inline with the provisions in the bidding document. In case of seeking any extension in bid validity by more than 15 days, corresponding extension in validity of bid security shall also be ensured by the Bidder.

16.8 **Exemption of Bid Security :** Indian CPSUs (state PSUs are not exempted) and Micro or Small Enterprises (MSEs) registered on UDYAM registration portal having valid "UDYAM Registration Certificate", shall be exempted from submission of bid security. Benefit of exemption from Bid Security/ EMD to MSE-Traders shall not be applicable.

CPSUs shall submit declaration to this effect that being CPSU they are exempted from submitting Bid Security. MSEs shall provide the necessary valid documentary evidence, i.e. UDYAM Registration Certificate. MSE Bidders shall be eligible for exemption only if the URC Certificate / URC detail as submitted in the Bid. The Udyam registration certificate shall be verified from GoI Udyam registration portal (present web address is https://udyamregistration.gov.in). The status of the MSE Bidder as on the date of Unpriced Bid opening shall be considered.

In case of an upward change in terms of investment in Plant and Machinery or Equipment or Turnover or both, and consequent re-classification, an enterprise shall continue to avail of all non-tax benefits of the category (Micro or Small or Medium) it was in before the re-classification, for a period of three years from the date of such upward change.

In case of upward change in status, Bidder is required to submit the previous certificate also to establish consequent re-classification for claiming exemptio of EMD

Exemption from submission of Earnest Money Deposit shall be as per the latest GeM GTC as on the date of issuance of RFQ/ Tender, if the enquiry published on the GeM Portal.

16.9 EMD / Bid securities shall be returned as follows:

a) To bidders whose bids received late or of those unpriced bids which have not been opened/whose price bids are not opened, shall be returned after publishing the result of unpriced bid evaluation.

b) To unsuccessful bidders, i.e., whose priced bid has been opened, will be returned upon placement of order/ award.

c) To successful bidders, the same will be returned after the order / contract is effective and Contract Performance Bank Guarantee/ Security Deposit is submitted.

d) In case EIL / Owner decides to cancel / annul the Enquiry / bidding document at any stage during the bidding process but before the award of works / items (as applicable), EMD of the bidders shall be returned at the earliest from the date of such decision.

16.10 Owner/ EIL shall not pay any interest on Bid Security furnished. Further, in case Bid security submitted is found to be fake, bid of such bidder shall be rejected and may initiate action as deemed necessary as per EIL Policy.

17.0 CERTIFICATION OF DOCUMENTS / SPECIAL DOCUMENTATION REQUIREMENT

17.1 DOCUMENTS ESTABLISHING QUALIFICATION OF THE BIDDER [APPLICABLE IN CASE OF OPEN COMPETITIVE BIDDING (NIT/IFB)]

i. Submission of genuine and authentic documents is the prime responsibility of the bidder. No amount of checking or verification by EIL/Owner shall absolve bidder from his responsibility.

ii. The mechanism for bidder's certification regarding authenticity of BQC documents shall be as under:

(a) Bidder shall furnish an undertaking in the format as per **Annexure-IV to IFB/NIT**(Undertaking towards the authenticity of submitted BQC documents**)** towards the authenticity of submitted BQC Documents, duly signed by the authorized signatory of Bidder holding Power of Attorney for signing of Bid.

(b) Proprietorship/ Partnership firms shall submit the undertaking as per **Annexure-IV to IFB/NIT**, duly signed, respectively by the Proprietor/ any two Partners.

iii. Under the EIL suspension/ banning rules (available on EIL portal www.engineersindia.com), the punishment for submission of FORGED/FALSE documents is clearly mentioned. Moreover, the bidding document additionally indicates other actions against the bidder like encashment of EMD or PBG depending upon the stage of discovery of the fraud/false documentation. Moreover, the bidder's organisation is responsible for any and all actions of their employees and any claims seeking to pin point the blame on some employee of bidder and attempting to absolve the bidder's organisation will not be entertained.

iv. Bidder to note that the EIL/Owner reserves the right to proceed based on acceptable offers (who have submitted authenticated documents in line with the mechanism mentioned above and also in the NIT/IFB) and reject outright the other bids which have some shortcoming including non-submission of authenticated documents. The bidder shall therefore submit the authenticated documents along with the offer itself and in case of rejection of his bid shall not have any right to seek another opportunity for submission of authenticated documents.

17.2 In addition to authentication of BQC document EIL shall verify the credentials of bidder/ vendor/sub-contractor. The document(s) submitted by the bidder towards meeting the Bidder Qualification Criteria (BQC) as per NIT/IFB shall be subject to verification as per mechanism detailed below:

i. Documents submitted by the bidder for meeting the BQC shall be verified from the document issuing authority.

ii. Verification of documents shall be carried out through e-mail/letter or visit by EIL Officials. Bidder shall provide complete assistance towards the same. It shall also be the responsibility of the bidder to assist EIL in carrying out this exercise.

Accordingly, bidder shall ensure that they submit only those executed & completed works (PO/Contracts) meeting the qualification criteria for which they can arrange such verification from respective Clients.

iii. Payment shall not be released till verification is complete.

iv. Failure of cross verification shall entitle EIL to reject the bid or terminate the Purchase Order/Contract, if issued.

v. In case, the BQC documents have already been verified by EIL for any other enquiry/tender, the same may also be considered verified on the strength of previous verification and acceptance by EIL. However, in such case, bidder shall indicate in **Appendix-XI to ITB** that BQC/PTR documents submitted in this bid has already been verified by bidder's client.

vi. In case bidder's supporting documents are not in English language and, bidder also submits duly certified translated documents, verification from document issuing authority shall be carried out only for the original documents issued by the client.

18.0 PERIOD OF VALIDITY OF BIDS

18.1 Bids shall remain valid for the period specified in the GeM Bid/BDS after the bid submission deadline date prescribed by EIL in accordance with ITB. A bid with shorter validity period shall be rejected by EIL as non-responsive. Bidders shall not be entitled during the above period, without the consent of EIL in writing, to revoke or cancel their Bid or to vary the Bid given or any term thereof. In case of bidders revoking or cancelling their Bid or varying any terms in regard thereof without the consent of EIL in writing, EIL shall forfeit Bid security, submitted along with the bid and shall reject their bids. Such Bidder may also be put on **Black-listing / Holiday Listing /Suspension / Banning List/ Negative List**.

18.2 In exceptional circumstances, prior to the expiration of the bid validity period, EIL may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a bid security is requested in accordance with Clause No. **16.1 of ITB**, it shall also be extended for 2 (Two) months beyond the deadline of the extended validity period [for extension in required original bid validity by more than 15 days]. A bidder may refuse the request without forfeiting its bid security. A bidder granting the request shall not be permitted to modify its bid.

A bidder may refuse the request after which their offer will not be considered for further evaluation. Bid security shall not be forfeited in case a bidder refuses validity extension.

19.0 SPECIAL INSTRUCTIONS TO FOREIGN BIDDERS – Not Applicable

20.0 POWER OF ATTORNEY

20.1 Bids shall be signed by the authorized signatory of the bidder.

20.2 In all press enquiries, bidder shall submit a Power of Attorney in the name of such authorized signatory(ies). Requirements for submitting the POA shall be as follows:

i) Company: Bidder shall submit a specific Power of Attorney for the tender in the name of authorized person.

Alternatively, in case Bid signatory has General Power of Attorney or has the power as per their Board resolution, the same shall be submitted duly certified by Notary Public or CEO/CFO/Company Secretary (CS)/Member of Board of Directors.

In case, Bid is signed by CEO/CFO/CS/any member of board of Directors, no separate POA is required, provided the documentary evidence of their being CEO/CFO/CS/any member of board of Directors is reflected in the MOA/AOA/Financial Statements, else submitted separately in the Bid.

ii) Partnership Firm: In such case,

- Bid can be signed by all the partners of the Firm and in such case no separate POA is required. OR
- Bid can be signed by any of the Partner(s) holding Power of Attorney as specified in the Partnership deed, OR
- Bid can be signed by an authorized person and shall submit a specific POA for the tenderduly signed by all the Partners.

Bidder shall submit the copy of Partnership Deed.

iii) Limited Liability Partnership (LLP) Entity: Bid shall be signed by the person holding Power of Attorney as per the registered LLP Agreement for the Firm, OR, has the power as per their Board resolution, OR, a specific POA for the tender duly signed by all the LLP Partners.

Bidder shall submit (i) a copy of LLP Agreement, and (ii) a copy of Certificate of Incorporation.

iv) Proprietorship: Proprietor shall sign the Bid.

Bidder shall also submit a copy of (i) PAN card and (ii) Bank Mandate Form, duly certified bythe Bidder's Banker.

v) Unincorporated Joint Venture/Consortium: Both members of the consortium shall authorize the Lead Member of the consortium with the authority to bind the consortium, through a Power of Attorney given jointly by all the members to the Lead Member.

Leader as well as Member(s) of the Consortium/JV shall also submit a separate POA from their respective Company/ Firm in the name of the signatory signing the Consortium/JV Agreement. Depending on the formation/ registration/ constitution (Company/ Firm, etc.) ofthe Leader/Member of the Consortium/JV, POA shall be submitted in a manner, as applicable, as per the above clauses.

20.3 For Indian Bidder, POA shall be on non-judicial stamp paper of minimum value of INR 100/-and duly Notarized by a Notary Public in India.

For Foreign Bidders, POA shall be:

- on the Stamp Paper of appropriate value or engraving/embossing, in lieu of non-judicial stamp paper, as per applicable laws in Bidder's Country; or
- as per any other system prevailing in the bidder's country for the purpose of issuing POA.

20.4 Specific POA issued for the tender shall confirm that the authorized signatory have been authorized to do in the name and on behalf of the Company/Firm all or any of the acts, deeds or things necessary in connection with or incidental to the Bid submitted by the bidder for the subject Enquiry Document, including but not limited to the signing and submission of bid, participating in the meetings, responding to queries, submission of information /documents and generally to represent us in all the dealings with EIL or any person, in connection with the works, without any prejudice, limitations and exceptions till the completion of the bidding process.

21.0 DIGITAL SIGNATORY

In case of e-tendering, login and submission of bids by the bidder on the e-tendering portal is through requisite & valid digital signature certificate.

e-Bid Signatory who is using his digital signature for uploading / signing the e-bid, shall also carry the Power of Attorney.

However, in case foreign bidder does not have digital signature issued by an Indian certifying authority, he can authorize his Indian representative to use the representative's digital signature to upload the bid on behalf of foreign bidder. In such a case, the authorization letter shall be submitted alongwith the bid.

All documents as submitted in the e-Procurement Portal using digital signature at any time during the Bidding process shall be deemed considered signed by the POA holder only, irrespective of POA holder's signature on all pages or not.

22.0 FORMAT AND SIGNING OF BID

22.1 The e-bid shall be uploaded duly digitally signed (e-signed) using the digital signature of a person duly authorized to sign on behalf of the bidder. The digital signature used for signing the bid shall be issued in the name of such authorized person and the certificate details, available from the signed documents, should indicate the details of the signatories.

22.2 Bids shall be submitted by the bidder through e-tendering portal using their digital signature. However, in case foreign bidder does not have digital signature issued by an Indian certifying authority, he can authorise his representative to use the representative's digital signature to upload the bid on behalf of foreign bidder. In such a case, the authorisation letter shall be submitted along with the bid.

22.3 Bidder shall be required to upload the digitally signed copies of documents for meeting BQC, Power of Attorney and other authenticated documents (like proof of being MSEs for availing preference under Public Procurement Policy-2012) on the e-tendering portal only. In that case, bidder shall not be required to submit the original authenticated documents in physical form to EIL.

22.4 In case of a JV/Consortium bid (If permitted in the bidding document), the Bid shall be digitally signed (e-signed) using the digital signature of a authorized representative of the JV /Consortium, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

22.5 Offer shall be checked for submission of authenticated document as per the requirement as per of bidding document. In case of e-tendering, bidders shall be required to upload the digitally signed authenticated copies of documents for meeting BQC on the e-tendering portal only.

22.6 Bidders to upload the Un-price and Price part of their e-bids strictly in the Un-price & Priced folders respectively at the designated place in the e-tendering portal. Non-Compliance to the same may lead to rejection of their Bids.

23.0 SEALING AND MARKING OF BIDS [APPLICABLE IN CASE OF OPEN COMPETITIVE BIDDING (NIT/IFB)]

23.1 The bidder shall submit the, original Bid Security as per the requirement of clause no**. 11.3 & 16.0** of ITB, in separately sealed envelopes, duly marking the envelopes as per following:

Bid Security (Originals)

Name of Item/Work: _____

Bidding Document No.:_____

Due date & Time of Submission: _____

From: [Name & Address of Bidder including contact details] _____

23.2 The envelope shall bear the name and address of the bidder and bear a warning "Do not open before the time and date of bid opening".

23.3 If envelopes are not sealed and marked as required, EIL will assume no responsibility for the misplacement or premature opening of this envelope.

D. SUBMISSION AND OPENING OF BIDS

24.0 DEADLINE FOR SUBMISSION OF BIDS

24.1 Bidders shall submit their bids electronically in the e-tendering portal, within the date and time **specified in the RFQ Covering Letter** or any extension thereof. Bidders submitting bids electronically shall follow the electronic bid submission procedures **specified in the RFQ**.

No Physical bid shall be permitted other than submission of the documents categorically asked for in hard copies as part of e-bids submitted online through the e-tendering Portal. Original Bid Security must be received by EIL at the address specified in IFB/ Bid Data Sheet within the date and time for submission as specified in the IFB or any extension thereof.

24.2 EIL may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with Clause No.**7.0** of ITB, in which case all rights and obligations of EIL and bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

24.3 Bidder should avoid the last hour rush to the website wherein bidder is likely to miss the deadline for bid submission. Due date extension request due to above reason shall not be entertained.

25.0 LATE BIDS

25.1 E-tendering system shall close immediately after the deadline for submission of bid. Any bids being submitted in physical form (**other than Bid Security or documents specifically sought in physical form**) shall not be considered for opening / evaluation / award and will be returned to such bidders.

25.2 ***In the event the Bid Security in original, in accordance with Clause No.0 of ITB & IFB, are not submitted within the deadline as per IFB, the bids shall be declared late and shall not be considered for opening/evaluation/award, notwithstanding the fact that the bid has been submitted in electronic form within the deadline.*** However, in case of exemption from submitting Bid Security under MSE/CPSE/Startup, then bidder shall submit the documentary evidence of the same.

25.3 Unsolicited bids or bids being submitted to place/website other than one specifically stipulated in the RFQ documents shall not be considered for opening/ evaluation / award.

26.0 WITHDRAWAL, SUBSTITUTION, AND MODIFICATION OF BIDS

26.1 The bidder may modify, re-submit or withdraw its e-bid after the bid submission, but, before the due date and time for submission of Bid following the electronic bid submission procedures**.**

26.2 There are two specific features in NIC- Central Public Procurement Portal (CPPP) viz, “Withdraw” and “Re-Submission”. Bidders should not use the feature “withdraw” unless they have decided to withdraw their bids. It is to be noted that once “withdraw” feature is used they will not be allowed to re-submit their bid against this Bidding Document. In case a Bidder desires to change his bid for any reason before bid due date, Bidder shall use “Re-Submission” feature.

26.3 No bid shall be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity or any extension thereof. Such withdrawal shall be dealt as per provision of tender documents and prevailing policy(ies) of EIL.

26.4 In case bidder fail to accept the order or withdraw the bid after bid submission, punitive action shall be taken against them as per the EIL Policy.

27.0 BID OPENING

27.1 The un-priced Bids shall be opened online through e-tender portal, at the specified date and time given in the RFQ/ IFB document or on the extended due date, as applicable. Bidders can view the stages of evaluation on E-procurement website.

27.2 The order of opening of bids shall be as follows;

(i) On scheduled date and time of Technical (UNPRICED) bid opening, Opening of **documents, submitted in electronic form shall be processed on the e-Procurement**

module of the e-tendering portal.

(ii) Financial (Price) bid of only those bidders whose bids is determined to be technically and commercially acceptable by EIL shall be opened. Bidders selected for opening of their priced bids shall be informed about the date and time of price bid opening and shall not be called for physical participation during bid opening.

NOTE: Online opening as above, will be deemed as opened in public and there will be no separate public opening. Hence, bidders will not be called during opening of the bids.

27.3 If a supplier / an agency is placed on **Black-listing / Holiday Listing /Suspension / Banning List/ Negative List** of EIL or Client after issue of enquiry but before unpriced bid opening, their bid will not be opened. If a supplier / an agency is placed on **Black-listing / Holiday Listing /Suspension / Banning List/ Negative List** of EIL/Client after opening of unpriced bids but before opening of priced bids, further evaluation shall be stopped and the corresponding priced bid will not be opened.

If a supplier / an agency is placed on **Black-listing / Holiday Listing /Suspension / Banning List/ Negative List of EIL** or **debarred and/ or disqualified by GeM (if Tender published through GeM Portal)** after issue of enquiry but before unpriced bid opening, their bid will not be considered for further evaluation.

If a supplier/ an agency is placed on **Black-listing / Holiday Listing /Suspension / Banning List/ Negative List** of EIL or Client after opening of priced bids and such a supplier/ agency happens to be the lowest bidder, the next lowest bidder shall be considered as L1 for the items/ parts for which the bidder is lowest. Further, in case L1 bidder is Suspended / debarred on GeM portal, incase enquiry/ tender has been published in the GeM Portal, evaluation and awarding shall be as per GeM Incident Management Policy.

Also, bidder shall submit the declaration that they are not on **Black-listing / Holiday Listing /Suspension / Banning List/ Negative List** of or black listed by any Central Government Department/ Central Public Sector on due date of submission of bid. However, this shall be for information only and shall not be rejection criteria. In case, this information is not provided or provided falsely, the bid shall be rejected.

Also, refer provisions of Clause No. 2.7 of ITB regarding Suspension/Banning in GeM portal.

E. EVALUATION AND COMPARISON OF BIDS

28.0 CONFIDENTIALITY

28.1 A bidder may seek clarification regarding the Bidding Document provisions, bidding process and / or rejection of his bid. EIL shall respond to such requests within a reasonable time. However, such information relating to the evaluation of bids and recommendation of award shall not be disclosed to any other persons not officially concerned with the bidding process.

28.2 Any attempt by a bidder to influence EIL in the evaluation of the bids or award decisions shall render their Bid liable for rejection.

28.3 Notwithstanding Clause No.**28.2** of ITB, from the time of bid opening to the time of placement of Order, if a bidder wishes to contact EIL on any matter related to the bidding process, it shall done so in writing only.

29.0 ZERO DEVIATION

29.1 Bidders to note that enquiry is issued on Zero deviation basis. Bids shall be submitted as "**Zero deviation Basis**". Accordingly offer is to be submitted in complete compliance to Terms & Conditions

of Bidding Document without any deviation. Offer with deviation may be liable for rejection without any further correspondence.

In view of this Bidder shall ensure submission of complete bid without any deviation as per requirement of Bidding Document in first instance itself.

30.0 DETERMINATION OF RESPONSIVENESS

30.1 EIL's determination of a bid's responsiveness is to be based on the contents of the bid itself, as defined in Clause 11.0 of ITB.

30.2 A substantially responsive bid is one that meets the requirements of the Bidding Documents without deviation.

30.3 A substantially responsive Bid is one which conforms to all the terms & conditions, specifications etc. of the Tender Document without any material deviation or reservation or omission, for this purpose Purchaser defines the foregoing terms below :-

a) 'Deviation' is departure from the requirement specified in the Tender Documents.

b) 'Reservation' is the setting of limiting condition(s) or withholding from complete acceptance of the requirement in the Bidding Document.

c) 'Omission' is the failure to submit part or all of the information or documentation required in the Tender Document.

d) A material deviation, reservation or omission is one that, If accepted would,

i) Affect in any substantial way the scope, quality or performance of the job as specified in the Tender Document.

ii) Limit, in any substantial way, inconsistent with the Tender Document, the Owner/EIL's rights or the Bidder's obligation under the proposed Contract.

iii) If rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.

30.4 The Owner/EIL shall examine all aspects of the Bid to confirm that all requirements have been met without any material deviation, reservation or omission.

30.5 **Bidder should not be under liquidation, court receivership or similar proceedings. Bidder shall submit self-Declaration Form-A in this regard on bidder's letterhead.**

30.6 **In case Bidder(s) affirms that present litigations/arbitrations have impact on their obligations to perform the Contract or doesn't provide the affirmations as above, their bids shall be rejected. Bidder shall submit self-Declaration Form-A in this regard on bidder's letterhead.**

30.7 Bidder shall not be allowed to submit any Price Implication or Revised Price after submission of e-Bid. In case Exceptions and Deviations submitted by Bidder along with Bid are not considered acceptable and no Amendment is issued incorporating such changes, then in such a case the Bidders would be required to withdraw such Exceptions/Deviations unconditionally in favour of stipulations of the RFQ document without any price implication, failing which such Bid(s) shall be considered as non-responsive and liable for rejection.

30.8 No stipulation, deviation, terms & conditions, presumption, basis etc. shall be stipulated in the bid. Any conditions, if stipulated, shall be treated as null and void and shall render the bid liable for rejection.

31.0 CLARIFICATION OF BIDS

31.1 Bidders should ensure that the Bid submitted is substantially responsive Bid in the first instance itself. Evaluation may be completed based on the content of the Bid itself without seeking any subsequent additional information, which may result in rejection of Bid. However, EIL may, at its discretion, may request bidder to submit the necessary information or documentation, within a reasonable period of time, to withdraw deviation, reservation, or rectify omission in the bid related to documentation requirements. Requesting information or documentation on such account shall not be related to any aspect of the price of the Bid. EIL's request for clarification and the response shall be in writing.

31.2 No change, including any voluntary increase or decrease, in the prices or substance of the bid shall be sought, offered, or permitted. Bidder shall not be allowed to submit any price implication or revised price after submission of Bid unless the same is called for by EIL in writing.

31.3 If a bidder does not provide clarifications of its bid by the date and time set in EIL's request for clarification, its bid shall be evaluated with available information which may result in rejection of their bid.

32.0 EVALUATION OF TECHNO-COMMERCIAL BIDS

32.1 Prior to price opening of bids, EIL will determine whether each bid is accompanied with requisite documents;

i) Fulfils the technical, financial and other requirements as specified in the Bidding Document;

ii) Bid's responsiveness in accordance with Clause No. 30.0of ITB and clarifications thereafter, if any;

iii) Any other relevant factor, if any that EIL deemed necessary or prudent to be taken into consideration.

iv) Authentication of qualification documents (open competitive bidding)

v) EMD / Bid Security as per the requirement specified in clause no. 16.0 of ITB (open competitive bidding)

32.2 EIL reserves the right to use in-house information for assessment of capability of bidder and their performance on jobs completed/ in progress for evaluation purpose.

32.3 Bidders who are enlisted with EIL are required to quote as per their capabilities registered with EIL (applicable in case of limited enquiries)

32.4 In case, any unsolicited reduction in price offered by a bidder within the bid validity by way of discount or revised prices, subsequent to the bid due date provisions of Clause no. 36.3 shall apply.

32.5 In the event of any unsolicited price increase sought by any bidder, subsequent to the bid due date, provisions of Clause no. 36.4 shall apply.

32.6 In view of the enquiries being issued on zero deviation basis, Technical or commercial queries shall not be raised. However, EIL reserves the right to raise queries in exception situations. CQ/ TQs, if any, shall be issued through E-tendering portal and Bidder shall submit their replies through E-tendering portal only. Accordingly, CQ/ TQ replies through any other mode (e-mail, physical form) shall not be accepted. Offers shall be evaluated based on the information available upto cut-off date for CQ/ TQ replies. Bidder shall not submit any Price against TQ/ CQ raised unless specifically sought in writing.

32.7 In view of zero deviation bidding, in case of MRs (group/ basket/ block/ itemwise) / Lumpsum Enquiry, during unpriced evaluation if a bidder has not quoted any part/component/ freight etc, the bid of such a bidder for the corresponding group/ basket/ block/ item (or the entire MR/ lumpsum Enquiry, in case there is only one group/ block) shall stand rejected. However, EIL reserve the right

to ask the bidder to absorb the same (except in case of an item not being quoted in an itemwise MR). Non-compliance shall result in rejection of corresponding item/group/block.

It is clarified here that for grouped/ basket/ block, if any item not quoted, the offer shall be rejected for that group/ basket/ block without any CQ/ TQ.

In case, the above is discovered post priced bid opening, such bidder's bid shall not be considered for evaluation for the corresponding group/ block or entire MR/ tender, if there is only one single group/ block. In such an event, the lowest bidder shall be determined out of the remaining bidders.

33.0 OPENING OF FINANCIAL(PRICE) BID

33.1 Priced Bid of only those bidders whose bids is determined to be technically and commercially acceptable by EIL shall be opened. Bidders selected for opening of their priced bids shall be informed about the date, time and place of price bid opening.

33.2 Bidders who qualify pursuant to unpriced bid evaluation shall be notified through e-mail the time and date for online price bid opening in e-procurement portal

33.3 The Price Bids of those Bidders who were not found to be Techno-commercially acceptable shall not be opened in e-tendering.

34.0 CORRECTION OF ARITHMETICAL ERRORS

The prices quoted by bidders shall be checked for arithmetic correction, if any, based on rate and amount filled by the bidder in the SOR/price schedule formats. Based on the format of price schedule/SOR, suitable provisions shall be incorporated in enquiry document as follows:

34.1 RATE AND AMOUNT IN FIGURES AND WORDS

a. When there is a discrepancy between the rate in figures and in words for an item, the rate which corresponds to the amount shall be taken as correct.

b. When the rate quoted by the bidder in figures and words tallies but the amount is incorrect, the rate quoted by the tenderer shall be taken as correct.

c. When it is not possible to ascertain the correct rate as detailed above, the rate quoted for the item in words shall be adopted as the quoted rate. If there is an error in total corresponding to the sub-totals, the totals shall prevail and sub-totals shall be corrected;

34.2 RATE AND AMOUNT IN FIGURES ONLY

When rate and amount are in figures only, in case of discrepancy, the rate quoted by bidder shall be taken as correct.

34.3 LUMPSUM AMOUNT ONLY IN FIGURES AND WORDS

When a lumpsum amount is quoted in figure and words but no unit rates are not required to be quoted, amount quoted in words shall be taken as correct.

Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with Clause above, shall result in the rejection of the Bid and Bid Security shall be forfeited.

34.4 Provisions of Clause No**. 34.1 through 34.3** shall not be applicable for tenders issued on GeM Portal. The evaluation done on GeM portal as per GeM guidelines shall be final and binding.

35.0 CONVERSION TO SINGLE CURRENCY

NOT APPLICABLE

36.0 EVALUATION AND COMPARISON OF PRICE BIDS

36.1 EIL shall compare the price bids based on the evaluation methodology and loading criteria, if any, provided in SPC to determine the lowest evaluated bid.

36.2 Conditional discount, if offered, shall not be considered for evaluation.

36.3 Any unsolicited reduction in price offered by a bidder within the bid validity by way of discount or revised prices, subsequent to the bid due date, shall not be taken into account for comparison. However, such reduction in price shall be taken into account for ordering if such bidder happens to be recommended as per the originally quoted prices.

In view of above, bidders shall be required to regularise such reduction in prices on GeM Portal prior to placement of order (applicable for tenders issued on GeM Portal.) .

In case, such unsolicited reduction is submitted by bidder in their offer or against CQ/TQ response and the bidder does not agree to such regularisation through GeM Portal [discounted price] (applicable for tenders issued on GeM Portal.), their bid shall be rejected. Further, if such reduction is submitted by bidder subsequent to price bid opening or in documents submitted by bidder in the Finance Folder of GeM Portal and the bidder does not agree to such regularisation on GeM Portal then the bid of shall be rejected and EMD, if submitted, by the Bidder, shall also be forfeited and appropriate action will be taken against the bidder as per company guidelines.

36.4 In the event of any unsolicited price increase sought by any bidder, subsequent to the bid due date, the bid of such a bidder shall be rejected, in case the bidder does not agree to withdraw the price increase. In case, price increase is sought by the L1 bidder after priced bid opening and the bidder does not agree to withdraw the price increase, the order shall not be placed with price increase and the enquiry shall be re-floated.

Wherever, decision is taken to reject a bid, EMD, if submitted, by the Bidder, shall also be forfeited and appropriate action will be taken against the bidder as per company guidelines.

36.5 ~~Any implication on account of wrong quotation of taxes and duties shall be to Bidder's account. However, the payment towards such taxes and duties quoted by the bidder shall be restricted to lower of taxes and duties quoted by the bidder or the documentary evidence provided by the bidder.~~

36.6 If a bidder submits prices in un-priced part of bid, such prices shall not be considered. The prices as submitted in the price part only shall be considered for evaluation and ordering, if any. If prices are not found in the price part and even if mentioned elsewhere, the bid shall be rejected. Wherever e-procurement is followed, prices uploaded at the designated priced folder of the e-tendering website shall only be considered.

36.7 In an extreme situation, when there is a 'TIE' based on the evaluated price (after loadings, if any) recourse shall be taken on the basis of bidder's maximum average annual turnover during the last 3 years. For this purpose, average annual turnover of the bidders having tie, shall be tabulated for the past 3 years and maximum average annual turnover during the last 3 years shall be determined for each bidder. The bidder whose average annual turnover is highest shall be the recommended bidder.

However when the tender is issued through GeM Portal , in an extreme situation, when there is a 'TIE' based on the evaluated price, recourse shall be taken on as per GeM guidelines.

36.8 **SHIFTING OF ORDER**

NOT APPLICABLE

36.9 Preference to MSEs, if applicable as per BDS, shall be carried out to distribute the item / quantity as per clause no**. 38.0** below.

36.10 Public Procurement (Preference to Make in India) (PPP-MII),if applicable as per BDS, shall be carried out to distribute the item / quantity as per clause no.**38.0** below.

36.11 **REVERSE AUCTION - NOT APPLICABLE**

37.0 EIL'S RIGHT TO ACCEPT ANY BID, AND TO REJECT ANY OR ALL BIDS

37.1 The EIL reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of the order without thereby incurring any liability to the affected bidder or bidders or any obligations to inform the affected bidder or bidders on the ground of such action by EIL.

38.0 POLICIES ISSUED BY GOVERNMENT INCLUDING PURCHASE PREFERENCE POLICIES

38.1 **Preference to Central PSUs**

Purchase preference to central PSUs or any other government guidelines as applicable from time to time shall be considered.

38.2 **Preference to Micro and Small Enterprises (MSEs) (Applicable for Procurement of Goods & Services only): For applicability Refer Bid Data Sheet (BDS)**

Ministry of Micro, Small & Medium Enterprises notified the Public Procurement Policy (PPP), 2012 for facilitating the promotion and development of micro and small enterprises in Government Procurement. Subsequently, Micro, Small & Medium Enterprises vide circular no. 21(8)/2018-MA dated 09.11.2018 has issued an amendment to the said policy.

Further, Ministry of MSMEs (MoMSME) vide Gazette notification No. S.O. 4926(E) dated 18.10.2022 have issued amendment in sub-paragraph (5) of paragraph 8 of MoMSME S.O. No. 2119 (E) dated 26.06.2020.

Under this policy, buyer reserves the right to allow Micro & Small enterprises as well as MSEs Owned by SC/ST entrepreneur and MSEs Owned by Women, purchase preference as admissible under the prevailing procurement policy for MSEs.

Refer Appendix – III to ITB for details.

38.3 **Public Procurement (Preference to Make in India), Order 2017: For applicability Refer Bid Data Sheet (BDS)**

Ministry of Petroleum & Natural Gas (MoPNG) vide File no. FP-20013/24/2017-FP-PNG-(E-17013) dated 21.08.2024, have issued revised Public Procurement (Preference to Make in India) (PPP-MII) Order, 2017 issued by DPIIT and as amended from time to time shall be applicable to all the Public Sector Undertakings and their wholly owned subsidiaries under MoP&NG, Joint Ventures that have 51% of more equity by one or more Public Sector Undertakings under MoP&NG. Copy of the notifications is available on MoPNG website.

Under this policy, buyer reserves the right to allow Suppliers or Service providers in a tender and purchase preference as admissible under the prevailing policy, subject to complying with the requirements/ conditions defined herein and submitting documents required to support the same.

Refer Appendix-IV to ITB for details. For Concurrent Applicability of PPP-MII & MSE Policy refer Appendix-V to ITB.

Important Instruction for Purchase Preferences (PPP-MSE,2012 / PPP-MII, 2017) for Tenders issued at GeM portal.

Bidder is hereby instructed that relevant documents and information pertaining to MSE and PPP-MII, which are necessary for availing the relevant benefits during evaluation, must be updated/ uploaded in the designated folder on GeM portal.

Bidders to note that in spite of submission of such relevant documents in the ATC folder, they shall not be eligible for the applicable benefits during evaluation on GeM portal in case they fail to adhere to the above instructions i.e. opt for the option of availing such preferences on the GeM portal itself. Therefore, in case a bidder does not opt for the preference option during the bid submission, they shall not be considered as a MSE or Class-I local supplier even though bidder is natural L1.

Also, the evaluation as done by GeM portal shall be final and binding.

38.4 **Policy for providing Preference to Domestically Manufactured Iron & Steel Products (DMI&SP) inGovernment Procurement: For applicability Refer Bid Data Sheet (BDS)**

In order to give preference to domestically manufactured iron and steel products (DMI&SP) in Government procurement, Ministry of Steel promulgated a Policy, which was notified through Gazette notification no. 357dated 09.05.2017 which was subsequently revised and issued through Gazette notification no. 324 dated 29.05.2019 and Gazette notification no. 5-13026/1/2020-I DD dated 31.12.2020. Copy of this policy is available at https://steel.gov.in/policies.

Refer Appendix-VI to ITB for details.

38.5 **Policy for Purchase Preference to Domestically Manufactured Electronic and Telecom Products: For applicability Refer Bid Data Sheet (BDS)**

I. MEiTY on the preference to domestically manufactured Electronic Products have issued the following notifications (copies available on website https://meity.gov.in/esdm/ppo):

a) Notification no. 33(1)/2017-IPHW dated 26.10.2017 on purchase preference in domestically manufactured Electronic Products

b) Notification no. 1(10)2017-CLES dated 02.07.2018 on purchase preference in domestically manufactured / produced Cyber Security Products

c) Notification no. 33(5)/20174-IPHW dated 14.08.2018 on purchase preference in Cellular mobiles Phones

List & Definition of the Products, percentage of Procurement for which preference to domestically manufactured products is to be provided, percentage of local content or domestic value addition in terms of Bill of Material (BOM) required for the products to qualify as domestically manufactured and Criteria for BOM to be classified as domestic for each of the notified Electronic Products are defined in above notifications.

Refer Appendix-VII to ITB for details.

II. Ministry of Communications (Department of Telecommunications) on the preference to domestically manufactured Telecom Products have issued Notifications no. 18-10/2017-IP dated29.08.2018 issued by Ministry of Communications (Department of Telecommunications) (copy available on website https://dot.gov.in/dot-pmapmi-policy).

List & definitions of Telecom products, services & works, Percentage of Procurement for which preference to domestically manufactured Telecom Products is to be provided and Percentage of local content in terms of Bill of Material (BOM) required for the products to qualify as domestically manufactured Telecom Products and conditions for inputs to be qualified as Local Content &Maximum ceiling for Design as local content out of the total Local content are defined in above notification.

Refer **Appendix-VIII** to **ITB** for details.

38.6 **Startup India Policy: For applicability Refer Bid Data Sheet (BDS)**

Startup India is a flagship initiative of the Government of India, intended to build a strong ecosystem that is conducive for the growth of startup businesses, to drive sustainable economic growth and

generate large scale employment opportunities. The Government through this initiative aims to empower startups to grow through innovation and design.

Refer **Appendix-IX** to **ITB** for details.

38.7 **Restrictions on Procurement from Bidders from Country(ies) sharing Border with India: For applicability Refer Bid Data Sheet (BDS)**

Department of Expenditure (Ministry of Finance) of Government of India through OM No. 7/10/2021-PPD(1) dated 23.02.2023 has issued the revised guidelines for Restrictions on Procurement from Bidders from Country(ies) sharing Border with India. These guidelines are available on the website of DoE (https://doe.gov.in).

Refer **Appendix-X** to **ITB** for details.

F. AWARD OF CONTRACT

39.0 AWARD CRITERIA

39.1 Pursuant to clause no. 36.0 and Clause no. 37.1 of ITB, the EIL shall place Purchase Order to the bidder(s) who has (have) been determined to be the lowest successful bidder(s) for item(s) / Group(s) of MR as per the Itemwise / GroupWise ordering philosophy defined in MR / Price Schedule. However, if in the opinion of EIL, the total price or certain **item rates quoted by the lowest evaluated bidder are considered high OR where there is a suspicion of cartel formation OR in case of proprietary / OEM items OR where limited source of supply are available for the item**, EIL may invite such bidder for price negotiation. Lowest quoted bidder shall attend such negotiation meetings and if requested by EIL shall provide the analysis of rates/break-up of amount quoted by him for any or all items of Price Schedule Format to demonstrate the reasonability. As a result of negotiation, bidder may offer rebate on his earlier quoted Price(s).

39.2 In case of MRs containing supplies as well site work/ services, a single order, covering the supply part as well site work/ services, shall be placed. ***Split ordering is not permitted.***

40.0 NOTIFICATION OF AWARD

40.1 Prior to the expiration of the period of bid validity, EIL shall notify the successful bidder, in writing, that its bid has been accepted. The notification letter [hereinafter and in the General Purchase Conditions called the "**Letter of Acceptance (LOA)/ Purchase Order (PO)**" and in GeM called the "Contract" shall specify the sum that the EIL will pay the Supplier in consideration of the execution and completion of the Supply/Works. The notification letter will constitute the formation of the contract.

40.2 The Delivery Schedule shall commence from the date of issue of GeM "Contract"/ **Letter of Acceptance (LOA)/ Purchase Order (PO) (whichever issued earlier)**.

40.3 GeM "Contract"/ **Letter of Acceptance (LOA)/ Purchase Order (PO)** shall contain price, delivery and other salient terms of bid and RFQ Document.

40.4 Bidder will be required to acknowledge receipt of the same by returning "Copy of the Contract" duly signed and stamped by the bidder as a token of acknowledgement to Owner and EIL.

41.0 CONTRACT CUM PERFORMANCE BANK GUARANTEE

41.1 Within **30 (Thirty) days** from the date of GeM Contract /Purchase order/ Letter of Acceptance, whichever issued earlier, the supplier shall furnish the Contract cum Performance Bank Guarantee for the required value, period and in the proforma, inline with bidding document.In place of Contract cum Performance Bank Guarantee, bidder can furnish Demand Draft also within the time period specified above.

42.0 Failure of the successful bidder to submit the above-mentioned Contract Performance Bank Guarantee / Demand Draft shall constitute sufficient grounds for the annulment / termination / cancelation of the award.

43.0 WAIVER OR TRANSFER OF THE AGREEMENT

43.1 The successful bidder shall not waive the Agreement or transfer it to third parties, whether in part or in whole, nor waive any interest that is included in the Agreement without the prior written permission of the Purchaser.

44.0 CARTEL FORMATION

44.1 In case any bidder is found to be involved in cartel formation, his bid will not be considered for evaluation /placement of order. Such bidder will also be debarred from bidding in future.

45.0 UNIQUE DOCUMENT IDENTIFICATION NUMBER

The Institute of Chartered Accountant of India at its 379th council meeting dated 17-18th December, 2018 made generation of Unique Document Identification Number (UDIN) mandatory for every signature of full time practicing chartered accountant in phased manner for following services:

a) All certificates with effect from 1st February, 2019.

b) GST and Income Tax Audit with effect from 1st April, 2019.

c) All Audit and Assurance Functions with effect from 1st July, 2019.

In view of the above, bidder shall ensure that any certificate/ reports issued/ attested by an practicing chartered accountant in India and submitted in the bid shall mandatorily include the UDIN number. Certificate / reports issued/ attested without UDIN number of practicing chartered accountant in India shall not be considered for evaluation. The requirement of including UDIN shall not be applicable for certificate/ reports issued/ attested by a chartered accountant practising in Foreign Country.

46.0 UPLOADING OF INVOICE ON INVOICE PORTAL

Suppliers and Service Providers shall upload the scan copy of invoices and other documents as required in the Purchase Order/Work Order on the EIL Invoice Portal to enable EIL to speed up and cut down on the processing and payment cycle. Post uploading, all correspondence between EIL and Suppliers/Service Providers will be through the portal. Suppliers/Service providers can track the status of the uploaded invoices through the portal.

A user guide on the operation of the portal is available on log in.

URL of the portal is http://www6.eil.co.in/invoiceportal

Registered Supplier/Contractor can Login with existing Supplier/Contractor code using the radio button.

◉ Registered Supplier/Contractor in EIL

Non-Registered Supplier/Contractor can Login with PAN No. and generate the password using the radio button.

○ Non-Registered Supplier/Contractor

BID DATA SHEET (BDS)

<table>
<tr><th colspan="3">BID DATA SHEET</th></tr>
<tr><th>S.NO.</th><th>CL. NO.</th><th>CONTENT</th></tr>
<tr><td colspan="3"></td></tr>
<tr><td>1.</td><td>ITB 1.2 (i)
E-Tendering/ e-procurement website</td><td>E-Tendering/ e- procurement website means Government of India Central Public Procurement (CPP) Portal (https://eprocure.gov.in/eprocure/app)</td></tr>
<tr><td>2.</td><td>ITB 2.0
ELIGIBLE BIDDERS</td><td>Enquiry Basis: Limited Competitive Basis
Only Class-I Suppliers having minimum local content of 50% are eligible to bid as per PPP-MII Policy.
Bids received from supplier having local content less than 65% & Non-local suppliers as per PPP-MII Policy shall not be considered for evaluation and shall be rejected.</td></tr>
<tr><td>3.</td><td>EIL VIS-A-VIS SUPPLIER COMMITMENTS</td><td>
<table>
<tr><th>Activity Description</th><th>Time Period</th><th>Remarks</th></tr>
<tr><td>EIL INPUT</td><td></td><td rowspan="16">Time extension due to non-availability of drawing and/or details shall be considered only if the progress of work is commensurate to the drawing front released.</td></tr>
<tr><td>Cable schedule</td><td>14 weeks</td></tr>
<tr><td>Point data</td><td>20 weeks</td></tr>
<tr><td>Graphic input</td><td>18 weeks</td></tr>
<tr><td>PR</td><td>4 weeks</td></tr>
<tr><td>SUPPLIER COMMITMENTS</td><td></td></tr>
<tr><td>Document Control Index</td><td>Within 2 weeks of FOA</td></tr>
<tr><td>Progress Schedule (Bar chart)/ material control</td><td>Within 2 weeks of FOA</td></tr>
<tr><td>System Configuration</td><td>6 weeks</td></tr>
<tr><td>Loading calculations</td><td>12 weeks</td></tr>
<tr><td>I/O assignments</td><td>18 weeks</td></tr>
<tr><td>Functional schematic</td><td>14 weeks</td></tr>
<tr><td>Graphic</td><td>20 weeks</td></tr>
<tr><td>FAT procedure</td><td>24 weeks</td></tr>
<tr><td>CR/MCR/SRR layout</td><td>12 weeks</td></tr>
<tr><td>Hardware/ software design manual</td><td>6 weeks</td></tr>
<tr><td>Balance drawings as per VDR</td><td>Within 20 weeks</td></tr>
</table>
</td></tr>
<tr><td>4.</td><td>IFB 6.8, ITB 11.3, ITB 16.0 & ITB 24.1
POSTAL ADDRESS & CONTACT DETAILS FOR SUBMISSION OF DOCUMENT (VIZ. BID SECURITY, ETC.) IN PHYSICAL FORM, IF ANY, AS PER RFQ</td><td>EMD/Bid Security is Not Applicable for this enquiry.

<u>Place of submission of Original Document:</u>

Jaydip Purkayastha, GM (SCM-C&P)
Engineers India Limited,
EIL Office Complex, Sector 16, Gurugram-122004
Telephone: 0124 – 2891349 /1365/ 1287
e-mail id: anwesha@eil.co.in /bapi.baidya@eil.co.in/ jaydip@eil.co.in</td></tr>
<tr><td>5.</td><td>ITB 11.1
LIST OF DOCUMENTS</td><td>a. Scanned copy of Integrity Pact <u>duly signed on each page by authorized signatory, wherever applicable alongwith witnesses signature</u> (if applicable)
b. Salient Feature of Offer (Form-A of Bidding Forms)
c. Bank Certified Mandate Form as per Form-B of Bidding Forms duly signed and stamped with the Banker’s certification or cancelled cheque.
d. Unpriced Details for CPP Portal:
Unpriced copy (without price) of Price Schedule duly indicating ‘Q’ for</td></tr>
</table>

BID DATA SHEET		
S.NO.	**CL. NO.**	**CONTENT**
		Quoted / 'NQ' for Not Quoted, in accordance with the instructions mentioned therein.; e. Signed and stamped copy of **Form-IA/IB/II**, as applicable, (on Company's Letterhead) attached with **Appendix-X** of ITB in line with Government guidelines regarding procurement from bidders from a country or countries sharing Land Border with India. f. MSE Documents, if applicable. g. Self-Certified FORM-2 & FORM-2A by Bidder under PPP- MII Order, 2017 towards mandatory minimum Local Content (attached with **Appendix-IV** of ITB). h. Signed & stamped copy of ANNEXURE-III to SPC (Terms & Conditions for Supervision of Erection, Testing & Commissioning/ Training at Site) i. Technical Compliance/datasheets/documents, required as per Technical Specifications/MR j. Any other document as required in the bidding document. k. Addendum(s)/ Amendment(s), if any, to the Bidding Document
6.	**ITB 11.2** **Priced Bid (through e-tender portal)**	**Priced Details for GeM CPPP:** Price Schedule with prices filled in. The rates are to be filled in accordance with instructions provided in Preamble to Schedule of prices, in e-tendering portal, without making any changes in the format/names of the file/worksheet.
7.	**ITB 12.0** **INTEGRITY PACT**	Applicable **Non-submission of Integrity Pact and "Undertaking w.r.t. Section-V of Integrity Pact" shall lead to not considering their bid for further evaluation.**
8.	**ITB 12.2** **INDEPENDENT EXTERNAL MONITORS (IEMS) DETAILS**	The detail of Independent External Monitors (IEMs), appointed by EIL, in terms of Integrity Pact (IP) are mentioned below: Details of IEM are mentioned as bellows: **1. Shri Akhil Kumar Shukla** A-804, Aakriti Shantiniketan, Sector-143B, NOIDA – 201304, District- Gautam Buddha Nagar (UP) M. No. 9958822237 E-mail: akhilshukla60@gmail.com **2. Dr. Hari Shankar Gupta, IFoS (Retd)** D-7, Aastha Regency, PO-Hehal, Ratu Road, Ranchi, Jharkhand-834005 M.no 9031000118 E-mail: hsguptaifs@gmail.com **3. Shri Sunil Shreekrishna Dadhe, IA & AS (Retd.)** 403 Agasti Society, 78-79 Walvekar Nagar, Pune Satara Road, Pune-411009 M. No. 9422517982, 7894444749 E- mail: sunildadhe@gmail.com
9.	**ITB 17.0** **CERTIFICATION OF DOCUMENTS**	Not applicable
10.	**ITB 18.0** **PERIOD OF VALIDITY OF BIDS**	Bid shall remain valid for 4 (Four) months from the final bid due.
11.	**ITB 36.0** **EVALUATION AND COMPARISON OF PRICE**	Evaluation shall be on Bottomline basis. 100% Input Tax Credit is available with EIL.

BID DATA SHEET		
S.NO.	**CL. NO.**	**CONTENT**
	BIDS	
12.	**ITB 36.9 & 38.2 PREFERENCE TO MICRO & SMALL ENTERPRISE**	APPLICABLE
13.	**ITB 38.4 POLICY FORPROVIDING PREFERENCE TO DOMESTICALLY MANUFACTURED IRON AND STEEL PRODUCTS IN GOVERNMENT PROCUREMENT (DMI&SP)**	NOT APPLICABLE
14.	**ITB 36.10 & 38.3 PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA)**	**APPLICABLE** **This tendered item is reserved for procurement from Class-I Local Suppliers having minimum local content of 50%.**
15.	**ITB 38.5 PURCHASE PREFERENCE TO DOMESTICALLY MANUFACTURED ELECTRONIC AND TELECOM PRODUCTS**	NOT APPLICABLE
16.	**ITB 38.6 STARTUP INDIA POLICY**	NOT APPLICABLE
17.	**ITB 38.7 PROCUREMENT FROM BIDDERS FROM COUNTRY(IES) SHARING BORDER WITH INDIA**	APPLICABLE **Non-compliance to referenced policy shall lead to rejection of offer.**
18.	**SPC** **GUARANTEE/WARRANTY**	**As per Clause No. 6.0 of SPC.**
19.	**SPC 2.0 PAYMENT TERMS**	**A. For Indian Bidder**: **i. Supply**: As per sub-clause **A1.3** of clause 1 of SPC. **ii. Supply of Mandatory Spares**: As per clause **A2** of clause 1 of SPC **iii. Site work:** As per sub-clause **A3** of clause 1 of SPC **iv. Training (At Site):** As per sub-clause **A4** of clause 1 of SPC. **v. Training (at Vendor Works):** As per clause A-5 of clause 1 of SPC. **vi. Annual Maintenance Contract (AMC):** As per clause A-6 of clause 1 of SPC.
20.	**SPC 7.2 CONTRACT CUM PERFORMANCE BANK GUARANTEE (CPBG)**	**5% (Five Percent) of Total Order Value.**
21.	**SPC 7.4 INTEREST RATE FOR**	Rate of interest for such recovery shall be @ **11.40%** per annum [based on the present Base Rate (10.40%) plus One Percent (1%)].

BID DATA SHEET		
S.NO.	**CL. NO.**	**CONTENT**
	RECOVERY OF CPBG/ADVANCES (IF ANY)	
22.	**SPC 9.1 VARIATION AS PER IEEMA CIRCULAR**	NOT APPLICABLE
23.	**SPC 10.0 PRICE REDUCTION SCHEDULE**	APPLICABLE. As per Clause No. 10.2 of Specials Purchase Conditions (SPC).
24.	**SPC 13.0 BASIS OF EVALUATION**	Following components shall considered for Price evaluation: a) BASIC SUPPLY PRICE ON FOR DESPATCH POINT b) FREIGHT UPTO SITE c) LUMPSUM SITEWORK CHARGES d) LUMPSUM MANDATORY SPARE e) LUMPSUM TRAINING CHARGES AT VENDOR WORKS f) PER-DIEM TRAINING CHARGES AT SITE g) LUMPSUM PWMC CHARGES (FOR 5 YEARS) h) LUMPSUM CHARGES for Pre-commissioning checks, assistance for interlocks and logic checks, providing commissioning back-up, works-completion, commissioning of plant package equipments, completion of SAT, handing over complete system to client, handing over of mandatory spares and post-commissioning back-up.
25.	**SPC 16.0 PART ORDER**	NOT APPLICABLE
26.	**SPC 17.0 REPEAT ORDER**	NOT APPLICABLE
27.	**SPC 24.0 TERMS & CONDITIONS FOR SUPERVISION OF ERECTION, TESTING & COMMISSIONING**	NOT APPLICABLE
28.	**SPC 25.0 TERMS & CONDITIONS FOR INSTALLATION/ SITE WORK**	APPLICABLE Quoted site work charges shall be minimum **4% of the quoted supply prices**. In case a supplier quotes site work charges lesser than 4% of supply price, the differential charges shall be retained from supply prices and shall be paid along with last 10% payment of supply charges which will be paid after completion of site work.
29.	**SPC 26.0 TERMS & CONDITIONS FOR ANNUAL MAINTENANCE CONTRACT (AMC)**	APPLICABLE. Notes: i) The order for Comprehensive Post Warranty Annual Maintenance Contract (CPWAMC), if required, will be placed by EIL/Owner separately before the expiry of contractual Warranty Period / Defect Liability Period. However, the price of CPWAMC services will remain valid for the entire AMC period". ii) Quoted CPWAMC charges for shall be minimum **20% (Twenty percent)** of the quoted supply prices. In case a supplier quotes CPWAMC charges less than **20% (Twenty percent)** of supply price, the differential charges shall be retained from supply prices and the same shall be distributed for the purpose of payment over the entire CPWAMC period, in similar manner (based on the % distribution indicated under Sl. No. (iii) below) as prescribed for lumpsum CPWAMC charges. However, in case CPWAMC order is not awarded by Owner, the same differential amount shall be deducted/subtracted from the Total Order Value and shall not be paid to the vendor.

<table>
<tr><th colspan="3">BID DATA SHEET</th></tr>
<tr><th>S.NO.</th><th>CL. NO.</th><th>CONTENT</th></tr>
<tr><td></td><td></td><td>iii) Bidder shall quote Lumpsum (LS) price for CPWAMC on BoQ/Price Schedule of BoQ/Schedule of Price. However, year wise CPWAMC price shall be distributed as indicated below:
<table><tr><th>Year</th><th>% Distribution</th></tr><tr><td>Year 1</td><td>16 %</td></tr><tr><td>Year 2</td><td>18 %</td></tr><tr><td>Year 3</td><td>20 %</td></tr><tr><td>Year 4</td><td>22 %</td></tr><tr><td>Year 5</td><td>24 %</td></tr></table>iv) In case order for CPWAMC is placed by EIL (the OBE Contractor) and upon cessation of EIL's liability with respect to Defect Liability Period, the AMC order shall stand automatically novated in the Owner's favour for availing the AMC services by the Owner.</td></tr>
<tr><td>30.</td><td>SPC 27.0
TERMS & CONDITIONS FOR TRAINING AT VENDOR'S WORKS</td><td>APPLICABLE</td></tr>
<tr><td>31.</td><td>INVOICING DETAILS AND DESPATCH & INVOICING INSTRUCTIONS</td><td>Shall be informed Post Order to the successful bidder.</td></tr>
<tr><td>32.</td><td>NON-DISCLOSURE AGREEMENT</td><td>APPLICABLE</td></tr>
</table>

APPENDICES
TO INSTRUCTIONS TO BIDDER

APPENDIX-I TO ITB

INSTRUCTIONS TO BIDDERS FOR E-TENDERING

Annexure – I to ITB

E-TENDERING METHODOLOGY

Instructions for Online Bid Submission:

The bidders are required to submit soft copies of their bids electronically on the CPP Portal (URL: http://eprocure.gov.in) only, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More detailed information useful for submitting online bids on the CPP Portal may be obtained at:

http://eprocure.gov.in/eprocure/app .

REGISTRATION

1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: http://eprocure.gov.in/eprocure/app) by clicking on the link "Click **here to Enroll**" on the CPP Portal is free of charge.

2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process and submit in EIL tender portal for updation of records (http://tenders.eil.co.in) . These details would be used for any communication from the CPP Portal.

4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (DSC) (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.

5) Foreign Bidders have to refer "DSC details for foreign Bidders" for Digital signature Certificates requirements which comes under Download Tab at http://eprocure.gov.in/eprocure/app and the remaining part is same as above and below.

6) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.

7) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.

2) Once the bidders have selected the tenders they are interested in, the same can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

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3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.

2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3) To avoid Network congestion, Bidder is recommended to upload file size of up to Maximum 35 MB per part. However, in case file size exceeds 35 MB, bidder may compress the files by scanning with 75 dpi setting as per s.no 4 below and can use additional 25 MB space ("My Documents") provided to the bidder as per s.no 5 below.

4) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document and generally, they can be in PDF / XLS / RAR / DWF formats. **Bid documents may be scanned with 75 dpi with black and white option. However, Price Schedule / SOR shall be strictly in RAR format without altering any contents of the formats uploaded by EIL in their Bidding Document.**

5) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Documents" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

1) Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

3) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.

4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the Tender Processing Section, as per instructions specified in ITB. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.

5) A Price Bid format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the Price Bid file, open it and complete the cells with their respective financial quotes and other

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details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the Price Bid file is found to be modified by the bidder, the bid will be rejected.

6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.

8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

9) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

RETENDER

Please note that if Tender has been retendered, than it is mandatory for the bidder to submit their offer again on CPP Portal.

WITHDRAWAL OF BID

It may please be noted that bidders now have an additional feature of withdrawing their bids before due date and time. After submitting the bid on the CPP Portal, if the bidder wishes to withdraw his bid, he can do so. However, if the bidder withdraws his bid, he will be exempted from further participation in the tender and won't be able to submit his bid again for that particular tender.

ASSISTANCE TO BIDDERS

1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24 x 7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800-3070-2232 and Mobile Nos +91-7878007972, +91-7878007973.

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APPENDIX-III TO ITB

PREFERENCE TO MICRO AND SMALL ENTERPRISES (MSEs)

PREFERENCE TO MICRO AND SMALL ENTERPRISES (MSES) (APPLICABLE FOR PROCUREMENT OF GOODS & SERVICES ONLY)

1. Ministry of Micro, Small & Medium Enterprises notified the Public Procurement Policy (PPP), 2012 for facilitating the promotion and development of micro and small enterprises in Government Procurement. Subsequently, Micro, Small & Medium Enterprises vide circular no. 21(8)/2018-MA dated 09.11.2018 has issued an amendment to the said policy.

   Further, Ministry of MSMEs (MoMSME) vide **Gazette notification No. S.O. 4926(E) dated 18.10.2022**
   have issued the following amendment in sub-paragraph (5) of paragraph 8 of MoMSME S.O. No. 2119 (E) dated 26.06.2020:

   "In case of an upward change in terms of investment in Plant and Machinery or Equipment or Turnover or both, and consequent re-classification, an enterprise shall continue to avail of all non- tax benefits of the category (Micro or Small or Medium) it was in before the re-classification, for a period of three years from the date of such upward change".

   As per the press notification dated 19.10.2022 issued by Press Information Bureau, **Non-tax benefits include benefits of various schemes of the Government, including Public Procurement Policy, Delayed Payments, etc.**

2. For claiming price preference against enquiries in which provision of price preference is to be extended to the MSE Bidders, the MSE certificate should be valid as on date of un-priced bid opening.

3. The owner reserves the right to allow Micro & Small enterprises as well as MSEs Owned by SC/ST entrepreneur and MSEs Owned by Women, purchase preference as admissible under the prevailing procurement policy for MSEs.

4. The quantity against the item(s) of MR may be split to enable ordering of 25% quantity against the item(s) of MR to MSEs bidder within the price range of L1 bidder's evaluated price + 15% subject to their matching L1 bidder's price, in line with purchase preference as admissible under the prevailing procurement policy for MSEs. Accordingly, the quoted prices against various items of MR shall remain valid in case of splitting of quantities of the items in view of the same.

   Out of this 25% from MSEs, 4% is to be from MSEs owned by SC/ ST entrepreneurs. However, in event of failure of MSEs owned by SC/ ST entrepreneurs to participate in the bidding process or meet the tender requirements and L1 price, this 4% will be met from other MSEs.

   Additionally, out of this 25% from MSEs, 3% is to be from MSEs owned by Women. However, in event of failure of MSEs owned by Women to participate in the bidding process or meet the tender requirements and L1 price, this 3% will be met from other MSEs.

   While granting purchase preference as above, procurement of goods through MRs may include certain small work, or some services, which are incidental or consequential to supply of such goods such as transportation, insurance, installation, commissioning, training & maintenance.

   Clarification:

   - In case where quantity against a line item cannot be split (i.e., minimum 25% to MSEs) or items with single quantity or in grouped item, the complete line item/ group shall be awarded on MSE bidder within the price range of L1 bidder's evaluated price + 15% subject to their matching L1 bidder's price.
   - In case, quantity(ies) against an item/ group cannot be split among MSEs owned by SC/ ST entrepreneurs, MSEs owned by Women and non- SC/ ST or non-women MSE entrepreneurs, first opportunity shall be given to MSEs owned by Women than to MSEs owned by SC/ ST entrepreneurs and lastly to other MSEs, within the price range of L1 non-MSE bidder's evaluated price + 15%.

5. MSEs MSE bidders shall submit the following:

i) Bidder claiming to be a Micro or Small Enterprises (MSEs) must be registered on Udyam Registration portal having valid “Udyam Registration Certificate”.

ii) The Udyam registration certificate shall be verified from GoI Udyam registration portal (present web address is https://udyamregistration.gov.in). The status of the MSE Bidder as on the date of Unpriced Bid opening shall be considered for benefits defined in the Bidding Document under the Purchase Preference Policy for MSEs, 2012.

iii) In order for MSE owned by SC/ST Entrepreneurs to qualify for benefits available under Public Procurement Policy for MSEs order 2012, the MSE shall additionally submit a relevant SC/ ST certificate in the name of SC/ ST proprietor or partner(s) holding minimum 51% shares in case of partnership or person(s) holding minimum 51% shares in limited companies, issued by any of the following:

- District Magistrate/ Additional District Magistrate/ Collector/ Deputy Commissioner/ Deputy Collector/ 1st Class Stipendiary Magistrate/ City Magistrate/ Sub-Divisional Magistrate/ Taluka Magistrate/ Executive Magistrate/ Extra Assistant Commissioner (not below the rank of 1st Class Stipendiary Magistrate).
- Chief Presidency Magistrate/ Additional Chief Presidency Magistrate/ Presidency Magistrate.
- Revenue Officers not below the rank of Tehsildar
- Sub-Divisional Officer of the area where the candidate and/ or his family normally resides.
- Administrator/ Secretary to Administrator/ Development Officer (Lakshadweep Islands).

Definition of MSEs owned by SC/ST Entrepreneurs, is as follows:

- In case of proprietary MSE, proprietor should be SC/ST.
- In case of partnership MSE, the SC/ST partner(s) should be holding at least 51% shares in the unit.
- In case of Limited companies, at least 51% share should be held by SC/ST shareholder(s).
- In case of Public Limited Companies, at least 51% share should be held by SC/ST entrepreneurs at any given point of time.

iv) Micro & Small Enterprises shall be considered as owned by Women Entrepreneurs as per the below definition:

- In case of proprietary MSE, Women should be SC/ST.
- In case of partnership MSE, the Women partner(s) should be holding at least 51%
- shares in the unit.
- In case of Limited companies, at least 51% share should be held by Women shareholder(s).

In order for MSE owned by Women Entrepreneurs to qualify for benefits available under Public Procurement Policy for MSEs order 2012 to Women Entrepreneurs, the MSE shall additionally submit the following:

- In case of a proprietorship firm, the name and address of proprietor, and certified copy of Bank Account Details.
- In case bidder is a partnership firm, certified copy of the partnership deed.
- In case of company (whether private or public), certified copy of the `Certificate of
- Incorporation' together with certified copy of Memorandum/Articles of Association.

v) To avail the benefits available to MSEs under the bidding document, MSEs shall provide the necessary valid documentary evidence, i.e. Udyam Registration Certificate. MSE bidders shall submit MSE documents, as above.

vi) No verification of bidder's status as Micro or Small Enterprises from the financial statementof bidders shall be required.

vii) In case a MSE bidder has submitted Udyam Registration Certificate, the same shall be accepted provided the details of the same could be verified from the Government Udyam Registration portal, as applicable.

viii) In case, a MSE bidder doesn't submit the MSE document or submits invalid document or, such bidders shall not be considered for providing the benefits under MSE Policy.

6. In case at any stage, if it is found the bidder has claimed / availed the benefits by providing false/forged details, their bid shall be rejected and bidder shall be placed on suspension/ banning. However, if this is found after order placement, bidder shall also be liable for encashment of PBG. Bidder's organization is responsible for any and all actions of their employees. Any claims seeking to pin point/shift the blame on any employee and consequently attempting to absolve the bidder's organization will not be entertained.

7. EIL is committed to promotion and development of micro and small enterprises Accordingly; bidders are also encouraged to promote the same by considering MSE sub-suppliers/ sub- contractors to the extent possible under the Orders/ Contracts awarded on them EIL. All efforts shall be made by bidder to encourage procurement thru MSEs (holding valid certificate) through their Sub orders/ Sub contract procurement. The successful bidder shall provide the following only for the purpose of reporting.

i) Monthly Reports for purchase of material/services/ sub-contracts (from MSE vendors) shall be submitted by bidder to .....(Name of CPSU).

i) The report shall be signed by authorised person of contractor (Successful Bidder).

ii) Report shall be submitted in the following format.

Sl. No.	Sub-Supplier/ Subcontractor	Work Order no.& date	Item Description	Amount (In Rs)	Category of MSE Gen/ SC/ ST	MSME Status Micro/ Small with code	Remarks

8. Government of India has implemented the Trade Receivables Discounting System (TReDS). TReDS is an institutional mechanism set up in order to facilitate the financing of trade receivables of MSMEs from corporate buyers through invoice financing by multiple financiers. EIL is already registered on the following TReDS Platform:

Name of the Company	Name of The Platform	Web Address	Address	Contact person
A.TREDS Limited	Invoicemart	https://www.invoicemart.com/	11th Floor, Office No A-3, Ashar IT Park, Road No 16Z, Wagle Industrial Estate, Thane, Maharashtra, 400604	Mr. Ankur – 8447308425
Receivables Exchange of India Limited	Trade Receivables Discounting System (TReDS)	http://www.rxil.in/	Trade Centre (Vatika Business Centre), First Floor (Unit No.2), Office No.14, Bandra Kurla Comp ex, Bandra (East), Mumbai – 400051. Maharashtra	Ms. Ruchi Agarwal 9560793437
Mynd Solutions Private Limited	M1xchange	https://www.m1xchange.com/	280, Udyog Vihar, phase-IV, Gurgaon, Haryana, 122001	Mr. Dipanshu 9711008042

MSME bidders are requested to register on the TReDS platform.

APPENDIX-IV TO ITB

POLICY TO PROVIDE PURCHASE PREFERENCE UNDER PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA) (PPP-MII) ORDER, 2017

ANNEXURE-1

No.: FP-20013/24/2017-FP-PNG (E-17013)
Government of India
Ministry of Petroleum and Natural Gas
(Flagship Programme Cell)
****

Shastri Bhawan, New Delhi
Dated 21st August, 2024

To

1. Chairman, IOCL
2. C&MD, ONGC/ BPCL/ HPCL/ OIL/ GAIL/ EIL/ Balmer Lawrie
3. Managing Director, CPCL/ NRL/ MRPL/ BCPL/ OVL
4. DG, DGH
5. DG, PPAC
6. Secretary, OIDB
7. ED, OISD
8. ED, CHT
9. Director, RGIPT/ IIPE
10. Secretary, PNGRB
11. CEO & MD, ISPRL

Subject: Revised Public Procurement (Preference to Make in India) Order, 2017- regarding

Sir/ Madam,

I am directed to forward revised Public Procurement (Preference to Make in India) Order, 2017 dated 19.7.2024 issued by Department for Promotion of Industries and internal Trade (DPIIT), for information and necessary action.

Yours faithfully

Kala 21/8/24
(Kala)
Under Secretary to the Govt. of India
Tel.: 011-23381029

Encl.: as above

Copy to:

a. PPS/ PS to Secretary, P&NG
b. PPS/ PS to AS&FA/ AS, MoPNG
c. PPS/ PS to JS (G)/ JS(M&OR)/ JS (GP)/ JS (IC)/ JS (IFD)/ DDG, MoPNG

Annexure -1

No. P-45021/2/2017-PP (BE-II)-Part(4)Vol.II
Government of India
Ministry of Commerce and Industry
Department for Promotion of Industry and Internal Trade
(Public Procurement Section)

Vanijya Bhawan, New Delhi
Dated: 19 July,2024

To

All Central Ministries/Departments/CPSUs/All concerned

ORDER

Subject: Public Procurement (Preference to Make in India), Order 2017– Revision; regarding.

Department for Promotion of Industry and Internal Trade, in partial modification [Paras 2, 3, 5, 10 & 13] of Order No.P-45021/2/2017-B.E.-II dated 15.6.2017 as amended by Order No.P-45021/2/2017-B.E.-II dated 28.05.2018, Order No.P-45021/2/2017-B.E.-II dated 29.05.2019, Order No.P-45021/2/2017-B.E.-II dated 04.06.2020 and Order No.P-45021/2/2017-B.E.-II dated 16.09.2020 hereby issues the revised 'Public Procurement (Preference to Make in India), Order 2017" dated 19.07.2024 effective with immediate effect.

Whereas it is the policy of the Government of India to encourage 'Make in India' and promote manufacturing and production of goods and services in India with a view to enhancing income and employment, and

Whereas procurement by the Government is substantial in amount and can contribute towards this policy objective, and

Whereas local content can be increased through partnerships, cooperation with local companies, establishing production units in India or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training them,

Now therefore the following Order is issued:

1. This Order is issued pursuant to Rule 153 (iii) of the General Financial Rules 2017.
2. **Definitions:** For the purposes of this Order:
   'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

   Explanatory notes for calculation of local content given above

   a. Imported items sourced locally from resellers/distributors shall be excluded from calculation of local content.
   b. The license fees/royalties paid/ technical charges paid out of India shall be excluded from local content calculation.

c. Procurement/Supply of repackaged/refurbished/rebranded imported products as understood commonly shall be treated as reselling of imported products and shall be excluded from calculation of local content. The definition of repackaged/refurbished/rebranded imported products is as follows;

'Refurbishing' means repair or reconditioning of an imported product does not amount to manufacture because no new goods come into existence.

'Repackaging' means repacking of imported goods from bulk pack to smaller packs would not ordinarily amount to manufacture of a new item.

'Rebranding' means relabeling or renaming or change in symbol or logo/makes or corporate image of a company/organization/ firm for an imported product would amount to rebranding.

d. To ensure that imported items sourced locally from resellers/distributors are excluded from calculation of local content, procuring entities to obtain from bidders, the cost of such locally-sourced imported items (Inclusive of taxes) along with break-up on license/royalties paid/technical expertise cost etc. sourced from outside India. For items sold by bidder as reseller, OEM certificate for country of origin to be submitted.

e. For contracts involving supply of multiple items, weighted average of all items to be taken while calculating the local content.

'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local supplier' under this Order.

'Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local supplier' but less than that prescribed for 'Class-I local supplier' under this Order.

'Non - Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier' under this Order.

'L1' means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

'Margin of purchase preference' means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference.

'Nodal Ministry' means the Ministry or Department identified pursuant to this order in respect of a particular item of goods or services or works.

'Procuring entity' means a Ministry or department or attached or subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the Companies Act.

'Works' means all works as per Rule 130 of GFR- 2017, and will also include *'turnkey works'*.

2A. *Special treatment for items covered under PLI Scheme*

The manufacturers manufacturing an item under PLI scheme shall be treated as deemed Class II local supplier for that item unless they have minimum local content equal to or higher than that notified for Class-I local supplier for that item, provided the manufacturer has received incentive from the concerned PLI Ministry for the item. The above shall be applicable for the specific time period only, as notified by concerned PLI Ministry.

3. Eligibility of 'Class-I local supplier'/ 'Class-II local supplier'/ 'Non-local suppliers' for different types of procurement

(a) In procurement of all goods, services or works in respect of which the Nodal Ministry / Department has communicated that there is sufficient local capacity and local competition, only 'Class-I local supplier', as defined under the Order, shall be eligible to bid irrespective of purchase value.

(b) Only 'Class-I local supplier' and 'Class-II local supplier', as defined under the Order, shall be eligible to bid in procurement undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries, 'Non-local suppliers' shall also be eligible to bid along with 'Class-I local suppliers' and 'Class-II local suppliers'. In procurement of all goods, services or works, not covered by sub-para 3(a) above, and with estimated value of purchases less than Rs. 200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure.

(c) For the purpose of this Order, works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

3.1 Mandatory sourcing of items, with sufficient local capacity and competition, from Class-I local suppliers in SI/EPC/Turnkey Contracts/Service Tenders

a. The items, notified as having sufficient local capacity and competition, shall mandatory be sourced from Class-I local suppliers in SI/EPC/Turnkey Contracts/ Services tenders. This provision will be applicable only for those items which have been notified by the Nodal Ministry as Class I i.e. having sufficient local capacity and competition, with specific HSN codes."

b. Notwithstanding above, if in any project, it is considered that it is not practically feasible to source such items from Class I local suppliers, it may take relaxation from such stipulation with the approval of Secretary of the administrative Ministry/ Department concerned or with the approval of the Competent Authority specified by the Administrative Ministry/Department, on case-specific basis.

3A. Purchase Preference

(a) Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to 'Class-I local supplier' in procurement undertaken by procuring entities in the manner specified here under.

(b) In the procurement of goods or works, which are covered by para 3(b)

above and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

(c) In the procurement of goods or works, which are covered by para 3(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is Class -I local supplier', the contract will be awarded to L1.
ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
iii. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

(d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

3B. Applicability in tenders where contract is to be awarded to multiple bidders- In tenders where contract is awarded to multiple bidders subject to matching of L1 rates or otherwise, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

a. In case there is sufficient local capacity and competition for the item to be procured, as notified by the nodal Ministry, only Class I local suppliers shall be eligible to bid. As such, the multiple suppliers, who would be awarded the contract, should be all and only 'Class I Local suppliers'.
b. In other cases, 'Class II local suppliers' and 'Non local suppliers' may also participate in the bidding process along with 'Class I Local suppliers' as per provisions of this Order.
c. If 'Class I Local suppliers' qualify for award of contract for at least

50% of the tendered quantity in any tender, the contract may be awarded to all the qualified bidders as per award criteria stipulated in the bid documents. However, in case 'Class I Local suppliers' do not qualify for award of contract for at least 50% of the tendered quantity, purchase preference should be given to the 'Class I local supplier' over 'Class II local suppliers'/ 'Non local suppliers' provided that their quoted rate falls within 20% margin of purchase preference of the highest quoted bidder considered for award of contract so as to ensure that the 'Class I Local suppliers' taken in totality are considered for award of contract for at least 50% of the tendered quantity.

d. First purchase preference has to be given to the lowest quoting 'Class-I local supplier', whose quoted rates fall within 20% margin of purchase preference, subject to its meeting the prescribed criteria for award of contract as also the constraint of maximum quantity that can be sourced from any single supplier. If the lowest quoting 'Class-I local supplier', does not qualify for purchase preference because of aforesaid constraints or does not accept the offered quantity, an opportunity may be given to next higher 'Class-I local supplier', falling within 20% margin of purchase preference, and so on.

e. To avoid any ambiguity during bid evaluation process, the procuring entities may stipulate its own tender specific criteria for award of contract amongst different bidders including the procedure for purchase preference to 'Class-I local supplier' within the broad policy guidelines stipulated in sub- paras above.

4. **Exemption of small purchases**: Notwithstanding anything contained in paragraph 3, procurement where the estimated value to be procured is less than Rs. 5 lakhs shall be exempt from this Order. However, it shall be ensured by procuring entities that procurement is not split for the purpose of avoiding the provisions of this Order.

4A. Exemption in sourcing of spares and consumables of closed systems:

Procurement of spare parts, consumables for closed systems and Maintenance/ Service contracts with Original Equipment Manufacturer/Original Equipment Supplier/Original Part Manufacturer shall be exempted from this Order.

5. **Minimum local content**: The 'local content' requirement to categorize a supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%. Nodal Ministry/ Department may prescribe only a higher percentage of minimum local content requirement to categorize a supplier as 'Class-I local supplier'/ 'Class- II local supplier'. For the items, for which Nodal Ministry/ Department has not prescribed higher minimum local content notification under the Order, it shall be 50% and 20% for 'Class-I local supplier'/ 'Class-II local supplier' respectively.

6. **Margin of Purchase Preference**: The margin of purchase preference shall be 20%.

7. **Requirement for specification in advance**: The minimum local content, the margin of purchase preference and the procedure for preference to Make in India shall be specified in the notice inviting tenders or other form of procurement solicitation and shall not be varied during a particular procurement transaction.

8. **Government E-marketplace**: In respect of procurement through the Government E-marketplace (GeM) shall, as far as possible, specifically mark the items which meet the minimum local content while registering the item for

display, and shall, wherever feasible, make provision for automated comparison with purchase preference and without purchase preference and for obtaining consent of the local supplier in those cases where purchase preference is to be exercised.

9. **Verification of local content:**

a. The 'Class-I local supplier'/ 'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/ 'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.

b. In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier'/ 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

c. The bidder shall give self-certification for local content in the quoted item (goods/works/services) at the time of tendering. However, at the time of execution of the project, for all contracts above INR 10 Crore, the contractor/ supplier shall be required to give local content certification duly certified by cost/ chartered accountant in practice. For cases where it is not possible to provide certification by Cost/Chartered Accountant at the time of execution of project, the supplier shall be permitted to provide the certificate for local content from Cost/ Chartered Accountant after completion of the contract, within time limit acceptable to the procuring entity. In case the contractor/ supplier does not meet the stipulated local content requirement and the category of the supplier changes from Class-I to Class-II/ Non-local or from Class-II to Non-local, a penalty upto 10% of the contract value may be imposed. However, contract once awarded shall not be terminated on this account.

d. Decisions on complaints relating to implementation of this Order shall be taken by the competent authority which is empowered to look into procurement-related complaints relating to the procuring entity.

e. Nodal Ministries may constitute committees with internal and external experts for independent verification of self-declarations and auditor's/ accountant's certificates on random basis and in the case of complaints.

f. Nodal Ministries and procuring entities may prescribe fees for such complaints.

g. False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

h. A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed under paragraph 9

i below.

i. The Department of Expenditure shall issue suitable instructions for the effective and smooth operation of this process, so that:
   i. The fact and duration of debarment for violation of this Order by any procuring entity are promptly brought to the notice of the Member-Convenor of the Standing Committee and the Department of Expenditure through the concerned Ministry /Department or in some other manner;
   ii. On a periodical basis such cases are consolidated and a centralized list or decentralized lists of such suppliers with the period of debarment is maintained and displayed on website(s);
   iii. In respect of procuring entities other than the one which has carried out the debarment, the debarment takes effect prospectively from the date of uploading on the website(s) in the such a manner that ongoing procurement are not disrupted.

10. **Specifications in Tenders and other procurement solicitations:**
   a. Every procuring entity shall ensure that the eligibility conditions in respect of previous experience fixed in any tender or solicitation do not require proof of supply in other countries or proof of exports.
   b. Procuring entities shall endeavour to see that eligibility conditions, including on matters like turnover, production capability and financial strength do not result in unreasonable exclusion of 'Class-I local supplier'/ 'Class-II local supplier' who would otherwise be eligible, beyond what is essential for ensuring quality or creditworthiness of the supplier.
   c. Procuring entities shall, within 2 months of the issue of this Order review all existing eligibility norms and conditions with reference to sub-paragraphs 'a' and 'b' above.
   d. **Reciprocity Clause**
      i. When a Nodal Ministry/Department identifies that Indian suppliers of an item are not allowed to participate and/ or compete in procurement by any foreign government, due to restrictive tender conditions which have direct or indirect effect of barring Indian companies such as registration in the procuring country, execution of projects of specific value in the procuring country etc., it shall provide such details to all its procuring entities including CMDs/CEOs of PSEs/PSUs, State Governments and other procurement agencies under their administrative control and GeM for appropriate reciprocal action.
      ii. Entities of countries which have been identified by the nodal Ministry/Department as not allowing Indian companies to participate in their Government procurement for any item related to that nodal Ministry shall not be allowed to participate in Government procurement in India for all items related to that nodal Ministry/ Department, except for the list of items published by the Ministry/ Department permitting their participation.
      iii. The stipulation in (ii) above shall be part of all tenders invited by the Central Government procuring entities stated in (i) above. All purchases on GeM shall also necessarily have the above provisions for items identified by nodal Ministry/ Department.
      iv. State Governments should be encouraged to incorporate similar provisions in their respective tenders.
      v. The term 'entity' of a country shall have the same meaning as under the FDI Policy of DPIIT as amended from time to time.
   e. Specifying foreign certifications/ unreasonable technical specifications/

brands/ models in the bid document is restrictive and discriminatory practice against local suppliers. If foreign certification is required to be stipulated because of non-availability of Indian Standards and/or for any other reason, the same shall be done only after written approval of Secretary of the Department concerned or any other Authority having been designated such power by the Secretary of the Department concerned.

f. "All administrative Ministries/Departments *whose procurement exceeds Rs. 1000 Crore per annum* shall notify/update their procurement projections every year, including those of the PSEs/PSUs, for the next 5 years on their respective website."

10A. Action for non-compliance of the Provisions of the Order: In case restrictive or discriminatory conditions against domestic suppliers are included in bid documents, an inquiry shall be conducted by the Administrative Department undertaking the procurement (including procurement by any entity under its administrative control) to fix responsibility for the same. Thereafter, appropriate action, administrative or otherwise, shall be taken against erring officials of procurement entities under relevant provisions. Intimation on all such actions shall be sent to the Standing Committee.

11. **Assessment of supply base by Nodal Ministries:** The Nodal Ministry shall keep in view the domestic manufacturing / supply base and assess the available capacity and the extent of local competition while identifying items and prescribing the higher minimum local content or the manner of its calculation, with a view to avoiding cost increase from the operation of this Order.

12. **Increase in minimum local content**: The Nodal Ministry may annually review the local content requirements with a view to increasing them, subject to availability of sufficient local competition with adequate quality.

13. **Manufacture under license/ technology collaboration agreements with phased indigenization**: While notifying the minimum local content, Nodal Ministries may make special provisions for exempting suppliers from meeting the stipulated local content if the product is being manufactured in India under a license from a foreign manufacturer who holds intellectual property rights and where there is a technology collaboration agreement / transfer of technology agreement for indigenous manufacture of a product developed abroad with clear phasing of increase in local content.

13A. In procurement of all goods, services or works in respect of which there is substantial quantity of public procurement and for which the nodal ministry has not notified that there is sufficient local capacity and local competition, the concerned nodal ministry shall notify an upper threshold value of procurement beyond which foreign companies shall enter into a joint venture with an Indian company to participate in the tender. Procuring entities, while procuring such items beyond the notified threshold value, shall prescribe in their respective tenders that foreign companies may enter into a joint venture with an Indian company to participate in the tender. The procuring Ministries/Departments shall also make special provisions for exempting such joint ventures from meeting the stipulated minimum local content requirement, which shall be increased in a phased manner.

14. **Powers to grant exemption and to reduce minimum local content**: The administrative Department undertaking the procurement (including

procurement by any entity under its administrative control), with the approval of their Minister-in-charge, may by written order, for reasons to be recorded in writing,

a. reduce the minimum local content below the prescribed level; or
b. reduce the margin of purchase preference below 20%; or
c. exempt any particular item or supplying entities from the operation of this Order or any part of the Order.

The Administrative Department, while seeking exemption under this para, shall certify that such an item(s) has not been notified by Nodal Ministry/ Department concerned under para 3 (a) of the Order.

A copy of every such order shall be provided to the Standing Committee and concerned Nodal Ministry / Department. The Nodal Ministry / Department concerned will continue to have the power to vary its notification on Minimum Local Content.

15. **Directions to Government companies**: In respect of Government companies and other procuring entities not governed by the General Financial Rules, the administrative Ministry or Department shall issue policy directions requiring compliance with this Order.
16. **Standing Committee**: A standing committee is hereby constituted with the following membership:
Secretary, Department for Promotion of Industry and Internal Trade - Chairman
Secretary, Commerce—Member
Secretary, Ministry of Electronics and Information Technology—Member Joint Secretary (Public Procurement), Department of Expenditure—Member Joint Secretary (DPIIT)—Member-Convenor

The Secretary of the Department concerned with a particular item shall be a member in respect of issues relating to such item. The Chairman of the Committee may co-opt technical experts as relevant to any issue or class of issues under its consideration.

17. **Functions of the Standing Committee:** The Standting Committee shall meet as often as necessary, but not less than once in six months. The Committee

a. shall oversee the implementation of this order and issues arising therefrom, and make recommendations to Nodal Ministries and procuring entities.
b. shall annually assess and periodically monitor compliance with this Order
c. shall identify Nodal Ministries and the allocation of items among them for issue of notifications on minimum local content
d. may require furnishing of details or returns regarding compliance with this Order and related matters
e. may, during the annual review or otherwise, assess issues, if any, where it is felt that the manner of implementation of the order results in any restrictive practices, cartelization or increase in public expenditure and suggest remedial measures
f. may examine cases covered by paragraph 13 above relating to manufacture under license/ technology transfer agreements with a view to satisfying itself that adequate mechanisms exist for enforcement of such agreements and for attaining the underlying objective of progressive indigenization

g. may consider any other issue relating to this Order which may arise.

18. **Removal of difficulties**: Ministries /Departments and the Boards of Directors of Government companies may issue such clarifications and instructions as may be necessary for the removal of any difficulties arising in the implementation of this Order.

19. **Ministries having existing policies**: Where any Ministry or Department has its own policy for preference to local content approved by the Cabinet after 1st January 2015, such policies will prevail over the provisions of this Order. All other existing orders on preference to local content shall be reviewed by the Nodal Ministries and revised as needed to conform to this Order, within two months of the issue of this Order.

20. **Transitional provision**: This Order shall not apply to any tender or procurement for which notice inviting tender or other form of procurement solicitation has been issued before the issue of this Order.

19/3/24

(Himani Pande)
Additional Secretary to the Government of India
Tel: 011-23038888
E-mail: ashp.dpiit@gov.in

ANNEXURE-2

FORM – 2

SELF CERTIFICATION BY BIDDER UNDER PPP-MII ORDER, 2017

(FOR CLASS-I LOCAL SUPPLIER/ CLASS-II LOCAL SUPPLIER HAVING VALUE OF PROCUREMENT UPTO INR 10 CRORE)

TOWARDS MANDATORY MINIMUM LOCAL CONTENT

To

M/s _____ <Insert name of Client>

NAME OF WORK / ITEM:

TENDER /RFQ NO. :

Dear Sir,

We, M/s _____ *<Name of Bidder>* hereby confirm that we meet the mandatory minimum requirement of Local Content (LC) for **Class-I local supplier / Class-II local supplier** *(strike out which is not applicable)* under Public Procurement (Preference to Make in India), Order 2017 (PPP-MII, 2017) and the work / Item shall have **LC of** _____**%.**

The details of the location(s) at which the local value addition is/shall be made, is/ areas under:

……
……
……

We confirm compliance of Public Procurement (Preference to Make in India) (PPP-MII) Order 2017, vide Order No P-45021/2/2017-PP(BE-II)-Part-4)Vol.II and its subsequent Amendments.

We also confirm that, the imported items sourced locally from resellers/distributors are excluded from calculation of local content. The cost of such locally sourced imported items (inclusive of taxes) along with break up on license/royalties paid/technical expertise etc. sourced from outside India is enclosed as Form-2A.

We further confirm that in case we fail to meet the minimum local content/domestic value addition, the same shall be treated as false information and Owner reserves the right to take appropriate action for debarment, Penalty after award etc. as per provision of the PPP-MII Order, 2017 and its subsequent Amendments and as more specifically mentioned in the Bidding/ RFQ document.

We also confirm that we are not debarred by any other procuring entity (GOI/PSU/PSE etc.)
or

Our debarment period is completed as on _____ <insert date>, and as such we are eligible to avail purchase preference under this Order.
(## Strike out which is not applicable)

_____
Signature of Bidder

Place:

Name :

Date:

Designation

Seal :

FORM-2A

DETAILS OF IMPORTED COMPONENTS SOURCED FROM RESELLERS/DISTRIBUTORS EXCLUDED UNDER LOCAL CONTENT

RFQ/TENDER No:

ITEM/WORKS DESCRIPTION:

S. No	Cost component	Cost in INR (Refer Note-2)
a.	Locally-sourced imported items from resellers/distributors (inclusive of taxes)	i. ii. iii. iv.
b.	License/Royalties paid/ Technical Expertise cost etc. for the items sourced from outside India i. License ii. Royalties Paid iii. Technical Expertise Cost iv. other	i. ii. iii. iv.
DETAILS OF ITEMS SOLD BY BIDDER AS RESELLER		
c.	Details of Items	OEM Certificate for country of origin
	i. ii. iii. iv.	i. ii. iii. iv.

Note –

1. For contracts involving supply of multiple items, weighted average of all items to be taken while calculating the local content.
2. As regards cases where currency for above is other than Indian Rupee, exchange rate prevailing on the Bid Due Date shall be considered for the calculation of Local Content.
3. Bidder to enclose OEM Certificate for country of origin as specified in S. No (c) above.

Signature of Bidder

Place:

Name :

Date:

Designation

Seal :

ANNEXURE-3

FORM – 3

CERTIFICATE UNDER PPP-MII ORDER, 2017

BY STATUTORY AUDITOR OR COST AUDITOR, OR PRACTICING COST ACCOUNTANT OR CHARTERED ACCOUNTANT, TOWARDS MANDATORY MINIMUM LOCAL CONTENT (FOR CLASS-I LOCAL SUPPLIER/ CLASS-II LOCAL SUPPLIER HAVING VALUE OF PROCUREMENT MORE THAN INR 10 CRORE)

To

M/s _____ <Insert name of Client>

NAME OF WORK / ITEM:

TENDER /RFQ NO. :

Dear Sir,

We, _____, the Statutory Auditor or Cost Auditor of the Company (in case of Companies) or are a practicing Cost Accountant or practicing Chartered Accountant (in respect of supplier other than companies) of M/s. _____ *<Name of Bidder>*, hereby certify that as per definition specified in above policy, M/s. _____ *<Name of Bidder>* is a Class-I Local Supplier / Class-II Local Supplier <as applicable>

We further confirm that M/s _____ *<Name of Bidder>* meet the mandatory minimum Local content requirement specified for Class-I Local supplier/ Class-II Local supplier <as applicable> under Policy for Public Procurement (Preference to Make in India), Order 2017 (PPP-MII) for their offer for the abovementioned Work/ Item and shall have local content of _____% .

The details of the location(s) at which the local value addition is/shall be made, is/ areas under:

.....

.....

We confirm compliance of Public Procurement (Preference to Make in India) (PPP-MII) Order 2017, vide Order No P-45021/2/2017-PP(BE-II)-Part-4)Vol.II and its subsequent Amendments.

We also confirm that, the imported items sourced locally from resellers/distributors are excluded from calculation of local content. The cost of such locally sourced imported items (inclusive of taxes) along with break up on license/royalties paid/technical expertise etc. sourced from outside India is enclosed as Form-3A.

We further confirm that in case M/s _____ *<Name of Bidder>* fail to meet the minimum local content/domestic value addition, the same shall be treated as false information and Owner reserves the right to take appropriate action for debarment, Penalty after award etc. as per provision of the PPP-MII Order, 2017, and its subsequent Amendments and as more specifically mentioned in the Bidding/ RFQ document.

We also confirm that M/s _____ <Name of Bidder> is not debarred by any other procuring entity (GOI/PSU/PSE etc.).

OR

M/s _____<Name of Bidder>'s debarment period is completed as on _____<insert date>, and as such M/s _____ <Name of Bidder> is eligible to availe purchase preference under this Order.

(Strike out which is not applicable)

_____

Signature of certificate issuing authority

Place:

Name :

Date:

Name of Audit Firm:

Designation

Seal :

FORM-3A

DETAILS OF IMPORTED COMPONENTS SOURCED FROM RESELLERS/DISTRIBUTORS EXCLUDED UNDER LOCAL CONTENT

RFQ/TENDER No:

ITEM/WORKS DESCRIPTION:

S. No	Cost component	Cost in INR (Refer Note-2)
d.	Locally-sourced imported items from resellers/distributors (inclusive of taxes)	i. ii. iii. iv.
e.	License/Royalties paid/ Technical Expertise cost etc for the items sourced from outside India i. License ii. Royalties Paid iii. Technical Expertise Cost iv. other	i. ii. iii. iv.
DETAILS OF ITEMS SOLD BY BIDDER AS RESELLER		
f.	Details of Items	OEM Certificate for country of origin
	i. ii. iii. iv.	i. ii. iii. iv.

Note –

4. For contracts involving supply of multiple items, weighted average of all items to be taken while calculating the local content.
5. As regards cases where currency for above is other than Indian Rupee, exchange rate prevailing on the Bid Due Date shall be considered for the calculation of Local Content.
6. Bidder to enclose OEM Certificate for country of origin as specified in S. No (c) above.

Signature of Bidder

Place:

Name :

Date:

Designation

Seal :

ANNEXURE-4

FORM – 4

CERTIFICATE UNDER PPP-MII ORDER, 2017

BY PRACTICING COST ACCOUNTANT OR CHARTERED ACCOUNTANT, TOWARDS MANDATORY MINIMUM LOCAL CONTENT
[FOR CLASS-I LOCAL SUPPLIER/ CLASS-II LOCAL SUPPLIER HAVING VALUE OF PROCUREMENT MORE THAN INR 10 CRORE (TO BE SUBMITTED AT THE TIME OF EXECUTION OF PROJECT)]

To

M/s _____ <Insert name of Client>

NAME OF WORK / ITEM:

TENDER /RFQ NO. :

Dear Sir,

We, _____, the Statutory Auditor or Cost Auditor of the Company (in case of Companies) or are a practicing Cost Accountant or practicing Chartered Accountant (in respect of supplier other than companies) of M/s. _____ *<Name of Bidder>*, hereby certify that as per definition specified in above policy, M/s. _____ *<Name of Bidder>* is a Class-I Local Supplier / Class-II Local Supplier <as applicable>

We further confirm that M/s _____ *<Name of Bidder>* meet the mandatory minimum Local content requirement specified for Class-I Local supplier/ Class-II Local supplier <as applicable> under Policy for Public Procurement (Preference to Make in India), Order 2017 (PPP-MII) for their offer for the abovementioned Work/ Item and shall have local content of _____%.

The details of the location(s) at which the local value addition is/shall be made, is/ areas under:
……. …….
……. …….

We confirm compliance of Public Procurement (Preference to Make in India) (PPP-MII) Order 2017 vide Order No P-45021/2/2017-PP(BE-II)-Part-4)Vol.II and its subsequent Amendments.

We further confirm imported items sourced locally from resellers/distributors are excluded from the calculation of local content. The cost of such locally sourced imported items (inclusive of taxes) along with break up on license/royalties paid / technical expertise cost etc. sourced outside India is enclosed as Form-4A.

_____
Signature of certificate issuing authority

Place:

Name :

Date:

Name of Audit Firm:

Designation

Seal :

FORM-4A

DETAILS OF IMPORTED COMPONENTS SOURCED FROM RESELLERS/DISTRIBUTORS EXCLUDED UNDER LOCAL CONTENT

RFQ/TENDER No:

ITEM/WORKS DESCRIPTION:

S. No	Cost component	Cost in INR (Refer Note-2)
g.	Locally-sourced imported items from resellers/distributors (inclusive of taxes)	i. ii. iii. iv.
h.	License/Royalties paid/ Technical Expertise cost etc. for the items sourced from outside India i. License ii. Royalties Paid iii. Technical Expertise Cost iv. other	i. ii. iii. iv.
DETAILS OF ITEMS SOLD BY BIDDER AS RESELLER		
i.	Details of Items	OEM Certificate for country of origin
	i. ii. iii. iv.	i. ii. iii. iv.

Note –

7. For contracts involving supply of multiple items, weighted average of all items to be taken while calculating the local content.
8. As regards cases where currency for above is other than Indian Rupee, exchange rate prevailing on the Bid Due Date shall be considered for the calculation of Local Content.
9. Bidder to enclose OEM Certificate for country of origin as specified in S. No (c) above.

Signature of Bidder

Place:

Name :

Date:

Designation

Seal :

APPENDIX-V TO ITB

POLICY TO PROVIDE PURCHASE PREFERENCE UNDER PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA) (PPP-MII) ORDER, 2017

(EVALUATION AND AWARD PHILOSOPHY)

EVALUATION AND AWARD PHILOSOPHY

Ministry of Finance (MoF), Department of Public Enterprises, vide **DO ref. F.No. DPE/3(3)/10-Fin dated 29.05.2023** have forwarded the copy of Department of Expenditure (DoE) O.M. No. F.1/4/2021-PPD dated 18.05.2023, in which the guidelines on **"Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017"** are issued for information and strict compliance.

Guidelines for Purchase preference:

A. The Class-I local suppliers, under PPP-MII Order, participating in any government tender, may or may not be MSEs, as defined under the MSME Act. Similarly, MSEs participating in any Government Tender, may or may not be Class-I local suppliers. Suppliers may be categorised in following four broad categories for consideration or applicability of purchase preference:

Sl. No.	Category	Terminology
1.	Supplier is both MSE & Class-I local supplier.	"MSE Class-I local supplier"
2.	Supplier is MSE but not Class-I local supplier.	"MSE but non-Class-I local supplier"
3.	Supplier is not MSE but is Class-I local supplier.	"Non-MSE but Class-I local supplier"
4.	Supplier is neither MSE nor Class-I local.	"Non-MSE non-Class-I local supplier"

B. The applicability of PPP-MSE Order and PPP-MII Order in various scenarios, involving simultaneous purchase preference to MSEs and Class-I local suppliers under PPP-MSE Order and PPP-MII Order respectively, shall be as under:

Sl. No.	Description	Evaluation Methodology
1)	**Items covered under Para 3(a) of PPP-MII Order, 2017 for which Nodal Ministry has notified sufficient local capacity and competition:**	For these items, only Class-I local suppliers are eligible to bid irrespective of purchase value. Hence, **Class-II local suppliers or Non-local suppliers, including MSEs which are Class-II local suppliers/ Non-local suppliers, are not eligible to bid.**
	Possible scenarios under Sl. No. 1)above can be as under:	
(i)	**Case-I:** L-1 is "MSE Class-I local supplier"	100% of the tendered quantity is to be awarded to L-1.
(ii)	**Case-II:** L-1 is "Non-MSE but Class-I local supplier"	Purchase preference is given to MSEs as per PPP-MSE Order. Balance quantity is to be awarded to the L-1 Bidder
2)	**Items reserved exclusively for procurement from MSEs as per PPP-MSE Order:**	These items are reserved exclusively for purchase from MSEs. Hence, **non-MSEs are not eligible to bid for these items.**
	Possible scenarios under Sl. No. 2)above can be as under:	
(i)	**Case-I:** L-1 is "MSE Class-I local supplier"	100% of the tendered quantity is to be awarded to L-1.
(ii)	**Case-II:** L-1 is "MSE non-Class-I local supplier"	Purchase preference is to be given to MSE Class-I local supplier as per PPP-MII Order. Balance quantity, is to be awarded to L-1 Bidder

Sl. No.	Description	Evaluation Methodology
3)	**If items are neither notified for sufficient local capacity nor reserved for MSEs, then the process will be as follows:**	
a)	Items covered under Para 3A(b) of PPP-MII Order are **divisible items and both MSEs as well as Class-I local suppliers are eligible for purchase preference**.	
	Possible scenarios under Sl. No. 3)a) above can be as under:	
(i)	**Case-I:** L-1 is "MSE Class-I local supplier"	100% of the tendered quantity is to be awarded to L-1.
(ii)	**Case-II:** L-1 is "Non-MSE but Class-I local supplier"	Purchase preference is to be given to MSEs, if eligible, as per PPP-MSE Order. Balance quantity is to be awarded to L-1 Bidder.
(iii)	**Case-III:** L-1 is "MSE but non-Class-I local supplier"	Purchase preference is to be given to Class-I local suppliers, if eligible, as per PPP-MII Order. Balance quantity is to be awarded to L-1 Bidder.
(iv)	**Case-IV:** L-1 is "Non-MSE non-Class-I local supplier"	Purchase preference is to be given to MSEs as per PPP-MSE Order. Thereafter, purchase preference is to be given to Class-I local suppliers for "50% of the tendered quantity minus quantity allotted to MSEs above" as per PPP- MII Order. For the balance quantity, Contract is to be awarded to L-1 Bidder. (refer to the illustrative example mentioned below).
b)	Items covered under Para 3A(c) of PPP-MII Order, 2017 are **non-divisible items and both MSEs as well as Class-I local suppliers are eligible for purchase preference**.	
	Possible scenarios under Sl. No. 3)b) above can be as under:	
(i)	**Case-I:** L-1 is "MSE Class-I local supplier"	Contract is awarded to L-1.
(ii)	**Case-II:** L-1 is not "MSE Class-I local supplier" but the "MSE Class-I local supplier" falls within 15% margin of purchase preference	Purchase preference is to be given to lowest quoting "MSE Class-I local supplier". If lowest quoting "MSE Class-I local supplier" does not accept the L-1 rates, the next higher "MSE Class-I local supplier" falling within 15% margin of purchase preference is to be given purchase preference and so on.
(iii)	**Case-III:** If conditions mentioned in sub paras **3)b)(i) and 3)b)(ii)** above are not met i.e. L-1 is neither "MSE Class-I local supplier" nor is the "MSE Class-I local supplier" eligible to take benefit of purchase preference:	Contract is to be awarded/ purchase preference to be given in different possible scenarios as under: A. L1 is "MSE but non-Class-I local supplier" or "Non-MSE but Class-I local supplier" - Contract is be awarded to L1. B. L1 is "Non-MSE non-Class-I local supplier" - First purchase preference to be given to MSE as per PPP-MSE Order. If MSE not eligible/ does not accept - purchase preference is to be given to Class- I Local supplier as per PPP-MII Order. If Class-I Local supplier is also not eligible/ does not accept - contract to be awarded to L-1

Sl. No.	Description	Evaluation Methodology
4)	Items reserved for both MSEs and Class-I local suppliers:	These items are reserved exclusively for purchase from MSEs as well as Class-I local suppliers. **Hence, only "MSE Class-I local suppliers" are eligible to bid for these items**. Non-MSEs/Class-II local suppliers/ Non-local suppliers cannot bid for these items. Hence the question of purchase preference does not arise
5)	**Non-local suppliers, including MSEs falling in the category of Non-local suppliers, shall be eligible to bid only against Global Tender Enquiry**	

C. The 'Class-I local supplier'/ 'Class-II local supplier' shall be required to indicate percentage of local content & details of the location(s) of the local value addition, and also provide self-certification (as per FORM-2)/ certificate from the Statutory Auditor or Cost Auditor or Practicing Cost Accountant or Chartered Accountant (as per FORM-3), as applicable, depending on the value of procurement.

D. 'Purchase preference' means the opportunity given to 'MSE bidder' or 'Class-I local supplier' for matching the Price of L1 Bidder, despite its Price being not the lowest valid Price Bid (i.e. not L1) but because it is within the margin of purchase preference prescribed as follows:

a. As per PPP-MSE policy 2012 : 15% of L1 price

b. As per PPP-MII policy 2017 : 20% of L1 price

E. Eligibility of 'Class-I local supplier', 'Class-II local supplier' and 'Non-local suppliers ' to bid for different types of procurement:

1.1. For **Domestic procurement** of all goods, services or works, where there is sufficient local capacity and local competition: Only 'Class-I local supplier' shall be eligible to bid irrespective of purchase value.

1.2. For **other Domestic procurement** of all goods, services or works: Only 'Class-I local supplier' and 'Class-II local supplier'.

1.3. For **Global procurement** of all goods, services or works: 'Class-I local suppliers', 'Class-II local suppliers' and 'Non-local suppliers'.

Example explaining applicability in scenario explained in Para B Sl. No. 3(a) (iv)

(Scenario: Divisible items, both MSEs as well as Class-I local suppliers eligible for purchase preference and L-1 is “Non-MSE non-Class-I local supplier”)

Item – Desktop computer

Qty – 50 Nos.

Details of bids received

Sr. No.	Name of Bidder	Rates quoted	Price Ranking	Status of Bidder
1.	A	100	L1	“Non-MSE non-Class-I local supplier”
2.	B	110	L2	“Non-MSE but Class-I local supplier”
3.	C	112	L3	“MSE but non-Class-I local supplier”
4.	D	115	L4	“Non-MSE but Class-I local supplier”
5.	E	118	L5	“MSE but non-Class-I local supplier”
6.	F	120	L6	“MSE Class-I local supplier”

1. In this case, first purchase preference is to be given to MSEs as per PP-MSE Order for 25% of tendered quantity of 50 Nos. i.e. 12.5 Nos. (rounded off to the next whole number say 13 Nos.). Accordingly, invite L3 (bidder C), whose quoted rates falls within 15% margin of purchase preference to match L1 price i.e. Rs. 100/- for quantity of 13 Nos. Bidder “E” and “F”, although MSEs, will not get purchase preference since their quoted rates don’t fall within 15% margin of purchase preference. Bidder C will be considered for order of 13 Nos. on confirmation of reduction of price.

2. For 50% of balance quantity of 37 number (tendered quantity of 50 – 13 awarded to bidder C; assuming bidder C has confirmed to accept l1 rates), purchase preference will be given to lowest Class-I local supplier as per PPP-MII Order. Accordingly, bidder B will be invited to match L-1 price for 50% of 37 Nos. i.e. 18.5 (say 19 Nos. of computers). If bidder “B” does not accept the L1 price i.e. price of Rs. 100/- per unit, next higher Class-I local supplier falling within 20% margin of purchase preference, i.e. bidder “D”, may be invited to match L-1 price for 19 Nos. of computers and so on.

3. For remaining quantity i.e. 18 Nos. (50-13-19), the contract will be awarded to lowest quoting bidder i.e. Bidder “A”, who is L-1 in the example.

APPENDIX-X TO ITB

PROCUREMENT FROM BIDDERS FROM A COUNTRY OR COUNTRIES SHARING LAND BORDER WITH INDIA

1.0 Department of Expenditure (DoE) vide **O.M. No. 7/10/2021-PPD(1) dated 23.02.2023** has issued the revised guidelines for Restrictions on Procurement from Bidders from Country(ies) sharing Border with India. These guidelines are available on the website of DoE (https://doe.gov.in).

2.0 **Requirement of registration from Competent Authority:**

i). Any Bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the Bidder is registered with the Competent Authority, specified in **Annexure-I of DoE O.M. No. 7/10/2021-PPD(1) dated 23.02.2023.**.

ii). Any Bidder (including an Indian bidder) who has a Specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the Bidder is registered with the Competent Authority, specified in **Annexure-I of DoE O.M. No. 7/10/2021-PPD(1) dated 23.02.2023.**

3.0 **This Order shall not apply to the following special cases:**

i). In projects which receive international funding with the approval of the Department of Economic Affairs (DEA), Ministry of Finance, the procurement guidelines applicable to the project shall normally be followed, notwithstanding anything contained in this order and without reference to the Competent Authority. Exceptions to this shall be decided in consultation with DEA.

ii). This order shall not apply to procurement by Indian missions and by offices of Government agencies/ undertakings located outside India.

iii). This order will not apply to Bidders (or Entities) from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. Updated lists of countries to which lines of credit have been extended or in which development projects are undertaken are given on the website of the Ministry of External Affairs.

iv). Procurement of spare parts and other essential service support like Annual Maintenance Contract (AMC)/ Comprehensive Maintenance Contract (CMC), including consumables for closed systems, from Original Equipment Manufacturers (OEMs) or their authorized agents, shall be exempted from the requirement of registration.

4.0 **Definitions**:

i). **"Bidder"** (including the term 'Tenderer', 'Consultant' 'Vendor' or 'Service Provider' in certain contexts) means any person or firm or company, including any member of a Consortium or Joint Venture (that is an association of several Persons, or Firms or Companies), every artificial juridical person not falling in any of the descriptions of Bidders stated hereinbefore, including any Agency, Branch or Office controlled by such person, participating in a procurement process.

ii). **"Tender"** will include other forms of procurement, except where the context requires otherwise.

iii). **"Transfer of Technology"** means dissemination and transfer of all forms of commercially usable knowledge such as transfer of know-how, skills, technical expertise, designs, processes and procedures, trade secrets, which enables the acquirer of such technology to perform activities using the transferred technology independently. (Matters of interpretation of this term shall be

referred to the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade, and the interpretation of the Committee shall be final.)

iv). **"Specified Transfer of Technology"** means a transfer of technology in the sectors and/ or technologies, specified in **paragraph 5.0**, occurring on or after 23.07.2020.

v). **"Bidder (or entity) from a country which shares a land border with India"** means

(a) An entity incorporated, established or registered in such a country; or

(b) A subsidiary of an entity incorporated, established or registered in such a country; or

(c) An entity substantially controlled through entities incorporated, established or registered in such a country; or

(d) An entity whose beneficial owner is situated in such a country; or

(e) An Indian (or other) agent of such an entity; or

(f) A natural person who is a citizen of such a country; or

(g) A Consortium or Joint Venture where any member of the Consortium or Joint Venture falls under any of the above.

vi). **Beneficial Owner** for the purposes of **paragraph 4.0 v) (d)** will be as under:

a) **In case of a Company or Limited Liability Partnership**, the beneficial Owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.
Explanation: -

1. "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;

2. "Control" shall include the right to appoint the majority of the Directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

b) **In case of a Partnership Firm**, the beneficial Owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

c) **In case of an Unincorporated Association or body of Individuals**, the beneficial Owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

d) Where no natural person is identified under a) or b) or c) above, the beneficial Owner is the relevant natural person who holds the position of senior managing official;

e) **In case of a Trust**, the identification of beneficial Owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

vii). **"Agent'** is a person employed to do any act for another, or to represent another in dealings with third persons.

[Note:

i). A person who procures and supplies finished goods from an entity from a country which shares a land border with India will, regardless of the nature of his legal or commercial relationship with the producer of the goods, be deemed to be an Agent for the purpose of this Order.

ii). However, a Bidder who only procures raw material, components etc. from an entity from a country which shares a land border with India and then manufactures or converts them into other goods will not be treated as an Agent.]

5.0 **Sensitive Sectors/ Technologies (relevant only for the provisions on ToT arrangements):**

i). Certain sectors and technologies have been identified as sensitive from the national security point of view. **The sectors listed in Schedule I (copy attached) are considered Category-I sensitive sectors**. **The sectors listed in Schedule II (copy attached) are considered Category-II sensitive sectors**. The technologies listed in **Schedule Ill** (copy attached) are considered sensitive technologies.

ii). For **Category-I sensitive sectors**, Bidders with ToT arrangement in any technology with an entity from a country which shares a land border with India shall require registration.

iii). For **Category-II sensitive sectors**, Bidders with ToT arrangement in the sensitive technologies listed in **Schedule Ill**, with an entity from a country which shares a land border with India shall require registration.

iv). In **Category-II sensitive sectors**, the Secretary (or an officer not below the rank of Joint Secretary to Government of India, so authorized by the Secretary) of the Ministry/ Department of the Government of India is empowered, after due consideration, to waive the requirement of registration for a particular item/ application or a class of items/ applications from the requirement of registration, even if included in Schedule-Ill. The Ministry/ Department concerned shall intimate the Department for Promotion of Industry and Internal Trade (DPllT) and National Security Council Secretariat (NSCS) of their decision to waive the requirement of registration.

Ministries/ Departments of the Government of India are not required to consult the DPllT/ NSCS before deciding and are only required to intimate the decision to DPllT/ NSCS. If any point is raised by DPllT/ NSCS, it should be considered in future procurements; ongoing procurement for which the waiver was granted need not be interrupted or altered.

Based on security considerations, a Ministry/ Department in a **Category-II sensitive sector** or other Ministries/ Departments may recommend to DPllT inclusion of any other technology in the list of sensitive technologies, either generally or for their Ministry/ Department.

6.0 **Sub-contracting in works contracts**

In works contracts, including turnkey contracts, Contractors shall not be allowed to sub-contract works to any Contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of **"Contractor from a country which shares a land border with India"** shall be as given in above **paragraph 4.0 v)**.

[Note: Procurement of raw material, components, etc. does not constitute sub- contracting.]

7.0 **Certificate regarding compliance**

Bidder shall submit a certificate of Compliance in the enclosed **Form-I A/ Form-I B/ Form - II** (as applicable).

This certificate shall be on the Bidder's Letter head and shall be duly signed & stamped by the authorised signatory of the Bidder.

In case at any stage, it is found that the certification given by the Bidder is false, their Bid shall be rejected and shall be liable for other penal actions like placement on Suspension/ Banning or forfeiture of EMD (if applicable). However, if this is found after order placement, this would be ground for immediate termination and further legal actions in accordance with law/provisions of Bidding Document including Suspension/Banning and forfeiture of CPBG/ Security Deposit.

Form- I A

BIDDER'S UNDERTAKING

(On Company's Letter Head)

To,

M/s Engineers India Limited/ _____ (Name of the client)

Tender Name : _____

Tender No. : _____

"I have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India; I hereby certify that, Bidder M/s_____ (Name of the Bidder) is:

i).	Not from such a country	[ ]
ii).	If from such a country, has been registered with the Competent Authority	[ ]

Notes:

a) Bidder to tick appropriate option ($\surd$) in either i) or ii) above)

b) In case of sl. no. ii) above, Bidder to attach evidence of valid registration by the Competent Authority.

I hereby certify that the Bidder fulfills all requirements in this regard and eligible to be considered.

Place :
Date :

Signature (#):
Name :
Designation :
Seal :

(#) Undertaking shall be signed by the authorized signatory of the Bidder.

Form- I B

BIDDER'S UNDERTAKING IN CASE OF SUB-CONTRACTING IN WORK CONTRACTS

(On Company's Letter Head)

To,

M/s Engineers India Limited/ _____ (Name of the client)

Tender Name : _____

Tender No. : _____

"I have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India and on sub-Contracting to Contractors from such countries; I hereby certify that, Bidder M/s_____ (Name of the Bidder) is:

i).	Not from such a country and will not sub-Contract work to a Contractor from such countries unless such Contractor is registered with the Competent authority	[ ]
ii).	If from such a country, has been registered with the Competent Authority and will not sub-Contract work to a Contractor from such countries unless such Contractor is registered with the Competent authority	[ ]
Notes: a) Bidder to tick appropriate option ($\surd$) in either i) or ii) above) b) In case of sl. no. ii) above, Bidder to attach evidence of valid registration by the Competent Authority.		

I hereby certify that the Bidder fulfills all requirements in this regard and eligible to be considered.

Place :
Date :

Signature (#):
Name :
Designation :
Seal :

(#) Undertaking shall be signed by the authorized signatory of the Bidder.

FORM-II

BIDDER'S UNDERTAKING IN CASE OF TRANSFER OF TECHNOLOGY (ToT) ARRANGEMENT

(On Company's Letter Head)

To,

M/s Engineers India Limited/ _____ (Name of the client)

Tender Name : _____

Tender No. : _____

"I have read the clause regarding restrictions on procurement from a Bidder having Transfer of Technology (ToT) arrangement. Bidder M/s_____ (Name of the Bidder), hereby certify that,

i).	Bidder does not have any ToT arrangement requiring registration with the competent authority	[ ]
ii).	Bidder has valid registration to participate in this procurement	[ ]

Notes:

a) Bidder to tick appropriate option ($\surd$) in either i) or ii) above)

b) In case of sl. no. ii) above, Bidder to attach evidence of valid registration by the Competent Authority.

I hereby certify that the Bidder fulfills all requirements in this regard and eligible to be considered.

Place :
Date :

Signature (#):
Name :
Designation :
Seal :

(#) Undertaking shall be signed by the authorized signatory of the Bidder

No.F.7/10/2021-PPD (1)
Government of India
Ministry of Finance
Department of Expenditure
Procurement Policy Division
264-C, North Block, New Delhi.
23.02.2023.

Order (Public Procurement No. 4)

Subject: Restrictions under Rule 144(xi) of the General Financial Rules (GFRs), 2017.

Attention is invited to Order (Public Procurement No. 1) issued vide F.6/18/2019-PPD dated 23.07.2020, Order (Public Procurement No. 2) issued vide F.6/18/2019-PPD dated 23.07.2020, Order (Public Procurement No. 3) issued vide F.6/18/2019-PPD dated 24.07.2020, Office Memorandum (OM) No. F.18/37/2020-PPD dated 08.02.2021, OM No. F.12/1/2021-PPD(Pt.) dated 02.03.2021 and OM No. F.7/10/2021-PPD dated 08.06.2021. In this regard, the following is hereby ordered under Rule 144(xi) (as amended vide OM No. F.7/10/2021-PPD dated 23.02.2023) on the grounds stated therein, in supersession to all of the above mentioned Orders/ clarifications:

Requirement of registration:

2. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in **Annexure I**.

3. Any bidder (including an Indian bidder) who has a Specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in **Annexure I**.

4. The requirement of registration for cases covered by paragraph 2 above has been applicable since 23.07.2020. The requirement of registration for bidders covered by paragraph 3 above will be applicable for all procurements where tenders are issued/ published after 01.04.2023.

5. In tenders issued after 23.07.2020 or 01.04.2023, as the case may be, the provisions of requirement of registration of bidders and of other relevant provisions of this Order shall be incorporated in the tender conditions.

Applicability:

6. Apart from Ministries/ Departments, attached and subordinate bodies, notwithstanding anything contained in Rule 1 of the GFRs 2017, the Order shall also be applicable

a) to all Autonomous Bodies;

b) to all public sector banks and public sector financial institutions;

c) to all Central Public Sector Enterprises;

d) to all procurement in Public Private Partnership projects receiving financial support from the Government or public sector enterprises/ undertakings; and

e) Union Territories, National Capital Territory of Delhi and all agencies/ undertakings thereof.

7. This order will not be applicable for cases falling under **Annexure II**.

Definitions:

8. "*Bidder*" for the purpose of the Order (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.

9. "*Tender*" for the purpose of the Order will include other forms of procurement, except where the context requires otherwise.

10. *"Transfer of Technology"* means dissemination and transfer of all forms of commercially usable knowledge such as transfer of know-how, skills, technical expertise, designs, processes and procedures, trade secrets, which enables the acquirer of such technology to perform activities using the transferred technology independently. (Matters of interpretation of this term shall be referred to the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade, and the interpretation of the Committee shall be final.)

11. *"Specified Transfer of Technology"* means a transfer of technology in the sectors and/ or technologies, specified in paragraph 15, occurring on or after 23.07.2020.

12. *"Bidder (or entity) from a country which shares a land border with India"* for the purpose of the Order means

(a) An entity incorporated, established or registered in such a country; or

(b) A subsidiary of an entity incorporated, established or registered in such a country; or

(c) An entity substantially controlled through entities incorporated, established or registered in such a country; or

(d) An entity whose beneficial owner is situated in such a country; or

(e) An Indian (or other) agent of such an entity; or

(f) A natural person who is a citizen of such a country; or

(g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

13. *Beneficial owner* for the purposes of Para 12 (d) will be as under:

(i) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.

Explanation:-

a. "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;

b. "Control" shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

(ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

(iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

(iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

(v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

14. "*Agent*" for the purpose of the Order is a person employed to do any act for another, or to represent another in dealings with third persons.

[Note:

i. A person who procures and supplies finished goods from an entity from a country which shares a land border with India will, regardless of the nature of his legal or commercial relationship with the producer of the goods, be deemed to be an Agent for the purpose of this Order.

ii. However, a bidder who only procures raw material, components etc. from an entity from a country which shares a land border with India and then manufactures or converts them into other goods will not be treated as an Agent.]

Sensitive Sectors/ Technologies (relevant only for the provisions on ToT arrangements):

15. (i) Certain sectors and technologies have been identified as sensitive from the national security point of view. The sectors listed in Schedule I to this Order are considered Category-I sensitive sectors. The sectors listed in Schedule II to this Order are considered Category-II sensitive sectors. The technologies listed in Schedule III are considered sensitive technologies.

(ii) For Category-I sensitive sectors, bidders with ToT arrangement in any technology with an entity from a country which shares a land border with India shall require registration.

(iii) For Category-II sensitive sectors, bidders with ToT arrangement in the sensitive technologies listed in Schedule III, with an entity from a country which shares a land border with India shall require registration.

(iv) In Category-II sensitive sectors, the Secretary (or an officer not below the rank of Joint Secretary to Government of India, so authorized by the Secretary) of the Ministry/ Department of the Government of India is empowered, after due consideration, to waive the requirement of registration for a particular item/ application or a class of items/ applications from the requirement of registration, even if included in Schedule III. The Ministry/ Department concerned shall intimate the Department for Promotion of Industry and Internal Trade (DPIIT) and National Security Council Secretariat (NSCS) of their decision to waive the requirement of registration. Ministries/ Departments of the Government of India are not required to consult the DPIIT/ NSCS before deciding and are only required to intimate the decision to DPIIT/ NSCS. If any point is raised by DPIIT/ NSCS, it should be considered in future procurements; ongoing procurement for which the waiver was granted need not be interrupted or altered.

16. Based on security considerations, a Ministry/ Department in a Category II sensitive sector or other Ministries/ Departments may recommend to DPIIT inclusion of any other technology in the list of sensitive technologies, either generally or for their Ministry/ Department.

Sub-contracting in works contracts

17. In works contracts, including turnkey contracts, contractors shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in paragraph 12 above. This shall not apply to sub-contracts already awarded on or before 23.07.2020.

[Note: Procurement of raw material, components, etc. does not constitute sub-contracting.]

Certificate regarding compliance

18. An undertaking shall be taken from bidders in the tender documents **(Annexure III)** that the extant guidelines for participation in the tenders (which should include conditions for implementation of this Order) have been complied with. If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for debarment and further legal action in accordance with law.

Validity of registration

19. In respect of tenders, registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.

Government e-Marketplace (GeM)

20. GeM shall remove non-compliant entities from GeM unless/ until they are registered in accordance with this Order.

Model Clauses/ Certificates

21. Model Clauses and Model Certificates which may be inserted in tenders/ obtained from Bidders are given at Annexure-III. While adhering to the substance of the Order, procuring entities are free to appropriately modify the wording of these clauses based on their past experience, local needs etc.

23/02/2023

(Kanwalpreet)
Director(PPD)
Tel.No. 2309 3811; email: kanwal.irss@gov.in

To

1. Secretaries of all Ministries/ Departments of Government of India for information and necessary action. They are also requested to inform these provisions to all procuring entities.
2. Secretary, Department of Public Enterprises with a request to immediately reiterate these orders in respect to public enterprises.
3. Secretary, Department of Financial Services with a request to immediately reiterate these orders in respect to public sector and public sector financial institutions.
4. Secretary DPIIT with a request to take action as provided under Annexure I.
5. Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi.
6. CEO/ GeM with a request to ensure implementation of this order on GeM.

Schedule I

List of Category-I Sensitive sectors:

Sr.No.	Sector
(i)	Atomic Energy
(ii)	Broadcasting/ Print and Digital Media
(iii)	Defence
(iv)	Space
(v)	Telecommunications

Schedule II

List of Category-II Sensitive sectors:

Sr.No.	Sector
(i)	Power and Energy (including exploration/ generation/ transmission/ distribution/ pipeline)
(ii)	Banking and Finance including Insurance
(iii)	Civil Aviation
(iv)	Construction of ports and dams & river valley projects
(v)	Electronics and Microelectronics
(vi)	Meteorology and Ocean Observation
(vii)	Mining and extraction (including deep sea projects)
(viii)	Railways
(ix)	Pharmaceuticals & Medical Devices
(x)	Agriculture
(xi)	Health
(xii)	Urban Transportation

Schedule-III

List of Sensitive Technologies:

Sr.No.	Sensitive Technologies
(i)	Additive Manufacturing (e.g. 3D Printing)
(ii)	Any equipment having electronic programmable components or autonomous systems (e.g. SCADA systems)
(iii)	Any technology used for uploading and streaming of data including broadcasting, satellite communication etc.
(iv)	Chemical Technologies
(v)	Biotechnologies including Genetic Engineering and Biological Technologies
(vi)	Information and Communication Technologies
(vii)	Software

ANNEXURE I

Competent Authority and Procedure for Registration

A. The Competent Authority for the purpose of registration under this order shall be/ continue to be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)*. [This Committee was already constituted under Order (Public Procurement) No.1].

B. The Registration Committee shall have the following members*:

   i. An officer, not below the rank of Joint Secretary, designated for this purpose by DPIIT, who shall be the Chairman;

   ii. Officers (ordinarily not below the rank of Joint Secretary) representing the Ministry of Home Affairs, Ministry of External Affairs, and of those Departments whose sectors are covered by applications under consideration;

   iii. Any other officer whose presence is deemed necessary by the Chairman of the Committee.

   iv. With effect from 01.04.2023, an officer (ordinarily not below the rank of Joint Secretary) representing the National Security Council Secretariat.

C. DPIIT shall lay down the method of application, format etc. for such bidders as covered by the Order.

D. On receipt of an application seeking registration from a bidder covered by Para 2 and 3 of this order, the Competent Authority shall first seek political and security clearances from the Ministry of External Affairs and Ministry of Home Affairs, as per guidelines issued from time to time. Registration shall not be given unless political and security clearance have both been received.

E. The Ministry of External Affairs and Ministry of Home Affairs may issue guidelines for internal use regarding the procedure for scrutiny of such applications by them.

F. The decision of the Competent Authority, to register such bidder may be for all kinds of tenders or for a specified type(s) of goods or services, and may be for a specified or unspecified duration of time, as deemed fit. The decision of the Competent Authority shall be final.

G. Registration granted by the Competent Authority of the Government of India shall be valid not only for procurement by the Central Government and its bodies specified in para 6 of this order, but also for procurement by State Governments and their agencies/ public enterprises etc. No fresh registration at the State level shall be required.

H. The Competent Authority is empowered to cancel the registration already granted if it determines that there is sufficient cause. Such cancellation by itself, however, will

not affect the execution of contracts already awarded. Pending cancellation, it may also suspend the registration of a bidder, and the bidder shall not be eligible to bid in any further tenders during the period of suspension.

l. For national security reasons, the Competent Authority shall not be required to give reasons for rejection/cancellation of registration of a bidder.

[*Note:

(i) In respect of application of the Order to procurement by/ under State Governments, all functions assigned to DPIIT shall be carried out by the State Government concerned through a specific department or authority designated by it. The composition of the Registration Committee shall be as decided by the State Government. However, the requirement of political and security clearance as per para D shall remain and no registration shall be granted without such clearance.

(ii) Registration granted by State Governments shall be valid only for procurement by the State Government and its agencies/ public enterprises etc. and shall not be valid for procurement in other states or by the Government of India and their agencies/ public enterprises etc.]

ANNEXURE II

Special Cases

A. In projects which receive international funding with the approval of the Department of Economic Affairs (DEA), Ministry of Finance, the procurement guidelines applicable to the project shall normally be followed, notwithstanding anything contained in this order and without reference to the Competent Authority. Exceptions to this shall be decided in consultation with DEA.

B. This order shall not apply to procurement by Indian missions and by offices of government agencies/ undertakings located outside India.

C. This order will not apply to bidders (or entities) from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. Updated lists of countries to which lines of credit have been extended or in which development projects are undertaken are given on the website of the Ministry of External Affairs.

D. Procurement of spare parts and other essential service support like Annual Maintenance Contract (AMC)/ Comprehensive Maintenance Contract (CMC), including consumables for closed systems, from Original Equipment Manufacturers (OEMs) or their authorized agents, shall be exempted from the requirement of registration.

ANNEXURE III

Model Clause/ Certificate/ Undertaking to be inserted in tenders etc.

[While adhering to the substance of the Order, procuring entities and GeM are free to appropriately modify the wording of the clause/ certificate based on their past experience, local needs etc.

The conditions relating to specified ToT (as shown in italics) should be incorporated only in the tenders which attract the restrictions due to specified ToT.]

A. Model Clauses for Tenders (including tenders issued manually or any electronic portal including GeM):

I. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority. *Further, any bidder (including bidder from India) having specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India, shall also require to be registered with the same competent authority.*

II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. "Bidder (or entity) from a country which shares a land border with India" for the purpose of this Order means: -

(a) An entity incorporated, established or registered in such a country; or
(b) A subsidiary of an entity incorporated, established or registered in such a country; or
(c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
(d) An entity whose beneficial owner is situated in such a country; or
(e) An Indian (or other) agent of such an entity; or
(f) A natural person who is a citizen of such a country; or
(g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

IV. The beneficial owner for the purpose of (iii) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation—

a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;

b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

VI. [To be inserted in tenders for Works contracts, including Turnkey contracts] The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

VII. The registration shall be valid at the time of submission of bid and at the time of acceptance of bid.

VIII. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution

Model Certificate for Tenders:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Model Certificate for Tenders for Works involving possibility of sub-contracting:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any

work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Model additional certificate by Bidders in the cases of specified ToT:

"I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder does not have any ToT arrangement requiring registration with the competent authority."

OR

"I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder has valid registration to participate in this procurement."

B. Model Certificate for GeM (to be taken by the GeM from seller during registration on GeM. GeM should also obtain this certificate from all existing bidders as soon as possible):

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this vendor/ bidder is not from such a country and does not have any specified Transfer of Technology (ToT) from such a country or, if from such a country or if having specified ToT from such a country has been registered with the Competent Authority. I hereby certify that this vendor/ bidder fulfills all requirements in this regard and is eligible to be considered for procurement on GeM. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

***

BIDDING FORMS

TABLE OF CONTENTS

FORM NO.	DESCRIPTION
A	SALIENT FEATURE OF OFFER
B	BANK MANDATE FORM
C	FORMAT FOR BIDDER'S QUERIES
D	INTEGRITY PACT
E	FORM OF BANK GUARANTEE FOR EAREST MONEY DEPOSIT
F	FORM OF ADVANCE BANK GUARANTEE

(FORM-A)

SALIENT FEATURE OF OFFER
(FOR INDEGENOUS SUPPLIERS)

Notes:

a) Use capital letters and English language only.

b) Bidder to submit it duly signed and stamped on each page, as a token of their acceptance and confirmation(s) in respect of RFQ.

c) Bidder to note that fill in the blanks- data / details is to be entered by the bidder and correct option ticked in respect of Sl. Nos. 1,2,3,4,5,6,13,18,19 & 20 (the same are also highlighted in shaded grey in the table below).

d) Bidders are required to carefully fill their responses to below points along with submission of relevant documentary evidence as per the provisions of RFQ.

e) In case the responses are incomplete/ inconsistent and / or not substantiated by relevant document(s) the bidders are at risk of evaluation of their bid being concluded without affording them another opportunity to complete / correct / comply their submission with respect to RFQ requirements. In such a case EIL/ Owner reserves the right to complete the evaluation based on the available information and EIL/ Owners decision shall be final and binding.

SL. NO.	DESCRIPTION	BIDDER'S CONFIRMATION (Strike out response which is not applicable)
1.	a) Bidder/Supplier Name	
	b) Status of Bidder's Firm: Proprietorship/ Partnership/ Limited Liability Partnership / Public Ltd./ Pvt Ltd./ Govt Deptt./ PSU/ Others (Specify)	
	c) Supplier's Offer Ref No. & Date	
2.	Name and contact details of Bidder's/ Supplier's authorized signatory (holding Power of Attorney): a) Name: b) Tel. No.: c) Mob. No.: d) E-mail:	
3.	a) Specify Despatch Point b) GSTIN no. c) Specify Despatch Point d) GSTIN no. of Invoicing Place	a) …….. b) …… c) …… d) …… In case different despatch points are applicable, specify use same as under:- ….....
4.	Rate of GST Note: Bidder are hereby instructed that relevant details/ documents pertaining to GST registration shall be updated / uploaded in the designated field on GeM portal, failing which, evaluation shall be carried out as	GST Rate on quoted prices (in %) _____ [If a single rate of GST is applicable] If different rates of GST are applicable, specify the GST rates in the table below:

<table>
<tr><th>SL. NO.</th><th>DESCRIPTION</th><th>BIDDER'S CONFIRMATION
(Strike out response which is not applicable)</th></tr>
<tr><td></td><td>per functionality / methodology of GeM Portal and same shall be final and binding on the Bidder.</td><td>
<table>
<tr><th>Description</th><th>GST rate in % (on quoted prices)</th></tr>
<tr><td>Supply</td><td></td></tr>
<tr><td>Freight</td><td></td></tr>
<tr><td>Site Work (if applicable)</td><td></td></tr>
<tr><td>Supervision (if applicable)</td><td></td></tr>
<tr><td>Training (if applicable)</td><td></td></tr>
<tr><td>PWAMC (if applicable)</td><td></td></tr>
<tr><td>Any other</td><td></td></tr>
</table>
</td></tr>
<tr><td>5.</td><td>~~Freight charges included in quoted supply price (as percentage of supply price)~~</td><td>~~_____%~~
~~[In case single percentage is applicable]~~

~~Note: In case different percentages are applicable. Bidder to indicate freight charges included in quoted supply price as percentage of supply price in a separate annexure in the following Proforma:~~
<table>
<tr><th>~~MR Item No.~~</th><th>~~Freight percentage Included in quoted supply price~~</th></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>6.</td><td>Please specify whether, your offer is based on certain imported materials as built in import content required for equipment / materials offered.

In case, built in import content is applicable, bidder confirms compliance to relevant provisions of import duties for built-in import content as per provision of Annexure-XI to SPC.</td><td>Applicable/Not Applicable

Note: In case response is not marked, "Not Applicable" shall be considered as Bidder's response

Confirmed</td></tr>
<tr><td>7.</td><td>Bidder confirms that Inspection charges by TPIA is excluded from their quoted supply prices.</td><td>Confirmed</td></tr>
<tr><td>8.</td><td>Confirm that quoted prices are strictly as per 'Preamble to Submission of Prices on GeM Portal' and instructions in the RFQ Document and following has been quoted in the Finance Folder of Gem Portal as per applicability in Bidding Document;</td><td>Confirmed</td></tr>
</table>

SL. NO.	DESCRIPTION	BIDDER'S CONFIRMATION (Strike out response which is not applicable)
	a) 2 years O&M Spares b) Lubricants, sealing fluids and consumables c) Unit Rates for Addition/ Deletion d) Unit rates for specific test e) Overtime Rates for Supervision	
9.	Confirm that quoted prices will remain firm and fixed (except where price escalation/variation is specifically allowed in the Bidding Document) till complete execution of the order.	Confirmed
10.	~~Confirm that quoted supply prices are on FOT Site Basis including Packing & Forwarding, Freight upto Project Site and all taxes & duties including GST.~~	~~Confirmed~~
11.	Confirm that the offer is valid for the period specified in RFQ/BDS, from the final 'Bid Due Date'.	Confirmed
12.	Confirm submission of bid security declaration OR EMD/Bid Security (As applicable) as per provision of Bidding Document.	Confirmed
13.	MSE Status: a) Confirm whether the Bidder is a MSE Bidder	Yes / No If yes, mention 19-digit UDYAM No. UDYAM- _-_ _-_____
	b) If the owner of Bidder's organization belongs to MSE social category: SC/ST as per Udyam registration, submit SC/ST Certificate issued by District Authority, duly certified by Statutory Auditor or Notarized or any other specified document.	Enclosed(If Applicable)
	c) If the owner of Bidder's organization belongs to the MSE Gender category- Women category, submit requisite documents as required in the Appendix-III to ITB.	Enclosed (If Applicable)
	Notes: As per GeM policy / guidelines, MSE bidders have to update their MSE status and declare whether they are participating as MSE on GeM portal, while bidding on GeM portal. If bidder has ticked the relevant field in GeM portal for availing the MSE preference, then applicability of MSE purchase preference shall be subject to submission of relevant supporting documents by bidder in their bid. If bidder has not ticked the relevant field in GeM portal for availing the MSE purchase preference, then in such a case, MSE purchase preference shall not be admissible to the bidder, even though the bidder may be MSE and has submitted requisite MSE certificates.	
14.	Public Procurement (Preference to Make in India) (PPP-MII) Order 2017 and its amendments thereof: Bidder has submitted FORM-2, 2A OR FORM-3, 3A, as applicable, (appended below as **Appendix-IV** to ITB) duly filled & certified.	Submitted
15.	Compliance to DMI&SP Policy: Bidder to confirm compliance to Domestically Manufactured Iron & Steel Policy (If applicable as per RFQ). Format for Affidavit is appended as **Form-I of Appendix-VI** to this ATC. This Affidavit shall be submitted on non-judicial stamp paper of INR. 100/- and duly notarized.	Confirmed Note: It shall be automatically construed that the signatory is the authorized representative of the bidder duly empowered to sign the affidavit.

SL. NO.	DESCRIPTION	BIDDER'S CONFIRMATION (Strike out response which is not applicable)
16.	~~Deleted~~	~~Confirmed~~
17.	Bidder's Undertaking Regarding Procurement from a Country Sharing Land Border with India: Format for Undertakings is appended as **Form-IA/IB/II of Appendix-X** to ITB duly completed is submitted on company letterhead.	Submitted
SELF DECLARATIONS		
18.	a) Confirm that Bidder is not on Holiday/Blacklist/Negative/Suspension/ Banning list of EIL/MIL as on date of submission of our bid.	Confirm / Not Confirm Note: In case response is not marked, "Confirm" shall be considered as Bidder's response Bidder to give correct information, otherwise the bid shall fall under 'misrepresentation of facts' provision of the Bidding Document.
	b) Confirm that Bidder is not banned or delisted or black listed by any government department/ Government or Quasi Government agencies/ public sector as on date of submission of our bid.	Confirm / Not Confirm Note: In case response is not marked, "Confirm" shall be considered as Bidder's response. Bidder to give correct information, otherwise the bid shall fall under 'misrepresentation of facts' provision of the Bidding Document.
	c) Confirm that Bidder is not under liquidation, court receivership or similar proceedings.	Confirm / Not Confirm Note: In case response is not marked, "Confirm" shall be considered as Bidder's response Bidder to give correct information, otherwise the bid shall fall under 'misrepresentation of facts' provision of the Bidding Document.
19.	a) Is Bidder involved in any Litigation / Arbitration?	a) Yes / No *Note: In case response is not marked, "No" shall be considered as Bidder's response*
	b) In case response to a) above is 'Yes', Bidder hereby confirm that the current Litigation / Arbitration, in which they are involved will not have any impact in work being tendered or in entering into contract during the validity of offer and performing the contract till all the contractual obligations under contract are performed.	b) Yes / No *Note: In case response is not marked, "Yes" shall be considered as Bidder's response* Bidder to give correct information, otherwise the bid shall fall under 'misrepresentation of facts' provision of the Bidding Document.
20.	Bidder confirms that: a) None of Directors (in Board of Director) of Bidder is a relative of any Director (in Board of Director) of MIL/ EIL OR b) The bidder is not a firm in which any Director (in Board of Director) of MIL/EIL or their relative is a partner.	a) Confirmed /Not Confirmed b) Confirmed / Not Confirmed If response is marked as "Not Confirmed", then provide relevant details…… *Note: In case response is not marked, "Confirmed" shall be considered as Bidder's response.*
21.	Bidder confirms that there is no conflict of interest with other bidders, as per provisions of RFQ Document.	Confirmed

SL. NO.	DESCRIPTION	BIDDER'S CONFIRMATION (Strike out response which is not applicable)
22.	Bidder confirms that the content of the Enquiry Document including Corrigendum / Addendum (if any) have not been altered or modified.	Confirmed
23.	Integrity Pact (if applicable as per BDS): Bidder confirms that they comply with the provisions of Integrity Pact (IP) and have submitted IP duly signed and stamped. Bidder has ensured that: a) They have submitted the IP duly signed by authorised Power of Attorney (POA) holder of the Bidder. b) IP is signed on all the pages. c) IP is signed by two witnesses. d) In case of 'Proprietorship firm', IP is signed by the Proprietor. e) In case of Partnership firm, IP is signed by all the partners of the firm. f) The correct name and number of RFQ is mentioned in the IP.	Confirmed
24.	**Undertaking w.r.t. Integrity Pact** We hereby declare that "No incidence of previous Transgression, conforming to the provisions under Section-5 of the IP format enclosed with the Bidding Document, has come to light/occurred or pending adjudication in the last three years with any other Company, including Public Sector Enterprises, in/outside India that could Justify our exclusion from the tender process. We further confirm that the above declaration/confirmation are true and correct in all respects, and not in conflict with the declaration mentioned in any part of our bid / financial statements /any other document. We also declare that in case, at a later date, if the declaration submitted in our bid are found to be false, I shall be held responsible for the same and EIL/Owner has every right to take action against me and my company, as deemed fit as per law of the land and provisions of RFQ and EIL/Owner's right to put our Company on Suspension/Banning list for future business with EIL/Owner."	Confirmed
25.	**Bank Mandate** We hereby undertake to submit the Bank mandate Form (as per Form-D of Bidding) along with bid and also with first invoice/ bill submission, duly filled and certified by bank along with cancelled cheque. In case the same is not submitted along with first invoice, the subsequent date of submission of mandate form shall be considered as the date of invoice submission.	Confirmed

SL. NO.	DESCRIPTION	BIDDER'S CONFIRMATION (Strike out response which is not applicable)
26.	**Compliance to Bid Documents** We hereby agree to fully comply with, abide by and accept without variation, deviation or reservation all technical, commercial and other conditions of the Bidding Document and its Technical & Commercial Amendments, issued by EIL. We confirm that during detailed engineering, we will review and recommend the required Special tools & tackles and Commissioning spares, wherever specified in the enquiry document and supply the same without any additional cost and time implication to Purchaser. We further hereby waive, withdraw and abandon any and all assumptions, deviations, variations, objections or reservations whatsoever hereto set out, given or indicated in our offer, clarifications, correspondence, communications, or otherwise with a view that the price bid and price implication (if any) submitted may be treated to conform to, in all respects, with the terms and conditions of the said Bidding Document including all Technical and Commercial Amendments. We hereby confirm to submit Integrity Pact in line with the requirement of the bidding document.	Confirmed
27.	Bidder understand that being a "Zero Deviation" bidding &in the case of submission of deviations, the evaluation of bid shall be done as per provisions of RFQ and the bid is liable for rejection.	Confirmed
28.	All commercial terms / compliance / salient details are given /confirmed in this ATC and not elsewhere in the Offer. Bidder to note that the terms and conditions mentioned elsewhere in their offer or Printed terms and conditions of the bidder, if any, appearing in quotation/offeror Bidder's own terms and conditions, shall not be given any cognizance.	Confirmed

(FORM-B)

BANK MANDATE FORM (For Indian supplier)
(As per ITB)

1	Bidder Name	:	
2	Bidder Code	:	
3	Address of the Bidder	:	
4	Particulars of Bank Account of Bidder	:	
a	Name of the Bank	:	
b	Name of the Branch and Address of the Branch	:	
c	Branch Code	:	
d	9-Digit MICR code Number of the Bank & Branch (As appearing in the MICR cheque issued by the bank) : (Please do not give multicity cheque book code Number)	:	
e	Type of account (Saving Bank, Current or Cash Credit)	:	
f	Account Number	:	
g	RGTS/IFSC Code (11 digit)	:	
h	NEFT Code No	:	
5	E-mail address of the Bidder	:	
6	Contact Person(s) of the Bidder :	:	

I/we declare that the particulars given above are correct and complete and I/we accord our consent for receiving all our payments through Electronic Mechanism.

Signature and Designation of the Authorised persons(s) of Bidder

Office Seal of the Bidder

Place :
Date :

BANK CERTIFICATION

Certified that the particulars furnished above are correct as per our records.

Place :
Date :

Signature of the Authorised Official of the Bank

Bank Stamp

BIDDER TO ENSURE SUBMISSION OF CANCELLED CHEQUE WITH THIS MANDATE FORM

(FORM-C)

RFQ/DOCUMENT NO.: _____

NAME OF THE BIDDER: _____

FORMAT FOR BIDDERS' QUERIES (PRE-BID)
(AS PER ITB)

Sl. No.	REFERENCEOF ENQUIRYDOCUMENT				BIDDER'SQUERY	EILREPLY
	PART / VOL.	PAGE.NO.	CLAUSE NO.	SUBJECT		

NOTE:
The Pre-Bid Queries will be sent through e-procurement portal and editable copy shared through e-mail to concerned persons, the details of which is provided in RFQ document.

SIGNATUREOFBIDDER : _____

NAMEOFBIDDER : _____

FORM- D

INTEGRITY PACT

INTEGRITY PACT

Engineers India Limited (EIL) hereinafter referred to as "The Principal"

And

_____ hereinafter referred to as "The Bidder/Contractor"

Preamble

The Principal intends to award under laid down organizational procedures, contract against enquiry no.....for .....The principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relations with its Bidder (s) and /or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principle mentioned above.

Section-1-Commitments of the Principal

1. The principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

   a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

   b) The Principal will, during the tender proves treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidders(s) could obtain an advantage in relation to the tender process or the contract execution.

   c) The Principal will exclude from the process all known prejudiced persons.

2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

इंजीनियर्स इंडिया लिमिटेड ★ ENGINEERS INDIA LIMITED ★ कार्यालय परिसर गुरुग्राम

Section-2-Commitments of the Bidder(s)/contractor(s)

1. The Bidder(s)/Contractor(s) commit themselves to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

    a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any kind whatsoever during the tender process or during the execution of the contract.

    b) The Bidder(s)/ Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

    c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant Anti-Corruption Law of India; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

    d) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2. The Bidder(s)/Contractor(s) will not instigate third persons to commit offence outline above or be an accessory to such offences.

3. Bidder shall not approach the courts while representing matter to IEM and he/ she will await their decision in the matter.

4. The word"he/his" would include an individual or a partnership or a consortium, which is a party to this agreement.

Section 3- Disqualification from tender process and exclusion from future contracts.

If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section-2 above or in any other form such as to put his reliability or creditability in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process and take appropriate action.

इंजीनियर्स इंडिया लिमिटेड
कार्यालय परिसर
गुरुग्राम
ENGINEERS INDIA LIMITED

Section 4- Compensation for Damages

1. If the Principal has disqualified the Bidder(s)/Contractor(s) from the tender process prior to the award according to section 3, the principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.

2. If the Principal has terminated the contract according to section 3, or if the Principal is entitled to terminate the contract according to section-3, the Principal shall be entitled to demand and recover from the Bidder/Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5-Previous transgression

1) The Bidder/Contractor declares that no previous transgression occurred in the last 3 years with any other Company In India and outside conforming to the TII's anti-corruption approach including Public Sector Enterprise In India that could justify his exclusion from the tender process.

2) If the Bidder/Contractor makes incorrect statement on this subject, he can be disqualified from the tender process and appropriate action can be taken..

Section 6- Equal treatment of all Bidder/contractors

1. The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.

2. The Principal will disqualify from the tender process all bidders/Contractors who do not sign this Pact or violate its provisions.

3. If the bidders/ contractors, before award or during execution is found to have violated any provision of Integrity Pact, the Principal is entitled to invoke their Banning Policy and take necessary action.

Section-7- Criminal charges against violating Bidder(s)/Contractor(s)/Subcontractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor, Subcontractor or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer of EIL.

Section 8- Independent external monitor/monitors

1. The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

2. The monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. It will be obligatory for him to treat the information and documents of the Bidders/Contractors as confidential. He reports to the CMD, EIL.

3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors also. The Monitor is under contractual obligation to treat



the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) as confidential.

4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the project provided such meetings could have an impact on the contractual relations between the Principal and the Bidder/Contractor. The parties offer to the Monitor the option to participate in such meetings.

5. As soon as the monitor notices, or believes to notices, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

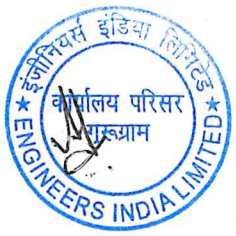
6. The Monitor will submit a written report to the CMD, EIL within 8 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

7. If the Monitor has reported to the CMD, EIL, a substantiated suspicion of an offence under relevant IPC/PC Act, and the CMD, EIL has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

8. The word 'Monitor' would include both singular and plural.

Section 9- Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by CMD, EIL.



Section 10- Other provisions

1. The agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the principal, i.e., New Delhi.

2. Charges and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

3. If the Bidder/contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

5. In the event of any contradiction between the Integrity Pact and its Annexures, the Clause in the Integrity Pact will prevail.

(For & On behalf of the Principal)
(Office Seal)

(For & On behalf of Bidder/Contractor)
(Office Seal)

Place.....

Date.....

Witness 2;

(Name & Address)_____

_____

_____

Witness 2:

(Name & Address)_____

_____

_____

ANNEXURE-I

UNDERTAKING W.R.T. SECTION – V OF INTEGRITY PACT

I, Mr/Ms _____, authorised person on behalf of M/s _____, signatory of Integrity Pact, hereby declares that No incidence of previous Transgression, conforming to the provisions under Section-2 of the IP format enclosed with the Bidding Document, has come to light/occurred or pending adjudication in the last three years with any other Company, including Public Sector Enterprises, in/outside India that could Justify our exclusion from the tender process.

We further confirm that the above declaration/confirmation are true and correct in all respects, and not in conflict with the declaration mentioned in any part of our bid / financial statements /any other document.

I, Mr..... also declare that in case, at a later date, if the declaration submitted in our bid are found to be false, I shall be held responsible for the same and EIL/Owner has every right to take action against me and my company, as deemed fit as per law of the land and provisions of Bidding Document and EIL/Owner's right to put our Company on Suspension/Banning list for future business with EIL/Owner.

Sign & Seal of the Authorised Signatory of Bidder
Name & Designation:
Date:



FORMAT FOR ADVANCE BANK GUARANTEE

PROFORMA OF BANK GUARANTEE
ADVANCE (INDIGENOUS)
(On non-judicial stamp paper of appropriate value)

To
Engineers India Limited
1 Bhikaiji Cama Place
New Delhi – 110 066
Attn.: Head (LSTK-Finance)
Project _____
RFQ No. _____
Dear Sirs,

Engineers India Limited, 1, Bhikaiji Cama Place, New Delhi-110066 (hereinafter called – "the Purchaser" which expression shall include its successors and assigns) has awarded M/s _____ (hereinafter called "The Supplier" which expression shall include its successors and assigns) the work of designing, manufacturing, fabricating and supply of _____ in terms of a contract as constituted by Purchase Order No. _____ dated _____ issued by the Purchaser to the Supplier (hereinafter called "The Contract" which expression include all the amendments and/or modifications of the Purchase Oder).

AND WHEREAS the Purchaser has agreed to advance the Supplier a sum of Rs._____ (Rupees _____) hereinafter called "The Advance" as financial assistance to the Supplier under the Contract on the condition, inter alia, that the advance shall be secured by a Bank Guarantee as hereinafter appearing:

We _____ Bank _____ a Bank incorporated/ constituted under the laws of _____ and having it registered/principal office at _____ (hereinafter called "The Bank" which expression shall include our successors and assigns) in consideration of the aforesaid promises and at the request of the Supplier DO HEREBY bind ourselves and our successors and assigns, and irrevocable undertake to pay the Purchaser on first demand in writing without protest or demur or proof or condition and without reference to the Supplier any and all amounts at any time and from time to time claimed by you, as due to you under or in respect of the said advance, and demanded by you from us, with reference to this undertaking for an aggregate limit of Rs. _____ (Rupees _____).

AND, we, the Bank DO HEREBY further agree as follows:

(i) The Purchaser shall have the fullest liberty without reference to the Bank and without affecting in any way the liability of the Bank under this Guarantee/Undertaking, at any time and/or from time to time to anywise vary the Contract and/or any of terms and conditions thereof or of or relative to the advance and to extend time for the performance of the Contract and/or repayment of the advance or to postpone for any time or from time to time the obligations of the Supplier and to waive or postpone exercise of any of the rights available to the Purchaser against the Supplier or to forebear from enforcing any of the terms or

conditions of the Contract and/or the advance or any security(ies) available to the Purchaser, AND the liability of the Bank shall remain in full force and effect notwithstanding any exercise by the Purchaser of the liberty with reference to any or all the matters aforesaid or by reason of time being given to the Supplier or any forbearance, waiver, act or omission on the part of the Purchaser or any indulgence by the Purchaser to the Supplier or any other act, matter or thing whatsoever which under the law relating to sureties would have the effect of releasing the Bank from its liability hereunder or any part thereof, AND the BANK DOTH HEREBY waive all rights at any time inconsistent with the terms of this Guarantee/Undertaking.

(ii) It shall not be necessary for the Purchaser to proceed against the Supplier before proceeding against the Bank and this guarantee/undertaking shall be enforceable against the Bank as principal debtor notwithstanding the existence of any other security for any indebtedness of the Supplier to the Purchaser (including relative to the advance) and notwithstanding that any such security shall at the time when claim is made against the Bank or proceedings taken against the Bank be outstanding or unrealized.

(iii) As between the Bank and the Purchaser for the purpose of this guarantee/undertaking the amount claimed by the Purchaser from the Bank with reference to this guarantee/ undertaking shall be final and binding upon the bank as to the amount payable by the Bank to the Purchaser hereunder.

(iv) The liability of the Bank to the Purchaser under this guarantee/undertaking shall remain in full force and effect notwithstanding the existence of any difference or dispute between the Supplier and the Purchaser, the Supplier and the Bank and/or the Bank and the Purchaser, or otherwise howsoever touching or affecting these presents or the liability of the Supplier to the Purchaser, and notwithstanding the existence of any instructions or purported instructions of the Supplier or any other person(s) to the Bank not to pay or for any cause withhold or defer payment to the Purchaser under these presents with the intent that notwithstanding the existence of such difference, dispute or instruction, the Bank shall be and remain liable to make payment to the Purchaser.

(v) This guarantee/undertaking shall not be affected by any change in the constitution of the Bank or that of the Supplier or the Purchaser, or any irregularity in the exercise of borrowing powers by or on behalf of the Supplier.

(vi) This guarantee/undertaking shall be valid for all claims/demands made by the Purchaser to or upon us upto _____ provided always that if for any reasons, the Supplier is unable to complete supplies under the Contract, the Bank shall at the request of the Purchaser and without recourse to the Supplier extend the validity of this guarantee/undertaking for a further period of six months. For the purpose of this clause, the Purchaser's statement that the Supplier is unable to complete supplies under the contract shall be conclusive and final binding on us.

(vii) Notwithstanding anything contained herein:

(a) The Bank's liability under this Guarantee/Undertaking shall not exceed Rs. _____ (Rupees _____only).
(b) This Guarantee/Undertaking shall remain in force upto _____ and any extension(s) thereof; and

(c) The Bank shall be released and discharged from all liability under this Guarantee/ Undertaking unless a written claim or demand is issued to the Bank on or before _____ plus 3 months claim period, or the date of expiry of any extension(s) thereof if this guarantee/undertaking has been extended.

(viii) The Bank DOTH HEREBY declare that Mr. _____ (name of the person signing on behalf of the Bank) who is _____ (his designation), is authorized to sign this guarantee/undertaking on behalf of the Bank and to bind the Bank thereby.

Dated this _____ day of _____

Yours faithfully,

For _____

Signature _____

Name & Designation _____

Name of the Branch _____

NOTE

1. This Guarantee is required to be stamped as an agreement according to the Stamp Duty Act.

2. The Performance Bank Guarantee shall be strictly as per above proforma and shall be through Indian or Foreign Branches of Indian Scheduled Banks (other than Cooperative Bank)/Nationalized Bank or Indian Branches of Foreign Banks.

3. The bank shall provide details viz contact person, telephone number, fax number, e-mail address and address of the Controlling/Regional Office of issuing bank for verification of authenticity of Bank Guarantee.

4. This Guarantee is required to be sent by Seller's Bankers directly to the Head (LSTK-Finance), Engineers India Limited, EI Bhawan, 3rd Floor, 1, Bhikaiji Cama Place, New Delhi-110066.

APPENDIX-B

(In Bank's Letter Head)

Fixed Deposit Confirmation Letter by Bank

Date: _ _/_ _/_ _ _ _

To,

Engineers India Limited,
……
……
……..

Dear Sir/ Madam

Sub: Issuance of Cumulative FDR..... amounting to ₹.....valid till.....***{up to Contract period plus defect liability period plus 2 months}*** duly pledged / lien in favour of Engineers India Limited (EIL).

It is hereby certified that Cumulative Fixed Deposit Receipt (FDR) bearing number.....dated..... amounting to ₹..... (Amount in figure and words) has been issued by ..... (Name of the Bank) branch address..... The maturity value is ₹..... on dated.....

This FDR has been issued on the request of M/s ..... (Name of the Supplier/ Contractor) under the P.O. No/ Work order No.. ..... ……..This FDR can be encashed/ redeemed without any consent/ letter from the Supplier/ Contractor M/s.....(Name of the Supplier/ Contractor) on the demand by Engineers India Limited and the payment will be made to the Account (payable at New Delhi) of Engineers India Limited excluding the interest earned thereon. The Bidder cannot encash/ premature above FDR unless above original FDR is accompanied by the discharge letter/NOC/approval of EIL.

This FDR shall be governed by, and construed in accordance with, the laws of India. ……(Name of the Bank) branch address.....irrevocably agrees that any legal action, suit or proceeding arising out of or relating to this FDRs may be brought in the courts in Delhi.

If the FDR is not withdrawn, till date of maturity, it may be renewed or treated as instructed by the Supplier/ Contractor & EIL for renewal.

This FDR has been issued by authorized signatory of the Bank.

For or on behalf of ..... [Name of the Bank & Branch details (Including IFS Code)]

Signature……..

Name:……
Designation:……
Contact no. ……
Email Id. ……
Stamp of Bank……

Note:

(i) This letter in Original forms an integrated part of FDR
(ii) The FDR shall be in the name of the Applicant (Name of Bidder) A/c Engineers India Limited with a lien marked in favor of the beneficiary (i.e. EIL).
(iii) The communication can be send to the following:
Details for confirmations (including Address, Email Id, IFS Code and contact no.)….

ENGINEERS INDIALIMITED

SPECIAL PURCHASE CONDITIONS FOR TRINITROTOLUENE (TNT) PLANT AT HIGH EXPLOSIVES FACTORY (HEF) KHADKI OF MUNITIONS INDIA LIMITED (MIL) AT KHADKI, PUNE, MAHARASHTRA

इंजीनियर्स इंडिया लिमिटेड (भारत सरकार का उपक्रम) ENGINEERS INDIA LIMITED (A Govt. of India Undertaking)
Regd. Office : Engineers India Bhawan, 1, Bhikaiji Cama Place, New Delhi - 110066

GLOSSARY

AMC	Annual Maintenance Contract
AOW	Award of Work
BDS	Bid Data Sheet
CPBG	Contract Performance Bank Guarantee
OWNER/ CLIENT	MUNITIONS INDIA LIMITED (MIL)
CONTRACTOR	Engineers India Ltd. (EIL)
Bidder/ Vendor	Whom RFQ/ Tender has been issued/ who have submitted offer against RFQ
SUPPLIER	Successful BIDDER on whom order has been placed
CDD	Contractual Delivery Date
DOP	Sub Delegation of Power
FOA / LOA	Fax of Acceptance / Letter of Acceptance
FOB	Free on Board
GST	Goods & Service Tax
IRS	Indian Register of Shipping
L/C	Letter of Credit
MR	Material Requisition
OBE	Open Book Estimate
PAC	Project Authority Certificate
PBG	Performance Bank Guarantee
PO	Purchase Order
PR	Purchase Requisition
PRS	Price Reduction Schedule for delayed Delivery
RCM	Resident Construction Manager
RFQ	Request for Quotations
SOR/SOP	Schedule of Rates / Price Schedule
TPI	Third Party Inspection

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ANNEXURE-XIII : VULNERABILITY ATLAS OF INDIA (VAI)

1.0 INTRODUCTION

a) These Special Purchase conditions (SPC) shall be read in conjunction with the General Purchase Conditions (GPC), Material Requisition and any other document forming part of this RFQ wherever the context so requires.

b) Where any portion of the GPC is repugnant to or at variance with any provisions of the SPC & Bid Data Sheet then unless a different intention appears, the provision(s) of the SPC & Bid Data Sheet shall be deemed to override the provision(s) of GPC only to the extent that such repugnancy of variations in the SPC & Bid Data Sheet are not possible of being reconciled with the provisions of GPC.

c) All headings, subtitles and marginal notes to the clauses of the GPC, SPC or to the Specifications or to any other part of Bidding Document are solely for the purpose of giving a concise indication and not a summary of the contents thereof, and they shall never be deemed to be part thereof or be used in the interpretation or construction thereof.

d) The terms fully capitalized and/or initial capitalized shall be interchangeable and shall have the meaning as assigned to fully capitalized term or initial capitalised term.

2.0 PAYMENT TERMS

a) Payment Terms for the scope of supply/ services shall be as per Bid Data Sheet (BDS) & Notes provided in Annexure-I to SPC.

b) **"Uploading of and Tracking of invoice in EIL invoice portal:**

Suppliers and Service Providers shall upload the scan copy of invoices and other documents as required in the Purchase Order/ Work Order on the EIL Invoice Portal to enable EIL to speed up and cut down on the processing and payment cycle. Post uploading, all correspondence between EIL and Suppliers/Service Providers will be through the portal. Suppliers/ Service providers can track the status of the uploaded invoices through the portal.

A user guide on the operation of the portal is available on log in. URL of the portal is <http://www.eil.co.in/invoiceportal. Registered Supplier/> Contractor can Login with existing Supplier/ Contractor code using the radio button. Non-Registered Supplier/Contractor can Login with PAN No. and generate the password using the radio button."

3.0 TRANSPORTATION

a) INDIGENOUS SUPPLIERS

3.1.1 Indigenous SUPPLIERs are required to dispatch the goods on door delivery basis through any registered Transporter.

3.1.2 The consignment should be handed over to transporter with E-way bill, wherever required as per law/act.

3.1.3 It shall be responsibility of the seller to send intimation immediately on dispatch of the material so that necessary arrangements can be made at site. Delays on account of the same shall solely be attributable to the Supplier

b) FOREIGN SUPPLIERS

3.2.1 Orders in case of foreign suppliers shall be on CFR seaport of entry (Nhava Sheva, Mumbai) / CPT airport of entry (Pune) in India basis, wherein the Ocean / Air transportation from FOB seaport of exit / FCA airport of Exit to the designated Indian seaport / airport shall be arranged by the suppliers. All shipments of break bulk material and containerized cargo shall be made by suitable vessels certified for sea worthiness and complying to National/ International safety regulations and age of the vessel being less than 25 years. Bidder to coordinate with EIL nominated Customs House Agent for smooth discharge /delivery of the cargo at the Port of arrival.

3.2.2 Bidder shall quote for supply prices on FOB seaport / FCA airport of exit basis and Ocean / Air Freight transportation charges separately as per the Price Schedule format. The quoted ocean freight charges for Break Bulk cargo delivery shall be on FLT (Full Liner Terms), i.e., all charges at

destination port shall be borne by the suppliers till the cargo is unloaded on to the wharf / vehicle as the case may be. No Trans-shipment is permitted for Break Bulk Cargo.

3.2.3 Bidder shall inform 07 days prior to the expected date of arrival of vessel in port of entry in India. Detention & Demurrages, if any, due to early arrival of vessel and / or discrepancies in shipping documents, shall be to supplier's account.

3.2.4 Wherever, the foreign bidder does not accept the ocean transportation in his scope, offer of such bidder shall be rejected. However, in exceptional cases like single bid cases, EIL reserves the right to finalize the order on FOB basis, subject to arrangement of ocean transportation from FOB port of exit to port of entry in India by EIL, on case to case basis.

3.2.5 The delivery basis of the goods is mentioned in BDS/RFQ. Delivery terms shall be interpreted as per INCOTERMS 2010 or its latest version in case of order on a foreign Bidder and as the date of LR/GR in the case of order on an Indian Bidder.

4.0 CURRENCY OF QUOTE AND PAYMENT

a) **Domestic Bidding:**

In case of Domestic Bidding the Currency of Quote shall be in INR and payment shall be done in INR only.

b) **ICB/Global Bidding:**

Indian Bidders are required to quote all Indian sourced materials/services in Indian Rupees and the foreign sourced material/services in any one of the Foreign Currency out of EURO/USD or in combination of Indian Rupees and any one of the Foreign Currency out of EURO/USD or only in Indian Rupees. Payment towards such imported materials/services shall be remitted in INR at the exchange rate charged by bank.

Foreign Bidders may quote prices for supply of materials/services from India in Indian Rupees only and Foreign supply of material/services in any one of the Foreign Currency out of EURO/USD or in combination of Indian Rupees and any one of the Foreign Currency out of EURO/USD or only in Indian Rupees. Foreign bidders will be paid in the quoted currency.

5.0 SINGLE POINT RESPONSIBILITY OF THE SUPPLIER

In case of MRs containing supplies as well site work/ services, a single order, covering the supply part as well site work/ services, shall be placed. Split ordering will not be permitted.

In case, a foreign SUPPLIER requests for a separate order on his Indian sub-SUPPLIER, the same shall not be accepted. However, a separate working order may be issued referring to the main PO for tax compliance purpose. However, payment to Indian sub-SUPPLIER shall be released directly in Indian Rupees against invoices duly certified by the Foreign SUPPLIER.

For this purpose, the Indian sub-SUPPLIER's name, material/ services and corresponding price in Indian Rupees, shall be clearly spelt out in the purchase order placed on foreign SUPPLIER. In case a Foreign bidder sources components / sub-supplies and services from India, if allowed as per Material Requisition, the Commercial terms & conditions shall be applicable to the extent as per Annexure-1 enclosed.

6.0 GUARANTEE/ WARRANTYPERIOD

a) The Clause no. 22.0 (Guarantee) of GPC(Indigenous)/ 20.0 (Guarantee) of GPC(Imports) has been modified to the following extent:

Guarantee/Warranty period shall be 15 months after the equipment/material have been put in service (commissioning) or 30 months from the date of shipment whichever is earlier.

b) In case Material Requisition (MR) indicates the requirement of additional / extended Guarantee period for a specified period over and above the Guarantee period as defined in Clause No. 6.1 above, then the prices for the same shall be quoted by the bidders, in case requested in the price schedule format.

In such case, order for such additional Guarantee period/ Defect Liability Period shall be placed along with the main order with condition that separate intimation for operation of additional

Guarantee period/ Defect Liability Period shall be issued by EIL, within the expiry of the original guarantee period, if so required.

c) The prices for this additional Guarantee period shall be considered for price evaluation.

d) Bidder's quoted prices for the additional Guarantee Period shall be valid up to the expiry of the warranty/ defect liability period.

7.0 CONTRACT CUM PERFORMANCE BANK GUARANTEE (CPBG)

a) The provisions of Clause No. 21.0 of GPC (Indigenous) / Clause No. 21.0 of GPC (Imports) shall be applicable and are modified to the following extent:

b) CPBG shall be submitted by the bidder for the amount (as percentage of order value) defined in Bid Data Sheet (BDS) within 30 days from the placement of GeM "Contract"/LOA/PO (whichever is applicable and earlier).

c) Total Order Value shall mean supply price (FOT dispatch point price for Indian Suppliers and FOB/ FCA price for foreign suppliers) plus site work (wherever applicable) but excluding taxes, duties, transportation, training, AMC and supervision services.

d) The Supplier shall submit the CPBG within the period stipulated. Owner/EIC may extend such period with applicability of recovery of accrued interest for the delayed period. In case, Supplier does not submit CPBG as above, the proportionate amount of CPBG along with interest (for rate of Interest, refer BDS) accrued for the period shall be deducted from the invoices raised by Supplier for the respective milestone payments on pro rata basis, till full recovery.

8.0 TAXES/DUTIES

a) Taxes and Duties shall be as per Annexure-XI to this SPC (Special Conditions of Purchase). Clause No. A of Annexure-XI to SPC stands modified to the following extent:

8.1.1 The quoted price shall be deemed to be inclusive of GST (i.e. IGST or CGST and SGST/UTGST applicable in case of interstate supply or intra state supply respectively and GST compensation cess, if applicable) and all other taxes and duties.

8.1.2 Transportation charges up to respective project site, if sought separately, shall be inclusive of GST.

8.1.3 Site work prices, if applicable shall be inclusive of GST and all other taxes and duties. All necessary registrations, if required, for carrying out the site activities shall be done by the bidder and costs towards the same shall be included in quoted site work prices.

8.1.4 Prices of supervision (per diem) charges, hazop study, 3D modelling, training/AMC, if applicable shall be inclusive of GST. However, GST shall not be applicable on training provided at foreign bidder's work/training facilities in their country.

8.1.5 Taxes and Duties related clauses in GPC (Indigenous) stands modified to this extent as per Clause No. 8.0 of SPC above.

b) Further, merit rate of custom duties shall be considered for built-in import content.

c) All other provisions related to taxes & duties shall be as per Annexure-XI to SPC

d) The phrase "Form-C to qualify to concessional rate of tax" indicated in clause no. 13.1 & clause no. 14.2 of General Purchase Conditions (indigenous) are not applicable. Bidder to follow provisions of taxes and duties as per Annexure-XI to SPC in this regard.

9.0 FIRM PRICES

a) The prices shall be firm and fixed and not subject to any variation whatsoever, except Statutory variation in taxes & duties and new taxes as per Annexure-XI to SPC. In case of cables, variation in prices shall be admissible as per IEEMA Price Variation Clause

b) For 2 years O&M spares, prices shall be kept valid for a period of 2 years from the date of order of main equipment.

c) The statutory variation in Basic Custom Duty (BCD) & Social Welfare Surcharge (SWS) shall be upto 2/3rd of Contractual delivery/ completion period.

10.0 PRICE REDUCTION SCHEDULE (PRS)

Provisions of Delayed Delivery as per Clause No. 10.0 of GPC-Indigenous stands modified to the following extent:

a) **FOR BULK ITEMS:** As per GPC-Indigenous Clause No. 10.1 a) .

b) **FOR ITEMS OTHER THAN BULK ITEMS (WITH OR WITHOUT SITE WORK):** As per GPC-Indigenous Clause No. 10.1 b).

Also refer Bid Data Sheet (BDS) for applicability of provisions of 10.1 or 10.2 of SPC.

c) Wherever the supply period and site work are indicated as two separate periods and notice of site readiness is required for site work, intervening period, if any, shall be excluded, while calculating the price reduction for delay. However, in cases where site work is also involved and overall supply plus site work period is indicated, the PRS shall be applicable on total value of supply plus site work whether supply is delayed or site work is delayed.

d) Price reduction shall be effected in the Invoice value before presenting for payment. The Purchaser reserves the right to cancel the Purchase Order for any delay exceeding the period of maximum reduction and the Seller shall be liable for all consequences thereof.

e) For the purpose of application of Price Reduction Schedule (refer para. 10.1 & 10.2 above), a delay for a period less than one week shall be considered as delay for the full week.

f) Further, total order value shall mean supply price (FOT dispatch point price for Indian Suppliers) plus site work (wherever applicable), including any amendments/ change order, excluding GST, transportation, training, AMC and supervision services.

11.0 INSPECTION

Inspection shall be carried out by EIL appointed TPI Agency listed below as per the requirement of the MR and charges of the same shall be borne by EIL/Owner. Bidder shall not include the charges of TPI in their quoted price.

i) TÜV SÜD South Asia, Mumbai
ii) DNV GL. AS, Mumbai
iii) Certification Engineers International Ltd., Mumbai
iv) VCS Quality Services Pvt Ltd, Mumbai
v) Bureau Veritas (India) Pvt Ltd, Mumbai
vi) IRCLASS Systems & Solutions Pvt Ltd, Mumbai
vii) ABS Industrial Verification (India) Pvt Ltd, Mumbai
viii) International Certification Services Pvt Ltd, Mumbai
ix) SGS India Pvt Ltd, Gurgaon
x) TUV India Pvt.Ltd., Pune

12.0 COMPREHENSIVE MARINE-CUM-ERECTION INSURANCE

List of Policies to be taken by EIL:

a) Contractor's All Risk Insurance
b) Cargo Transit Insurance.
c) Third Party Liability Insurance.

Insurance Policy attached as **Annexure-XII** to SCC

Therefore, Vendor/ Manufacturer shall not carry any insurance which would duplicate any insurances provided by EIL/MIL and the such insurance policies shall not be included in the quoted prices.

13.0 BASIS OF EVALUATION

a) **WHERE ONLY INDIAN BIDS ARE UNDER COMPARISON:**

SR. No.	TERMS AS PER RFQ	LOADING FACTOR
1.	FOT Site price (FOT Dispatch Point Price, Cost of mandatory spares identified in the Material Requisition, commissioning Spares and special tools & tackles, Road Freight including GST on Supply & Freight but excluding costs of Spares for two years operation & maintenance)	As quoted by the bidder
2.	Price for Site Work/ Supervision/ Training/ 3-D Modelling/ Hazop Study/ AMC (if applicable)	
	a) Site work (as per MR) including GST and all other taxes and duties	As quoted by the bidder
	b) Supervision of Erection, Testing, Commissioning, as applicable (**for no. of days to be considered for evaluation as per Enquiry Document**) (including GST and all other taxes and duties)	As quoted by the bidder
	c) Training (as per MR) **(for no. of days to be considered/ Lump sum for evaluation as per Enquiry Document)** (including GST and all other taxes and duties)	As quoted by the bidder
	d) 3-D Modelling/ Hazop Study/ AMC including GST and all taxes & duties.	As quoted by the bidder
3.	**Total Site Work/Supervision/Training/3-D Modeling/ Hazop Study/ AMC Price including GST**	**SUM OF SR. NOS. 2 a) +2 b)+ 2 c)+ 2 d)**
4.	**Total Landed cost at site**	**SUM OF SR. NOS. (1+3)**
5.	Less Input Tax Credit: 100% of GST (as quoted for Supply including Cost of mandatory spares, Freight, Site work, supervision, Training, 3-D Modelling, Hazop Study, AMC Price- as applicable)	As applicable
6.	**Total Evaluated Price considering Input Tax Credit**	**SR. NO. 4 MINUS (-) SR. NO. 5**

Important instruction on Input Tax Credit (ITC):

Bidder are hereby instructed that relevant details/ documents pertaining to GST registration shall be updated / uploaded in the designated field on GeM portal, failing which, evaluation shall be carried out as per functionality / methodology of GeM Portal and same shall be final and binding on the Bidder.

14.0 LOADING/REJECTION CRITERIA

a) No loading criteria will be applicable for deviation to commercial terms & conditions of RFQ.

b) Bids are invited on Zero Deviation bidding basis. Deviation to terms & conditions of RFQ shall lead to rejection of offer.

15.0 INVOICING INSTRUCTIONS

a) Invoicing instructions shall be as per **Annexure-XI** to **SPC**.

16.0 PART ORDER

a) Bidder hereby agrees to accept part order at Purchasers option without any limitation whatsoever.

b) **For GeM Bidding:** Bidders shall not impose any part order condition/minimum order conditions as GeM portal will not take the same into consideration while evaluating priced bids. In case, bidder stipulates any part order condition/minimum order conditions in their bid, their offer shall not be considered for further evaluation, in case bidder refuses to withdraw such stipulations.

c) Bidder hereby agrees that items may be split (wherever applicable) to meet the Public Procurement

Policy, 2012 for MSEs (Micro & Small Enterprise) or Public Procurement (Preference to Make in India) (PPP-MII), issued by Govt. of India.

17.0 REPEAT ORDER

a) The purchase reserves the right to place Repeat Order (RO) for additional 50% value of the original order with quantities of each ordered item not exceeding 100% of the ordered quantities within final delivery date (or extended delivery date for reasons not attributable to supplier) or 1 year from the date of placement of order whichever is higher.

b) Further, repeat order beyond 50% can be placed under the following conditions:

- In case of POs with 1 line item with quantity 1 no., RO value can be 100% value of PO.
- In multiple items PO cases, RO value beyond 50% shall be allowed due to rounding off RO quantities of one line item to the next whole number.

  (Illustration: - a PO with 1 item and 7 nos. quantity, RO can be placed for 4 nos. with RO value allowed more than 50% or PO with multiple line items, RO can be placed for each line item upto 100% quantities subject to 50% total value of PO and any additional value due to rounding off of quantity of one item to next whole number.

c) Non-Acceptance of Repeat Order conditions by bidder shall not be the reason for rejection of bid.

18.0 ARBITRATION

a) Clause No. 31.0 (Arbitration) of GPC (Indigenous) stands replaced with **Annexure-VIII (Model Dispute Resolution)** and **Annexure-IX (EIL Conciliation Rules)** of SPC.

b) **EIL Conciliation Rules 2012**: Engineers India Limited has framed the EIL Conciliation Rules 2012 in conformity with Part – III of the Indian Arbitration and Conciliation Act 1996 for speedier, cost effective and amicable settlement of disputes through conciliation. A copy of the said rules has been made available on EIL's web site www.engineersindia.com for reference.

19.0 SETTLEMENT OF DISPUTE BETWEEN GOVT. DEPT. / PUBLIC SECTOR UNDERTAKING

a) Cl. 11 of Annexure-VIII (Model Dispute Resolution) stands replaced with the following:

Sub-clauses 2 to 9 of this clause shall not be applicable in contracts where both the parties to the contract come under purview of AMRCD/AMRD mechanism.

If the Seller is a CPSU or CPSE or is a Govt. Department, any disputes or differences between the seller and EIL hereto arising out of any notified claim of the Seller in terms hereof and/or arising out of any amount claimed by EIL (whether or not the amount claimed by EIL or any part thereof shall have been deducted from the final bill of the Contractor or any amount paid by EIL to the Contractor in respect of the work), then in suppression of the provisions of clause no. 18.1 above, the following provisions shall apply,

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSE(s) and Government Department(s)/ Organization(s) (excluding disputes relating to Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through Administrative Mechanism for Resolution of CPSEs Disputes (AMRCD) only as mentioned in DPE OM no. 05/0003/2019-FTS-10937, dated 14.12.2022 and the decision of AMRCD on the said dispute will be binding on both the parties.

Further, vide DPE OM no. DPE-05/0002/2023-AMRCD, dated 25.07.2024, it is clarified that the interpretation and application of the provisions of commercial contract(s) in case of dispute/s between the following Organizations/ Departments shall be taken up under AMRCD only:

i. CPSE and CPSE;
ii. CPSE and Ministry / Department of Central Government;

iii. CPSE and Public Authority/ Organization or University under the Central Government;

iv. CPSE and State Governments/State PSUs/· Public authority/ Organization or University under any State Government.

b) Notwithstanding the existence of any dispute or arbitration in terms hereof or otherwise, the Supplier shall continue and be bound to continue and perform the Works to completion in all respects according to the Contract (unless the Contract or Works be determined by EIL) and the Supplier shall remain liable and bound in all respects under the Contract.

20.0 TERMINATION

a) The methodology for processing Termination for default shall be as specified below. Other terms and conditions shall be as per GPC Clause 18.1 of GPC (Indigenous) for Indian bidders:

20.1.1 Any material breach in contractual obligations shall be dealt on mutual discussion basis, so as to correct breach. In case of failure to correct the breach, EIL/ Owner shall initiate Termination action as per the contract.

20.1.2 In case of non-submission of CPBG within one month beyond the period stipulated for it, coupled with non-mobilization / non-performance within the period stipulated for the same, the Termination action along with other contractual penal provisions shall be initiated, as per the contract provisions.

20.1.3 Further, in case of submission of CBPG within scheduled period, but Supplier being at default in terms of Contract, 20.1.1 above shall be applicable.

20.1.4 In case of occurrence of any of the above specified events, Supplier shall be understood to have defaulted and the EIL/ Owner shall have the right to terminate the contract, at its sole and absolute discretion by issuing a Show Cause notice of 15 calendar days to the Supplier, stating the reason and the intention of EIL/ Owner to terminate the Contract and to take other penal actions in terms of the contract including extant policy for Suspension/ Banning of EIL/ Owner.

20.1.5 The Supplier may also request for a personal hearing.

20.1.6 EIL/ Owner based on the Supplier's response to the Show Cause Notice and the personal hearing, shall decide the action regarding Termination and/ or Suspension / Banning or otherwise.

20.1.7 The decision taken as above shall apply to both Termination as well as Suspension / Banning.

b) In case Purchase order awarded for the tendered item have to be terminated due to supplier's default and a separate enquiry have to be floated to get the remaining/ complete work executed, such defaulting supplier will not be considered for enquiries issued for the refloated works of same project.

21.0 REQUIREMENT OF EMPLOYMENT VISA FOR FOREIGN NATIONALS COMING TO INDIA FOR EXECUTION OF PROJECTS:

a) All Foreign nationals coming to India for execution of Projects / Contracts will have to apply for Employment Visa only and that grant of Employment visa would be subject to strict adherence of following norms:

21.1.1 Employment visa is granted only for the skilled and qualified professionals or to a person who is being engaged or appointed by a Company, Organization, Industry or Undertaking etc. in India on contract or employment basis at a senior level, skilled position such as technical expert, senior executive or in managerial position etc.

21.1.2 Request for employment visa for Jobs for which large number of qualified Indians are available, is not considered.

21.1.3 Under no circumstances an Employment visa is granted for routine, ordinary secretarial / clerical jobs.

b) Bidders are advised in their own interest to check latest Visa rules from Indian Embassy/ High Commission in their country in case foreign nationals are required to be deputed to India during execution of contract.

22.0 FRAUDULENT PRACTICES

a) The Owner requires that Sellers/ Vendors/ Sub-Contractors observe the highest standard of ethics during the award/ execution of Contract. "Fraudulent Practice" means a misrepresentation of facts in order to influence the award of a Contract to the detriment of the Owner, and includes collusive practice among Sellers (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the owner of the benefits of free and open competition.

b) The owner will reject a proposal for award if it determines that the Seller recommended for award has engaged in fraudulent practices in competing for the Contract in question.

c) Seller is required to furnish the complete and correct information/ documents required for evaluation of their bids. If the information/ documents forming basis of evaluation is found to be false/ forged, the same shall be considered adequate ground for rejection of bids and forfeiture of Earnest Money Deposit.

d) In case, the information/ document furnished by the Seller/ Vendor/ Sub-Contractor forming basis of evaluation of his bid is found to be false/ forged after the award of the contract, Owner shall have full right to terminate the contract and get the remaining job executed at the risk & cost of such Seller/ Vendor/ Sub-Contractor without any prejudice to other rights available to Owner under the contract such as forfeiture of CPBG / Security Deposit, withholding of payment etc.

e) In case, this issue of submission of false documents comes to the notice after execution of work, Owner shall have full right to forfeit any amount due to the Seller/ Vendor/ Sub-Contractor along with forfeiture of **CPBG** / Security Deposit furnished by the Seller/vendor/ Sub-Contractor.

f) Further, such Seller/ vendor/ Sub-Contractor shall be put on ~~Blacklist/ Holiday/~~ Suspension / Banning list ~~/Negative List~~ of EIL/ Owner debarring them from future business with Owner for a time period, as per the prevailing policy in EIL/Owner.

23.0 DISPATCH NUMBER

a) In addition to the details furnished in the invoice, supplier shall generate DISPATCH NUMBER (DN) against each invoice. The DN shall be 3 digit continuous number starting from 001 suffixed to purchase Order Number and shall be unique to each invoice. Same shall also be printed on each consignment / box for easy co-relation. DN shall be quoted in all further communications viz dispatch detail to inspection, correspondence with site as well as for payment purpose. Mentioning the DN on each invoice shall be mandatory."

24.0 TERMS & CONDITIONS FOR SUPERVISION OF ERECTION, TESTING & COMMISSIONING / TRAINING AT SITE

a) Terms & conditions for supervision of erection, testing & commissioning / training at site shall be as per attached Annexure-III to SPC.

25.0 TERMS & CONDITIONS FOR INSTALLATION/ SITE WORK

a) Terms & conditions for installation/ site work shall be as per attached Annexure-IV to SPC.

26.0 TERMS & CONDITIONS FOR ANNUAL MAINTENANCE CONTRACT (AMC)

a) Terms & conditions for Annual Maintenance Contract (AMC) shall be as per attached Annexure-V to SPC.

27.0 TERMS & CONDITIONS FOR TRAINING OF OWNER PERSONNEL AS PER MR AT VENDOR'S WORKS/ TRAINING FACILITY

a) Terms & conditions for training of owner personnel as per MR at vendor's works/ training facility shall be as per attached Annexure-VI to SPC.

28.0 CANCELLATION _Deleted

29.0 CONFIDENTIALITY OF BIDDING DOCUMENT

a) Bidding Document is and shall remain the exclusive property of EIL/ Owner without any right to Bidder to use them for any purpose except for the purpose of Bidding.

b) **On no account will any agency to whom Bidding Documents is issued, part with possession thereof or copy or take copies or tracings of any drawing, plan etc. It should be understood**

that the information therein is confidential, and that the Bidding Documents are therefore being issued to bidders in the strictest confidence.

30.0 VULNERABILITY ATLAS OF INDIA

Provisions for Vulnerability Atlas of India (VAI) shall be as per shall be as per attached **Annexure-XIII to SPC**.

31.0 LIEN

Seller shall ensure that the Scope of Supply supplied under the Agreement shall be free from any claims of title/liens from any third party. In the event of such claims by any party, Seller shall at his own cost defend, indemnify and hold harmless Purchaser or its authorised representative from such disputes of title/liens, costs, consequences etc.

ANNEXURE –I
TO
SPECIAL PURCHASE CONDITIONS

STANDARD PAYMENT TERMS

A.	**FOR INDIGENOUS SUPPLIERS:**
1.	
1.1.	**Where the MR is for supply of materials and there is no Vendor Data Requirement (VDR) specified in the MR like Fasteners, Valves, Pipes, Fittings, Gasket etc:** 1. 15% against identification of raw materials at Supplier's works and against submission of ABG of equivalent amount. 2. 65% against dispatch documents (along with copy of LR/GR and IRN) directly to EIL together with full taxes, duties and transportation charges. 3. 10% against receipt and acceptance of material at site 4. 10% against receipt and acceptance of all material at site.
1.2	**Where the MR is for supply of materials and calls for Vendor Data requirement (without site work), excep– item included in 1.4 & 1.5 - like Sample cooler, Strainer, Cable, Control valve etc.:** 1. 02% against approval of drawings, wherever required (identified in PO/ PR/ Kick off Meeting / post order) at least in Code-2 / Code R and against submission of ABG of equivalent amount. 2. 03% against approval of drawings in Code-1 and against submission of ABG of equivalent amount. 3. 10% against placement of sub-orders to sub-vendors for Major raw material and submission of ABG of equivalent amount 4. 15% against receipt and identification of major specified raw materials at Supplier's works and against submission of ABG of equivalent amount 5. 45% (50% where drawing/doc approval not required) against dispatch documents along with copy of LR, IRN and packing list, Invoice with full taxes, duties and transportation charges. 6. 10% against receipt and acceptance of material at site 7. 05% on receipt of all Final/As built Drawings/ Documents/ Data/ Manual in requisite number duly certified by Inspection agency as per VDR specified in Purchase Requisition and uploading the same in EIL-portal. 8. 10% on receipt of all material & acceptance of all materials at site.
1.3	**Where the MR is for supply of materials and calls for Vendor Data requirement (With site work), except– item included in 1.4 & 1.5 - like trays and tower internals, Weighing scale etc** 1. 02% against approval of drawings, wherever required (identified in PO/ PR/ Kick off Meeting / post order) at least in Code-2 / Code R and against submission of ABG of equivalent amount. 2. 03% against approval of drawings in Code-1 and against submission of ABG of equivalent amount. 3. 10% against placement of sub-orders to sub-vendors for Major raw material and submission of ABG of equivalent amount

	4. 10% against receipt and identification of major specified raw materials at Supplier's works and against submission of ABG of equivalent amount. 5. 50% (55% where drawing/doc approval not required) against dispatch documents (Copy of LR, IRN and packing list, Invoice) with full taxes duties and transportation charges 6. 10% against receipt and acceptance of material at site 7. 05% on receipt of all Final/As built Drawings/ Documents/ Data/ Manual in requisite number duly certified by Inspection agency as per VDR specified in Purchase Requisition and uploading the same in EIL-portal. 8. 10% on completion of Site Work. **Note: Above payment terms (Sl. no. 1 to 8) is for supply value.** In case site front is not available up to 6 (Six) months (wherever site work is applicable), after receipt of all supplies at site, the payment against the site work (Sl. No. 8) shall be released on submission of additional Bank Guarantee of equivalent amount valid for 1 (One) year or such extended period as may be required. **For Site Work**: a. 90% against monthly progressive bills (based on agreed billing schedule) duly certified by Engineer-in-charge. b. 10% on successful completion of site work and handing over of goods/equipment at site.
1.4	**Where the MR is for fabricated equipment like Columns/Pressure vessels/Reactors/Heat Exchangers/Air Fin Cooler and rotary equipment like /Pumps/Compressors/Extruder/EOT Crane (with significant Bought out item) and calls for Vendor Data requirement (Without site work):** 1. 02% against approval of drawings, wherever required (identified in PO/ PR/ Kick off Meeting / post order) at least in Code-2 / Code R and against submission of ABG of equivalent amount. 2. 03% against approval of drawings in Code-1 and against submission of ABG of equivalent amount. 3. 01% against receipt of foundation Template for Column, Reactors, Coke Drums, Reactor & Regenerator (R&R) and vessels as applicable and foundation Bolt for Coke Drums, Reactors, Vessels / Columns, Reactor & Regenerator (R&R), Compressor, Extruder etc. (as applicable) 4. 10% against placement of sub-order for specified major raw material (identified during kick off meeting, if not specified in enquiry) and against submission of ABG of equivalent amount. 5. 19% (20% if foundation template, foundation bolt not required) against receipt and identification of major specified raw materials at Supplier's works and against submission of ABG of equivalent amount. **6.A: 45% Payment for fabricated equipment like Columns/ Pressure vessels/ Reactors/ Heat Exchangers/ Air Fin Cooler and rotary equipment like / Pumps/ Compressors/ Extruder etc.**

6.A.1.a1 05 % of the total PO value

i. For fabricated equipment like Reactor & Regenerator/ Columns/ Pressure vessels/ Reactors against Receipt and satisfactory final inspection of all dished ends at shop and against submission of ABG of equivalent amount.

ii. For Heat exchangers and Air fin coolers against receipt and satisfactory final inspection of Tube sheet after drilling / Header boxes before PWHT respectively and against submission of ABG of equivalent amount.

6.A.1.a2 10% of the total PO value

i. For fabricated equipment like Reactor & Regenerator/Coke Drums/Columns/Pressure vessels/ Reactors against satisfactory completion of all long seam and circ seam welding and NDE before PWHT except closing circ. seam weld joint and against submission of ABG of equivalent amount.

ii. For Heat exchangers and Air fin coolers on satisfactory Inspection of Tube bundle after Tube to Tube plate welding / Expansion and against submission of ABG of equivalent amount.

OR

6.A.1.b 15% of the total PO value

For Pumps/ Compressors / Extruder against receipt of main drivers (For Extruder main drivers are drivers for Extruder and palletizer) and VFD (as applicable) at vendor's works and against submission of ABG of equivalent amount.

6.A.2 30% against dispatch documents (Copy of LR, IRN and packing list, Invoice) with full taxes duties and transportation charges for fabricated equipment like Columns/Pressure vessels/ Reactors/ Heat Exchangers, Air Fin Cooler, Pump, Compressor and Extruder.

OR

6.B. 45 % Payment for EOT Crane

Against dispatch documents for EOT Crane along with copy of LR, IRN and packing list Invoice with full taxes, duties and transportation charges.

7. 5% against receipt and acceptance of material at site

8. 05% on receipt of all Final/As built Drawings/ Documents/ Data/ Manual in requisite number duly certified by Inspection agency as per VDR specified in Purchase Requisition and uploading the same in EIL-portal.

9. 10% on receipt of all material & acceptance of all materials at site.

Major Raw Material for payment against placement of orders:

Columns/Vessels/Reactors/ Coke Drums / Reactor & Regenerator	:	Plates & Forgings

	Heat Exchangers	:	Plates, Tube, Tube sheets and SRN forgings (as applicable)	
	Pumps	:	Castings for casings, impellers , drivers and VFD (as applicable)	
	Centrifugal Compressors	:	Castings for casings, impellers, forgings for rotors and main drivers and VFD (as applicable)	
	Reciprocating Compressors	:	Crank case, Cylinder, Piston, Piston Rods, Main Drivers and VFD (as applicable)	
	Extruder:	:	Screw, Main cylinder, Die plate and Main driver for extruder and Palletizer and VFD including Transformer (as applicable)	
	Air Fin Coolers	:	Tubes, Header Plates, Fin Material, Motor and VFD (as applicable)	
	EOT Crane	:	Main motors, Wire rope, Hooks, Brake and limit switches & Gear Boxes.	
	Major Raw Material for payment against receipt & identification of raw materials:			
	Columns/Vessels/Reactors/ Coke Drums/Reactor & Regenerator	:	Plates & Forgings	
	Heat Exchangers	:	Plates, Tube, Tube sheets and SRN forgings (as applicable)	
	Pumps	:	Castings for casings, impellers	
	Centrifugal Compressors	:	Castings for casings, impellor, forgings for rotors	
	Reciprocating Compressors	:	Crank case, Cylinder, Piston, Piston Rods	
	Extruder	:	Screw, Main cylinder, Die Plate	
	Air Fin Coolers	:	Tubes, Header Plates, Fin Material	
	EOT Crane	:	Main motors, Wire rope, Hooks, Brake and limit switches & Gear Boxes.	
1.4 (a)	**Where the MR is for Packages like Nitrogen package, Conveyor package, Bagging package, HVAC, PSA Hydrogen (with significant Bought out item) and calls for Vendor Data requirement**			

	(Without site work): **1. Drawing Approval** a. 02% against approval of specific drawings (identified in PO/PR) like interface Drawings, P&ID, Foundation loading plan of pipe rack/equipment wherever required, dimensional Equipment layout at least in Code-2 / Code R and against submission of ABG of equivalent amount. b. 03% against approval of drawings, wherever required (identified in PO/ PR or during KOM if not specified) at least in Code-2 / Code R, 90 % (stage) 3D model and against submission of ABG of equivalent amount. 2. 01% against receipt of foundation Template and foundation Bolt as applicable for equipment and items as per package requirements. 3. 10% against placement of sub-order for specified major raw material (to be specified in MR identified during kick off meeting, if not specified in enquiry) and against submission of ABG of equivalent amount. 4. 19% (20% if foundation template, foundation bolt not required) against receipt and identification of major specified items (to be specified in MR identified during kick off meeting, if not specified in enquiry) at Supplier's works and against submission of ABG of equivalent amount. 5. 45% against dispatch documents (Copy of LR, IRN and packing) list, Invoice) with full taxes duties and transportation charges and Master packing list (as part of the Inspection Certificate cum release note), Invoice with full taxes, duties and transportation charges. Master packing list is to be submitted by the package vendor in EIL -portal in information category. (a) Incase control system is part of Package vendor's scope, Modbus mapping details shall be submitted by the package vendor in EIL-portal for information categ'ry. (b) If package vendor's control and logic needs to be executed in main control system, final P&ID, Cable schedule, point data base & logic diagram shall be submitted in EIL -portal. 6. 5% against receipt and acceptance of material at site 7. 05% on receipt of all Final/ As built Drawings/ Documents/ Data/Manual in requisite number duly certified by Inspection agency as per VDR specified in Purchase Requisition and uploading the same in EIL -portal. 8. 10% on receipt, acceptance and reconciliation of all materials at site and issue of Certificate of verification of all materials in good condition.
1.5	**Where the MR is for fabricated equipment like Columns/Pressure vessels/Reactors/Heat Exchangers/ Air Fin Cooler and rotary equipment like Pumps/ Compressors/ Extruder/EOT Crane (with significant Bought out item) and calls for Vendor Data requirement (With site work):** 1. 02% against approval of drawings, wherever required (identified in PO/ PR/ Kick off Meeting / post order) at least in Code-2 / Code R and against submission of ABG of equivalent amount. 2. 03% against approval of drawings in Code-1 and against submission of ABG of equivalent

amount.

3. 01% against receipt of foundation Template for Column, Reactors, Coke Drums, Reactor & Regenerator (R&R) and vessels as applicable and foundation Bolt for Coke Drums, Reactor & Regenerator (R&R), Compressor, Extruder.

4. 10% against placement of sub-order for specified major raw material (identified during kick off meeting, if not specified in enquiry) and against submission of ABG of equivalent amount.

5. 19% (20% if foundation template, foundation bolt not required) against receipt and identification of major specified raw materials at Supplier's works and against submission of ABG of equivalent amount.

6.A: 45% Payment for fabricated equipment like Columns/ Pressure vessels/ Reactors/ Heat Exchangers/ Air Fin Cooler and rotary equipment like / Pumps/ Compressors/ Extruder etc.

6.A.1.a1 05 % of the total PO value

i. For fabricated equipment like Reactor & Regenerator/ Columns/ Pressure vessels/Reactors against Receipt and satisfactory final inspection of all dished ends at shop and against submission of ABG of equivalent amount.

ii. For Heat exchangers and Air fin coolers against receipt and satisfactory final inspection of Tube sheet after drilling / Header boxes before PWHT respectively and against submission of ABG of equivalent amount.

6.A.1.a2 10% of the total PO value

i For fabricated equipment like Reactor & Regenerator/Coke Drums/ Columns/Pressure vessels/Reactors against satisfactory completion of all long seam and circ. seam welding and NDE before PWHT except closing circ. Seam weld joint and against submission of ABG of equivalent amount.

ii. For Heat exchangers and Air fin coolers on satisfactory Inspection of Tube bundle after Tube to Tube plate welding/Expansion and against submission of ABG of equivalent amount.

OR

6.A.1.b 15% of the total PO value For Pumps/ Compressors/ Extruder against receipt of main drivers (For Extruder main drivers are drivers for Extruder and palletizer) and VFD(as applicable) and against submission of ABG of equivalent amount.

6.A.2 30% against dispatch documents (Copy of LR, IRN and packing list, Invoice) with full taxes duties and transportation charges for fabricated equipment like Columns/Pressure vessels/Reactors/Heat Exchangers, Air Fin Cooler, Pump, Compressor and Extruder..

OR

6.B 45% Payment for EOT Crane

Against dispatch documents (Copy of LR, IRN and packing list, Invoice) with full taxes duties and transportation charges for EOT Crane.

7 5% against receipt and acceptance of material at site

8 05% on receipt of all Final/As built Drawings/Documents /Data /Manual in requisite number duly certified by Inspection agency as per VDR specified in Purchase Requisition and uploading the same in EIL -portal

9. 10% on completion of Site Work.

Major Raw Material for payment against placement of orders:

Columns/Vessels/Reactors/ Coke Drums/ Reactor & Regenerator	:	Plates & Forgings
Heat Exchangers	:	Plates, Tube, Tube sheets and SRN forgings (as applicable)
Pumps	:	Castings for casings, impellers , drivers and VFD (as applicable)
Centrifugal Compressors	:	Castings for casings, impellers, forgings for rotors and main drivers and VFD (as applicable)
Reciprocating Compressors	:	Crank case, Cylinder, Piston, Piston Rods, Main Drivers and VFD(as applicable)
Extruder:	:	Screw, Main cylinder, Die plate and Main driver for extruder and Palletizer and VFD including Transformer (as applicable)
Air Fin Coolers	:	Tubes, Header Plates, Fin Material, Motor and VFD (as applicable)
EOT Crane	:	Main motors, Wire rope, Hooks, Brake and limit switches & Gear Boxes.

Major Raw Material for payment against receipt & identification of raw materials:

Columns/Vessels/Reactors/ Coke Drums/ Reactor & Regenerator	:	Plates & Forgings
Heat Exchangers	:	Plates, Tube, Tube sheets and SRN forgings (as applicable)
Pumps	:	Castings for casings, impellers

	Centrifugal Compressors	:	Castings for casings, Impellor, forgings for rotors
	Reciprocating Compressors	:	Crank case, Cylinder, Piston, Piston Rods
	Extruder	:	Screw, Main cylinder, Die Plate
	Air Fin Coolers	:	Tubes, Header Plates, Fin Material
	EOT Crane	:	Main motors, Wire rope, Hooks, Brake and limit swit Gear Boxes.

1.5 (a) **Where the MR is for Packages like Nitrogen package, Conveyor package, Bagging package, HVAC, PSA Hydrogen (with significant Bought out item) and calls for Vendor Data requirement (With site work):**

1. **Drawing Approval**
   a. 02% against approval of specific drawings (identified in PO/PR) like interface Drawings, P&ID, Foundation loading plan of pipe rack/equipment wherever required, dimensional Equipment layout (identified in PO/ PR or during KOM if not specified) at least in Code-2 / Code R and against submission of ABG of equivalent amount.
   b. 03% against approval of balance drawings, wherever required (identified in PO/ PR or during KOM if not specified) and at least in Code-2 / Code R, 90 % (stage) 3D model and against submission of ABG of equivalent amount
2. 10% against placement of sub-order for specified major raw material ((to be specified in MR or to be identified during kick off meeting, if not specified in enquiry) and against submission of ABG of equivalent amount.
3. 20% against receipt and identification of major specified raw materials (to be specified in MR or to be identified during kick off meeting, if not specified in enquiry) at Supplier's works and against submission of ABG of equivalent amount.
4. 45% against dispatch documents (Copy of LR, IRN and packing list, Invoice) with full taxes duties and transportation charges and Master packing list (as part of the Inspection Certificate cum release note). Master packing list is to be submitted by the package vendor in EIL -portal in information category.

   (a) Incase control system is part of Package vendor's scope, Modbus mapping details shall be submitted by the package vendor in EIL-portal for information cat'gory.

   (b) If package vendor's control and logic needs to be executed in main control system, final P&ID, Cable schedule, point data base & logic diagram shall be submitted in EIL -portal.
5. 05% on receipt, acceptance and reconciliation of all materials at site and issue of Certificate of verification of all materials in good condition.
6. 05% on receipt of all Final/As built Drawings/Documents/ Data/ Manual in requisite

	number duly certified by Inspection agency as per VDR specified in Purchase Requisition and uploading the same in EIL-portal. 7. 10% upon completion of site work and successful performance guarantee test run. **Note : Above payment terms (Sl. no. 1 to 7) is for supply value.** In case site front is not available up to 6 (Six) months (wherever site work is applicable), after receipt of all supplies at site, the payment against the site work (Sl. No. 7) shall be released on submission of additional Bank Guarantee of equivalent amount valid for 1 (One) year or such extended period as may be required. **For Site Work**: a) 90% against monthly progressive bills (based on agreed billing schedule) duly certified by Engineer in-charge. b) 10% on successful completion of site work and handing over of goods/equipment at site.
1.6	**Mobile Water cum foam tenders (Truck loaded)** **For Chassis:** (Supplier shall furnish the sub order copy on the chasis manufacturer and furnish confirmation regarding direct payment to chasis manufacturer against chasis value out of total quoted value of complete package). 1. 10% of sub-order value to chasis manufacturer directly against placement of sub-order for chasis against submission of equivalent Bank Guarantee having validity up to dispatch of chasis from chasis manufacturer's works. 2. 90% of sub-order value shall be made to the chasis manufacturer against commercial invoice to Supplier (against dispatch readiness), duly endorsed by Supplier and against submission of following: a) Ownership of chasis shall be in the name of EIL/Client by sub-vendor along with Insurance policy with the Client as beneficiary to cover all risks during transit and storage at main vendor works. b) In addition Supplier to confirm that they shall assist Owner in final and firm registration of duly built up vehicle at project site. c) No other charges shall be payable on any account w.r.t chassis including transportation of chassis, insurance from Chasis Supplier works to Supplier works etc. d) Supplier to carry out the works in their work shop/ Works which shall be insured including work in progress materials in the shop. Supplier shall furnish all such necessary documents to this effect enabling Owner to release payment to Chasis Supplier. **For Fabrication works at Vendor shop (Total quoted price of package excluding price of chassis as per Work order on chasis vendor):** 1. 02% against approval of drawings, wherever required (identified in PO/ PR/ Kick off Meeting / post order) at least in Code-2 / Code R and against submission of ABG of equivalent amount. 2. 03% against approval of drawings in Code-1 and against submission of ABG of equivalent

	amount. 3. 10% against receipt and identification of major specified items at Supplier's works (Pumps and Power Take off unit) and against submission of ABG of equivalent amount. 4. 70% against dispatch documents (Copy of LR, IRN and packing list, Invoice) with full taxes duties and transportation charges 5. 05% on receipt of all Final/As built Drawings/Documents/ Data/ Manual in requisite number of TPIA certified copies/sets/ VDR specified in Purchase Requisition and uploading the same in EIL-portal. 6. 10 % on receipt of all material & acceptance of all materials at site.
2.	**For supply of Mandatory Spares** (wherever price of mandatory spares obtained separately) 1. 90% against receipt of material at site (after receipt of main equipment at site) along with copy of LR, IRN and packing list, Invoice with full taxes, duties and transportation charges. 2. 10 % on receipt of all material & acceptance of all materials at site.
3.	**Site Work**: 1. 90% against monthly progressive bills (based on agreed billing schedule) duly certified by Engineer-in-charge. 2. 10% on successful completion of site work and handing over of goods/equipment at site.
4.	**Any services on per diem basis like: Supervision of Erection, Testing & Commissioning/ assistance during erection, Testing & Commissioning / Training at site / Supplier's works on per diem basis.** • 100% prorate against monthly bills to be submitted by Supplier duly certified by Engineer-in-Charge.
5.	**Training (lumpsum)/ Applicable for all items wherever lumpsum rates are sought such as 3D MODELLING etc.** • 100 % on successful completion of Training duly certified by EIL/OWNER, as per Purchase Requisition.
6.	**Annual Maintenance Contract (AMC):** • 100% payment shall be paid at the end of each quarter against quarterly progressive bills to be submitted by Supplier duly certified by authorized representative of Owner.
B.	**FOR FOREIGN SUPPLIERS**
1.	
1.1.	**Where the MR is for supply of materials and there is no Vendor Data Requirement (VDR) specified in the MR like Fasteners, Valves, pipes, fittings, gasket etc** 1. 15% thru wire transfer against identification of raw materials at Supplier's works and against submission of ABG of equivalent amount. 2. 85% of PO value along with full Ocean freight (in case of CFR delivery basis) against

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	shipping documents through irrevocable Letter of Credit/ wire transfer.
1.2.	**Where the MR is for supply of materials and calls for Vendor Data requirement (without site work), excep– item included in 1.4 & 1.5 - like Sample cooler, Strainer, Cable, Control valve etc:** 1. 02% against approval of drawings, wherever required (identified in PO/ PR/ Kick off Meeting / post order) at least in Code-2 / Code R and against submission of ABG of equivalent amount. 2. 03% against approval of drawings in Code-1 and against submission of ABG of equivalent amount. 3. 10% thru wire transfer against placement of sub-orders to subvendors for Major raw material and submission of BG of equivalent amount 4. 15% thru wire transfer against receipt and identification of major specified raw materials at Supplier's works and against submission of ABG of equivalent amount. 5. 65% (70% in cases where drawing approval is not required) of PO value along with full Ocean freight (in case of CFR delivery basis) against shipping documents through irrevocable Letter of Credit/wire transfer. 6. 05% thru wire transfer on receipt of all Inspection agency certified Final/As built Drawings/Documents/Data/Manual in requisite number of copies/sets/ VDR specified in Purchase Requisition and uploading the same in EIL-portal.
1.3.	**Where the MR is for supply of materials and calls for vendor Data requirement (with site work), excep– item included in 1.4 & 1.5 - like trays and tower internals, weighing scale etc** 1. 02% against approval of drawings, wherever required (identified in PO/ PR/ Kick off Meeting / post order) at least in Code-2 / Code R and against submission of ABG of equivalent amount. 2. 03% against approval of drawings in Code-1 and against submission of ABG of equivalent amount. 10% thru wire transfer against placement of sub-orders to subvendors for Major raw material and submission of BG of equivalent amount 3. 15% thru wire transfer against receipt and identification of major specified raw materials at Supplier's works and against submission of ABG of equivalent amount. 4. 55% (60% in cases where drawing approval is not required) of PO value along with full Ocean freight (in case of CFR delivery basis) against shipping documents through irrevocable Letter of Credit/wire transfer. 5. 05% thru wire transfer on receipt of all Inspection agency certified Final/As built Drawings/Documents/Data/Manual in requisite number of copies/sets/ VDR specified in Purchase Requisition and uploading the same in EIL-Portal.

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	6. 10% on successful completion of Site Work through wire transfer Note: In case Customs clearance and further transportation of material upto Project site is in the supplier's scope, 55% against shipping documents shall be split in 5% + 50% and 5% shall be paid after receipt of material at Project site. **Note : Above payment terms (Sl. no. 1 to 7) is for supply value.** In case site front is not available up to 6 (Six) months (wherever site work is applicable), after receipt of all supplies at site, the payment against the site work (Sl. No. 7) shall be released on submission of additional Bank Guarantee of equivalent amount valid for 1 (One) year or such extended period as may be required. **For Site Work**: a. 90% against monthly progressive bills (based on agreed billing schedule) duly certified by Engineer-in-charge. b. 10% on successful completion of site work and handing over of goods/equipment at site.
1.4.	**Where the MR is for fabricated equipment like Columns/Pressure vessels/Reactors/Heat Exchangers/Air Fin Cooler and rotary equipment like Pumps/Compressors/Extruder/EOT Crane (with significant Bought out item) and calls for Vendor Data requirement (Without site work):** 1. 02% against approval of drawings, wherever required (identified in PO/ PR/ Kick off Meeting / post order) at least in Code-2 / Code R and against submission of ABG of equivalent amount. 2. 03% against approval of drawings in Code-1 and against submission of ABG of equivalent amount 3. 01% thru wire transfer against receipt of foundation Template for Column, Reactor & Regenerator, Coke Drums, Reactors and vessels as applicable and foundation Bolt for Compressor/Extruder. 4. 10% against placement of sub-order for specified major raw material (to be identified during kick off meeting, if not specified in enquiry) and against submission of ABG of equivalent amount. 5. 19% (20% if foundation template, foundation bolt not required) against receipt and identification of major specified raw materials at Supplier's works and against submission of ABG of equivalent amount. 6. 60% along with 100% Ocean freight (in case of CFR contracts) against shipping documents through irrevocable Letter of Credit/wire transfer. 7. 05% on receipt of Inspection agency certified all Final/As built Drawings/Documents/Data/Manual in requisite number of copies/sets/ VDR specified in Purchase Requisition and uploading the same in EIL-portal. **Major Raw Material for payment against placement of orders:** Columns/Vessels/Reactors/ Coke Drums/ Reactor & Regenerator : Plates & Forgings Heat Exchangers : Plates, Tube, Tube sheets and SRN forgings (as

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			applicable)
	Pumps	:	Castings for casings, impellers , drivers and VFD (as applicable)
	Centrifugal Compressors	:	Castings for casings, impellers, forgings for rotors and main drivers and VFD (as applicable)
	Reciprocating Compressors	:	Crank case, Cylinder, Piston, Piston Rods, Main Drivers and VFD(as applicable)
	Extruder:	:	Screw, Main cylinder, Die plate and Main driver for extruder and Palletizer and VFD (as applicable)
	Air Fin Coolers	:	Tubes, Header Plates, Fin Material, Motor and VFD (as applicable)
	EOT Crane	:	Main motors, Wire rope, Hooks, Brake and limit switches & Gear Boxes

Major Raw Material for payment against receipt & identification of raw materials:

Columns/Vessels/Reactors/ Coke Drums/Reactor & Regenerator	:	Plates & Forgings
Heat Exchangers	:	Plates, Tube, Tube sheets and SRN forgings (as applicable)
Pumps	:	Castings for casings, impellers
Centrifugal Compressors	:	Castings for casings, Impellor, forgings for rotors
Reciprocating Compressors	:	Crank case, Cylinder, Piston, Piston Rods
Extruder	:	Screw, Main cylinder, Die Plate
Air Fin Coolers	:	Tubes, Header Plates, Fin Material
EOT Crane	:	Main motors, Wire rope, Hooks, Brake and limit switches & Gear Boxes

1.4 (a)	**Where the MR is for Packages like Nitrogen package, Conveyor package, Bagging package etc. (with significant Bought out item) and calls for Vendor Data requirement (Without site work):** 1. Drawing Approval

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	a. 02% against approval of specific drawings (identified in PO/PR) like interface Drawings, P&ID, Foundation loading plan of pipe rack/equipment wherever required, dimensional Equipment layout (identified in PO/ PR or during KOM if not specified) at least in Code-2 / Code R and against submission of ABG of equivalent amount. b. 3% against approval of balance drawings, wherever required (identified in PO/ PR or during KOM if not specified) and at least in Code-2 / Code R, 90 % (stage) 3D model and against submission of ABG of equivalent amount 2. 01% against receipt of foundation Template and foundation Bolt as applicable for equipment and items as per package requirements 3. 10% against placement of sub-order for specified major raw material (to be identified during kick off meeting, if not specified in enquiry) and against submission of ABG of equivalent amount. 4. 19% (20% if foundation template, foundation bolt not required) against receipt and identification of major specified raw materials (to be identified during kick off meeting, if not specified in enquiry) at Supplier's works and against submission of ABG of equivalent amount. 5. 55% along with 100% Ocean freight (in case of CFR contracts) against shipping documents through irrevocable Letter of Credit. IRN and Master packing list (as part of the Inspection Certificate cum release note) shall also be part of shipping documents. Master packing list is to be submitted by the package vendor in EIL-portal in information category. (a) In case control system is part of Package vendor's scope ,Modbus mapping details shall be submitted by the package vendor in EIL-portal for information category. (b) If package vendor's control and logic needs to be executed in main control system, final P&ID, Cable schedule, point data base & logic diagram shall be submitted in EIL -portal. 6. 05% on receipt of Inspection agency certified all Final/As built Drawings/Documents/Data/Manual in requisite number of copies/sets/ VDR specified in Purchase Requisition and uploading the same in EIL-portal. 7. 05 % on receipt of all material & acceptance of all materials at site.
1.5.	**Where the MR is for fabricated equipment like Columns/Pressure vessels/Reactors/Air Fin Cooler/Pumps/Compressor/Extruder/EOT Cranes (with significant Bought out item) and calls for Vendor Data requirement (With site work):** 1. 02% against approval of drawings, wherever required (identified in PO/ PR/ Kick off Meeting / post order) at least in Code-2 / Code R and against submission of ABG of equivalent amount. 2. 03% against approval of drawings in Code-1 and against submission of ABG of equivalent amount 3. 01% thru wire transfer against receipt of foundation Template for Column, Reactor & Regenerator, Coke Drums, Reactors and vessels as applicable and foundation Bolt for Compressor/Extruder. 4. 10% against placement of sub-order for specified major raw material (identified in PO/ PR or during KOM if not specified) and against submission of ABG of equivalent amount. 5. 19% (20 % if foundation template, foundation bolt not required) against receipt and identification of major specified raw materials at Supplier's works and against submission

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of ABG of equivalent amount.

6. 50% along with 100% Ocean freight (in case of CFR contracts) against shipping documents through irrevocable Letter of Credit/wire transfer.

7. 05% on receipt of Inspection agency certified all Final/As built Drawings/Documents/Data/Manual in requisite number of copies/sets/ VDR specified in Purchase Requisition and uploading the same in EIL-portal.

8. 10% on completion of site work through wire transfer

Note: In case Customs clearance and further transportation of material up to Project site is in the supplier's scope, 50% against shipping documents shall be split in 5% + 45% and 5% shall be paid after receipt of material at Project site.

Major Raw Material for payment against placement of orders:

Columns/Vessels/Reactors/ Coke Drums/ Reactor & Regenerator	:	Plates & Forgings
Heat Exchangers	:	Plates, Tube, Tube sheets and SRN forgings (as applicable)
Pumps	:	Castings for casings, impellers, drivers and VFD (as applicable)
Centrifugal Compressors	:	Castings for casings, impellers, forgings for rotors and main drivers and VFD (as applicable)
Reciprocating Compressors	:	Crank case, Cylinder, Piston, Piston Rods, Main Drivers and VFD (as applicable)
Extruder:	:	Screw, Main cylinder, Die plate and Main driver for extruder and Palletizer and VFD(as applicable)
Air Fin Coolers	:	Tubes, Header Plates, Fin Material, Motor and VFD (as applicable)
EOT Crane	:	Main motors, Wire rope, Hooks, Brake and limit switches & Gear Boxes-

Major Raw Material for payment against receipt & identification of raw materials:

Columns/Vessels/Reactors/ Coke Drums/Reactor & Regenerator	:	Plates & Forgings
Heat Exchangers	:	Plates, Tube, Tube sheets and SRN forgings (as

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			applicable)
	Pumps	:	Castings for casings, impellers
	Centrifugal Compressors	:	Castings for casings, Impellor, forgings for rotors
	Reciprocating Compressors	:	Crank case, Cylinder, Piston, Piston Rods
	Extruder	:	Screw, Main cylinder, Die Plate
	Air Fin Coolers	:	Tubes, Header Plates, Fin Material
	EOT Crane	:	Main motors, Wire rope, Hooks, Brake and limit switches & Gear Boxes

1.5 (a)

Where the MR is for Packages like Nitrogen package, Conveyor package, Bagging package, HVAC, PSA Hydrogen etc (with significant Bought out item) and calls for Vendor Data requirement (With site work):

1. **Drawing Approval**
   a. 02% against approval of specific drawings (identified in PO/PR) like interface Drawings, P&ID, Foundation loading plan of pipe rack/equipment wherever required, dimensional Equipment layout at least in Code-2 / Code R and against submission of ABG of equivalent amount.
   b. 03% against approval of drawings, wherever required (identified in PO/ PR or during KOM if not specified) at least in Code-2 / Code R, 90% stage model review and against submission of ABG of equivalent amount.
2. 10% against placement of sub-order for specified major raw material (identified in PO/ PR or during KOM if not specified) and against submission of ABG of equivalent amount.
3. 20% against receipt and identification of major specified raw materials at Supplier's works and against submission of ABG of equivalent amount.
4. 45% along with 100% Ocean freight (in case of CFR contracts) against shipping documents through irrevocable Letter of Credit. IRN and Master packing list (as part of the Inspection Certificate cum release note) shall also be part of shipping documents. Master packing list is to be submitted by the package vendor in EIL-portal in information category.

   (a) In case control system is part of Package vendor's scope ,Modbus mapping details shall be submitted by the package vendor in EIL-portal for information category.

   (b) If package vendor's control and logic needs to be executed in main control system, final P&ID, Cable schedule, point data base & logic diagram shall be submitted in EIL -portal.
5. 05% on receipt of Inspection agency all Final/As built Drawings/ Documents/Data/Manual in requisite number of copies/sets/ VDR specified in Purchase Requisition and uploading the same in EIL-portal.
6. 05% on final acceptance of all materials at site.
7. 10% upon completion of site work and successful performance guarantee test run through wire transfer.

Note: In case Customs clearance and further transportation of material upto Project site is in the

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	supplier's scope, 45% against shipping documents shall be split in 5% + 40% and 5% shall be paid after receipt of material at Project site. **Note: Above payment terms (Sl. no. 1 to 7) is for supply value.** In case site front is not available up to 6 (Six) months (wherever site work is applicable), after receipt of all supplies at site, the payment against the site work (Sl. No. 7) shall be released on submission of additional Bank Guarantee of equivalent amount valid for 1 (One) year or such extended period as may be required. **For Site Work**: a. 90% against monthly progressive bills (based on agreed billing schedule) duly certified by Engineer-in-charge. b. 10% on successful completion of site work and handing over of goods/equipment at site.
2.	**For supply of Mandatory Spares**: • 100% thru irrevocable Letter of Credit against shipping documents after dispatch of main equipment.
3.	**Site Work**: a) 90% against monthly progressive bills (based on agreed billing schedule) duly certified by Engineer-in-charge. b) 10% on successful completion and handing over of goods/equipment at site.
4.	**Any services on per diem basis like: Supervision of Erection, Testing & Commissioning/ assistance during erection, Testing & Commissioning / Training at site / Supplier's works on per diem basis.** • 100% against monthly bills to be submitted by Supplier duly certified by Engineer-in-Charge.
5.	**Training (Lumpsum)**: • 100% through Wire Transfer on successful completion of Training duly certified by EIL/OWNER, as per Purchase Requisition (PR).
6.	**Annual Maintenance Contract (AMC):** • 100% payment shall be paid at the end of each quarter against quarterly progressive bills to be submitted by Supplier duly certified by authorized representative of Owner.

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7.	**Indian sub-supplies in case of a Foreign bidder:** a) 85% through E-Payment with taxes and duties will be paid against receipt of Indian sourced goods/material at project site. b) 10% against receipt of Indian supplies at site and delivery of main equipment by foreign bidder, as per Terms of bidding document and completion of site work, wherever applicable. c) 5% on submission of Final/As built Drawings/Documents/Data/Manual in requisite number of copies/sets/CDs as per VDR specified in Purchase Requisition, by main bidder. • Payment of Indian sub supplies/Services shall be released directly to Indian counterpart against Invoices raised by Indian counterpart duly certified by foreign principal. • In case of Foreign bids with Indian sub supplies, the payment terms of Foreign bidder against shipping documents stands reduced by 5% which shall be released as follows: ➢ 5% payment shall be released thru wire transfer, on delivery of main equipment by foreign principal (as per terms of enquiry document) as well as receipt of Indian supplies at site.
C	**FOR ALL SITE FABRICATED COLUMNS, VESSELS ETC. (FABRICATION YARD WITHIN PROJECT SITE)** 1. 02% against approval of drawings, wherever required (identified in PO/ PR/ Kick off Meeting / post order) at least in Code-2 / Code R and against submission of ABG of equivalent amount. 2. 03% against approval of drawings in Code-1 and against submission of ABG of equivalent amount. 3. 01% against receipt of foundation Template 4. 10% against placement of sub-order for specified major raw material (identified in PO/ PR or during KOM if not specified) and against submission of ABG of equivalent amount. 5. 24% against receipt and identification of major specified raw materials (Plates and Forgings) at supplier's works / Fabrication yard located outside Project site and against submission of ABG of equivalent amount. Submission of ABG is not required in case fabrication yard is located within project site. 6. 5% of the total PO value against Receipt and satisfactory final inspection of all dished ends at Fabrication yard and against submission of ABG of equivalent amount. Submission of ABG is not required in case fabrication yard is located within project site. 7. 20% of the total PO value against satisfactory completion of all long seam and circ seam welding and NDE before PWHT except closing circ. Seam weld joint and against submission of ABG of equivalent amount. Submission of ABG is not required in case fabrication yard is located within project site. 8. 20% with full taxes & duties and transportation charges against completion of all manufacturing & testing and unconditional IRN issued by the Inspection agency. 9. 05% on receipt of Inspection agency all Final/As built Drawings/Documents/Data/Manual in requisite number of copies/sets/ VDR specified in Purchase Requisition and uploading the same in EIL-portal. 10. 10% on receipt at erection site, erection in position (wherever applicable) and acceptance

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thereof all materials at site.

Major Raw Material for payment against placement of orders:

1	Columns/Vessels/Reactors/ Coke Drums/ Reactor & Regenerator	: Plates & Forgings

NOTES:

A. 1ST Milestone payment shall be released only after receipt of CPBG (wherever applicable) Wherever ABG is required to be submitted by the supplier against milestone progress payment, validity of ABG shall be valid till CDD which shall be further extended , as required till last date of receipt of all material at site. However ABG will be released on dispatch/ receipt of material at site (as applicable).

B. Prorata payments shall be applicable on dispatch of equipment. In case of equipment, prorate shall not be on part of equipment.

C. In case of indigenous SUPPLIERs, wherever taxes/duties are separately indicated, the order value shall be exclusive of taxes/duties. 100% payment of GST shall be paid on receipt of GST invoices and on proof of payment of GST, or, on auto-population under GST portal.

D. Payment to indigenous SUPPLIERs shall be released through Electronic Clearing System (ECS) and to foreign SUPPLIERs, payments other than against shipping documents, i.e., for Site Work and Supervision/Training etc. shall be through wire transfer.

E. Uploading of and Tracking of invoice in EIL invoice portal:

Suppliers and Service Providers shall upload the scan copy of invoices and other documents as required in the Purchase Order/Work Order on the EIL Invoice Portal to enable EIL to speed up and cut down on the processing and payment cycle. Post uploading, all correspondence between EIL and Suppliers/Service Providers will be through the portal. Suppliers/Service providers can track the status of the uploaded invoices through the portal.

A user guide on the operation of the portal is available on log in. URL of the portal is http://www.eil.co.in/invoiceportal. Registered Supplier/Contractor can Login with existing Supplier/Contractor code using the radio button. Non-Registered Supplier/Contractor can Login with PAN No. and generate the password using the radio button.

F. Irrevocable Letter of Credit (L/C) shall be acceptable from foreign Suppliers in place of Advance Bank Guarantee as well as Contract cum Performance Bank Guarantee.

G. For payment to Foreign suppliers: L/C shall be established in favor of the supplier in a bank in his country, for an appropriate amount (in line with Payment Terms). L/C shall be opened within 45 days of receipt of acknowledgement of FOA/PO and receipt of CPBG (wherever applicable). In case confirmed L/C is insisted by supplier, L/C confirmation charges shall be to supplier's account.

H. All payments (other than through L/C) shall be released within 30 days of receipt of invoice and all requisite documents, complete in all respects.

I. All bank charges of respective bankers shall be to respective account.

J. Supplier shall submit Billing Schedule within three weeks after placement of FOA/PO

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		(whichever is issued earlier) for EIL/OWNER's approval (wherever applicable). Suppliers requiring multiple dispatches will restrict the number of dispatches to maximum Three, unless agreed otherwise by Project Manager.
	K.	In case site front is not available up to 6 (Six) months (wherever site work is applicable), after receipt of all supplies at site, the payment against the site work shall be released on submission of additional Bank Guarantee of equivalent amount valid for 1 (One) year or such extended period as may be required
	L.	Certification for placement of sub-order and/or identification of major raw material, in the above payment terms, shall be carried out by the nominated Inspection agency.
	M.	Wherever the payment provision is there against ABG, and Vendor is not seeking payment against these milestone, those milestone payment shall be released along with milestone of despatch/ receipt of material at site without seeking any ABG for earlier milestone payment.
	N.	In case of high value Contracts for sophisticated Equipment/ Machinery, if domestic supplier insist payment through LC, this may be considered provided Loading provision is included in Bidding Document.
	O.	Normally foreign bidders insist for commencement of delivery -period until after they have received the Letter of Credit. However, for getting a hold on the delivery requirements, a conditional Letter of Credit may be opened, though, such a conditional Letter of Credit is neither operable nor does it certify any other performance for any commercial transaction. The Letter of Credit in such an event can be made operative upon submission by the supplier of another document which could not be furnished earlier before opening of such a conditional Letter of Credit. (e.g., submission of an unconditional order acceptance and submission of Contract Performance Guarantee). A time frame can be made part of the Letter of Credit to enable seller to submit such documents, as a check to expedite action by him.

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ANNEXURE –II
TO
SPECIAL PURCHASE CONDITIONS

TERMS & CONDITIONS FOR
INDIAN SOURCED COMPONENTS /SERVICES BY FOREIGN BIDDER

NOT APPLICABLE

ANNEXURE –III
TO
SPECIAL PURCHASE CONDITIONS

TERMS & CONDITIONS FOR
SUPERVISION OF ERECTION, TESTING & COMMISSIONING/ TRAINING AT SITE

TERMS & CONDITIONS FOR SUPERVISION OF ERECTION, TESTING & COMMISSIONING / TRAINING AT SITE

1. Bidder shall quote per diem charges which shall include lodging, boarding, medical, local transport, all insurances including Bidder's personnel and third party insurance, all other incidental charges and all taxes & duties, including GST (for bidders registered in India) .

2. Tax(s) as per Government policy shall be deducted at source by Purchaser while making payments against each invoice.

3. **For Foreign Bidders**: To & fro air fare by economy class through most economical route preferably by Air India and/or AC 2 Tier by Train Fare**(*)**within India nearest to site***(Mangaluru, Karnataka)***, will be reimbursed at actual. Local transportation in bidder's country shall be to bidder's account.

4. **For Indian Bidders**: To & fro air fare by economy class through most economical route preferably by Air India and/or AC 2 Tier by Train Fare**(*)** nearest to site ***(Mangaluru, Karnataka)***, will be reimbursed at actual.

   (*)In case a bidder travel's by any other mode of transport, the payment shall be made against documentary evidence subject to maximum of AC 2 Tier train fare.

5. Per diem charges shall be payable from the day bidder's person reaches site upto the day he leaves the site. No payment will be made for travel days/period.

6. In case bidder's representative is not called for during Intervening weekly off/Holidays, the same shall be payable at the normal rate of site services. However, in case Seller's representative is called at site during weekly off/Holiday, the same shall be paid @ overtime rate quoted extra by bidder.

7. In case bidder's representative takes leave, per diem charges for that day shall not be payable.

8. Working hours prevailing at site, normally 8 hours/day - Monday through Saturday and holidays as applicable to Purchaser's site personnel shall apply.

9. Selection of Foreign/ Indian supervisory personnel shall be left to Owner's/Purchaser's choice.

10. Vendor's supervisory personnel shall observe/abide by site working conditions prevailing at the existing site, safety codes, Indian laws and local laws.

11. A notice period of 15 days (or as specified in BDS) will be given for mobilization of supervisory personnel for supervision of erection.

12. Validity period of per diem rate shall be upto the end of guarantee period. Further, in case services for supervision are required after the guarantee period, 8% annual escalation shall be applicable.

13. Payment: As per BDS.

14. Requirement of Employment Visa for Foreign Nationals

All foreign nationals coming to India for execution of Projects / Orders will have to apply for Employment Visa only and that grant of Employment Visa would be subject to strict adherence of following norms:

i) Employment Visa is granted only for the skilled and qualified professional or to a person who is being engaged or appointed by a company, organization, Industry or undertaking etc. in India on contract or employment basis at a senior level, skilled position such as technical expert, senior executive or in managerial position etc.

ii) Request for employment Visa for jobs for which large number of qualified Indian are available, is not considered.

iii) Under no circumstances an Employment Visa is granted for routine, ordinary secretarial / clerical jobs.

iv) Bidders are advised in their own interest to check latest Visa rules from Indian Embassy/ High Commission in their country in case foreign nationals are required to be deputed to Indian during execution of the Order.

CHARGES FOR SUPERVISION OF ERECTION/TESTING/COMMISSIONING:

S. No.	Description	Vendor's Reply/Information (TO BE QUOTED IN PRICE SCHEDULE) Currency
1.	Per diem charges (per person) for 8 hours work on normal working days (Monday to Saturday)	TO BE QUOTED ON GEM PORTAL /Day
2.	Overtime rate/ hour beyond normal 8 hours work on normal working days.	TO BE QUOTED IN SEPARATE FILE IN FINANCE FOLDER (.in pdf) AS PER PROFORMA PROVIDED BIDDING DOCUMENT /Hour
3.	Overtime rate/hour for work on weekly off days/holidays (as applicable at Project site).	TO BE QUOTED IN SEPARATE FILE IN FINANCE FOLDER (.in pdf) AS PER PROFORMA PROVIDED BIDDING DOCUMENT /Hour

Notes:

1. In case bidder recommends more than one category level of supervisory personnel the information desired at Sr. Nos.2 to 3 above in the table shall be furnished separately for each category of supervisory personnel.
2. Quoted per diem rate shall be considered in the evaluation as per RFQ Document.

Bidder's Acceptance:

RFQ No. :
Item :
Offer No. :

Signature with Name & Date and
Seal/Stamp of the Bidder

ANNEXURE –IV
TO
SPECIAL PURCHASE CONDITIONS

TERMS & CONDITIONS FOR INSTALATION / SITE WORK (PART OF SUPPLY ITEMS)

TERMS & CONDITIONS FOR INSTALATION / SITE WORK (PART OF SUPPLY ITEMS)

1.0 The Vender shall perform their jobs in eco-friendly manner and in consonance with the objectives of MRPL Site environment management system.

2.0 Construction / erection work for several other project facilities at various locations within refinery site will be progressing concurrently. It will be the responsibility of vendor to seek approvals from the Owner/Purchaser for working within & outside the refinery limits and also of taking all suitable safety measures as per regulations in force for the safety of existing-refinery.

3.0 The material shall be collected by the vendor from Purchaser's stores/Project Site/vendor's own stores (as the case may be) and transported to the erection site at Vendor's cost and risk.

4.0 All labour (both skilled and unskilled), tools, tackles and consumables, shall be arranged by Vendor at his own cost.

5.0 Vendor shall arrange for the necessary transport, accommodation, medical, canteen and other facilities for their employees/staff at their own cost and abide by all labour laws, safety codes and statutory regulations and keep Owner/ Purchaser indemnified in respect thereof.

Purchaser shall arrange the Marine cover Insurance, Mega Risk Policy and Erection All Risk Cover Insurance for the project for permanent incorporation of material and services. Vendor shall arrange and pay for all other insurances as may be required under the law for their employees/ materials/subcontractor(s) and shall also cover against all risk for the materials issued by Purchaser. Vendor shall takes insurance of construction equipment for performance of site-work, tools, materials for temporary works etc at their own cost.

6.0 Vendor shall be working at Owner's site along with agencies that will be engaged in the other activities. For this purpose, the third-party risk shall also be covered by Vendor.

7.0 The Vendor is responsible for keeping his work place neat and clean and shall always avoid scattering of any materials around the work place. The Vendor shall clear the work site of all debris, materials, tools, tackles etc. immediately upon completion of the job. Any temporary line/cables etc. laid for the purpose of execution of a particular job shall be immediately removed to an agreed location and the site cleared off all such materials.

8.0 The Vendor shall not throw out gaskets, used electrode pieces, hand gloves, cotton wastes, gunny bags, polythene bags etc. into open channel, any drains or pipe line system. These are to be collected together and deposited in bins/waste collectors earmarked for the purpose of disposal after consultation with Engineer-in-Charge.

9.0 CONSTRUCTION WATER

Subject to availability, Construction Water shall be provided by OWNER free of cost at one point from where Vendor will make his own arrangement for temporary distribution through tested and certified piping / fittings.

DM Water (for Hydro-testing purpose only) shall be provided by OWNER free of cost , subject to availability.

However, in case of non-availability of above due to any reasons, Vendor shall be responsible for making all arrangements for construction water at his cost. Any statutory requirements/documentation etc. to this effect shall also be met by the Bidder. Non-availability of water due to any reason shall not entitle the Vendor for any claim against OWNER/EIL on account of cost and time implications.

10.0 CONSTRUCTION POWER

The Vendor shall make his own arrangements for Construction Power required for carrying out the scope of works as per Bidding Document.

Subject to availability, construction power shall be provided by OWNER on chargeable basis at the rate of **Rs. 9.5/kWh** at one point from sub-station(s) near the Works site. Further onward power distribution from above location(s) shall be by the Vendor at their cost. The construction power shall be made available to the Vendor subject to grid distribution.

However, in case OWNER is not able to provide construction power, Vendor shall be responsible for making all arrangements for construction power at his cost. Any statutory requirements/documentation etc. to this effect shall also be met by the Vendor.

Further, non-availability of construction power or due to any other reasons shall not entitle the Vendor for any claim against OWNER on account of time and cost implications. Therefore, the Vendor shall within the contract price make alternative arrangements to cope with such eventuality.

Additional power, if required, to meet the contractual requirements, shall be arranged by the Sub-Contractor at its own cost.

OWNER shall recover the cost of power supply every month at prevailing rate (without prejudice to any other mode of recovery available to OWNER) by deduction from the Vendor's bills. The energy meter to be installed by the Vendor shall be tested and certified by State Electricity Board or any other agency approved by OWNER/ EIL.

11.0 LAND FOR SITE OFICE

The land shall be allocated by Owner to the Vendor Free of Charge limited to the area required for temporary site office and storage area (open or covered) at job site. Batching Plant and fabrication yard, if required, to be arranged by vendor outside MRPL premises at their own cost. Additional land (if required by Vendor) over and above the allocated land shall have to be arranged by the Vendor at their own cost. No land shall be provided for accommodation purposes to the Vendor, or the purposes of any Vendor's personnel. The Vendor shall remove all temporary buildings/ facilities etc. immediately after completion of works in all respects. Security of temporary site office, fabrication yard and storage area shall be arranged by vendor at their own cost.

12.0 All Cranes, handling equipment etc, as required, shall be arranged by Vendor at his cost.

13.0 As per the applicable Factory Act the Labour License, if required, shall be taken byVendor before starting the works.

14.0 All necessary compliances to various statutory requirements including Factories Act,Labour Welfare legislations, PF & ESI etc. shall be vendor's responsibility.

15.0 Necessary tax registrations etc., if any, shall be bidder's responsibility and cost shall be included in the quoted price.

16.0 The Contractor shall adhere to the Health, Safety and Environment (HSE)management system as per MRPL's Contract Worker's Safety Policy, EIL specification no. 6-82-0001, OISD Guidelines 192and OISD Guidelines 207, enclosed.

17.0 It shall be vendor's responsibility to comply with all rules and regulations in force atconstruction site.

18.0 Surplus material, if any, after completion of site work, shall not be allowed to be taken out of the refinery premises, if EIL/Owner has paid for such materials.

19.0 Contractor to follow the appropriate system for movement of equipment inside refinery area.

20.0 REQUIREMENT OF EMPLOYMENT VISA FOR FOREIGN NATIONALS

All foreign nationals coming to India for execution of Projects / Orders will have to apply for Employment Visa only and that grant of Employment Visa would be subject to strict adherence of following norms:

20.1 Employment Visa is granted only for the skilled and qualified professional or to a person who is being engaged or appointed by a company, organization, Industry orundertaking etc. in India on contract or employment basis at a senior level, skilledposition such as technical expert, senior executive or in managerial position etc.

20.2 Request for employment Visa for jobs for which large number of qualified Indian are available, is not considered.

20.3 Under no circumstances an Employment Visa is granted for routine, ordinarysecretarial / clerical jobs.

Bidders are advised in their own interest to check latest Visa rules from Indian Embassy/ High Commission in their country in case foreign nationals are required to be deputed to Indian during execution of the Order.

ANNEXURE –V
TO
SPECIAL PURCHASE CONDITIONS

TERMS & CONDITIONS
FOR
ANNUAL MENTAINENANCE CONTRACT (AMC)

ANNUAL MAINTENANCE CONTRACT (AMC)

(TERMS & CONDITIONS)

1. Bidder shall quote for the Post Warranty Annual Maintenance Contract as per scope defined in Material Requisition / Technical portion for a period of years as specified in the Material Requisition. Please furnish the year wise Break-up in respective field provided in Finance Folder of GeM Portal.
2. The AMC Charges quoted in respective field provided in Finance Folder of GeM Portal shall be inclusive of all the charges forTransportation, Lodging, Boarding, all insurances including third party insurance, all Taxes &Duties and all other incidental charges etc. including GST. Owner will not have any liability,whatsoever, over and above the quoted prices.
3. Payment : As per BDS.
4. The order for AMC will be placed before the expiry of contractual Warranty Period. The price of AMC services will remain firm & fixed for the complete execution of AMC contract. In case there is delay in start of AMC from the date of expiry of warranty period, the charges shall be paid on pro rata basis for the duration curtailed from original specified AMC period.
5. Within 2 weeks of placement of Order for AMC, Seller shall submit CPBG for 5% of the Maximum annually AMC amount which shall be valid for the entire AMC period plus 2 months claim period.
6. Periodic and Preventive maintenance: Vendor shall depute their engineers to installation site as & when required for regular checkups, as part of periodic maintenance. Vendor shall also depute their service engineers periodically for preventive maintenance, major repairs /replacement and reporting. Price shall also include emergency visits as necessary.
7. Scope of AMC shall be as per MR/ Technical portion. The quoted lump sum rate shall include providing all manpower, machineries and materials required to carry out the work as per scope of work of AMC defined in the MR.

ANNEXURE –VI
TO
SPECIAL PURCHASE CONDITIONS

TERMS & CONDITIONS FOR TRAINING OF OWNER PERSONNEL AT VENDOR'S WORKS/TRAININGFACILITY

TERMS & CONDITIONS FOR TRAININGOF OWNER PERSONNEL AT VENDOR'S WORKS/TRAININGFACILITY

1. Bidder shall quote Training charges of EIL's/Owner's Operation and Maintenance personnel at Bidder's works/training facility on lumpsum basis.
2. All expenses including but not limited to Air-fare, accommodation, local conveyance, living expenses etc of EIL's/Owner's personnel shall be borne by Purchaser.
3. Quoted prices shall be inclusive of all taxes & duties including GST .
4. A notice period of 15 days (or as specified in BDS) will be given by EIL for prior arrangement.
5. PAYMENT TERMS: As per BDS.

E-INVOICING DECLARATION

[ANNEXURE - VII TO SPECIAL PURCHASE CONDITIONS

<Declaration to be provided by supplier/contractor where turnover is less than INR 5 crores (on letterhead)>

We, **<Name of entity>**, (a Proprietorship firm / Partnership firm / Company), having its registered office at **< address>**, having PAN No. _____and GSTIN No._____ , hereby declare that **<Name of entity>**'s aggregate turnover of all GSTINs in any Financial Year from 2017-18 to 2021-23 is less than INR 5 Crores (Rupees Five Crores) and **<Name of entity>** is not required to comply with e-invoicing provisions proposed under GST.

<Name of entity> also hereby declare that **<Name of entity>** will update Engineers India Limited in case there is any change in the above details or in case **<Name of entity>** is required to adhere to e-invoicing provisions under GST due to any subsequent change in law. In such case, **<Name of entity>** shall comply with provisions of e-invoicing regime as and when the same becomes applicable to **<Name of entity>**.

<Name of entity> hereby declare the above statement is true and correct and **<Name of entity>** shall indemnify and hold Engineers India Ltd good for any demand, credit reversal, denial of refund, loss, interest or penalty, suit, action, costs and expenses whatsoever (including attorneys' fees and associated legal costs) which may be commenced against and/or incurred by Engineers India Limited due to any incorrect declaration or non-compliance by **<Name of entity** and Engineers India Ltd shall have the right to withhold or recover any such loss/cost/expense from any amount payable to **<Name of entity>**

<Name and signature of authorized signatory >

For <Name of entity>

<Entity's Seal/Stamp>

<Date>

ANNEXURE –VIII
TO
SPECIAL PURCHASE CONDITIONS

MODEL DISPUTE RESOLUTION CLAUSE

MODEL DISPUTE RESOLUTION CLAUSE

1. In respect of all or any dispute(s) of any kind whatsoever between the Parties arising out of or in connection with the Contract, the Parties shall seek to resolve any such dispute or difference by mutual consultation, failing which, mandatorily by way of Conciliation through Outside Experts Committee as per EIL Conciliation Rules 2012 (as amended), and only if such Conciliation fails then through Arbitration / Commercial Courts as mentioned herein.

2. There shall be no arbitration, for all or any dispute(s) involving aggregate claims (including interest, all inclusive) less than Rs. 25 Lakhs and for all or any dispute(s) involving aggregate claims (including interest all inclusive) greater than Rs. 5 Crores.

   All or any dispute(s) involving "aggregate claims (including interest, all inclusive) less than Rs. 25 Lakhs and aggregate claims (including interest, all inclusive) greater than Rs. 5 Crores" shall be adjudicated shall be adjudicated by the Courts of competent jurisdiction at New Delhi.

3. All or any dispute(s) arising out of or in connection with the Contract, involving aggregate claims (including interest, all inclusive) between Rs. 25 Lakhs and Rs. 5 Crores, which cannot be resolved through Outside Experts Committee as per EIL Conciliation Rules 2012 (as amended) may be referred to arbitration for adjudication in the manner specified herein.

   Provided that any dispute(s) specifically specified as excluded matters and listed at clause no. 8 shall not be arbitrable.

4. The Arbitration shall be in accordance with Arbitration and Conciliation Act, 1996 (as amended). The fee of arbitrator in respect of claims by the Contractor shall be paid by the Contractor and fee of arbitrator in respect of claims by EIL shall be paid by EIL. This agreement between parties that the fee on contractor's claim is payable by the Contractor and the fee on the EIL's claims shall be paid by EIL, shall valid and such agreement shall be renewed between the parties after the dispute in question has arisen.

   All other expenses (including expense related to venue, travel of the arbitrator, local conveyance, secretarial assistance, and any other incidental expenditure) shall be equally shared by both the parties.

5. On invocation of the Arbitration clause by either party, EIL shall suggest a panel of three independent and distinguished persons to the other party from the Panel of Arbitrators maintained by 'Delhi International Arbitration Centre (DIAC)' to select any one among them to act as the Sole Arbitrator. In the event of failure of the other party to select the Sole Arbitrator within 30 days from the receipt of the communication from EIL suggesting the panel of arbitrators, the right of selection of the sole arbitrator by the other party shall stand forfeited and EIL shall appoint the Sole Arbitrator from the suggested panel of three Arbitrators for adjudication of dispute(s). The decision of EIL on the appointment of the sole arbitrator shall be final and binding on the other party.

6. The Arbitration proceedings shall be in English language and the seat, venue and place of Arbitration shall be New Delhi, India only.

7. Subject to the above, the provisions of Arbitration & Conciliation Act 1996 and any amendment thereof shall be applicable.

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8. List of Excluded matters:

    a. Whether or not a claim sought to be referred to arbitration by the contractor is a notified claim.

    b. Whether or not a notified claim is included in the contractor's final bill in accordance with the provisions of contract.

    c. Any claim, difference or dispute relating to, connected with or arising out of EIL's decision under the provisions of Integrity Pact executed between EIL and the Bidder / Contractor.

    d. Any claim, difference or dispute relating to indulgence of Contractor/Vendor/Bidder in corrupt/collusive/coercive practices and/or the same is under investigation by CBI or Vigilance or any other investigating agency or Government.

    e. Any claim, difference or dispute relating to, connected with or arising out of EIL's decision to initiate any proceedings for suspension or banning, or decision to suspend or to ban business dealings with the Bidder / Contractor and/or with any other person involved or connected or dealing with bid / contract / bidder / contractor

9. Parties mutually agree that Arbitral Tribunal/Arbitrator will not include in the sum for which the award is made any interest for any part of period between the date on which the cause of action arose and the date on which the award is made. Accordingly the Parties mutually agree that neither the arbitral claim nor the arbitral award shall include interest component for any part of period between the date on which the cause of action arose and the date on which the award is made.

10. Governing Law and Jurisdiction: The Contract shall be governed by and construed in accordance with the laws in force in India. The Parties hereby submit to the exclusive jurisdiction of the Courts situated at New Delhi for invocation of Arbitration clause, adjudication of disputes, injunctive reliefs, actions and proceedings, if any, arising out of this Contract.

11. Sub clauses 2 to 9 of this clause shall not be applicable in contracts where both the parties to the contract come under the purview of AMRCD/AMRD Mechanism.

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ANNEXURE –IX
TO
SPECIAL PURCHASE CONDITIONS

EIL CONCILIATION RULES

ENGINEERS INDIA LIMITED CONCILIATION RULES, 2012

Rules for Speedier, Cost-effective, Out-of-Court, Out-of-Arbitration Amicable Dispute Settlement through Conciliation

Whereas Part-III of the Indian Arbitration and Conciliation Act, 1996 makes elaborate provisions for Alternate Dispute Resolution through Conciliation, which is emerging as an effective Dispute Resolution Mechanism for Public Sector Units in India.

Whereas Engineers India Limited desires to approach Conciliation as a Dispute Resolution Mechanism and hereby frames the present Rules in conformity with/supplementary to Part - III of the Indian Arbitration and Conciliation Act, 1996 for speedier, cost-effective and amicable settlement of disputes through Conciliation.

RULE 1: SHORT TITLE

These Rules shall be called the Engineers India Limited Conciliation Rules, 2012.

RULE 2: DEFINITIONS

(a). **"EIL"** shall mean Engineers India Limited, having its registered office at 1, Bhikaji Cama Place, R.K.Puram, New Delhi - 110066.

(b). **"Panel of Conciliators"** shall mean the list of eligible persons maintained by EIL's Legal (Commercial) and approved by the Chairman & Managing Director of EIL to act as Conciliators in Conciliation proceedings under these Rules.

Proposals initiated by Legal (Commercial) for empanelment of such Conciliators shall be approved by Director (Commercial) and Director (Finance) before the same is approved by Chairman & Managing Director of EIL.

(c). **"Party"** means a Party to a defined legal relationship, whether contractual or otherwise or a Party to a Conciliation proceeding under these Rules.

(d). **"Rules"** shall mean the Engineers India Limited Conciliation Rules, 2012.

(e). **"Outside Experts Committee"** shall mean the Committee of Conciliators appointed under Rule 5 (g) of these Rules.

(f). **"Working Day"** shall mean any of the Five days from Monday to Friday, excluding holidays declared by Engineers India Ltd.

RULE 3: APPLICATION OF RULES

(a). The Engineers India Limited Conciliation Rules, 2012 shall apply to any dispute, arising out of or relating to a contractual or defined legal relationship in the form of a contract or otherwise, involving Engineers India Limited as a Party where the parties seeking an amicable settlement of their disputes have agreed that Engineers India Limited Conciliation Rules, 2012 apply.

(b). The scope of Conciliation under these Rules shall encompass both domestic and international disputes of a private law nature, whenever a settlement is possible.

(c). Pendency of Arbitral or Judicial proceedings shall not constitute any bar on commencement of Conciliation proceedings under these Rules, even if the proceedings under these Rules are on the same subject matter/issue as the Arbitral or Judicial proceedings. However, in such case, the parties shall put such arbitral/judicial proceedings on hold to facilitate the Conciliation Proceedings.

(d). These Rules shall not, however, apply to dispute(s) which, by virtue of any law for the time being in force in India, may not be submitted to Conciliation.

(e). These Rules shall be subordinate to and supplementary to Part-III of the Indian Arbitration and Conciliation Act, 1996 and the latter would prevail over the former to the extent of inconsistency, if any.

(f). These Rules are broad standard Conciliation Procedures for a flexible, systematic, expedient and amicable settlement of disputes and Parties may mutually agree to make appropriate adjustments and such mutually agreed departures/deviations from any of these Rules shall not in any circumstance render a Conciliation Proceeding or any Settlement Agreement reached pursuant thereto void Ab-Initio.

(g). Subject to subsequent Agreement between/amongst the Parties, Conciliation under these Rules may be invoked, even if Conciliation is not the prescribed Dispute Settlement Mechanism or these Rules are not the prescribed Conciliation Rules under the relevant Contract/Agreement or any form of defined legal relationship.

(h). Raising of any issue or point of dispute by any Party - factual or otherwise - in writing or otherwise in any earlier communication (electronic or otherwise) between or amongst the Parties (without resolution) shall not be considered 'Conciliation' or part thereof under these Rules, unless such Conciliation proceedings are formally invoked under these Rules.

RULE 4: PANEL OF CONCILIATORS

(a). Legal (Commercial) shall, for the purpose of appointing the Conciliator between the Parties, shall prepare and maintain a Panel of Conciliators, consisting of persons of unquestionable integrity and good public standing within sixty days of coming into force of these Rules in accordance with clause 2 (b) above.

(b). Conciliators in the Panel of Conciliators, maintained by EIL, shall be Independent persons, who are neither employees nor Consultants/ Advisors of Engineers India Limited. However, the ex-employees of EIL are in no manner precluded from being included in such panel, provided they do not draw any benefits from Engineers India Limited during the span of such proposed inclusion in the panel.

(c). The consent of the persons whose names are included in the panel shall be obtained before empanelling them.

(d). The panel shall contain an Annexure, giving details of the qualifications of the conciliators and their professional or technical experience in different fields.

(e). The panel of Conciliators appointed under Clause (a) shall normally be for a period of three years from the date of appointment and further extension of the panel of Conciliators shall be at the discretion of the Chairman & Managing Director of Engineers India Limited.

(f). The following persons shall be eligible for consideration for empanelment in EIL's Panel of Conciliators:

i. Retired Secretary/Additional Secretary of Govt. of India or any equivalent post thereof.
ii. Retired Chairman-cum-Managing Director/Functional Directors of any Central Public Sector Enterprise in India.
iii. Retired Independent Directors who have served on the Board of any Central Public Services Enterprise.
iv. Independent Experts registered with the Indian Council of Arbitration.
v. Retired officials of not less than the rank of Executive Director of any Central Public Sector Enterprise.

(g). Any person in the Panel of Conciliators maintained by EIL shall not be entitled to any monetary benefit or remuneration/fees or other facility(ies) only by virtue of his/her name being in such a Panel, except when he/she is actually appointed as a Conciliator for specific Conciliation proceedings under these Rules vis-a-vis any specific issue(s) or Dispute(s) referred for Conciliation.

(h). The Chairman & Managing Director of EIL is empowered to approve, add or delete any name from the list of panel of Conciliators.

(i). Removal of a person from EIL's Panel of Conciliators shall not have the automatic effect of removal/withdrawal of the said person from an existing Outside Experts Committee in relation to specific Dispute(s) referred for Conciliation, unless the Parties thereto agree on such removal/ withdrawal.

(j). Disqualifications of persons appointed as Conciliators

The following persons shall be deemed to be disqualified for being empanelled as Conciliators:

i. Any person who has been adjudged as insolvent or persons

1. against whom criminal charges involving moral turpitude are framed by a criminal court and are pending; or
2. who have been convicted by a criminal court for any offence involving moral turpitude.

ii. Any person against whom disciplinary proceedings have been initiated by the appropriate disciplinary authority which are pending or have resulted in a punishment.

iii. Any person who is interested or connected with the subject-matter of dispute(s) or is related to any one of the Parties or to those who represent them, unless such objection is waived by all the parties in writing. A Member of Outside Experts Committee before entering into a reference for conciliation shall give an undertaking in the manner prescribed in **Schedule – A.**

iv. Any legal practitioner who has or is appearing for any of the Parties in any suit or in other proceedings(s).

RULE 5: CONCILIATORS - NUMBER & APPOINTMENT

(a). There shall be one Conciliator in cases where claim value does not exceed Rs. 2 Crores. However, in case the amount involved is more than Rs. 2 Crores, the same will be settled by a panel of three Conciliators one each from Technical, Finance/Commercial and Legal fields. All such Conciliators will be outside experts appointed by Chairman & Managing Director of EIL from the panel of Conciliators being maintained by EIL.

(b). The Conciliator(s), as and when appointed by the Parties for a specific Conciliation proceeding, shall constitute and function by the name and style of "Outside Experts Committee" in regard to the dispute(s) referred for Conciliation and shall conduct Conciliation proceedings under these Rules.

(c). If a Conciliator withdraws himself or herself or is removed by the Parties from a Conciliation Proceeding on the ground of continued absence for at least three scheduled meetings/hearings or is otherwise unavailable for the Conciliation proceeding for no justifiable reason(s), the Parties may appoint another Conciliator in the same manner contemplated herein.

RULE 6: INITIATION OF CONCILIATION

(a). EIL or any Party to a defined legal relationship with EIL - Contractual or otherwise, wishing to settle any issue with the other Party(ies), shall serve the other Party(ies) with a Written Notice/Invitation for initiation of Conciliation Proceedings under these Rules, preferably after exhausting the normal official avenues of communication for resolving the issue proposed to be referred to conciliation.

(b) In case EIL desires to initiate the Conciliation Proceedings, the concerned group executing the project, shall first obtain the consent of the other Party.

Thereafter the case shall be moved by the aforesaid project group for approval of Director (Projects), Director (Commercial), Director (Finance) and Chairman & Managing Director for referral to conciliation by constitution of expert committee called 'Outside Experts Committee'.-

(c). A Written Notice/Invitation for initiation of Conciliation proceedings shall, inter alia; contain the following details:

i. Issue(s) in dispute - Factual or Otherwise
ii. Identity of the Party (ies) - Name, Official Address, Contact E-Mail Address, Telephone Number(s), Official Representative etc.
iii. Consent of the Party serving Notice of Conciliation under these Rules
iv. Any other term and condition for conciliation, consistent with the Indian Arbitration and Conciliation Act, 1996

(d). The Party(ies), receiving Written Notice(s)/Invitation(s) for Conciliation under Sub-Rule (a) shall, within 30 days of receipt of Written Notice/Invitation for Conciliation, intimate its/their consent for Conciliation Proceedings under these Rules and the Chairman and Managing Director of EIL shall appoint the Conciliator from the panel of Conciliators being maintained by EIL.

(e). If no Reply(ies) under Sub Rule (c) is/are received from the other Party(ies), on whom Written Notice(s)/Invitation(s) for Conciliation under Sub-Rule (a) has/have been served, within 30 days of Invitation or within such period prescribed in the Written Notice/Invitation for Conciliation, whichever is longer, the Invitation for Conciliation may be treated as 'Rejected'.

(f). Conciliation proceedings under these Rules shall be deemed to commence on the day the Party, receiving Invitation for Conciliation, intimates in writing its acceptance of such an invitation. For Conciliation proceedings with more than two Parties, such proceedings shall be deemed to commence on the day the last intimation of acceptance of Invitation for Conciliation is received from a Party.

(g). If the Parties fail to agree on appointment of Conciliator(s) and constitution of Outside Experts Committee within 90 days of receipt of Reply(ies) from the other Party(ies) under Sub-Rule (e) or such extended time-period, as agreed between/amongst the Parties, whichever is longer, the efforts at dispute settlement through Conciliation shall be treated as 'failed'.

RULE 7 - CONCILIATION PROCEEDINGS

(a). The Outside Experts Committee, within 7 working days of its constitution, may request the Parties to file a brief Written Statement, describing the general nature of the dispute(s) and points at dispute. Any other document may also be filed, if a Party so desires.

(b). The Outside Experts Committee may also request the Parties to submit further Written Statements of the concerned Parties' position and facts and grounds in support thereof, supplemented by any document(s) and other evidence that such a Party deems appropriate. The Parties may also be asked to furnish copies of relevant earlier communications exchanged amongst themselves, if any, on the issue of dispute.

(c). It shall be open to the Parties to make any proposal for amicable settlement of dispute and the Outside Experts Committee shall hear the other party on the said proposal.

(d). The Outside Experts Committee shall make best endeavour to settle the dispute(s) through proposals of the Parties only, before making any Proposal(s) itself first. Nevertheless, as and when it is deemed extremely important or on joint request of the. Parties, the Outside Experts Committee at any point of time during the Conciliation proceeding make any proposal - oral or otherwise.

(e). The first meeting of the Parties shall be called by the Outside Experts Committee, after consulting the Parties involved, at a convenient date and time, within 10 working days of receipt of documents mentioned in the preceding Sub-Rule (a).

(f). During the first meeting, a tentative time-frame and broad work-Schedule of the Conciliation proceedings may be finalized after due consultation with and consent of the Parties.

(g). The Outside Experts Committee shall be free to communicate in whatever manner it deems fit with any Party to furnish any kind of information or document(s) relevant for the purpose of the Conciliation proceeding.

(h). The Outside Experts Committee shall, as much as possible, proceed with the Conciliation proceeding on issue-by-issue basis, but after proper identification of relevant issues with the consent of the Parties.

(i). The Outside Experts Committee, with the consent of the Parties, may also call for material witness(es) to assist the Committee in reaching an amicable solution of the dispute(s) referred.

(j). Each Party shall send a copy of its brief Statement and every other document(s) filed before the Outside Experts Committee to the .other Party(ies).

(k). The Outside Experts Committee shall encourage the Parties to meet and discuss amongst themselves for an amicable settlement of the dispute(s) referred.

(I). The Outside Experts Committee may also provide opportunities for oral hearing and make suggestions - oral or in writing - at any appropriate stage of the Conciliation proceeding, as contemplated by Section 67 of the Indian Arbitration and Conciliation Act, 1996.

RULE 8: REPRESENTATION, VENUE & OTHER BROAD PRINCIPLES

(a). Advocates shall not be allowed to participate in Conciliation Proceedings under these Rules and Parties shall plead their own cases.

(b). Parties shall, however, be free to be represented by their duly authorized officers/ in-house Law Officers to argue their own cases.

(d). Conciliation Proceedings under these Rules shall be held in the office of Engineers India Limited at 1, Bhikaji Cama Place, R.K.Puram, New Delhi - 110066.

(g). Equal Opportunity shall be given to the Parties to express their views before the Outside Experts Committee and the said Committee shall make utmost effort to ensure that the Conciliation proceedings are conducted in a friendly and conducive manner.

(h). Representation of the Parties may be oral or in writing and unless otherwise decided by the Parties, Minutes of the Meetings/Hearings may be recorded

briefly in broad general terms, without, however, recording adversarial submissions/developments, if any. Copies of such minutes of meetings, if recorded in writing, shall be sent to the Parties within 3 working days of each such Meeting/Hearing.

(i). Best efforts shall be made to ensure that Conciliation proceedings are conducted in a time-bound manner, without, however, diluting procedural flexibility of such proceedings.

RULE 9: ROLE OF THE OUTSIDE EXPERTS COMMITTEE

(a). The Outside Experts Committee shall attempt to facilitate voluntary resolution of the dispute(s) by the Parties, and communicate the view of each party to the other(s), assist them in identifying issues, reducing misunderstandings, clarifying priorities, exploring areas of compromise and generating options in an attempt to solve the dispute(s), emphasizing that it is the responsibility of the Parties to take a final decision; he/she/they shall not impose any terms of settlement on the Parties.

(b). The Outside Experts Committee shall be guided by the principles of objectivity, fairness and justice and shall assist the Parties in an independent, impartial and dignified manner to reach amicable settlement of dispute(s).

(c). The Outside Experts Committee shall conduct conciliation proceedings in conformity with Part – III of the Indian Arbitration and Conciliation Act, 1996 and these Rules to the optimum extent possible, but shall be flexible with appropriate adjustments, whenever required or whenever the Parties make joint request.

(d). The broad approach of the Outside Experts Committee shall be speedy, efficient and amicable settlement of disputes, without, however, diluting objectivity of approach, principles of Natural Justice and established principles of law.

(e). The Outside Experts Committee shall act more as facilitators, rather than as Judges/Umpires/Arbitrators and shall not impose any view on any of the Parties involved.

RULE 10: TIME FRAME

(a). The total number of hearings/meetings of the Outside Experts Committee as Conciliators in a Conciliation proceeding shall be not more than 5, but the same may be extended in consultation with and with the mutual consent of the Parties.

(b). The Outside Experts Committee as Conciliator(s) shall attempt to dispose of the entire Conciliation proceeding within a time-frame of four months, but the same may be extended in consultation and with the consent of the Parties, but not beyond the sixth month.

(c). Notwithstanding the above, a Settlement Agreement signed after the 6 Months period stipulated above shall not become void or unenforceable only because of such an Agreement having been signed after the stipulated Six Months period.

RULE 11: REMUNERATION & COST

(a). For each hearing/meeting, a Conciliator shall be paid a sum of Rs.10,000/-. For Secretarial Services, a lump sum amount of Rs. 10,000/- (Rupees Ten Thousand Only) shall be paid by the Parties for the whole Conciliation proceeding.

(b). Apart: from hearing/meeting fees and Secretarial Services fees, expenses incurred on Railway/Air fare, accommodation, local travel of Conciliator(s) for the purpose of the Conciliation proceeding, if any, shall also be borne by the Parties.

(c). Subject to Sub-Rule (c), the cost of Conciliation, mentioned in Sub-Section (2) of Section 78 of Part - III of the Indian Arbitration and Conciliation Act, 1996, including Conciliators' Fees and other expenses incurred by the Outside Experts Committee relating to a Conciliation proceedings and the

Settlement Agreement, shall be equally borne by the Parties, unless the Outside Experts Committee, with the consent of the Parties, provides for a different apportionment of cost with reasons thereof.

(d). Cost of preparing Settlement Agreement shall be fixed by the Outside Experts Committee in the Settlement Agreement, as required by Section 78 of Part - III of the Indian Arbitration and Conciliation Act, 1996.

(e). The cost of Conciliation as determined by the Outside Experts Committee as per Part - III of the Indian Arbitration and Conciliation Act, 1996 and these Rules shall be paid by the Parties within 30 working days of signing the Settlement Agreement.

(f). The Outside Experts Committee, in the alternative, may require the Parties to deposit the required fees and expenses in advance in the manner prescribed by Section 29 of the Indian Arbitration and Conciliation Act, 1996.

RULE 12: DISCLOSURE OF INFORMATION

When a Party to a Conciliation proceeding provides any information concerning any issue of dispute to the Outside Experts Committee, subject to a specific condition that such an information is to be treated confidential, the Outside Experts Committee shall not disclose that information to the other Party(ies).

RULE 13: CO-OPERATION OF PARTIES

(a). The Parties shall in good faith co-operate with the Outside Experts Committee and, in particular, will endeavour to comply with any request of the Outside Experts Committee to submit written materials, provide evidence, give clarification, attend meetings/hearings etc.

(b). Conciliation being an amicable Dispute Settlement Mechanism, the Parties shall not take adversarial roles, but instead make every possible effort to accommodate the other Party's/Parties' viewpoints, without, however, diluting the correct legal position.

(c). The Parties shall make every possible effort to render optimum co-operation for a speedy, efficient and yet mutually acceptable & amicable resolution of disputes.

(d). The .Parties shall not in any manner make any attempt to unduly influence the Conciliation process or the Outside Experts Committee or the Conciliator(s) by way of inducement in any form or manner and shall conduct themselves with full dignity, honesty and integrity.

RULE 14: SETTLEMENT AGREEMENT

(a). After discussing with and hearing all the Parties involved, the Conciliator(s) shall formulate the draft terms of a possible settlement and submit the same to the Parties for their consideration/observations/comments.

(b). If any part of the draft Terms of Settlement is not acceptable to any of the Parties, further meetings/hearings shall be held for possible resolution till a final mutually acceptable Conciliation Agreement emerge.

(c). When a consensus can be arrived at only in regard to any one or some of the issues referred for Conciliation, a Settlement Agreement may be signed in regard to the said Issue(s), which shall not be non-binding only because the Parties have failed to reach a similar Settlement in regard to the rest of the other issue(s) referred for Conciliation.

(d). A Settlement Agreement shall contain a statement to the effect that each of the person(s) signing thereto (i) is fully authorized by the respective Party(ies) he/she represents, (ii) has fully understood the contents of the same and (iii) is signing on the same out of complete freewill and consent, without any pressure, undue influence.

(e). When a Settlement Agreement is signed, the same shall be final and binding on the Parties and the persons claiming under/through them respectively.

(f). The Conciliator(s) shall authenticate the Settlement Agreement and make as many original copies of the same as there are parties and every Party shall be given an Original Copy of the signed Original Agreement.

RULE 15: CONFIDENTIALITY & ADMISSIBILITY OF EVIDENCE

(a). The Outside Experts Committee or any of the Conciliators (in case of multi Conciliator Committee) and the Parties shall keep confidential all information furnished, documents filed, evidence produced/adduced during the course of Conciliation proceedings. Confidentiality must extend to the settlement agreement, except where its disclosure is necessary for purposes of implementation and enforcement.

(b). Confidentiality under this Rule shall extend to Proposals, Alternative Proposals, Communications exchanged between/amongst the Parties, Communications exchanged between any of the Parties and the Outside Experts Committee or any of the Conciliators (in case of multi Conciliator Committee), Minutes of Meeting/Hearings, draft Settlement Agreement(s), Expert Opinions, Evidence of Witnesses etc.

(c). No part of any information furnished to the Outside Experts Committee, documents filed, evidence produced, communication exchanged, views expressed, suggestions/admissions made, the factum of expression of willingness to accept a proposal by any Party during the course of the Conciliation proceeding shall be used as any form of evidence in any Arbitral or Judicial proceeding.

(d). The above provisions on Confidentiality and Admissibility of Evidence shall also extend to even Arbitral and Judicial proceedings relating to disputes; which are not the subject matters of the same Conciliation proceedings.

(e). No Conciliator shall be held liable for anything bonafide done or omitted to be done by him/her during the conciliation proceedings for civil or criminal action nor shall he/she be summoned by any Party to any suit or proceedings to appear in a Court of law to testify in regard to information received by him/her or action taken by him/her or in respect of drafts or

records prepared by him/her or shown to him/her during the conciliation proceedings.

RULE 16: ARBITRAL OR JUDICIAL PROCEEDINGS

(a). During the course of/pendency of Conciliation proceedings under these Rules, the Parties shall not initiate or take any step to initiate any Arbitral or Judicial proceedings in respect of a dispute, which is a subject matter of the pending conciliation proceedings.

(b) The Parties shall be at liberty to approach the Conciliation proceedings during any stage of arbitral/judicial proceedings and to facilitate such conciliation proceedings, the parties shall, with mutual consent put on hold such arbitral/judicial proceedings.

(b). Subject to the above Sub-Rule (a), reference of any Dispute to Conciliation under these Rules shall be without any prejudice to any of the Rights and interest of the Parties involved, more particularly the rights of the Parties to resort to other Dispute Resolution mechanisms such as Arbitration, Litigation etc.

RULE 17: APROVAL OF SETTLEMENT AGREEMENT

(a). Once the Parties come to a consensus and the draft Settlement Agreement is prepared by the Outside Experts Committee, the draft Settlement Agreement shall be placed before the Competent Authority for consideration and approval .

RULE 18 -TERMINATION OF CONCILIATION PROCEEDINGS

(a} The conciliation proceedings are terminated:

i. By the signing of the Settlement Agreement by the parties, on the date of the Agreement; or

ii. By a written declaration of the Outside Experts Committee, after consultation with the Parties, to the effect that further efforts at Conciliation are no longer justified, on the date of the declaration; or

iii. By a written declaration of the Parties addressed to the Outside Experts Committee to the effect that the conciliation proceedings are terminated, on the date of the declaration; or

iv. By a written declaration of a Party to the other Party(ies) and the Outside Experts Committee, if appointed, to the effect that the conciliation proceedings are terminated, on the date of the declaration.

RULE 19: MISCELLANEOUS

(a). None of the Conciliators shall act as a representative or counsel of a Party in any arbitral or judicial proceeding in respect of a dispute that is the subject of the conciliation proceeding. Similarly, none of the Parties or their Authorized Representative(s) shall act as the Representative or Counsel of the Conciliator(s) in any Alternate Dispute Resolution proceeding or Judicial proceeding of any kind.

(b). The Parties shall not present a Conciliator as witness in any Alternate Dispute Resolution or Judicial proceedings.

(e). The official language of Conciliation proceedings under these Rules shall be English, unless the Parties agree on some other language.

SCHEDULE- A

DECLARATION OF ACCEPTANCE AND INDEPENDENCE BY MEMBERS OF SETTLEMENT ADVISORY COMMITTEE

I, the undersigned, do hereby agree to serve as a member of the Outside Experts Committee in the instant case and hereby make the following declarations:

i. I am familiar with requirements of law, particularly the Arbitration and Conciliation Act of 1996 and Engineers India Limited Conciliation Rules, 2012.

ii. I am available to serve as a Member of the Outside Experts Committee and I am independent of any of the Parties involved in the instant Conciliation proceeding and have no interest - financial or otherwise - in any part of the Contract under reference or subject matter of the Conciliation proceeding.

iv. I have not dealt earlier with the contract under reference or the subject matter of the conciliation proceeding in any manner or capacity, which could compromise my ability/independence to impartially resolve the dispute(s).

v. The fees and other facilities for conciliation, offered to and accepted by me, will remain fixed and under no circumstances will there be any demand from me for any alteration/change therein.

(Signature)

Name:

Address:

Date:

Operating Methodology for functioning of Outside Experts Committee

The methodology for functioning of Outside Experts Committee (OEC) of EIL is solely based on the Conciliation Rules of EIL. These rules define the constitution, method of selection, functioning, time frame and conclusion of the Outside Experts Committee as well as methodology for acceptance of the settlement agreement reached through this mechanism. The broad features of this methodology are captured as follows:

- Panel of Conciliators belonging to Technical, Finance/ Commercial, Legal fields to be maintained by EIL
- Party wishing to settle issue through OEC to serve written notice on the other party. Notice to include issues in dispute, identity of parties, consent to enter settlement under DEC Rules of EIL and any other terms.
- Party receiving notice to respond within 30 days.
- Upon intimation of acceptance of invitation for conciliation, Chairman & Managing Director of EIL to appoint conciliator(s).One conciliator to be appointed wherein claim value does not exceed Rs. 2 Crore and three conciliators where claim value exceeds Rs. 2 Crores.
- Outside Experts Committee within 7 days of its constitution to request parties to file a brief written statement.
- Outside Experts Committee to make endeavour to settle disputes through proposals of parties only before making any proposals itself first.
- Outside Experts Committee may call for material witnesses with consent of parties to reach amicable solution of disputes.
- Parties to plead their own cases and advocates not allowed to participate in proceedings.
- Representations can be oral also, with minutes to be recorded.

- Outside experts Committee to be guided by principles of objectivity, fairness and justice.
- Total number of hearings to be not more than 5, but to be extended with mutual consent, however overall time frame of disposal being 4-6 months.
- Parties to share the fee of Conciliators, secretarial services, expenses incurred on railway/ air fare, accommodation, local travel etc.
- Parties not to adopt adversarial roles, but to make effort to accommodate other party's view points, without diluting the correct legal position.
- After discussions, conciliator to formulate draft terms of possible settlement for observation/ comments/ consideration of parties.
- Settlement once signed to become final & binding on the Parties. EIL's acceptance of settlement agreement subject to consideration and approval of EIL's Committee of Functional Directors.
- Arbitral/judicial proceedings to be put on hold during pendency of conciliation proceedings
- Reference to Conciliation without prejudice to rights of parties to resort to other dispute resolution mechanism

The above features are designed to reflect impartial exercise of fairness in the proceedings which strike equilibrium with the acceptability quotient of the settlement proposal from a commercial angle. It also seeks to gain an edge over the existing dispute resolution mechanism in terms of speedy disposal as well costs involved.

ANNEXURE – X
TO
SPECIAL PURCHASE CONDITIONS

FORMAT FOR CPBG

FORMAT FOR CPBG

FORM OF CONTRACT PERFORMANCE GUARANTEE

[ON APPROPRIATE STAMP PAPER]

Beneficiary: Engineers India Limited

Bank Guarantee No. [.....●]

THIS DEED OF GUARANTEE is executed on this [.....*insert day*] day of [.....*insert month and year*] at [.....*insert place*] by [.....***INSERT NAME OF BANK***] having its head/registered office at [.....*insert address*], (hereinafter referred to as the "**Guarantor**", which expression shall unless it is repugnant to the subject or context thereof include successors and assigns)

IN FAVOUR OF:

ENGINEERS INDIA LIMITED, a public limited company incorporated under the Indian Companies Act, 1956, having its registered office at [.....■], (hereinafter referred to as the "**EIL**", which expression shall unless it is repugnant to the subject or context thereof include successors and assigns).

WHEREAS

A. EIL has entered into a Engineering, Procurement and Construction Contract dated [.....■] (the "**Contract**") with [.....***insert name of Contractor***], a company incorporated under the Indian Companies Act, 1956 and having its registered office at [.....■] (the "**Contractor**", which expression shall, unless it be repugnant to the context or meaning thereof, include its successors-in-title and permitted assigns), for the Project.

B. In terms of the Contract, the Contractor is required to furnish to EIL, an unconditional, irrevocable, on demand bank guarantee for an amount equal to ___% of the Contract Price, i.e., Rs. [.....*insert amount*] (the "**Guaranteed Amount**") as security for due and punctual performance/ discharge of the Contractor's obligations under the Contract.

C. At the request of EIL and for sufficient consideration, the Guarantor has agreed to provide an unconditional, irrevocable and on-demand bank guarantee, for the due and punctual performance/ discharge by the Contractor of its obligations under the Contract during the Contract Validity Period.

NOW THEREFORE THIS DEED WITNESSETH AS FOLLOWS:

1. Capitalised terms used herein but not defined shall have the meaning ascribed to them in the Contract.

2. The Guarantor hereby irrevocably and unconditionally guarantees and secures (as primary obligor and not merely as guarantor) to EIL the payment in full of all amounts at any time that may be due, owing or payable to EIL from the Contractor for the failure of the Contractor to duly and punctually perform all of its obligations under the Contract (the "**Guarantee**"), without any demur, reservation, protest or recourse, immediately on receipt of a demand from EIL.

   The Guarantee is given in consideration for consideration received from the Contractor (the receipt and sufficiency of which is hereby acknowledged).

   The Guarantor agrees that the value of the Guarantee shall at all times be maintained at the amount of Rs. [.....*insert amount*] (the "**Guaranteed Amount**").

   The Guarantor further agrees that this Guarantee does not limit the number of claims that may be made by EIL against the Guarantor.

   Any payment made hereunder shall be made free and clear of and without deduction for, or on account of, any present or future Taxes, deductions or withholdings of any nature whatsoever and by whomsoever imposed, and where any withholding on a payment is required by any Applicable Law, the Guarantor shall comply with such withholding obligations and shall pay such additional amount in respect of such payment such that EIL receives the full amount due hereunder as if no such withholding had occurred.

3. The Guarantor shall, pay to EIL sums not exceeding the Guaranteed Amount, within 5 (five) Business Days of receipt of a written demand from EIL stating that the Contractor has failed to meet its performance obligations under the Contract. The Guarantor shall not be required to go into the veracity of any breach or failure on the part of the Contractor or validity of demand so made by EIL and shall pay the amount specified in the demand notwithstanding any direction to the contrary given or any dispute whatsoever raised by the Contractor or any other Person. The Guarantor's obligations hereunder shall subsist until all such demands are duly met and discharged in accordance with the provisions hereof.

4. The obligations of the Guarantor herein are absolute and unconditional, irrespective of the value, genuineness, validity, regularity or enforceability of the Contract or the insolvency, bankruptcy, reorganization, dissolution or liquidation of the Contractor or any change in ownership of the Contractor or any purported assignment by the Contractor or any other circumstance whatsoever which might otherwise constitute a discharge or defence of a guarantor or a surety.

   Further, this Guarantee is in no way conditional upon any requirement that EIL first attempt to procure the Guaranteed Amount from the Contractor, or any other Person, or resort to any other means of obtaining payment of the Guaranteed Amount, prior to make any recourse to this Guarantee.

5. In order to give effect to this Guarantee, EIL shall be entitled to treat the Guarantor as the principal debtor. The obligations of the Guarantor under this Guarantee shall not be affected by any act, omission, matter or thing which, but for this provision, would reduce, release or prejudice the Guarantor from any of the Guaranteed Amount or prejudice or diminish the Guaranteed Amount in whole or in part, including (whether or not known to it, or EIL):

   (a) any time or waiver granted to, or composition with, the Contractor or any other Person;

   (b) any incapacity or lack of powers, EIL or legal personality of or dissolutions, or insolvency, or bankruptcy, or change in the status of the Contractor or any other Person;

(c) any variation of the Contract so that references to the Contract in this Guarantee shall include each variation;

(d) any unenforceability or invalidity of any obligation of any Person under the Contract or any unenforceability or invalidity of the obligations of the Guarantor under this Guarantee or the unenforceability or invalidity of the obligations of any Person under any other document or guarantee, to the extent that each obligation under this Guarantee shall remain in full force as a separate, continuing and primary obligation, and its obligations be construed accordingly, as if there were no unenforceability or invalidity;

(e) the partial or entire release of any Guarantor or other Person primarily or secondarily liable or responsible for the performance, payment or observance of any of the Contractor's obligations during the Construction Period; or by any extension, waiver, or amendment whatsoever which may release a guarantor or Guarantor (other than performance or indefeasible payment of a Guaranteed Amount); or

(f) any part performance of the Contract by the Contractor or by any failure by EIL to timely pay or perform any of its obligations under the Contract.

6. If, and to the extent that, for any reason the Contractor enters or threatens to enter into any proceedings in bankruptcy or reorganization or otherwise, or if, for any other reason whatsoever, the performance or payment by the Contractor of the Guaranteed Amount becomes or may reasonably be expected to become impossible, then the Guaranteed Amount shall be promptly paid by the Guarantor to EIL on demand.

7. So long as any sum remains owing by the Contractor to EIL, the Guarantor shall not exercise any right of subrogation or any other rights of a guarantor or enforce any guarantee or other right or claim against the Contractor (whether in respect of its liability under this Guarantee or otherwise) or claim in the insolvency or liquidation of the Contractor or any other such Person in competition with EIL. If the Guarantor receives any payment or benefit in breach of this Clause 7, it shall hold the same upon trust for EIL.

8. This Guarantee shall remain in full force and effect from the date hereof until the end of the Guarantee period/ Defect Liability Period, i.e., up to midnight of {..... ***insert date***} plus additional 02 months to enable claims to be made i.e., up to midnight of {..... ***insert date***}, unless discharged/ released earlier by EIL in against the Guarantor.

Notwithstanding the foregoing, this Guarantee shall continue in effect upto mid night of Guarantee period/ Defect Liability Period plus additional 2 Months towards claim period to enable claims to be lodged with the bank. However, this additional period shall not be part of Guarantee Period/ Defect Liability Period and this is only for the purpose of additional time for lodging the claim.

9. The Guarantor represents and warrants to EIL that:

(a) it has the power to execute, deliver and perform the terms and provisions of this Guarantee and has taken all necessary action to authorize the execution, delivery and performance by it of this Guarantee;

(b) the Guarantor has duly executed and delivered this Guarantee, and this Guarantee constitutes its legal, valid and binding obligation enforceable in accordance with its terms except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, moratorium or other similar laws affecting the enforcement of creditors' rights generally and by general equitable principles;

(c) neither the execution, delivery or performance by the Guarantor of this Guarantee, nor compliance by it with the terms and provisions hereof will: (i) contravene any material provision of any law, statute, rule or regulations or any order, writ, injunction or decree of any court or governmental instrumentality; (ii) conflict or be inconsistent with or result in any breach of any of the material terms, covenants, conditions or provisions of, or constitute a default under any agreement, contract or instrument to which the Guarantor is a party of by which it or any of its property or assets is bound; or (iii) violate any provision of the Guarantor's constituent documents; and

(d) no order, consent, approval, license, authorization or validation of, or filing, recording or registration with (except as have been obtained or made prior to the date hereof), or exemption by, any governmental or public body or EIL, or any subdivision thereof, is required to authorize, or is required in connection with: (i) the execution, delivery and performance of this Guarantee; or (ii) the legality, validity, binding effect or enforceability of this Guarantee.

10. This Guarantee is a continuing one and all liabilities to which it applies or may apply under the terms hereof shall be conclusively presumed to have been created in reliance hereon. No failure or delay on the part of EIL in exercising any right, power or privilege hereunder and no course of dealing between EIL and the Guarantor, or the Contractor, shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

11. The rights, powers and remedies expressly provided in this Guarantee are cumulative and not exclusive of any rights, powers or remedies which EIL would otherwise have. No notice to or demand on the Guarantor in any case shall entitle the Guarantor to any other further notice or demand in similar or other circumstances or constitute a waiver of the rights of EIL to any other or further action in any circumstances without notice or demand.

12. If any one or more of the provisions contained in this Guarantee are or become invalid or unenforceable in any respect, the validity and enforceability of the remaining provisions shall not in any way be affected or impaired thereby, and the Guarantor shall enter into good faith negotiations with EIL to replace the invalid or unenforceable provision.

13. The Guarantor hereby agrees to execute and deliver all such instruments and take all such actions as may be necessary to make effective fully the purposes of this Guarantee.

14. This Guarantee may be executed in one or more duplicate counterparts, and when executed and delivered by the Guarantor and EIL shall constitute a single binding agreement.

15. Any notice, request or other communication to be given or made under this Guarantee shall be in writing addressed to the Guarantor at the location set opposite its signature hereto and in the manner as set out in respect of notices under the Contract.

16. This Guarantee shall be governed by, and construed in accordance with, the laws of India. The Guarantor irrevocably agrees that any legal action, suit or proceeding arising out of or relating to this Guarantee may be brought in the courts in Delhi.

17. Neither party shall assign or transfer any or all parts of its interest herein to any other person without express written consent of the other party.

18. "Notwithstanding anything contained herein:

(i) The Bank's liability under this guarantee/undertaking shall not exceed (Amount in figures & words);

(ii) This guarantee/undertaking shall remain in force upto_____ (including 02 months of claim period) and any extension(s) thereof on written instructions from the Contractor on whose behalf this Guarantee has been given, in which case it shall remain in full force up to and including 02 months after the extended date; and

(iii) The Bank shall be released and discharged from all its liabilities and obligations under this guarantee/ undertaking unless a written claim or demand is issued to the Bank on or before _____ (including 02 months of claim period) or the date of expiry of any extension(s) thereof if this guarantee/ undertaking has been extended and the owner's right to Guarantee will cease thereafter."

IN WITNESS WHEREOF the Guarantor has set its hands hereunto on the day, month and year first hereinabove written.

Signed and delivered by [.....*insert name of Bank*] Bank by hand

Name:

ANNEXURE –XI
TO
SPECIAL PURCHASE CONDITIONS

TAXES & DUTIES

Section- I

A. Price basis w.r.t inclusion/exclusion of taxes and duties

1. The quoted price(s) shall be inclusive of all the taxes and duties except GST (i.e. IGST or CGST and SGST/UTGST applicable in case of interstate supply or intra state supply respectively) and GST compensation cess, (if applicable) leviable on sale of finished goods/services.
2. In case of foreign bidders, bidders shall submit their prices on FOB international sea port of exit basis/CFR on destination port basis *Note-1 (INCOTERM XXXX *Note-2), unless otherwise stated in the bid document. FOB/CFR *Note-1 prices quoted shall be inclusive of all applicable taxes up to FOB international sea port of exit/CFR on destination port basis *Note-1.
3. Transportation charges (if applicable) up to respective project site shall be exclusive of GST.
4. Site work prices, if applicable shall be inclusive of all taxes and duties except GST. All necessary registrations, if required, for carrying out the site activities shall be done by the bidder and costs towards the same shall be included in quoted site work prices.
5. Prices of per diem supervision charges, training/AMC, HAZOP Study etc. (as applicable) shall be exclusive of GST. However, GST shall not be applicable on training provided at foreign bidder's work/training facilities in any territory other than India.

B. TAX CLAUSES

1. Goods and Services Tax

a. The supplier/contractor will be liable to register with the respective tax authorities and to submit self-attested copy of such registration certificates and the supplier/contractor will be responsible for procurement of goods/services in its own registration (GSTN).

b. Supplier/Contractor shall be required to issue tax invoice in the form and manner prescribed under GST Act read with Rules thereunder including E-Invoicing provisions so that input tax credit under GST can be availed by EIL. In the event that the supplier/contractor fails to provide the Tax Invoice/E-Invoice in the form and manner prescribed under the GST act read with GST invoicing rules thereunder, EIL shall not be liable to make any payment on account of GST against such invoice.

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c. In case supplier/contractor is not subject to E-Invoicing provisions under the GST Laws as amended from time to time, then a declaration to this effect shall be furnished by the supplier/contractor in format prescribed along with the Invoice.

d. GST shall be paid to supplier/contractor against receipt of Tax Invoice/E-Invoice and on auto-population of input tax credit on GSTN portal. In case of non-receipt of Tax Invoice/E-Invoice and/or non-auto-population of input tax credit on GSTN portal, EIL shall with hold the payment of GST.

e. The supplier/contractor shall always comply with the requirements of applicable laws and provide necessary documents as prescribed under the rules and regulations, as applicable from time to time. In particular, if any tax credit, refund or any other benefit Is denied/delayed to EIL or any interest/penalty is charged to EIL due to any non-compliance/ delayed compliance by the supplier/contractor under the GST Law (including but not limited to failure to upload the details of the sale on GSTN portal, failure to pay GST to the government or due to non-furnishing or furnishing of incorrect or incomplete documents, non-filing of GST return by the supplier/contractor), the supplier/contractor shall be liable to reimburse EIL for all such losses and other consequences including but not limited to the tax loss, interest and penalty. EIL shall be entitled to recover such amount from the supplier/contractor by way of adjustment from the next invoice, encashment of BG or by way of any other means either of same project or any other project of the EIL.

f. In case of any Advance including Mobilization/Secured/Other Advance is granted to supplier/contractor as per the provisions of Contract, then the supplier/contractor shall issue a Receipt Voucher / GST Invoice in the form and manner prescribed under GST Act read with Rules thereunder including e-invoicing provisions.

g. In case of any Price Variation as per the provisions of Contract, the supplier/contractor shall issue an Invoice in the form and manner prescribed under the GST Act read with Rules thereunder including e-invoicing provisions.

h. GST payable under reverse charge for specified services/goods under GST Act read with Rules thereunder, if any, shall not be paid to the supplier/contractor but will be directly deposited by EIL to the appropriate Government Tax Authority. If the same has already been reimbursed / paid to the supplier/contractor for any reason whatsoever, then EIL shall be entitled to deduct/set off /recover such amount against any amounts paid/payable by EIL to supplier/contractor.

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i. Where EIL has the obligation to discharge GST liability under reverse charge mechanism and EIL has paid or is liable to pay GST to the government on which interest/penalty becomes payable as per GST law for any reason which is not attributable to EIL or Input Tax Credit w.r.t. such payment is not available to EIL for any reason which is not attributable to EIL, then EIL shall be entitled to deduct/set off /recover such amount against any amounts paid/payable by EIL to contractor/supplier.

j. TDS under GST, if applicable shall be deducted from supplier/contractor bills at applicable rates and a certificate as per rules for tax so deducted shall be provided to supplier/contractor.

k. The supplier/contractor will be under obligation for charging correct rate of tax as prescribed under the respective tax laws. Further the supplier/contractor shall avail and pass on benefits of all exemptions/concessions available under applicable tax laws.

l. In case bidder is covered under composition scheme under GST law, then bidder shall quote the price inclusive of GST. Further, such bidder should mention "Covered under GST Composition Scheme" in column for GST of relevant price schedule(s). In case subsequently such bidder gets covered under regular GST regime, the prices including GST under regular GST regime shall not exceed the prices quoted by the bidder under composition scheme.

m. EIL prefers to deal with registered supplier/contractor of goods/services under GST. Therefore, bidders are requested to get themselves registered under GST, If not registered yet. However, in case any unregistered bidder is submitting bid, their prices will be loaded with applicable GST while evaluation of bid as per evaluation methodology of tender document. However, where EIL is entitled for input credit of GST, the same will be considered for evaluation of bid as per evaluation methodology of tender document.

n. In case of foreign bidders, for supervision/site-work/training, services provided by foreign bidder at project site, GST shall be paid by EIL directly to appropriate Government Tax Authorities, under Reverse Charge Mechanism, if applicable and prices of such services will be loaded with applicable GST while evaluation of bid as per clause E (Evaluation Methodology).

o. Bidder will be required to quote applicable tax rate (along with applicable HSN/SAC Code) as per provisions of GST Laws for all the line items forming part of the enquiry. Any higher rate of tax actually invoiced in excess of

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quoted rate of tax (except in compliance with provisions of Statutory Variation clauses) shall be adjusted in basic price.

p. In case of delay in supply/execution of contract, supplier/contractor shall be liable to raise invoices for reduced value as per Price Reduction Schedule (PRS) provision of the bidding document. In case the supplier/contractor raises invoices for full value, then supplier/contractor shall issue Credit Note, in the form and manner prescribed under relevant GST Act read with Rules thereunder, towards applicable PRS amount with applicable GST thereon.

In case supplier/contractor fails to submit invoices with reduced value or does not issue Credit Note as mentioned above, EIL shall release payment to the supplier/contractor after giving effect to the PRS clause with corresponding reduction in taxes from invoice(s) of supplier/contractor.

In case any financial implication arises on EIL due to issuance of invoice without reduction in prices or non-issuance of Credit Note by supplier/contractor, the same shall be to the account of supplier/contractor. EIL shall be entitled to recover the amount of such financial implication paid or becoming payable by EIL together with penalty and interest thereon, if any.

q. E-way bills shall be issued directly by supplier/contractor in all cases except in cases of direct imports by EIL where E-way bill shall be issued by EIL.

r. In case of applicability of any recovery as per provisions of the contract, EIL shall raise Invoice on supplier/contractor after charging GST at applicable rates as per prevailing provisions of GST Laws.

2. IMPORT DUTIES

a. Direct supplies by foreign supplier, where EIL becomes consignee

   i. Consignee shall be EIL, bill of entry shall be filed by EIL, all import duties, Social Welfare Surcharge, IGST and GST Compensation Cess etc. as applicable in India shall be paid by EIL .

b. Imported supplies by Indian suppliers as built in import content where Suppliers/Contractors will become consignee of the goods by filling Bill of Entry for Home consumption

   i. Custom duties, Social Welfare Surcharge, IGST, GST Compensation Cess, etc. as applicable in India on the imported materials shall be included in the quoted prices by the bidder (considering the input tax credit of IGST, GST Compensation Cess on imported material) and supplier/contractor shall be responsible for the timely payment of the

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custom duties to the relevant government authority. All harbor dues/ pilotage fees, port fees, wharfage, unloading costs, demurrage charges etc. incurred in India in respect of any imported goods shall be to supplier's/contractor's account.

ii. Bidder to indicate, in relevant price schedule, CIF value of built-in import content and applicable merit rate of custom duty, Social Welfare Surcharge on custom duty (considering the input tax credit of IGST, GST Compensation Cess on imported material) included in quoted price, in the price schedule.

iii. In case merit rate of custom duty is applicable and bids are invited on the basis of same, however at a later stage concessional rate of custom duty becomes applicable, concessional certificate shall be issued towards import of material against the advance request letter submitted by the domestic bidder and the differential custom duties between concessional rate and quoted merit rate of custom duty by supplier/contractor shall be passed on to the EIL or it shall be recovered by the EIL from the supplier/contractor's invoice.

iv. The supplier/contractor shall be responsible for and shall exercise due diligence in properly classifying the goods and materials, undertaking the payment of custom duties, and/or otherwise complying with all applicable laws w.r.t. import of the goods and materials.

v. If bidder does not furnish built in CIF value and rates of custom duty, in that case bidder shall not be entitled to claim any variation in the custom duties even if bidder has quoted their prices considering custom duties.

vi. If custom duty rate actually paid on import of materials and components is found to be lower than the quoted rate of custom duty, then benefit of the same shall be passed on to the EIL.

vii. If bidder has considered Import Duty other than Merit Rate of Import Duty, then statutory variation on the Import Duty shall be payable extra on the Merit Rate of Import Duty or the rate of Import Duty considered by the bidder, whichever is lower.

viii. In case, no import is made for execution of the order, clauses related to Imports will not be applicable.

c. General points:

i. In case EIL is exposed to any penal action, interest /penalties by the custom authorities for incorrect declaration and / or valuation of the goods or material by the supplier/contractor, or otherwise on account of any breach of applicable laws in the course of the import of the goods and material by supplier/contractor, the supplier/contractor shall indemnify and hold harmless EIL for any and all costs, expenses or losses suffered or incurred by EIL in this regard

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ii. If bidder intends to source import of goods from a country with which India has Free Trade Agreement (FTA) or Comprehensive Economic Partnership Agreement (CEPA) or any such multi-lateral / bi-lateral Agreement or Treaty with India or under Generalized System of Preference (GSP); or under any other notification (allowing lower rate of custom duty), then the bidder is advised to ascertain and confirm its applicability along with supporting documents in the bid and ensure that conditions of such agreement/treaty etc. are strictly complied with.

iii. The bidder shall be liable to provide all documentation to ensure availment of the exemption/waiver. In case the bidder defaults on this due to any reason, whatsoever, he shall be liable to bear the incremental custom duty applicable if any

iv. Any additional custom duty applicability on account of any change in the notification (allowing lower rate of custom duty)/ CEPA/FTA/multi-lateral/bi-lateral trade agreement shall be to bidder's account.

v. Documentation to be furnished for availing the exemption/waiver of custom duty shall be specifically listed in the letter of credit also as a prerequisite for release of payment against shipping documents and this documentation shall necessarily form a part of shipping documents.

vi. EIL will not bear any liability towards payment of Safeguard Duty, Anti-Dumping Duty, Protective Duty and applicable IGST including GST Cess on same or Countervailing Duty on subsidized articles or any other such duties of Customs imposed by Government under Customs Tariff Act, 1975.

vii. In case custom duty rate as quoted by foreign bidder is less than Actual rate applicable on due date of submission of last price bid and payment of custom duty is on EIL's Account, differential amount on account of above-mentioned rate variation will be recovered from foreign bidder.

3. INCOME TAX

a. Foreign supervisors/suppliers/contractors

Prices of site work, contracts and other services of foreign supplier/contractor shall be gross of income tax i.e., inclusive of Indian

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income tax at the applicable prevailing rate as per Indian Income Tax Act and Rules there under.

EIL shall deduct withholding tax at source (TDS) as applicable while making payments against each invoice. Certificate for TDS shall be provided to the supplier/contractor.

In case foreign bidder quotes Prices of site work, contracts and other services "net of Income Tax" i.e., exclusive of Indian income tax, EIL shall deduct and deposit TDS as applicable after grossing up the sums due while making payments against each invoice at the applicable prevailing rate as per Indian Income Tax Act and Rules thereunder.

Foreign bidder shall furnish the information required in line with the prevalent provisions of Income tax act read with rules thereunder including but not limited to Tax residency certificate, Form 10F, No permanent establishment declaration, No business connection certificate, PAN in India if available.

Failing to provide above documents/information, tax will be withheld at rates applicable as per the provisions of Income Tax Act, 1961 read with rules thereunder and the benefit of reduced rates will not be given.

If the non-resident is unable to obtain & submit Tax Residency Certificate to the EIL within a reasonable time, the bidder should furnish Form 10F along with an undertaking to the effect that the bidder is a tax resident of (the specified country) and that they shall obtain and provide the tax residency certificate (TRC) to the EIL before 30 days of submission of first Invoice by them or within 3 months from the date of entering into contract whichever is earlier.

In case of contracts with term exceeding one financial year, the relevant documents like TRC, Form 10 F, No PE / Business Connection Certificate etc. as applicable, as per Income Tax Act, 1961 must be submitted at the beginning of each financial year and the EIL will not bear additional tax liability (if any) arising from non-submission of documents.

The bidder shall be liable to intimate the subsequent changes (if any) to the information submitted against any of the above particulars, along with full details.

In addition to the above particulars, the bidder should also provide any other information as may be required at a later stage for determining the taxability of the amount to be remitted to the non-residents.

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In case, any additional tax liability arises on the EIL due to any action of bidder like delay in submission / non-submission of information / documents required as above or change in residential status post submission of documents or change in any document (like TRC, Form 10F etc.) after its submission shall be recovered from the supplier/contractor.

b. Indian resident supervisors/ suppliers/contractors

Prices for supply and services of Indian suppliers/ contractors shall be inclusive of income tax.

Tax shall be deducted at source (TDS) by EIL on all sums due to supplier/contractor in accordance with the provisions of Indian Income Tax act read with rules thereunder as in force at the relevant point of time.

EIL shall issue a Tax Deduction Certificate to the supplier/contractor evidencing the tax deducted or withheld and deposited by EIL on payments made to the supplier/contractor to enable the supplier/contractor to claim the credit of Tax deducted by EIL.

c. INCOME TAX (General Points):-

i. The supplier/contractor shall also be responsible for ensuring compliance with all applicable provisions of the Direct Tax Laws of India including, but not limited to, the filing of relevant Tax Returns and shall promptly provide all information required by the EIL for discharging any of its responsibilities/liabilities under such laws in relation to or arising out of the Contract. For the lapses/failure, if any, on the part of the supplier/contractor and consequential penal action taken by the Income Tax department, EIL shall not take any responsibility whether financial or otherwise and shall be indemnified by the supplier/contractor.

ii. The Indian Income Tax Act and Rules made thereunder contains provisions permitting deduction of tax at source (TDS) at lesser rate if the supplier/contractor is able to justify to the Income Tax Authorities such lesser rate of deduction. However, a deduction once made has to be deposited by the EIL with the Income Tax Authorities in India and will not be adjustable by the EIL. It is therefore in the interest of the supplier/contractor that prior to release of any payment due to the supplier/contractor under the Contract that the supplier/contractor obtains from the relevant Income Tax Authorities in India, a certificate specifying the rate of deduction/withholding of

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Income tax at source, failing which, payment to the supplier/contractor shall be made by the EIL after withholding/deduction at the rate as may be applicable to the supplier/contractor as per provisions of Income Tax Act, 1961.

iii. TDS on interest recovered on Mobilization/Other Advance will be deposited by the supplier/contractor and same would be reimbursed by the EIL against submission of Form-16A (TDS certificate).

C. INVOICING METHODOLOGY W.R.T. TAXATION

Following invoicing methodology shall be followed :

1. In case of domestic / foreign PO's (Other than 2 below) , Invoice/E-Invoice shall be raised by the supplier/contractor in the name of EIL and consignee shall be EIL.
2. In case of package MR's (where title transfer or take over is envisaged to take place at site after completion of site work) and tenders, supplier/contractor shall bring material at project site in their own name and they themselves shall be consignee. As per provisions of contract between EIL and supplier/contractor, Invoice/E-Invoice shall be raised by supplier/contractor to EIL after charging GST.

D. APPLICABILITY OF TAX CREDIT

Input credit is available to EIL as per GST law.

E. EVALUATION METHODOLOGY W.R.T. TAXES

Following shall be loaded for evaluation:

1. Applicable Custom Duty, Social Welfare Surcharge etc, (excluding IGST & GST Compensation Cess (if applicable) on imported material which shall be dealt as per bid evaluation methodology given in E2 below) shall be loaded for price bid evaluation in respect of supplies for which bill of entry has to be filled by EIL.
2. GST on which input credit is not available to EIL including GST Compensation Cess (if applicable).
3. Applicable Income tax, in case foreign bidder quotes prices net of taxes.

F. TAXATION TERMS FOR INDIAN SOURCED SUPPLIES (Applicable in case of foreign supplier)

Shall be the same as applicable for Indian bidders.

G. TAX IMPLICATION WHERE FABRICATION YARD IS OUTSIDE THE FACTORY PREMISES, WHEREVER APPLICABLE

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In case of package MRs and tenders, since contractors/suppliers shall bring material at project site in their own name and raise invoice to EIL (as per payment milestone achieved) after charging GST, location of fabrication yard whether inside or outside factory premises will not attract any additional liability.

H. TAX IMPLICATION WHERE EIL WILL ISSUE FREE ISSUE MATERIAL (FIM) TO CONTRACTORS/SUPPLIERS

Where EIL issues FIM's to suppliers/contractors, material will be released against delivery challan and such FIM shall be received back in factory premises as per provision of GST.

I. STATUTORY VARIATION (IN CASE OF MRS & TENDERS)

No variation on account of taxes and duties, statutory or otherwise, shall be payable to Supplier/Contractor except for the following:

1. GST: If after the due date of submission of last price bid and up to the contractual delivery/completion period (*Note 4), any increase/decrease occurs in the applicable rate of GST, the variation in such GST shall be to EIL's account and shall be adjusted (increase / decrease) to / from the Supplier's/Contractor's invoices based on the documentary evidence.

   Any increase in GST after the contractual delivery/completion period (*Note 4) shall be to Supplier's/Contractor's account. However, any decrease in the rate of GST shall be passed on to EIL.

   For calculating Statutory Variations ceiling amount as declared by the Bidder in price schedule shall only be considered.

2. Basic Custom Duty (BCD) & Social Welfare Surcharge (SWS): If after the due date of submission of last price bid and upto the XX (*Note-3) of contractual delivery/completion period (*Note 4), any increase/decrease occurs in the applicable rate of BCD & SWS on materials imported, the variation in such BCD & SWS shall be to EIL's account and shall be adjusted (increase/decrease) to/from the Supplier's/Contractor's invoices based on the documentary evidence.

   Any increase in rate of BCD & SWS on materials imported after the XX (*Note-3) of the contractual delivery/completion period (*Note 4) shall be to Supplier's/Contractor's account. However, any decrease in the rate of BCS & SWS on materials imported shall be passed on to EIL.

   For calculating Statutory Variations in BCD/SWS, ceiling amount of CIF Value and rate of custom duty as declared by the Bidder in relevant price schedule shall only be considered.

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Note: Indian supplier/contractor to consider input tax credit of IGST and GST Compensation Cess if any (in case of import of raw Materials / components) in their quoted prices. Hence, Statutory variations on same in case of imported materials from outside India in Supplier's/Contractor's name (i.e., for Indian Bidders) shall be to Supplier/Contractor account.

3. Any new output taxes, duties, cess, levies notified or imposed after the due date of submission of last price bid but upto the contractual date of delivery/completion (*Note 4) shall be to EIL's account. These shall be reimbursed against documentary evidence. However, in case of delay attributable to supplier/contractor, any new output taxes, duties, cess, levies notified or imposed after Time for Completion, defined as above, shall be to supplier's/Contractor's account.

J. TAX INDEMNITY

Any omission/ errors of interpretation of applicability of taxes, duties, cesses and levies, whatsoever named, howsoever named, as are payable to any government, local or statutory authority in India or in any country other than India by the supplier/contractor shall be to supplier's/contractor's account.

If any fine/penalty/any other levy is required to be met by the EIL arising out of any non-compliance/fault/fraud/willful suppression/misstatement of facts/information/documents, whatsoever, of any applicable laws of India or any country other than India by the supplier/contractor/their personnel/sub-contractors/agencies, the same shall be recovered from any amount payable to the supplier/contractor under this contract or under any other contract of the EIL.

If any tax is paid / required to be paid by supplier/contractor in pursuance of any demand of any law enforcement agency/Tax Authority on account of non-compliance/fault/fraud/willful suppression/misstatement of facts/information/documents, whatsoever, of any applicable laws of India or any country other than India by the supplier/contractor/their personnel/sub-contractors/agencies, the same shall be to supplier's/contractor's account only.

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GENERAL:

1. *Note-1 Mode of Transport i.e. Sea / Air or otherwise and Price Basis i.e. FOB/CFR/CIF or otherwise to be decided and incorporated in bid document by SCM as per applicable guidelines/instructions.
2. *Note-2 Applicable INCOTERM to be defined by SCM.
3. *Note-3 Time period to be decided and incorporated in bid by SCM as per applicable guidelines/instructions
4. *Note-4 Contractual delivery/completion period shall include extended contractual delivery/completion period for the reasons attributable to EIL or due to Force Majeure condition.

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ANNEXURE –XII
TO
SPECIAL PURCHASE CONDITIONS

MIL INSURANCE

ENGINEERS INDIA LIMITED
5TH FLOOR, EI BHAWAN, PLOT NO. 85, SECTOR-11,
KHARGHAR, NAVI MUMBAI, RAIGARH,
MAHARASHTRA- 410210

Subject: MARINE CUM ERECTION POLICY NO.: 130162422120047124/13012242423M000503

Dear Sir,

Welcome to the Reliance General Insurance Family!

We are honored to have you as our valuable customer and are truly thankful that you have chosen Reliance General Insurance for your Insurance requirements.

We are pleased to inform you that you have been insured under Policy No. **130162422120047124/ 13012242423M000503**. Attached herewith your policy document, with all the details which have been prepared based on the details furnished to us. We request you to kindly go through the same.

Should you find any discrepancy in the document, kindly write to us immediately for necessary rectification. In the absence of any communication from your end, the contents and coverage of the policy shall stand accepted by you.

To enable us to serve you better, you are requested to mention your Policy Number in all your further Correspondences.

With Reliance General Insurance, you get nothing less than excellent and unparalleled services. Thanking you once again for choosing us. Look forward to a long lasting and delightful relationship.

Yours sincerely,

For Reliance General Insurance Company Limited



Authorised Signatory

Reliance General Insurance Company Limited. IRDAI Registration No. 103. An ISO 9001:2015 Certified Company
The Registered Office & Corporate Office/Policy Issuing Office: Reliance General Insurance Company Limited, 6th Floor, Oberoi Commerz, International Business Park, Oberoi Garden City, Off Western Express Highway, Goregaon (East), Mumbai – 400 063. Corporate Identity No.U66603MH2000PLC128300. UIN:. Trade Logo displayed above belongs to Anil Dhirubhai Ambani Ventures Private Limited and used by Reliance General Insurance Company Limited under License. RGI/MCOM/CO/HIIP/POLICY-SCHEDULE/Ver. 1.0/121219

Reliance Marine Cum Erection Policy
Schedule

Policy Issuing Office: Reliance General Insurance Company Limited 6th Floor, Oberoi Commerz, Oberoi Garden City, Off Western Express Highway Goregaon (East), Mumbai - 400 063, India	**Policy Servicing Branch Office:** Reliance General Insurance Co. Ltd FLAT NO-10-15 14TH FLOOR, VIJAYA BUILDING, 17, BARAKHAMBA ROAD, CENTRAL DELHI - 110001 Contact No. 011-39975617
Broker & Code: Direct	
Policy No: 130162422120047124/13012242423M000503	
Tax Invoice No. & Date: P102824101205 & P102824101243 30/10/2024	
GSTIN/UIN of the Insured: **27AAACE5318C1Z3**	Details of previous policy (in case of renewal) Previous policy No: **NA** Date of expiry: **NA**
Insured Name: **ENGINEERS INDIA LIMITED** **Communication address and Place of Supply** 5TH FLOOR, EI BHAWAN, PLOT NO. 85, SECTOR-11, KHARGHAR, NAVI MUMBAI, RAIGARH, MAHARASHTRA, - 410210	
Address of the Insured Premises: MUNITIONS INDIA LIMITED, HIGH EXPLOSIVES FACTORY (HEF) KHADKI, PUNE STATE-MAHARASHTRA PIN-411003	
Financial Interest: **NA**	
Name of the Principal: Munitions India Limited **Address of the Principal**: High Explosives Factory (HEF) Khadki, Pune, Maharashtra, Pin code - 411003	
Name of the Contractor: Engineers India Limited **Address of the Contractor**: 5th Floor, EI Bhawan, Plot No. 85, Sector-11, Kharghar, Navi Mumbai, Raigad, Maharashtra - 410210 and other Sub-Contractors	

Nature / Description Of Project: Erection of Trinitrotoluene (TNT) Plant Risk Code : 50903
Period of Insurance: From 00:01 HOURS OF 15/10/2024 TO MID-NIGHT OF 14/03/2027 Project Period: From 15/10/2024 TO 14/03/2027 Including 3 Months Testing Period

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The Registered Office & Corporate Office/Policy Issuing Office: Reliance General Insurance Company Limited, 6th Floor, Oberoi Commerz, International Business Park, Oberoi Garden City, Off Western Express Highway, Goregaon (East), Mumbai – 400 063. Corporate Identity No.U66603MH2000PLC128300. UIN:. Trade Logo displayed above belongs to Anil Dhirubhai Ambani Ventures Private Limited and used by Reliance General Insurance Company Limited under License. RGI/MCOM/CO/HIIP/POLICY-SCHEDULE/Ver. 1.0/121219

Sum Insured Details	
EAR	**Sum Insured INR**
Completely Erected Value	3,399,300,000

Sum Insured Details	
MARINE	**Sum Insured INR**
Initial Sum Insured	2,229,700,000
Import- PSL Limit INR 300,000,000/- PLL Limit INR 350,000,000/- Basis Of Valuation - Invoice + 10%	
Inland- PSL Limit INR 300,000,000/- PLL Limit INR 350,000,000/- Basis Of Valuation - Invoice + 10%	

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Endorsements & Warranties/Conditions/Exclusion attached: For EAR 130162422120047124

- End-11 Safety Measures for Flood and Inundation
- Firefighting facilities
- Earthquake
- ENGG/END-101: CIVIL ENGINEERING WORKS
- ENGG/END-110: ENDORSEMENT CONCERNING STORAGE
- ENGG/END-111: ENDORSEMENT REGARDING SAFETY MEASURES
- ENGG/END-112: ENDORSEMENT REGARDING DAMAGE TO CROPS, FORESTS ETC
- ENGG/END-114: WARRANTY CONCERNING UNDERGROUND CABLES AND PIPES
- Losses prior to receipt of premium is not payable
- Project is not commenced before 15/10/2024
- Third Party Liability Cover with Cross Liability in Policy period INCLUDING Maintenance period - 10% of the project cost or INR 25 Crores whichever is lower" Covered
- Owners' Surrounding Property during policy period including Maintenance period -Up to 10% of Policy SI WITH FLEXA risks Covered
- Automatic Reinstatement Clause- Upto 10% of SI Covered
- Debris Removal limit per occurrence -Upto INR 5 Crs. Covered AOA:AOY
- Waiver of Subrogation Clause To be restricted between Principal & Contractor Only
- Waiver of contribution Clause To be restricted between Principal & Contractor Only
- Cover of Extra Charges for Overtime, Night Work, Work on O Covered upto 5 Cr AOA:AOY
- Air Freight - Above 30 % of claims amount ; Up to INR 5Cr Covered upto 5 Cr AOA:AOY
- Extended maintenance cover Covered for 12 Months Only
- Design Defect Liability as per Munich Re wording - DE-4/DE-3 Covered
- Additional Custom duty - up to INR 5 Crores Covered AOA:AOY
- Cover for Valuable documents - up to INR 50 lakhs Covered AOA:AOY
- Loss minimization expenses - up to INR 5 Crores Covered AOA:AOY
- Professional fees - up to INR 1 Crores Covered AOA:AOY
- Waiver of Contribution clause (between Principal and the Contractor only) Covered
- 50:50 Clause Covered
- 72 Hours Clause Covered
- Non-Vitiation Clause Covered
- Put to Use 1 months Covered
- Policy Extension on Pro Rata As per EAR tariff provisions ;Subject to total project period within treaty and claims exp less than 50 %
- CPM Required- up to INR 25 Lakhs Covered
- Continuity Of Cover During Operational Phase For Integral Testing Covered for 1 months
- Any losses prior to receipt of premium will be out of scope of this policy.
- Warranted that project is yet to be started
- Warranted there is no works in water/wet works
- Warranted there is no Tunnelling/Blasting work
- Warranted there is no underground works
- Warranted there is no Road works.
- Dismantling works and use of prototype/second hand machinery excluded from scope of coverage

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- ENGG/END-102: Endorsements for Fire/Explosion claims and Fire Fighting
- ENGG/END-103: ENDORSEMENT REGARDING CROSS LIABILITY COVER
- ENGG/ENGG-105: ENDORSEMENT REGARDING AIR FREIGHT
- ENGG/END-113: (b)EXTENDED MAINTENANCE COVER
- Warranted that stock of construction materials/stock should be kept in closed godown which should be kept always locked when not in use.
- Testing Period 3 months.
- Terrorism Damage Exclusion Warranty
- Any direct or indirect loss by infectious or contagious disease is excluded as per Communicable Disease Exclusion Clause.
- Warranted that second hand machinery is not covered.

Endorsements & Warranties/Conditions/Exclusion attached: For Marine 13012242423M000503

- Institute Cargo Clauses (A) Cl 382 dated 1/1/2009
- Institute Cargo Clauses (B) Cl 383 dated 1/1/2009
- Institute War Clauses (Cargo) Cl 385 dated 1/1/2009
- Institute Strikes Clauses (Cargo) Cl 386 dated 1/1/2009
- Inland Transit Rail-Road (A) - All Risk
- Inland Transit Rail-Road (B)
- Strike, Riot & Civil Commotion Clause
- Limitation of Liability Clause
- Institute War Cancellation Clause (Cargo) CL 271 1/12/1982
- Institute Strike Cancellation Clause
- Institute Cyber Attack Exclusion Clause CL 380 10/11/2003
- Institute Radioactive Contamination, Chemical, Biological, Bio-Chemical And Electromagnetic Weapons Exclusion Clause Cl 370 dated 10/11/2003
- Institute Classification Clause CL 354 1/1/2001
- Cargo Ism Endorsement (1 May1998) JC 98/019
- Important Notice Clause
- Institute Standard Conditions For Cargo Contracts CL 261 01.04.82
- Cargo Termination of Storage in Transit Clause(ammended) dated 1/4/2020
- Termination of Transit Clause (Terrorism) 2009 JC 2008/024 11 December 2008
- Open Policy Clause
- Institute Cargo Clauses (Air) Cl 387 dated 1/1/2009(excluding sendings by Post)
- Institute War Clauses (Air Cargo) Cl 388 01/01/2009
- Institute Strike Clauses (Air Cargo) Cl 389 01/01/2009
- SRCC Clause (Inland Transit)
- Dispatch by Private Carriers Clause
- Registered Post Parcel Clause
- Registered Post Parcel Clause (amended for courier)
- Institute Replacement Clause CL 161 01/01/1934
- Institute Replacement (Second Hand Machinery Clause)

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- Duty Insurance Clause
- Joint Excess of Loss Cyber Losses Clause JX2020-007
- Pair and Set Clause
- Specified Territory Exclusion Clause:
  Notwithstanding anything to the contrary herein, all Specified Territory Exposures whether direct or indirect are excluded. The term Specified Territory Exposure includes but is not limited to any activity, transaction, legal proceedings, operation, entity, subsidiary, headquarters, branch, products, good, property, asset, services in a Specified Territory or, as applicable, delivered to, located in, originating in, transitioning from, to or through a Specified Territory, as well as any person ordinarily resident in a Specified Territory, the government of a Specified Territory as well as any entity owned or controlled by an entity in a Specified Territory including, without limitations, affiliates outside of a Specified Territory.

- Specified Territory means The Republic of Belarus, Ukraine and/or The Russian Federation.
- Loading and Unloading clause: excluding second hand cargo and Tail end transit.
- SANCTION LIMITATION AND EXCLUSION CLAUSE LMA 3100 (Amended) No (Re)insurer shall be deemed to provide cover and no (re)insurer shall be liable to pay any claim or provide any benefit hereunder to the extent that the provision of such cover, payment of such claim or provision of such benefit would expose that (re)insurer to any sanction, prohibition or restriction under United Nations resolutions or the trade or economic sanctions, laws or regulations of the European Union, United Kingdom, United States of America or Switzerland.
- War and Strike Risk Termination Clause: This clause shall be paramount and shall override anything contained in this reinsurance agreement inconsistent therewith.
- Notwithstanding anything to the contrary stated herein or subsequently added hereto, it is understood and agreed that if this treaty provides that war and strikes, riot and civil commotions risks (including terrorism) may be ceded hereunder, then the cover afforded by this reinsurance in respect of such war and strikes, riot and civil commotions risks (including terrorism) shall be subject to terms and conditions no wider than the relevant London Institute War and Strikes Clauses current at the inception of the risk ceded hereunder, or current at the later of either the inception date or the most recent anniversary date of this treaty. The acceptance of war and strikes, riot and civil commotions risks (including terrorism) under this contract is at all times subject to 72 hours' notice of cancellation by insurers or reinsurers. Such cancellation becoming effective on the expiry of 72 hours from midnight of the day on which notice of cancellation is issued by either party. Notice of cancelation can be given by e mail and is deemed served at the time that the e mail is sent. Also, any notice of cancelation given to the placing reinsurance broker or intermediary under this section shall be deemed to satisfy any requirement of notice provided for anywhere in this reinsurance agreement and shall override any inconsistent provisions as to notice within this reinsurance agreement.
- Five Powers War Clause Where any war risks coverage is provided by underwriters, this(re)insurance excludes loss damage liability or expense arising from the outbreak of war (whether there be a declaration of war or not) between any of the following: United Kingdom, United States of America, France, the Russian Federation, the People's Republic of China. JC2023-024 6th Jan 2023.
- COMMUNICABLE DISEASE EXCLUSION LMA 5394 (amended)
- Marine Cyber Endorsement Clause LMA5403

1. Subject only to paragraph 3 below, in no case shall this insurance cover loss, damage, liability or expense directly or indirectly caused by or contributed to by or arising from the use or operation, as a means for inflicting harm, of any computer, computer system, computer software programme, malicious code, computer virus, computer

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process or any other electronic system. 2. Subject to the conditions, limitations and exclusions of the policy to which this clause attaches, the indemnity otherwise recoverable hereunder shall not be prejudiced by the use or operation of any computer, computer system, computer software programme, computer process or any other
electronic system, if such use or operation is not as a means for inflicting harm. 3. Where this clause is endorsed on policies covering risks of war, civil war, revolution, rebellion, insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power, or terrorism or any person acting from a political motive, paragraph 1 shall not operate to exclude losses (which would otherwise be covered) arising from the use of any computer, computer system or computer software programme or any other electronic system in the launch and/or guidance system and/or firing mechanism of any weapon or missile. LMA5403 11 November 2019.

RUB:
Excluding all losses, damages, liabilities or expenses caused by or arising from or in connection with any conflicts involving Russian armed forces, Russian-backed forces, and/or Russian authorities, within the territories (including territorial waters) of Ukraine, The Republic of Belarus, The Republic of Moldova and The Russian Federation (including the disputed territories of Donetsk Region, Luhansk Region and Crimea). Also excluded shall be all losses, damages, liabilities or expenses where the aforementioned conflict is deemed to be the direct cause of such losses, damages, liabilities or expenses. Excluding all losses, damages, liabilities or expenses occurring in the territorial scope of The Russian Federation (including territorial waters) and/or any disputed territories (including but not limited to the Donetsk Region, Luhansk Region and Crimea), in respect of Russian insureds and reinsured.

IRAN EXCLUSION CLAUSE
It is understood and agreed that this contract does not provide cover and does not include any liability to pay any claim or provide any benefit hereunder in respect of any
risk from Iran.
“Iran Risks” refers to any goods, services or insured items or risks located in Iran, of Iranian origin, to be transported to or from Iran or directly or indirectly owned by an Iranian person or entity or in any other way subject to an Iranian interest.

As per Section 64 VB of the Insurance Act, 1938, adequate premium balance is required to be maintained before the commencement of a shipment. Inadequate premium balance would render a shipment uncovered.

Overage additional premium-To be read in conjunction with Institute Classification Clause CL 354 dated 1-1-2001, Upto 15 Years-No Additional Premium,15 to 20 Years–TBA,20 to 25 Years–0.01%,25 to 30 Years–0.02% and More than 30 Years–to be referred to Insurer.

Per Location Limit (PLL): Notwithstanding anything to contrary contained in this Policy, the limit of Insurer’s liability in respect of any one accident or series of accidents arising from the same event in any one location shall not exceed the amount as specified in the schedule of the policy. This means accumulation of all shipments at any one place at any one time. Eg., Accumulation at Port awaiting shipment and/or similar places or intermediate storage at carrier’s godown or warehouse etc. If such accumulations do take place exceeding the Location Limit, unless prior notice is given to the Insurer and suitable endorsements have been made in the Policy, Condition of Average will be applicable at the time of claim.

Per Sending Limit (PSL): Notwithstanding anything to contrary contained in this Policy the limit of the Insurer’s liability in respect of any one accident or series of accidents arising from the same event shall not exceed the amount as specified in the schedule of the policy. Shipment values exceeding this limit, unless prior notice is given to the Insurer

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and suitable amendments have been made in the policy insured will be self-insurer and for partial losses condition of average will be applicable at time of claim.

Tail end Transit shall be covered for ITC A subject to satisfactory pre- acceptance inspection report at assured's cost else coverage shall be restricted to ITC B

Warranted any transit from, to or through Iran, Afghanistan, Iraq, Libya, North Korea, Northern Sri Lanka, Somalia, Chechnya, Bosnia and any of the European Union and/or United States and/or United Nations and/or United Kingdom sanctioned countries are not covered under the policy.

Warranted Brand New Goods and in Original Manufacturers Packing.

Warranted cargo is carried under - deck unless it is containerized.

Warranted coverage under the policy will not exceed liability of Insured as per invoice INCO terms.

Warranted for shipments from African countries, cover to commence once the goods are loaded on to the carrying Vessel / Aircraft at dispatch Seaport / Air port

Warranted loading/ unloading/ fastening of Over Dimensional cargo from the carrying vessel to be supervised by our approved Surveyors at insured’s cost and the recommendations of the Surveyor regarding loading/ unloading/ fastening of cargo be complied with.

Warranted Over Dimensional cargo is carried in multi – axle, low-bed Trailer and should be adequately lashed / strapped before commencement of inland transit. Such consignments are to be loaded / stowed and secured on to the inland conveyance under the supervision of a Surveyor approved by the Insurer at the Assured’s cost and all recommendation of the Surveyor be complied with.

Warranted that goods are transported in closed wagons and /or trucks to be covered with tarpaulin or any other water proof material to avoid ingress of water

Warranted that if the weight of the cargo exceeds than Registration Laden weight or Licensed Carrying Capacity of the vehicle, as mentioned in the Registration Certificate of the vehicle, then any loss or damage arising out of such transit is not covered under the above mentioned policy.

Warranted that Sales Return Goods / Second Hand goods shall be covered only under ICC B / ITC B Plus War / SRCC.

Excluding Denting, Bending, Scratching and Chipping unless caused by perils covered under ICC “B” / ITC “B”
Excluding Fragile items.

Excluding Mechanical, Electronic & Electrical Derangement unless caused by visible physical damages.

Excluding Rejection and Quality losses.

Excluding Rust, Oxidation & Discoloration unless caused by perils covered under ICC “B” / ITC “B”

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Excluding War & SRCC Cover for transit to/from/through UAE, Bahrain, Iraq, Kuwait, Oman, Qatar & Saudi Arabia whilst the vessel is sailing through the Persian Gulf (High Risk Area). The above War & SRCC Cover can be reinstated as per Institute War Clauses 2009 and Institute Strikes Clauses 2009, in the policy by paying additional premium at the rate of 0.025% plus GST.

a) Principal details: Munitions India Limited, High Explosives Factory (HEF) Khadki, Pune, Maharashtra, Pin code - 411003

b) Contractor Details: Engineers India Limited, 5th Floor, EI Bhawan, Plot No. 85, Sector-11, Kharghar, Navi Mumbai, Raigad, Maharashtra - 410210 and other Sub-Contractors.

Over-dimensional cargo is defined as cargo having one or more of the following characteristics: 1.Replacement time (manufacturing time plus transport time) in excess of 13 weeks; 2. any equipment for which the repair, even the slightest one, cannot be made at place of destination; any equipment which because of its weight and/or
volume requires the use of a special conveyance, and/or any item which including packing does not fit inside a standard 40 container or equivalent road trailer, thus having dimensions in excess of 12m. length and/or 2.5m wide and/or 2.5m high &/or any item with weight in excess of 25 MT.

Survey and Claim Settlement
In the event of loss or damage which may involve a claim under this insurance, immediate notice thereof and application for survey should be given to: Agents of W. K. Websters & Co. / web site: www.wkwebster.com (for Export policy) and Reliance General Insurance Company Limited (for import and inland policy)."

DECLARATION (Quarterly Basis)
It is a condition of this insurance that, until completion of the contract, the Assured is bound to declare here under to the company each and every despatch/shipment without exception, in the form prescribed by the Company for the purpose, within hours/days of the : a) departure of the Overseas Vessel from the port of shipment in the case of exports b) receipt of adviceof despatch / shipment, in the case of imports c) issue of the Railway Receipt / Parcel Way bill / postal Receipt / Consignment Note in the case of Inland Transits. The Company being bound to accept the same up to but not exceeding, the limits specified herein. The Company and/or its agents will have the previlege at any time during the business hours to inspect Asured's record of dispatches made with in the terms of the Policy.

BASIS OF VALUTATION DETAILS
Import- Invoice + 10%
Inland- Invoice + 10%

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Excess/Deductibles For EAR	
For Storage & Erection Claims	5% of the claim amount subject to a minimum of 100,000/-
For Testing Period Claims	5% of the claim amount subject to a minimum of 400,000/-
For Acts of God Claims	10% of the claim amount subject to a minimum of 400,000/-
For Fire/Explosion Claims	10% of the claim amount subject to a minimum of 400,000/-
Transit Excess	
0.5% of Consignment Value.	

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Installment Details for EAR					
Sr. No.	**Due Date**	**Premium (Excluding GST)**	**GST**	**Gross Premium**	**Status**
1	15-Oct-24	693,140	124,765	817,905	**Paid**
2	15-Jan-25	487,764	87,798	575,562	Due
3	15-Apr-25	487,764	87,798	575,562	Due
4	15-Jul-25	487,764	87,798	575,562	Due
5	15-Oct-25	487,764	87,798	575,562	Due
6	15-Jan-26	487,764	87,798	575,562	Due
7	15-Apr-26	487,764	87,798	575,562	Due
8	15-Jul-26	487,764	87,798	575,562	Due
Total Premium INR				**48,46,836**	

Premium Details	**Amount (Rs.)**
EAR Net Premium	4,107,488.00
Marine Net Premium	129,323.00
Total Net Premium	4,236,810.00
Add: IGST (18%)	762,626.00
Total Premium	4,999,436.00

GSTIN: 07AABCR6747B1ZI ; HSN: 997139 ; Description of services: Other non-life insurance services (excluding reinsurance services)

Consolidated Stamp duty paid vide Letter of Authorisation No. NO LOA/ENF-1/CSD/62/2024-25/(Validity Period Dt.01/10/2024 to Dt. 01/12/2025)/4634 dated 25th September 2024 at General Stamp Office, Mumbai.
** Not Applicable for the State of Jammu & Kashmir.

This document shall be treated as a Tax Invoice as per Rule 46 of the Central Goods and Services Tax Rules 2017.

We hereby declare that though our aggregate turnover in any preceding financial year from 2017-18 onwards is more than the aggregate turnover notified under sub-rule (4) of rule 48, we are not required to prepare an invoice in terms of the provisions of the said sub-rule.

Note: In the event of the dishonour of cheque, this policy document automatically stands cancelled from inception, irrespective of whether a separate communication is sent or not.

In witness whereof this policy has been signed at Mumbai on policy original tax invoice date 30/10/2024 in lieu of Policy No. as mentioned in the policy.

For any assistance with claims, please contact us on 74004 22200, (022) 4890 3009 or email us at rgicl.services@reliancegeneral.co.in

In case of a renewal, the benefits provided under the policy and/or terms and conditions of the policy including premium rate may be subject to change.

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For and on behalf of
Reliance General Insurance Company Limited,



Authorised Signatory

The policy wording with detailed terms, conditions and exclusions are available on our website www.reliancegeneral.co.in
The Customer Information Sheet (CIS) for this product is available on our website https://www.reliancegeneral.co.in/insurance/about-us/downloads.aspx
Grievance Clause: For resolution of any query or grievance, Insured may contact the respective branch office of the Company or may call at (022) 4890 3009 or may write an email at rgicl.services@relianceada.com. In case the insured is not satisfied with the response of the office, insured may contact the Nodal Grievance Officer of the Company at rgicl.grievances@relianceada.com. In the event of unsatisfactory response from the Nodal Grievance Officer, insured may email to Head Grievance Officer at rgicl.headgrievances@relianceada.com. In the
event of unsatisfactory response from the Head Grievance Officer, he/she may, subject to vested jurisdiction, approach the Insurance Ombudsman for the redressal of grievance. Details of the offices of the Insurance Ombudsman are available at IRDAI website www.irda.gov.in or on company website www.reliancegeneral.co.in or on www.gbic.co.in. The insured may also contact the following office of the Insurance
Ombudsman within whose territorial jurisdiction the branch or office of the Company is located: Smt. Sandhya Baliga Office of the Insurance Ombudsman,2/2 A,Universal Insurance Building,Asaf Ali Road,New Delhi â€“ 110 002. Tel.: 011 - 23239633 / 23237532 Fax: 011 - 23230858 Email: bimalokpal.delhi@cioins.co.in

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Reliance Erection All Risks Insurance-Insurance Policy 130162422120047124

WHEREAS the insured named in the Schedule hereto by a proposal and declaration, which shall be the basis of this contract and is deemed to be incorporated herein has applied to the Reliance General Insurance Co. Ltd. (hereinafter called the Company) for the insurance hereinafter contained and has paid the premium as consideration for such Insurance in respect of accident or damage occurring during the period of Insurance stated in the Schedule or during any subsequent period for which the Insured pays and the Company may accept the premium for the renewal of this Policy.

NOW THIS POLICY OF INSURANCE WITNESSETH

that subject to and in consideration of the Insured having paid to the Company, the premium mentioned in the said Schedule and subject to the terms, exclusions, provisions and conditions contained herein or endorsed here on the company will indemnify the Insured against sudden and unforeseen physical loss of or damage to the property insured in the manner and to the extent hereinafter provided.

General Exclusions –

The Company will not indemnify the Insured in respect of loss, damage or liability directly or indirectly caused by or arising out of or aggravated by -
a) War, invasion, act of foreign enemy, hostilities or war like operations (whether war be declared or not), civil war, rebellion, revolution, insurrection, mutiny, civil commotion, military or usurped power, martial law, conspiracy, confiscation, commandeering a group of malicious persons or persons acting on behalf of or in connection with any political organisation, requisition or destruction or damage by order of any government dejure or de facto or by any public, municipal or local authority.
b) Nuclear reaction, nuclear radiation or radioactive contamination.
c) Wilful act or wilful negligence of the Insured or of his responsible representative
d) Cessation of work whether total or partial.
e) Terrorism Damage Exclusion Warranty: "Notwithstanding any provision to the contrary within this insurance it is agreed that this insurance excludes loss, damage cost or expense of whatsoever nature directly or indirectly caused by, resulting from or in connection with any act of terrorism regardless of any other cause or event contributing concurrently or in any other sequence to the loss.

For the purpose of this warranty an act of terrorism means an act, including but not limited to the use of force or violence and /or the threat thereof, of any person or group(s) of persons whether acting alone or on behalf of or in connection with any organisation(s) or governments(s) committed for political, religious, ideological or similar purpose including the intention to influence any government and/or to put the public, or any section of the public in fear.

The warranty also excludes loss, damage, cost or expenses of whatsoever nature directly or indirectly caused by, resulting from or in connection with any action taken in controlling, preventing, suppressing or to in any way relating to action taken in respect of an act of terrorism.

If the Company alleges that by reason of this exclusion, any loss, damage, cost or expenses is not covered by this insurance the burden of proving the contrary shall be upon the Assured."
In the event any portion of this endorsement is found to be invalid or unenforceable, the remainder shall remain in full force and effect.

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In any action, suit or other proceedings where the company allege that by reason of the provisions of Exclusion (a) above any loss, destruction, damage or liability is not covered by this insurance, the burden of proving that such loss, destruction, damage or liability is covered shall be upon the Insured.

Period Of Cover -

The liability of the Company shall commence, (notwithstanding any date to the contrary specified in the Schedule) only from the time after the unloading of the property specified in the Schedule from any conveyance at the site specified in the schedule and shall continue until immediately after the first test operation or test loading is concluded (whichever is earlier) but in no case beyond four weeks from the day on which after completion of erection a trial running is made and/or readiness for work is declared by the erectors/contractors, whichever is earlier. If however, a part of a plant or one or several machine/s is/are tested and put into operation the cover and consequently the liability of the Company for that particular part of the plant or machine ceases whereas it continues for the remaining parts which are not yet ready.

In case after the expiry of four weeks of trial running, approval of the plant or any part thereof is not given by the concerned Authorities the cover for the extended period of further trial running can be covered at extra premium to be arranged beforehand.

If the actual erection period is shorter than the period indicated in the Schedule, no refund of premium shall be allowed, unless specifically allowed by Insurers.

In the case of second-hand/used property, the insurance hereunder shall however, cease immediately on the commencement of the testing.

At the latest, the insurance shall expire on the date specified in the Schedule but if the work of erection and test operations included in the insurance is not completed within the time specified hereunder, the company may extend the period of Insurance but the Insured shall pay to the Company additional premium at agreed rates.

General Conditions –

1. The due observance and fulfilment of the terms of this Policy in so far as they relate to anything to be done or complied with by the Insured and the truth of the statements and answers in the questionnaire and proposal made by the Insured shall be a condition precedent to any liability of the company.

2. The Schedule and the Section(s) shall be deemed to be incorporated in and form part of this policy and the expression 'this Policy' wherever used in this contract shall be read as including the Schedule and the Section(s). Any word or expression to which a specific meaning has been attached in any part of this Policy or of the Schedule or of the Section(s) shall bear such meaning wherever it may appear.

3. The Insured shall at his own expense take all reasonable precautions and comply with all reasonable recommendations of the Company to prevent loss, damage or liability and comply with statutory requirements and manufacturers' recommendations.

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4. a) Representatives of the Company shall at any reasonable time have the right to inspect and examine the risk and the Insured shall provide the representatives of the company with all details and information necessary for the assessment of the risk.

b) The Insured shall immediately notify the Company by telegram and in writing of any material change in the risk and cause at his own expense such additional precautions to be taken as circumstances may require and the scope of cover and/or premium shall, if necessary be adjusted accordingly.

No material alteration shall be made or admitted by the Insured whereby the risk is increased unless the continuance of the Insurance be confirmed in writing by the Company.

5. In the event of any occurrence, which might give rise to a claim under this Policy, the Insured shall –

a) Immediately notify the Company by telephone or telegram as well as in writing giving an indication as to the nature and extent of loss or damage.
b) take all steps within his power to minimize the extent of the loss or damage
c) preserve the parts affected and make them available for inspection by a representative of the company or surveyor deputed by the Company.
d) furnish all such information and documentary evidence as the company may require.
e) inform the police authorities in case of loss or damage due to theft or burglary.

The Company shall not in any case be liable for loss, damage or liability of which no notice has been received by the company within 14 days of its detection.

Upon notification being given to the Company under this condition, the Insured may carry out the repair or replacement of any minor damage not exceeding 7,500/-. In all other cases a representative of the company shall have the opportunity of inspecting the loss or damage before any repairs or alterations are affected. If a representative of the company does not carry out the inspection within a period of time which could be considered as adequate under the circumstances the Insured is entitled to proceed with the repairs or replacement.

The liability of the Company under this Policy in respect of any item sustaining damage shall cease if said item is not repaired properly without delay.

6. The Insured shall at the expense of the Company do and concur in doing and permit to be done all such acts and things as may be necessary or required by the Company in the interest of any rights or remedies, or of obtaining relief or indemnity from parties (other than those insured under this Policy) to which the company shall be or would become entitled or subrogated upon their paying for or making good any loss or damage under this Policy, whether such acts and things shall be or become necessary or required before or after the Insured's indemnification by the company.

7. The parties to the contract may mutually agree and enter into a separate Arbitration Agreement to settle any and all disputes in relation to this policy. Arbitration shall be conducted under and in accordance with the provisions of the Arbitration and Conciliation Act, 1996.

8. If a claim is in any respect fraudulent, or if any false declaration is made or used in support thereof, or if any fraudulent means or devices are used by the Insured or anyone acting on his behalf to obtain any benefit under this

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Policy, or if a claim is made and rejected and no action or suit is commenced within three months after such rejection or, in case of arbitration taking place as provided therein, within three months after the Arbitrator or Arbitrators or Umpire have made their award, all benefit under this Policy shall be forfeited.

9. If at the time any claim arises under this Policy there be any other insurance covering the same loss, damage or liability the company shall not be liable to pay or contribute more than their rateable proportion of any claim for such loss, damage or liability.
10. This insurance may be terminated at the request of the Insured at any time in which case the Insurers will refund appropriate premium amount subject to the following conditions.
i) Claims experience under the policy as on date of cancellation should be less than 60 % of reworked premium.
ii) The unexpired period is not less than 3 months or 25% of the policy period, whichever is less
iii) Testing period should not have commenced.

This insurance may also at any time be terminated at the option of the Insurer by 15 days notice to that effect being given to the Insured in which case the Insurers shall be liable to repay on demand a rateable proportion of the premium for the unexpired term from the date of cancellation.

Section I - Material Damage
The Company hereby agrees with the Insured (subject to the exclusions and conditions contained herein or endorsed here on) that if, at any time during the period of insurance stated in the said Schedule, or during any further period of extension thereof the property (except packing materials of any kind) or any part thereof described in the said Schedule be lost, damaged or destroyed by any cause, other than those specifically excluded hereunder, in a manner necessitating replacement or repair the Company will pay or make good all such loss or damage up to an amount not exceeding in respect of each of the items specified in the Schedule the sum set opposite thereto and not exceeding in the whole the total sum insured hereby -
The Company will also reimburse the Insured for the cost of clearance and removal of debris following upon any event giving rise to an admissible claim under this policy but not exceeding in all the sum (if any) set opposite thereto in the Schedule.

Exclusion To Section I -
The Company, shall not, however, be liable for -
a) the first amount of the loss arising out of each and every occurrence shown as Excess in the Schedule;
b) loss discovered only at the time of taking an inventory;
c) normal wear and tear, gradual deterioration due to atmospheric conditions or otherwise, rust, scratching of painted or polished surfaces or breakage of glass;
d) loss or damage due to faulty design, defective material or casting, bad workmanship other than faults in erection.
Note - This exclusion shall be limited to the items immediately affected and shall not be deemed to exclude loss or damage to other insured items resulting from such excluded perils;
e) the cost necessary for rectification or correction of any error during erection unless resulting in physical loss or damage;
f) loss of or damage to files, drawings, accounts, bills, currency, stamps, deeds, evidence of debt, notes, securities cheques, packing materials such as cases, boxes, crates;
g) any damage or penalties on account of the Insured's non- fulfilment of the terms of delivery or completion under his Contract of Erection or of any obligations assumed there under including consequential loss of any kind or description or for any aesthetic defects or operational deficiencies.

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Provisions Applying To Section I -
Memo 1. SUM INSURED –

It is a requirement of this insurance that the Sum of Insurance stated in the Schedule shall not be less than the completely erected value of the property inclusive of freights, customs duty, erection cost and the Insured undertakes to increase or decrease the amount of insurance in the event of any material fluctuation in the level of wages or prices. Provided always that such increase or decrease shall take effect only after the same has been recorded on the Policy by the Company.
If, in the event of the occurrence of a loss, or damage it is found that the Sum Insured representing the completely erected value of the property and/or of particular items involved is less than the amount required to be insured the amount recoverable by the Insured under the Policy shall be reduced in such proportion as the Sum Insured bears to the amount required to be insured.

Memo 2. PREMIUM ADJUSTMENT –

The sum insured under the Policy representing the completely erected value of the plant machinery/project shall be adjustable at completion of erection on the basis of the actual values to be declared by the insured in respect of freight and handling charges, customs dues and costs of erection and the difference in premium shall be met with by payment, at the rate agreed to or by the insured as the case may be. Any increase or decrease in prime cost of Plant and Equipment shall not be the subject matter of premium adjustment.

Memo 3. BASIS OF LOSS SETTLEMENT -
In the event of any loss or damage the basis of any settlement under this Policy shall be -
a) in the case of damage which can be repaired, the cost of repairs necessary to restore the items to their condition immediately before the occurrence of the damage less salvage, OR

b) in the case of a total loss the actual value of the items immediately before the occurrence of the loss less salvage;
However, only to the extent the costs claimed has to be borne by the Insured and to the extent they are included in the Sum Insured and provided always that the provisions and conditions have been complied with.
All damages which can be repaired shall be repaired, but if the cost of repairing any damage equals or exceeds the value of the items immediately before the occurrence of the damage the settlement shall be made on the basis provided for in (b) above. The cost of any provisional repairs will be borne by the Company if such repairs constitute part of the final repairs and do not increase the total repair expenses.
The cost of any alterations, additions and/or improvements shall not be recoverable under this Policy.

Extension of Cover - Any extra charges incurred for overtime, work on holidays, express freight (including air freight), are not covered by this insurance, unless agreed upon at an additional premium.

In the event of loss or damage the insurance shall notwithstanding be maintained in force during the period of insurance for the sum insured, the insured undertaking to pay a pro-rata additional premium of the full amount of each claim for the loss or damage from the date of such loss to the expiry of the period of insurance.

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Memo 4. CONSTRUCTION PLANT AND MACHINERY –

Loss of or damage to Construction Plant and Machinery excludes loss or damage directly caused by its own explosion or its own mechanical or electrical breakdown or derangement.

Memo 5 - SURROUNDING PROPERTY –

Loss or damage to property located on or adjacent to the site and belonging to or held in care, custody or control of the Principal(s) or the Contractor (s) shall only be covered if occurring directly due to the erection, construction or testing of the items insured under Section I and happening during the period of cover, and provided that a separate Sum therefore has been entered in the Schedule under Section I, Item 5 for Principal's specified surrounding property. This cover does not apply to construction/erection machinery, plants and equipment.

Memo 6 - MAJOR PERILS/ACTS OF GOD CLAIMS -
The Major Perils/Acts of God Claims shall mean the claims arising out of -
a) Earthquake - Fire & Shock
b) Landslide/Rockslide/Subsidence,
c) Flood/Inundation,
d) Storm/Tempest/Hurricane/Typhoon/Cyclone/lightning or other atmospheric disturbances.

Section II - THIRD PARTY LIABILITY

The Company will indemnify the Insured against -
a) Legal liability for accidental loss or damage caused to property of other persons including property held in trust by or under custody of the Insured for which he is responsible excluding any such property used in connection with erection thereon;

b) Legal liability (liability under contract excepted) for fatal or non-fatal injury to any person other than the Insured's own employees or workman or employees of the owner of the works or premises or other firms connected with any other erection work thereon, or members of the Insured's family or of any of the aforesaid; directly consequent upon or solely due to the erection of any property described in the Schedule.

Provided that the total liability of the Company during the period of Insurance under this clause shall not exceed the limits of Indemnity set opposite thereto in the Schedule.
In respect of a claim for compensation to which the indemnity provided herein applies, the Company will, in addition, indemnify the Insured against -

a) all cost and expenses of litigation recovered by any claimant from the Insured, and

b) all costs and expenses incurred with the written consent of the Company.
The exclusion contained in paragraphs (d), (f) & (g) in Section I of this Policy shall apply to this Section also.

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Exclusions To Section II -

The Company will not indemnify the Insured in respect of -

1. The Excess stated in the Schedule to be borne by the Insured in any one occurrence related to property damage
2. Expenditure incurred in doing or redoing or making good or repairing or replacing anything covered or coverable under Section I of this Policy;
3. Liability consequent upon -

a) bodily injury to or illness of employees or workmen of the Contractor(s) or the Principal(s) or any other firm connected with the project which or part of which is insured under Section I, or members of their families;

b) loss of or damage to property belonging to or held in care, custody or control of the Contractor(s), the Principal(s) or any other firm connected with the project which or part of which is insured under Section I, or an employee or workman of one of the aforesaid;

c) any accident caused by vehicles licensed for general road use or by waterborne vessels or aircraft;

d) any agreement by the Insured to pay any sum by way of indemnity or otherwise unless such liability would have attached also in the absence of such agreement.

Conditions Applying To Section II -

1. No admission, offer, promise, payment or indemnity shall be made or given by or on behalf of the Insured without the written consent of the Company who shall be entitled if they so desire, to take over and conduct in the name of the Insured the defence or settlement of any claim or to prosecute for their own benefit in the name of the Insured any claim for indemnity or damage or otherwise and shall have full discretion in the conduct of any proceedings or in the settlement of any claim and the Insured shall give all such information and assistance as the Company may require.
2. The Company may, so far as any accident is concerned, pay to the Insured the limit of indemnity for any one accident, any one period, but deducting there from in such case any sum/s already paid as compensation in respect thereof or any lesser sum for which the claim or claims arising from such accident can be settled and the company shall thereafter be under no further liability in respect of such accident under this section.

Terrorism Damage Exclusion Warranty

This Policy excludes loss, damage, cost or expense of whatsoever nature directly or indirectly caused by, resulting from or in connection with any act of terrorism regardless of any other cause or event contributing concurrently or in any other sequence to the loss.

For the purpose of this exclusion, an act of terrorism means an act or series of acts, including but not limited to the use of force or violence and/or the threat thereof, of any person or group(s) of persons, whether acting alone or on behalf of or in connection with any organisation(s) or government(s), or unlawful associations, recognized under Unlawful Activities (Prevention) Amendment Act, 2008 or any other related and applicable national or state legislation formulated to combat unlawful and terrorist activities in the nation for the time being in force, committed for political, religious, ideological or similar purposes including the intention to influence any government and/or to put the public or any section of the public in fear for such purposes.

This exclusion also includes loss, damage, cost or expense of whatsoever nature directly or indirectly caused by, resulting from or in connection with any action taken in controlling, preventing, suppressing or in any way relating to the above.

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ENGG/END-101: CIVIL ENGINEERING WORKS -

It is hereby declared and agreed, subject to the exceptions contained herein, or endorsed hereon, that this Policy is extended to cover the risks of loss or damage to property brought on to the Site of Erection for the performance of the erection contract, details of which are stated as under --

a) All permanent Civil Engineering Works such as buildings, foundations earthwork including materials for the constructions thereon.

b) All temporary works such as buildings, sheds

PROVIDED that the following exclusions shall apply -

i) loss or damage directly caused by defective workmanship material, or design or wear and tear,

ii) loss or damage directly caused by mechanical breakdown or derangement,

iii) loss or damage directly caused by deterioration due to lack of use or obsolescence,

iv) any loss of property either by disappearance or by shortage if such disappearance or shortage alone is revealed during and after an inventory is made,

v) Cessation of work whether total or partial,

vi) loss, destruction or damage of accounts, bills, currency stamps, deeds, evidence of debt, money, notes or securities.

The exclusions of loss or damage caused by (i), (ii) and (iii) above shall be limited to the machine structure or work immediately affected and shall not extend to other work or the property lost or damaged in consequence of the defect, wear & tear, breakdown, derangement or deterioration, subject to the Condition that:-

The Insured shall take all reasonable precautions in the selection of labour and to maintain in efficient condition all tools and equipments used in connection with performance of this erection contract.

Provided that all the conditions of this Policy shall apply in all respects to the Insurance granted by this extension save in so far as the same are expressly varied hereby and any reference to loss or damage in the conditions of the Policy shall be deemed to include the perils hereby insured against.

ENGG/END-110: ENDORSEMENT CONCERNING STORAGE -

It is agreed and understood that otherwise subject to the terms, exclusions, provisions and conditions contained in the policy or endorsed thereon, the Insurers shall only indemnify the Insured for loss of or damage to the Insured items during storage upto a value per storage unit not exceeding the equivalent of Rs.50 Crores

The individual storage units shall be either at least 15 m apart or separated by fireproof walls.

ENGG/END-111: ENDORSEMENT REGARDING SAFETY MEASURES -

It is agreed and understood that otherwise subject to the terms, exclusions, provisions and conditions contained in the policy or endorsed thereon, the

Insurers shall only indemnify the Insured for loss, damage or liability directly or indirectly caused by flood and inundation if adequate safety measures have been taken during planning and execution of the project. Adequate safety measures in this context shall mean that the average monthly rainfall, flood and inundation hazard as known from statistics of the competent meteorological offices for the respective month and location has been taken into account.

ENGG/END-112: ENDORSEMENT REGARDING DAMAGE TO CROPS, FORESTS ETC.

It is agreed and understood that otherwise subject to the terms, exclusions, provisions and conditions contained in the policy or endorsed thereon, the Insurers shall not indemnify the Insured for loss, damage or liability directly or indirectly caused to crops, forests and/or any cultures during the execution of the contract works.

ENGG/END-114: WARRANTY CONCERNING UNDERGROUND CABLES AND PIPES -

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It is agreed and understood that otherwise subject to the terms, exclusions, provisions and conditions contained in the policy or endorsed thereon, the insurers shall only indemnify the Insured in respect of loss of or damage to existing underground cables and/or pipes or other underground facilities if, prior to the commencement of works, the Insured has enquired with the relevant authorities about the exact position of such cables, pipes or other underground facilities.
The indemnity shall in any case be restricted to the repair costs of such cables, pipes or other underground facilities, any consequential damage being excluded from the cover.

EARTHQUAKE:-
Article 1
It is hereby agreed and declared that notwithstanding anything stated in the printed exclusions of this policy to the contrary, this Insurance is extended to cover loss or Damage (including loss or Damage by Fire) to any of the property insured by this policy occasioned by or through or in consequence of earthquake including flood or overflow of the sea, lakes, reservoirs and rivers and / or Landslide / Rockslide resulting therefrom.
Special conditions: -
1. Excess as mentioned in the policy for Act of God Perils
2. Onus of proof
In the event of the Insured making any claim for loss or damage under this policy the insured must (if so required by the Company) prove that the loss or damage was occasioned by or through or in consequence of earthquake.

Article 2
The coverage is on First Loss Basis with Limit of Liability up to under of SI per event.

Special Conditions Concerning Fire Fighting Facilities

It is agreed and understood that otherwise subject to the terms, exclusions, provisions and conditions contained in the Policy or endorsed thereon, the Insurers shall only indemnify the Insured for loss or damage resulting directly or indirectly from fire and/or explosion if the following requirements are fulfilled:-
° Adequate fire-fighting equipment and extinguishing agents of sufficient capacity must always be available at the site and ready for immediate use.
° Sufficient number of workmen must be fully trained in the use of such equipment and must be available for immediate intervention at all times.
° If storage of material for the construction or erection of the contract works is necessary at site or any other location within India, storage must be subdivided into storage units not exceeding the equivalent value of Rs 50 Cr per storage unit. The individual storage units must either be at least 15 meters apart or separated by fire-proof walls.
All inflammable materials (such as shuttering material not fitted for concreting, litter, etc.) and especially all inflammable liquids and gases must be stored at a sufficiently large distance from the property under construction or erection and any hot work like welding etc.
° Provided further that in respect of storages of Indian sourced materials at locations other than the site, the amount payable shall not exceed Rs. 50 Cr at any one location.
° Welding, soldering or the use of an open flame in the vicinity of combustible material is permitted only if at least one workman suitably equipped with extinguishers and well trained in fire-fighting is present.
° At the beginning of testing all fire-fighting facilities designed for the operation of the plant must be installed and serviceable.

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Communicable Disease Exclusion Clause

1. Notwithstanding any provision, clause or term the policy to the contrary, the policy excludes any loss, cost, damage, liability, claim, fines, penalty or expense or any other amount of whatsoever nature, whether directly or indirectly and/or in whole or in part, related to, caused by, contributed to by, resulting from, as
a result of, as a consequence of, attributable to, arising out of, arising under, in connection with, or in any way involving (this includes all other terms commonly used and/or understood to reflect or describe nexus and/or connection from one thing to another whether direct or indirect):

1.1 a Communicable Disease and/or the fear or threat (whether actual or perceived) of a Communicable Disease and/or the actual or alleged transmission of a Communicable Disease regardless of any other cause or event contributing and/ or occurring concurrently or in any sequence thereto, and

1.2 a pandemic or epidemic, as declared by the World Health Organisation or any governmental authority.

2. As used herein, Communicable Disease means: any infectious, contagious or communicable substance or agent and/or any infectious, contagious or communicable disease which can be caused and/or transmitted by means of substance or agent where:

2.1 the disease includes, but is not limited an illness, sickness, condition or an interruption or disorder of body functions, systems or organs, and

2.2 the substance or agent includes, but is not limited to, a virus, bacterium, parasite, other organism or other micro-organism (whether asymptomatic or not); including any variation or mutation thereof, whether deemed living or not, and

2.3 the method of transmission, whether direct or indirect, includes but not limited to, airborne transmission, bodily fluid transmission, transmission through contact with human fluids, waste or the like, transmission from or to any surface or object, solid, liquid or gas or between organisms including between humans, animals, or from any animal to any human or from any human to any animal, and

2.4 the disease, substance or agent is such:

2.4.1 that causes or threatens damage or can cause or threaten damage to human health or human welfare, or

2.4.2 that causes or threatens damage to or can cause or threaten damage to, deterioration to, contamination of, loss of value of, loss of marketability of or
loss of use or usefulness of, tangible or intangible property.

For avoidance of doubt, Communicable Disease includes but is not limited to Coronavirus Disease 2019 (Covid -19) and any variation or mutation thereof.

3. For further avoidance of doubt, any contingent or other business interruption loss, cost, damage, loss of income, loss of use, increased cost of working
and/or extra expense arising out of or attributable to:

3.1 any partial or complete closure of and/or slowdown in, including but not limited to any closure by or under the advisories of public, military, government or
civil authorities, or any denial of access to reinsured premises, or customer and or supplier premises (including service / utility providers), or

3.2 change in consumer behaviour, or

3.3 an absence of infected employees or employees suspected of being infected shall not be covered by the policy.

4. For still further avoidance of doubt, loss, cost, damage, liability, claim, fines, penalty or expense or any other amount excluded hereby, includes but is not limited to any cost to identify, clean-up, detoxify, disinfect, decontaminate, mitigate, remove, evacuate, repair, replace, monitor, sanitize or test: (1) for a
Communicable Disease or (2) any tangible or intangible property covered by the policy that is affected by such Communicable Disease.

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5. It is clarified that (1) no other prior, concurrent or subsequent provision, clause, term or exception of the policy(including (but not limited to) any prior, concurrent or subsequent endorsement and/or any provision, clause, term, buy back or exception that operates, or is intended to operate, to extend the coverage of, or protections provided by, the policy by whatever name called like any coverage extension, additional coverage, global extension, exception to any exclusion); (2) any change in the law, clause or similar provision; (3) any follow the fortunes clause or similar provision; and/or (4) no change in the law or any regulation (to the extent permitted by applicable law), shall operate to provide any reinsurance, coverage or protection under the policy that would otherwise be excluded through the exclusion set forth in this [Clause].
6. If the insurer alleges that by reason of this [Clause]any amount is not covered by the policy, the burden of proving the contrary shall rest in the insured.

Wordings for Reliance Marine-Insurance Policy 13012242423M000503

Institute Cargo Clauses (A)- 1/1/2009 CL 382

RISKS COVERED
1. This insurance covers all risks of loss of or damage to the subject-matter insured except as excluded by the provisions of Clauses 4, 5, 6 and 7 below.
General Average
2. This insurance covers general average and salvage charges, adjusted or determined according to the contract of carriage and/or the governing law and practice, incurred to
avoid or in connection with the avoidance of loss from any cause except those excluded in Clauses 4, 5, 6 and 7 below.
"Both to Blame Collision Clause"
3. This insurance indemnifies the Assured, in respect of any risk insured herein, against liability incurred under any Both to Blame Collision Clause in the contract of carriage. In
the event of any claim by carriers under the said Clause, the Assured agree to notify the Insurers who shall have the right, at their own cost and expense, to defend the
Assured against such claim.

EXCLUSIONS
4. In no case shall this insurance cover
4.1 loss damage or expense attributable to wilful misconduct of the Assured
4.2 ordinary leakage, ordinary loss in weight or volume, or ordinary wear and tear of the subject-matter insured
4.3 loss damage or expense caused by insufficiency or unsuitability of packing or preparation of the subjectmatter insured to withstand the ordinary incidents of the insured transit here such packing or preparation is carried out by the Assured or their employees or prior to the attachment of this insurance (for the purpose of these Clauses "packing" shall be deemed to include stowage in a container and "employees" shall not include independent contractors)
4.4 loss damage or expense caused by inherent vice or nature of the subject-matter insured
4.5 loss damage or expense caused by delay, even though the delay be caused by a risk insured against (except expenses payable under Clause 2 above)
4.6 loss damage or expense caused by insolvency or financial default of the owners managers charterers or operators of the vessel where, at the time of loading of the subject-matter insured on board the vessel, the Assured are aware,

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or in the ordinary course of business should be aware, that such insolvency or financial default could prevent the normal prosecution of the voyage This exclusion shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject-matter insured in good faith under a binding contract
4.7 loss damage or expense directly or indirectly caused by or arising from the use of any weapon or device employing atomic or nuclear fission and/or fusion or other like reaction or radioactive force or matter.

5.

5.1 In no case shall this insurance cover loss damage or expense arising from
5.1.1 unseaworthiness of vessel or craft or unfitness of vessel or craft for the safe carriage of the subject-matter insured, where the Assured are privy to such unseaworthiness or unfitness, at the time the subject-matter insured is loaded therein
5.1.2 unfitness of container or conveyance for the safe carriage of the subject-matter insured, where loading therein or thereon is carried out prior to attachment of this insurance or by the Assured or their employees and they are privy to such unfitness at the time of loading.

5.2 Exclusion 5.1.1 above shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject matter insured in good faith under a binding contract.

5.3 The Insurers waive any breach of the implied warranties of seaworthiness of the ship and fitness of the ship to carry the subject-matter insured to destination.

6. In no case shall this insurance cover loss damage or expense caused by
6.1 war civil war revolution rebellion insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power
6.2 capture seizure arrest restraint or detainment (piracy excepted), and the consequences thereof or any attempt thereat
6.3 derelict mines torpedoes bombs or other derelict weapons of war.

7. In no case shall this insurance cover loss damage or expense
7.1 caused by strikers, locked-out workmen, or persons taking part in labour disturbances, riots or civil commotions
7.2 resulting from strikes, lock-outs, labour disturbances, riots or civil commotions
7.3 caused by any act of terrorism being an act of any person acting on behalf of, or in connection with, any organisation which carries out activities directed towards the overthrowing or influencing, by force or violence, of any government whether or not legally constituted

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DURATION
Transit Clause

8.

8.1 Subject to Clause 11 below, this insurance attaches from the time the subject-matter insured is first moved in the warehouse or at the place of storage (at the place named in the contract of insurance) for the purpose of the immediate loading into or onto the carrying vehicle or other conveyance for the commencement of transit, continues during the ordinary course of transit and terminates either

8.1.1 on completion of unloading from the carrying vehicle or other conveyance in or at the final warehouse or place of storage at the destination named in the contract
of insurance,

8.1.2 on completion of unloading from the carrying vehicle or other conveyance in or at any other warehouse or place of storage, whether prior to or at the destination named in the contract of insurance, which the Assured or their employees elect to use either for storage other than in the ordinary course of transit or for allocation or distribution, or

8.1.3 when the Assured or their employees elect to use any carrying vehicle or other conveyance or any container for storage other than in the ordinary course of transit
Or

8.1.4 on the expiry of 60 days after completion of discharge overside of the subject-matter insured from the oversea vessel at the final port of discharge, whichever shall first occur.

8.2 If, after discharge overside from the oversea vessel at the final port of discharge, but prior to termination of this insurance, the subject-matter insured is to be forwarded to a destination other than that to which it is insured, this insurance, whilst remaining subject to termination as provided in Clauses 8.1.1 to 8.1.4, shall not extend beyond the time the subject-matter insured is first moved for the purpose of the commencement of transit to such other destination.

8.3 This insurance shall remain in force (subject to termination as provided for in Clauses 8.1.1 to 8.1.4 above and to the provisions of Clause 9 below) during delay beyond the control of the Assured, any deviation, forced discharge, reshipment or transhipment and during any variation of the adventure arising from the exercise of a liberty granted to carriers under the contract of carriage.

Termination of Contract of Carriage

8. If owing to circumstances beyond the control of the Assured either the contract of carriage is terminated at a port or place other than the destination named therein or the transit is otherwise terminated before unloading of the subject-matter insured as provided for in Clause 8 above, then this insurance shall also terminate unless prompt notice is given to the Insurers and continuation of cover is requested when this insurance shall remain in force, subject to an additional premium if required by the Insurers, either

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9.1 until the subject-matter insured is sold and delivered at such port or place, or, unless otherwise specially agreed, until the expiry of 60 days after arrival of the subjectmatter insured at such port or place, whichever shall first occur, or

9.2 if the subject-matter insured is forwarded within the said period of 60 days (or any agreed extension thereof) to the destination named in the contract of insurance or to any other destination, until terminated in accordance with the provisions of Clause 8 above.

Change of Voyage

10.

10.1 Where, after attachment of this insurance, the destination is changed by the Assured, this must be notified promptly to Insurers for rates and terms to be agreed. Should a loss occur prior to such agreement being obtained cover may be provided but only if cover would have been available at a reasonable commercial market rate on reasonable market terms.

10.2 Where the subject-matter insured commences the transit contemplated by this insurance (in accordance with Clause 8.1), but, without the knowledge of the Assured or their employees the ship sails for another destination, this insurance will nevertheless be deemed to have attached at commencement of such transit.

CLAIMS

Insurable Interest

11.

11.1 In order to recover under this insurance the Assured must have an insurable interest in the subjectmatter insured at the time of the loss.

11.2 Subject to Clause 11.1 above, the Assured shall be entitled to recover for insured loss occurring during the period covered by this insurance, notwithstanding that the loss occurred before the contract of insurance was concluded, unless the Assured were aware of the loss and the Insurers were not.

Forwarding Charges

12. Where, as a result of the operation of a risk covered by this insurance, the insured transit is terminated at a port or place other than that to which the subject-matter insured is covered under this insurance, the Insurers will reimburse the Assured for any extra charges properly and reasonably incurred in unloading storing and forwarding the subject matter insured to the destination to which it is insured.

This Clause 12, which does not apply to general average or salvage charges, shall be subject to the exclusions contained in Clauses 4, 5, 6 and 7 above, and shall not include
charges arising from the fault negligence insolvency or financial default of the Assured or their employees.

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Constructive Total Loss

13. No claim for Constructive Total Loss shall be recoverable hereunder unless the subject-matter insured is reasonably abandoned either on account of its actual total loss appearing to be unavoidable or because the cost of recovering, reconditioning and forwarding the subject-matter insured to the destination to which it is insured would exceed its value on arrival.

Increased Value

14.

14.1 If any Increased Value insurance is effected by the Assured on the subject-matter insured under this insurance the agreed value of the subject-matter insured shall be deemed to be increased to the total amount insured under this insurance and all Increased Value insurances covering the loss, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.

In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

14.2 Where this insurance is on Increased Value the following clause shall apply: The agreed value of the subject-matter insured shall be deemed to be equal to the total amount insured under the primary insurance and all Increased Value insurances

covering the loss and effected on the subject-matter insured by the Assured, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.
In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

BENEFIT OF INSURANCE

15. This insurance

15.1 covers the Assured which includes the person claiming indemnity either as the person by or on whose behalf the contract of insurance was effected or as an assignee,

15.2 shall not extend to or otherwise benefit the carrier or other bailee.

MINIMISING LOSSES

Duty of Assured

16. It is the duty of the Assured and their employees and agents in respect of loss recoverable hereunder

16.1 to take such measures as may be reasonable for the purpose of averting or minimising such loss, and
16.2 to ensure that all rights against carriers, bailees or other third parties are properly preserved and exercised and the Insurers will, in addition to any loss recoverable hereunder, reimburse the Assured for any charges properly and reasonably incurred in pursuance of these duties.

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Waiver

17. Measures taken by the Assured or the Insurers with the object of saving, protecting or recovering the subjectmatter insured shall not be considered as a waiver or acceptance of abandonment or otherwise prejudice the rights of either party.

AVOIDANCE OF DELAY

18. It is a condition of this insurance that the Assured shall act with reasonable despatch in all circumstances within their control.

LAW AND PRACTICE

19. This insurance is subject to English law and practice

NOTE:- Where a continuation of cover is requested under Clause 9, or a change of destination is notified under Clause 10, there is an obligation to give prompt notice to the Insurers and the right to such cover is dependent upon compliance with this obligation.

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CL382
01/01/2009

Institute Cargo Clauses B CL 383 01/01/2009

RISKS COVERED

Risks

1. This insurance covers, except as excluded by the provisions of Clauses 4, 5, 6 and 7 below,

1.1 loss of or damage to the subject-matter insured reasonably attributable to
1.1.1 fire or explosion
1.1.2 vessel or craft being stranded grounded sunk or capsized
1.1.3 overturning or derailment of land conveyance
1.1.5 collision or contact of vessel craft or conveyance with any external object other than water
1.1.6 discharge of cargo at a port of distress
1.1.7 earthquake volcanic eruption or lightning,

1.2 loss of or damage to the subject-matter insured caused by
1.2.1 general average sacrifice
1.2.2 jettison or washing overboard
1.2.3 entry of sea lake or river water into vessel craft hold conveyance container or place of storage,

1.3 total loss of any package lost overboard or dropped whilst loading on to, or unloading from, vessel or craft.

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General Average

2. This insurance covers general average and salvage charges, adjusted or determined according to the contract of carriage and/or the governing law and practice, incurred to avoid or in connection with the avoidance of loss from any cause except those excluded in Clauses 4, 5, 6 and 7 below.

"Both to Blame Collision Clause"

3. This insurance indemnifies the Assured, in respect of any risk insured herein, against liability incurred under any Both to Blame Collision Clause in the contract of carriage. In the event of any claim by carriers under the said Clause, the Assured agree to notify the Insurers who shall have the right, at their own cost and expense, to defend the Assured against such claim.

EXCLUSIONS

4. In no case shall this insurance cover

4.1 loss damage or expense attributable to wilful misconduct of the Assured

4.2 ordinary leakage, ordinary loss in weight or volume, or ordinary wear and tear of the subject-matter insured

4.3 loss damage or expense caused by insufficiency or unsuitability of packing or preparation of the subjectmatter insured to withstand the ordinary incidents of the nsured transit where such packing or preparation is carried out by the Assured or their employees or prior to the attachment of this insurance (for the purpose of these Clauses "packing" shall be deemed to include stowage in a container and "employees" shall not include independent contractors)

4.4 loss damage or expense caused by inherent vice or nature of the subject-matter insured

4.5 loss damage or expense caused by delay, even though the delay be caused by a risk insured against (except expenses payable under Clause 2 above)

4.6 loss damage or expense caused by insolvency or financial default of the owners managers charterers or operators of the vessel where, at the time of loading of the subject-matter insured on board the vessel,the Assured are aware, or in the ordinary course of business should be aware, that such insolvency or financial default could prevent the normal prosecution of the voyage This exclusion shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject-matter insured in good faith under a binding contract

4.7 deliberate damage to or deliberate destruction of the subject-matter insured or any part thereof by the wrongful act of any person or persons

4.8 loss damage or expense directly or indirectly caused by or arising from the use of any weapon or device employing atomic or nuclear fission and/or fusion or other like reaction or radioactive force or matter.

5.

5.1 In no case shall this insurance cover loss damage or expense arising from

5.1.1 unseaworthiness of vessel or craft or unfitness of vessel or craft for the safe carriage of the subject-matter insured, where the Assured are privy to such unseaworthiness or unfitness, at the time the subject-matter insured is loaded therein

5.1.2 unfitness of container or conveyance for the safe carriage of the subject-matter insured, where loading therein or thereon is carried out prior to attachment of this insurance or by the Assured or their employees and they are privy to such unfitness at the time of loading.

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5.2 Exclusion 5.1.1 above shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subjectmatter
insured in good faith under a binding contract.

5.3 The Insurers waive any breach of the implied warranties of seaworthiness of the ship and fitness of the ship to carry the subject-matter insured to destination.

6. In no case shall this insurance cover loss damage or expense caused by
6.1 war civil war revolution rebellion insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power
6.2 capture seizure arrest restraint or detainment, and the consequences thereof or any attempt thereat
6.3 derelict mines torpedoes bombs or other derelict weapons of war.

7. In no case shall this insurance cover loss damage or expense

7.1 caused by strikers, locked-out workmen, or persons taking part in labour disturbances, riots or civil commotions
7.2 resulting from strikes, lock-outs, labour disturbances, riots or civil commotions
7.3 caused by any act of terrorism being an act of any person acting on behalf of, or in connection with, any organisation which carries out activities directed towards the overthrowing or influencing, by force or violence, of any government whether or not legally constituted
7.4 caused by any person acting from a political, ideological or religious motive.

DURATION
Transit Clause
8.

8.1 Subject to Clause 11 below, this insurance attaches from the time the subject-matter insured is first moved in the warehouse or at the place of storage (at the place named in the contract of insurance) for the purpose of the immediate loading into or onto the carrying vehicle or other conveyance for the commencement of transit, continues during the ordinary course of transit and terminates either

8.1.1 on completion of unloading from the carrying vehicle or other conveyance in or at the final warehouse or place of storage at the destination named in the contract of insurance,
8.1.2 on completion of unloading from the carrying vehicle or other conveyance in or at any other warehouse or place of storage, whether prior to or at the destination named in the contract of insurance, which the Assured or their employees elect to use either for storage other than in the ordinary course of transit or for allocation or distribution, or
8.1.3 when the Assured or their employees elect to use any carrying vehicle or other conveyance or any container for storage other than in the ordinary course of transit
8.1.4 Or
on the expiry of 60 days after completion of discharge overside of the subject-matter insured from the oversea vessel at the final port of discharge, whichever shall
first occur.

8.2 If, after discharge overside from the oversea vessel at the final port of discharge, but prior to termination of this insurance, the subject-matter insured is to be forwarded to a destination other than that to which it is insured, this

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insurance, whilst remaining subject to termination as provided in Clauses 8.1.1 to 8.1.4, shall not extend beyond the time the subject-matter insured is first moved for the purpose of the commencement of transit to such other destination.
8.3 This insurance shall remain in force (subject to termination as provided for in Clauses 8.1.1 to 8.1.4 above and to the provisions of Clause 9 below) during delay beyond the control of the Assured, any deviation, forced discharge, reshipment or transhipment and during any variation of the adventure arising from the exercise of a liberty granted to carriers under the contract of carriage.

Termination of Contract of Carriage

9. If owing to circumstances beyond the control of the Assured either the contract of carriage is terminated at a port or place other than the destination named therein

or the transit is otherwise terminated before unloading of the subject-matter insured as provided for in Clause 8 above, then this insurance shall also terminate unless prompt notice is given to the Insurers and continuation of cover is requested when this insurance shall remain in force, subject to an additional premium if required by the Insurers, either

9.1 until the subject-matter insured is sold and delivered at such port or place, or, unless otherwise specially agreed, until the expiry of 60 days after arrival of the subject matter insured at such port or place, whichever shall first occur, or
9.2 if the subject-matter insured is forwarded within the said period of 60 days (or any agreed extension thereof) to the destination named in the contract of insurance or to any other destination, until terminated in accordance with the provisions of Clause 8 above.

Change of Voyage
10.
10.1 Where, after attachment of this insurance, the destination is changed by the Assured, this must be notified promptly to Insurers for rates and terms to be agreed. Should a loss occur prior to such agreement being obtained cover may be provided but only if cover would have been available at a reasonable commercial market rate on reasonable market terms.
10.2 Where the subject-matter insured commences the transit contemplated by this insurance (in accordance with Clause 8.1), but, without the knowledge of the Assured or their employees the ship sails for another destination, this insurance will nevertheless be deemed to have attached at commencement of such transit.

CLAIMS
Insurable Interest
11.
11.1 In order to recover under this insurance the Assured must have an insurable interest in the subjectmatter insured at the time of the loss.
11.2 Subject to Clause 11.1 above, the Assured shall be entitled to recover for insured loss occurring during the period covered by this insurance, notwithstanding that the loss occurred before the contract of insurance was concluded, unless the Assured were aware of the loss and the Insurers were not.

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Forwarding Charges

12. Where, as a result of the operation of a risk covered by this insurance, the insured transit is terminated at a port or place other than that to which the subject-matter insured is covered under this insurance, the Insurers will reimburse the Assured for any extra charges properly and reasonably incurred in unloading storing and forwarding the subjectmatter insured to the destination to which it is insured.

Constructive Total Loss

13. No claim for Constructive Total Loss shall be recoverable hereunder unless the subject-matter insured is reasonably abandoned either on account of its actual total loss appearing to be unavoidable or because the cost of recovering, reconditioning and forwarding the subject-matter insured to the destination to which it is insured would exceed its value on arrival.

Increased Value

14.

14.1 If any Increased Value insurance is effected by the Assured on the subject-matter insured under this insurance the agreed value of the subject-matter insured shall be deemed to be increased to the total amount insured under this insurance and all Increased Value insurances covering the loss, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.
In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

14.2 Where this insurance is on Increased Value the following clause shall apply:
The agreed value of the subject-matter insured shall be deemed to be equal to the total amount insured under the primary insurance and all Increased Value insurances
covering the loss and effected on the subject-matter insured by the Assured, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.

In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

BENEFIT OF INSURANCE

15. This insurance

15.1 covers the Assured which includes the person claiming indemnity either as the person by or on whose behalf the contract of insurance was effected or as an assignee,
15.2 shall not extend to or otherwise benefit the carrier or other bailee.

MINIMISING LOSSES

16. It is the duty of the Assured and their employees and agents in respect of loss recoverable hereunder

16.1 to take such measures as may be reasonable for the purpose of averting or minimising such loss, and
16.2 to ensure that all rights against carriers, bailees or other third parties are properly preserved and exercised and the Insurers will, in addition to any loss recoverable hereunder, reimburse the Assured for any charges properly and reasonably incurred in pursuance of these duties.

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Waiver

17. Measures taken by the Assured or the Insurers with the object of saving, protecting or recovering the subjectmatter insured shall not be considered as a waiver or acceptance of abandonment or otherwise prejudice the rights of either party.

AVOIDANCE OF DELAY

18. It is a condition of this insurance that the Assured shall act with reasonable despatch in all circumstances within their control.

LAW AND PRACTICE

19. This insurance is subject to English law and practice.

NOTE:- Where a continuation of cover is requested under Clause 9, or a change of destination is notified under Clause 10, there is an obligation to give prompt notice to the Insurers and the right to such cover is dependent upon compliance with this obligation.

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CL383
01/01/2009

Institute War Clauses (Cargo) CL 385 01/01/2009

RISKS COVERED

Risks

1. This insurance covers, except as excluded by the provisions of Clauses 3 and 4 below, loss of or damage to the subject-matter insured caused by

1.1 war civil war revolution rebellion insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power

1.2 capture seizure arrest restraint or detainment, arising from risks covered under 1.1 above, and the consequences thereof or any attempt thereat

1.3 derelict mines torpedoes bombs or other derelict weapons of war.

General Average

2. This insurance covers general average and salvage charges, adjusted or determined according to the contract of carriage and/or the governing law and practice, incurred to avoid or in connection with the avoidance of loss from a risk covered under these Clauses.

EXCLUSIONS

3. In no case shall this insurance cover

3.1 loss damage or expense attributable to wilful misconduct of the Assured

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3.2 ordinary leakage, ordinary loss in weight or volume, or ordinary wear and tear of the subject-matter insured
3.3 loss damage or expense caused by insufficiency or unsuitability of packing or preparation of the subject-matter insured to withstand the ordinary incidents of the insured transit where such packing or preparation is carried out by the Assured or their employees or prior to the attachment of this insurance (for the purpose of these Clauses "packing" shall be deemed to include stowage in a container and "employees" shall not include independent contractors)
3.4 loss damage or expense caused by inherent vice or nature of the subject-matter insured
3.5 loss damage or expense caused by delay, even though the delay be caused by a risk insured against (except expenses payable under Clause 2 above)
3.6 loss damage or expense caused by insolvency or financial default of the owners managers charterers or operators of the vessel where, at the time of loading of the subject-matter insured on board the vessel, the Assured are aware, or in the ordinary course of business should be aware, that such insolvency or financial default could prevent the normal prosecution of the voyage.

This exclusion shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject-matter insured in good faith under a binding contract.

3.7 any claim based upon loss of or frustration of the voyage or adventure
3.8 loss damage or expense directly or indirectly caused by or arising from any hostile use of any weapon or device employing atomic or nuclear fission and/or fusion or other like reaction or radioactive force or matter.

4.

4.1 In no case shall this insurance cover loss damage or expense arising from

4.1.1 unseaworthiness of vessel or craft or unfitness of vessel or craft for the safe carriage of the subject-matter insured, where the Assured are privy to such unseaworthiness or unfitness, at the time the subject-matter insured is loaded therein
4.1.2 unfitness of container or conveyance for the safe carriage of the subject-matter insured, where loading therein or thereon is carried out prior to attachment of this insurance or by the Assured or their employees and they are privy to such unfitness at the time of loading.

4.2 Exclusion 4.1.1 above shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subjectmatter insured in good faith under a binding contract.

4.3 The Insurers waive any breach of the implied warranties of seaworthiness of the ship and fitness of the ship to carry the subject-matter insured to destination.

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DURATION

Transit Clause

5.

5.1 This insurance

5.1.1 attaches only as the subject-matter insured and as to any part as that part is loaded on an oversea vessel and

5.1.2 terminates, subject to 5.2 and 5.3 below, either as the subject-matter insured and as to any part as that part is discharged from an oversea vessel at the final port or place of discharge, or on expiry of 15 days counting from midnight of the day of arrival of the vessel at the final port or place of discharge, whichever shall first occur;

nevertheless, subject to prompt notice to the Insurers and to an additional premium, such insurance

5.1.3 reattaches when, without having discharged the subject-matter insured at the final port or place of discharge, the vessel sails therefrom, and

5.1.4 terminates, subject to 5.2 and 5.3 below, either as the subject-matter insured and as to any part as that part is thereafter discharged from the vessel at the final (or substituted) port or place of discharge, or on expiry of 15 days counting from midnight of the day of re-arrival of the vessel at the final port or place of discharge or arrival of the vessel at a substituted port or place of discharge, whichever shall first occur.

5.2 If during the insured voyage the oversea vessel arrives at an intermediate port or place to discharge the subject-matter insured for on-carriage by oversea vessel or by

aircraft, or the subject-matter insured is discharged from the vessel at a port or place of refuge, then, subject to

5.3 below and to an additional premium if required, this insurance continues until the expiry of 15 days counting from midnight of the day of arrival of the vessel at such port or place,but thereafter reattaches as the subject-matter insured and as to any part as that part is loaded on an on-carrying oversea vessel or aircraft. During the period of 15 days the insurance remains in force after discharge only whilst the subject-matter insured and as to any part as that part is at such port or place. If the subject-matter insured is oncarried within the said period of 15 days or if the insurance reattaches as provided in this Clause 5.2

5.2.1 where the on-carriage is by oversea vessel this insurance continues subject to the terms of these Clauses,

Or

5.2.2 where the on-carriage is by aircraft, the current Institute War Clauses (Air Cargo) (excluding sendings by Post) shall be deemed to form part of the contract of insurance and shall apply to the on-carriage by air.

5.3 If the voyage in the contract of carriage is terminated at a port or place other than the destination agreed therein, such port or place shall be deemed the final port of discharge and this insurance terminates in accordance with 5.1.2. If the subject-matter insured is subsequently reshipped to the original or any other destination, then provided notice is given to the Insurers before the commencement of such further transit and subject to an additional premium, this insurance reattaches.

5.3.1 in the case of the subject-matter insured having been discharged, as the subject-matter insured and as to any part as that part is loaded on the on-carrying vessel for the voyage;

5.3.2 in the case of the subject-matter not having been discharged, when the vessel sails from such deemed final port of discharge; thereafter this insurance terminates in accordance with 5.1.4.

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5.4 The insurance against the risks of mines and derelict torpedoes, floating or submerged, is extended whilst the subject-matter insured or any part thereof is on craft whilst in transit to or from the oversea vessel, but in no case beyond the expiry of 60 days after discharge from the oversea vessel unless otherwise specially agreed by the Insurers.

5.5 Subject to prompt notice to Insurers, and to an additional premium if required, this insurance shall remain in force within the provisions of these Clauses during any deviation, or any variation of the adventure arising from the exercise of a liberty granted to carriers under the contract of carriage. (For the purpose of Clause 5 "arrival" shall be deemed to mean that the vessel is anchored, moored or otherwise secured at a berth or place within the Harbour Authority area.

If such a berth or place is not available, arrival is deemed to have occurred when the vessel first anchors, moors or otherwise secures either at or off the intended port or place of discharge "oversea vessel" shall be deemed to mean a vessel carrying the subject-matter from one port or place to another where such voyage involves a sea passage by that vessel)

Change of Voyage
6.
6.1 Where, after attachment of this insurance, the destination is changed by the Assured, this must be notified promptly to Insurers for rates and terms to be agreed. Should a loss occur prior to such agreement being obtained cover may be provided but only if cover would have been available at a reasonable commercial market rate on reasonable market terms.
6.2 Where the subject-matter insured commences the transit contemplated by this insurance (in accordance with Clause 5.1), but, without the knowledge of the Assured or their employees the ship sails for another destination, this insurance will nevertheless be deemed to have attached at commencement of such transit.

7. Anything contained in this contract which is inconsistent with Clauses 3.7, 3.8 or 5 shall, to the extent of such inconsistency, be null and void.

CLAIMS
Insurable Interest
8.

8.1 In order to recover under this insurance the Assured must have an insurable interest in the subjectmatter insured at the time of the loss.
8.2 Subject to Clause 8.1 above, the Assured shall be entitled to recover for insured loss occurring during the period covered by this insurance, notwithstanding that the loss occurred before the contract of insurance was concluded, unless the Assured were aware of the loss and the Insurers were not.

Increased Value
9.

9.1 If any Increased Value insurance is effected by the Assured on the subject-matter insured under this insurance the agreed value of the subject-matter insured shall be deemed to be increased to the total amount insured under this insurance and all Increased Value insurances covering the loss, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.

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In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.
9.2 Where this insurance is on Increased Value the following clause shall apply:
The agreed value of the subject-matter insured shall be deemed to be equal to the total amount insured under the primary insurance and all Increased Value insurances

covering the loss and effected on the subject-matter insured by the Assured, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.
In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

BENEFIT OF INSURANCE
10. This insurance

10.1 covers the Assured which includes the person claiming indemnity either as the person by or on whose behalf the contract of insurance was effected or as an assignee,
10.2 shall not extend to or otherwise benefit the carrier or other bailee.

MINIMISING LOSSES
Duty of Assured

11. It is the duty of the Assured and their employees and agents in respect of loss recoverable hereunder
11.1 to take such measures as may be reasonable for the purpose of averting or minimising such loss, and
11.2 to ensure that all rights against carriers, bailees or other third parties are properly preserved and exercised and the Insurers will, in addition to any loss recoverable hereunder, reimburse the Assured for any charges properly and reasonably incurred in pursuance of these duties.

Waiver

12. Measures taken by the Assured or the Insurers with the object of saving, protecting or recovering the subject-matter insured shall not be considered as a waiver or acceptance of abandonment or otherwise prejudice the rights of either party.

AVOIDANCE OF DELAY
13. It is a condition of this insurance that the Assured shall act with reasonable despatch in all circumstances within their control.

LAW AND PRACTICE
14. This insurance is subject to English law and practice.

NOTE:- Where a reattachment of cover is requested under Clause 5, or a change of destination is notified under Clause 6, there is an obligation to give prompt notice to the Insurers and the right to such cover is dependent upon compliance with this obligation.

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CL385
01/01/2009

Institute Strike Clauses (Cargo) CL 386 01/01/2009

RISKS COVERED

Risks

1. This insurance covers, except as excluded by the provisions of Clauses 3 and 4 below, loss of or damage to the subject-matter insured caused by

1.1 strikers, locked-out workmen, or persons taking part in labour disturbances, riots or civil commotions

1.2 any act of terrorism being an act of any person acting on behalf of, or in connection with, any organisation which carries out activities directed towards the overthrowing or influencing, by force or violence, of any government whether or not legally constituted

1.3 any person acting from a political, ideological or religious motive.

General Average

2. This insurance covers general average and salvage charges, adjusted or determined according to the contract of carriage and/or the governing law and practice, incurred to avoid or in connection with the avoidance of loss from a risk covered under these Clauses.

EXCLUSIONS

3. In no case shall this insurance cover

3.1 loss damage or expense attributable to wilful misconduct of the Assured

3.2 ordinary leakage, ordinary loss in weight or volume, or ordinary wear and tear of the subject-matter insured

3.3 loss damage or expense caused by insufficiency or unsuitability of packing or preparation of the subjectmatter insured to withstand the ordinary incidents of the insured transit where such packing or preparation is carried out by the Assured or their employees or prior to the attachment of this insurance (for the purpose of this Clause 3.3"packing" shall be deemed to include stowage in a container and "employees" shall not include independent contractors)

3.4 loss damage or expense caused by inherent vice or nature of the subject-matter insured

3.5 loss damage or expense caused by delay, even though the delay be caused by a risk insured against (except expenses payable under Clause 2 above)

3.6 loss damage or expense caused by insolvency or financial default of the owners managers charterers or operators of the vessel where, at the time of loading of the subject-matter insured on board the vessel, the Assured are aware, or in the ordinary course of business should be aware, that such insolvency or financial default could prevent the normal prosecution of the voyage

This exclusion shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject-matter insured in good faith under a binding contract

3.7 loss damage or expense arising from the absence shortage or withholding of labour of any description whatsoever resulting from any strike, lockout, labour disturbance, riot or civil commotion

3.8 any claim based upon loss of or frustration of the voyage or adventure

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3.9 loss damage or expense directly or indirectly caused by or arising from the use of any weapon or device employing atomic or nuclear fission and/or fusion or other like reaction or radioactive force or matter
3.10 loss damage or expense caused by war civil war revolution rebellion insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power.

4.1 In no case shall this insurance cover loss damage or expense arising from
4.1.1 unseaworthiness of vessel or craft or unfitness of vessel or craft for the safe carriage of the subject-matter insured, where the Assured are privy to such unseaworthiness or unfitness, at the time the subject-matter insured is loaded therein
4.1.2 unfitness or container or conveyance for the safe carriage of the subject-matter insured, where loading therein or thereon is carried out prior to attachment of this insurance or by the Assured or their employees and they are privy to such unfitness at the time of loading.
4.2 Exclusion 4.1.1 above shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subjectmatter insured in good faith under a binding contract.
4.3 The Insurers waive any breach of the implied warranties of seaworthiness of the ship and fitness of the ship to carry the subject-matter insured to destination.

DURATION

Transit Clause
5.
5.1 Subject to Clause 8 below, this insurance attaches from the time the subject-matter insured is first moved in the warehouse or at the place of storage (at the place named in the contract of insurance) for the purpose of the immediate loading into or onto the carrying vehicle or other conveyance for the commencement of transit, continues during the ordinary course of transit and terminates either
5.1.1 on completion of unloading from the carrying vehicle or other conveyance in or at the final warehouse or place of storage at the destination named in the contract of insurance,
5.1.2 on completion of unloading from the carrying vehicle or other conveyance in or at any other warehouse or place of storage, whether prior to or at the destination named in the contract of insurance, which the Assured or their employees elect to use either for storage other than in the ordinary course of transit or for allocation or distribution, or
5.1.3 when the Assured or their employees elect to use any carrying vehicle or other conveyance or any container for storage other than in the ordinary course of transit
Or
5.1.4 on the expiry of 60 days after completion of discharge overside of the subject-matter insured from the oversea vessel at the final port of discharge, whichever shall first occur.
5.2 If, after discharge overside from the oversea vessel at the final port of discharge, but prior to termination of this insurance, the subject-matter insured is to be forwarded to a destination other than that to which it is insured, this insurance, whilst remaining subject to termination as provided in Clauses 5.1.1 to 5.1.4, shall not extend beyond the time the subject-matter insured is first moved for the purpose of the commencement of transit to such other destination.
5.3 This insurance shall remain in force (subject to termination as provided for in Clauses 5.1.1 to 5.1.4 above and to the provisions of Clause 6 below) during delay beyond the control of the Assured, any deviation, forced discharge, reshipment or transhipment and during any variation of the adventure arising from the exercise of a liberty granted to carriers under the contract of carriage.

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Termination of Contract of Carriage

6. If owing to circumstances beyond the control of the Assured either the contract of carriage is terminated at a port or place other than the destination named therein or the transit is otherwise terminated before unloading of the subject-matter insured as provided for in Clause 5 above, then this insurance shall also terminate unless prompt notice is given to the Insurers and continuation of cover is requested when this insurance shall remain in force, subject to an additional premium if required by the Insurers, either

6.1 until the subject-matter insured is sold and delivered at such port or place, or, unless otherwise specially agreed, until the expiry of 60 days after arrival of the subjectmatter insured at such port or place, whichever shall first occur,
Or
6.2 if the subject-matter insured is forwarded within the said period of 60 days (or any agreed extension thereof) to the destination named in the contract of insurance or to any other destination, until terminated in accordance with the provisions of Clause 5 above.

Change of Voyage

7.

7.1 Where, after attachment of this insurance, the destination is changed by the Assured, this must be notified promptly to Insurers for rates and terms to be agreed. Should a loss occur prior to such agreement being obtained cover may be provided but only if cover would have been available at a reasonable commercial market rate on reasonable market terms.
7.2 Where the subject-matter insured commences the transit contemplated by this insurance (in accordance with Clause 5.1), but, without the knowledge of the Assured or their employees the ship sails for another destination, this insurance will nevertheless be deemed to have attached at commencement of such transit.

CLAIMS

Insurable Interest

8.
8.1 In order to recover under this insurance the Assured must have an insurable interest in the subjectmatter insured at the time of the loss.
8.2 Subject to Clause 8.1 above, the Assured shall be entitled to recover for insured loss occurring during the period covered by this insurance, notwithstanding that the loss occurred before the contract of insurance was concluded, unless the Assured were aware of the loss and the Insurers were not.

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Increased Value

9.

9.1 If any Increased Value insurance is effected by the Assured on the subject-matter insured under this insurance the agreed value of the subject-matter insured shall be deemed to be increased to the total amount insured under this insurance and all Increased Value insurances covering the loss, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.

In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

9.2 Where this insurance is on Increased Value the following clause shall apply:
The agreed value of the subject-matter insured shall be deemed to be equal to the total amount insured under the primary insurance and all Increased Value insurances

covering the loss and effected on the subject-matter insured by the Assured, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.
In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

BENEFIT OF INSURANCE

10. This insurance
10.1 covers the Assured which includes the person claiming indemnity either as the person by or on whose behalf the contract of insurance was effected or as an assignee,
10.2 shall not extend to or otherwise benefit the carrier or other bailee.

MINIMISING LOSSES

Duty of Assured

11. It is the duty of the Assured and their employees and agents in respect of loss recoverable hereunder
11.1 to take such measures as may be reasonable for the purpose of averting or minimising such loss, and
11.2 to ensure that all rights against carriers, bailees or other third parties are properly preserved and exercised and the Insurers will, in addition to any loss recoverable hereunder, reimburse the Assured for any charges properly and reasonably incurred in pursuance of these duties.

Waiver

12. Measures taken by the Assured or the Insurers with the object of saving, protecting or recovering the subjectmatter insured shall not be considered as a waiver or acceptance of abandonment or otherwise prejudice the rights of either party.

AVOIDANCE OF DELAY

13. It is a condition of this insurance that the Assured shall act with reasonable despatch in all circumstances within their control.

LAW AND PRACTICE

14. This insurance is subject to English law and practice.

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NOTE:- Where a reattachment of cover is requested under Clause 5, or a change of destination is notified under Clause 6, there is an obligation to give prompt notice to the Insurers and the right to such cover is dependent upon compliance with this obligation.

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CL386
01/01/2009

Inland Transit Rail-Road (A) - All Risk

RISKS COVERED

1. This insurance covers all risks of loss or damage to the subject-matter insured except as provided in clause Nos. 2, 3, 4 and 5 below.

Risks Clause

EXCLUSIONS

2. In no case shall this insurance cover

2.1 loss damage or expense attributable to willful misconduct of the assured. General Average Clause

2.2 ordinary leakage, ordinary loss in weight or volume, or ordinary wear and tear of the subject-matter insured.
2.3 loss damage or expense caused by insufficiency or unsuitability of packing or preparation of the subject-matter insured (for the purpose of this Clause 2.3 "packing" shall be deemed to include stowage in a container or liftvan but only when such stowage is carried out prior to attachment of this insurance or by the Assured or their servants).
2.4 loss damage or expense proximately caused by delay even though the delay be caused by a risk insured against.
2.5 loss damage or expense caused by inherent vice or nature of the subject-matter insured.
3. This clause shall be paramount and shall override anything contained in this insurance inconsistent therewith. In no case shall this insurance cover loss, damage, liability or expense directly or indirectly caused by or contributed to by or arising from
3.1 Ionising radiations from or contamination by radioactivity from any nuclear fuel or from any nuclear waste or from the combustion of nuclear fuel.

Nuclear Radioactive Exclusion Clause

3.2 The radioactive toxic explosive or other hazardous or contaminating properties of any nuclear installation, reactor or other nuclear assembly or nuclear component thereof.

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3.3 Any weapon of war employing atomic or nuclear fission and/or fusion or other like reaction or radioactive force or matter.

4. In no case shall this insurance cover loss, damage or expense caused by
4.1 war, civil war, revolution, rebellion, insurrection, or civil strife arising therefrom or any hostile act by or against a belligerent power
4.2 capture, seizure, arrest, restraint or detainment, the consequences thereof or any attempt thereat

War
Exclusion
Clause

4.3 derelict mines, bombs or other derelict weapons of war.
5. In no case shall this insurance cover loss damage or expense
5.1 caused by strikers, locked out workmen or person taking part in labour disturbances, riots or civil commotions

Strike
Exclusion
Clause

5.2 resulting from strikes, lock-outs, labour disturbances, riots or civil commotions
5.3 caused by any terrorist or any person acting from a political motive

DURATION

6. This insurance attaches from the time the goods leave the warehouse and/or store at the place named in the policy for the commencement of transit and continues during the ordinary course of transit including customary transhipment, if any.

Transit Clause

i) until delivery to the final warehouse at the destination named in the policy or
ii) in respect of transit by Rail only or Rail and Road, until expiry of 7 days after arrival of the railway wagon at the final destination railway station
iii) Or
in respect of transits by Road only until expiry of 7 days after arrival of the vehicle at the destination town named in the policy whichever shall first occur.

N.B.1 The period of 7 days referred to above shall be reckoned from the midnight of the day of arrival of railway wagon at the destination railway station or vehicle at the destination town named in the policy.
2 Transit by Rail only shall include incidental transit by Road performed by Railway Authorities to or from Railway Out-Agency.

CLAIMS
7.

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7.1 In order to recover under this insurance the Assured must have an insurable interest in the subject-matter insured at the time of loss.

Insurable
Interest
Clause

7.2 Subject to 7.1 above the insured shall be entitled to recover for insured loss occurring during the period covered by this insurance, notwithstanding that the loss occurred before the contract of insurance was concluded unless the Assured were aware of the loss and the Underwriters were not.

BENEFIT OF INSURANCE
8. This insurance shall not inure to the benefit of the carrier or other bailees.

Not to
Inure
Clause

MINIMISING LOSSES

9. It is the duty of the Assured and their servants and agents in respect of loss recoverable hereunder
9.1 to take such measures as may be reasonable for the purpose of averting or minimising such loss and

Duty of
Assured Clause

9.2 against railway/road carriers/bailees within six months from the date of railway/lorry receipt or as prescribed by the relevant statute and the underwriters will, in addition to any loss recoverable hereunder, reimburse the Assured for any charges properly and reasonably incurred in pursuance of these duties.

10. Measures taken by the Assured or the underwriters with the object of saving, protecting or recovering the subject-matter insured shall not be considered as a waiver or acceptance of abandonment or otherwise prejudice the rights of either party.

Waiver
Clause

AVOIDANCE OF DELAY
11. It is a condition of this insurance that the assured shall act with reasonable despatch in all circumstances within their control.

Reasonable
Despatch
Clause

Inland Transit Rail-Road (B)

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RISKS COVERED

1. This insurance covers except as provided in clause 2, 3, 4 and 5 the risks of physical loss or damage to the insured goods caused by

Risks
Clause

(a) (i) fire
(ii) lightning
(iii) breakage of bridges
(b) (i) collision with or by the carrying vehicle
(ii) overturning of the carrying vehicle
(iii) derailment or accidents of like nature to the carrying railway wagon/vehicle.

EXCLUSIONS

2. In no case shall this insurance cover
2.1 loss damage or expense attributable to willful misconduct of the Assured.

General
Average
Clause

2.2 ordinary leakage, ordinary loss in weight or volume, or ordinary wear and tear of the subject-matter insured. loss damage or expense caused by insufficiency or unsuitability of packing or preparation of the subject-matter insured (for the purpose of this
2.3 Clause "packing" shall be deemed to include stowage in a container or liftvan but only when such stowage is carried out prior to attachment of this insurance by the Assured or their servants)
2.4 loss damage or expense proximately caused by delay, even though the delay be caused by a risk insured against.
2.5 loss damage or expense caused by inherent vice or nature of the subject-matter insured.
3. This clause shall be paramount and shall override anything contained in this insurance inconsistent therewith. In no case shall this insurance cover loss, damage, liability or expense directly or indirectly caused by or contributed to by or arising from
3.1 Ionising radiations from or contamination by radioactivity from any nuclear fuel or from any nuclear waste or from the combustion of nuclear fuel.

Nuclear
Radioactive
Exclusion
Clause

3.2 The radioactive toxic explosive or other hazardous or contaminating properties of any nuclear installation, reactor or other nuclear assembly or nuclear component thereof.
3.3 Any weapon of war employing atomic or nuclear fission and/or fusion or other like reaction or radioactive force or matter.

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4. In no case shall this insurance cover loss damage or expense caused by
War
Exclusion
Clause
4.1 war, civil war, revolution, rebellion, insurrection, or civil strike arising therefrom or any hostile act by or against a belligerent power.
4.2 capture, seizure, arrest, restraint or detainment, and the consequences thereof or any attempt thereat.
4.3 derelict, mines, bombs or other derelict weapons of war.
5. In no case shall this insurance cover loss, damage or expense
Strike
Exclusion
Clause

5.1 caused by strikers, locked-out workmen, or persons taking part in labour disturbances, riots or civil commotions
5.2 resulting from strikes, lock-outs, labour disturbances, riots or civil commotions
5.3 caused by any terrorist or any person acting from a political motive.

DURATION
6. This insurance attaches from the time the goods leave the warehouse and/or the store at the place named in the policy for the commencement of transit and continues during the ordinary course of transit including customary transhipment, if

Transit Clause

i) until delivery to the final warehouse at the destination named in the policy or
ii) in respect of transits by Rail only or Rail and Road, until expiry of 7 days after arrival of the railway wagon at the destination railway station or
iii) in respect of transits by Road only on expiry of 7 days after arrival of the vehicle at the destination town named in the policy whichever shall first occur

N.B. : 1. The period of 7 days referred to above shall be reckoned from the midnight of the day of arrival of railway wagon at the destination railway station or vehicle at the destination town named in the policy.
2. Transit by Rail only shall include incidental transit by Road performed by Railway Authorities to or from Railway Out-Agency.

CLAIMS
7.

Insurable
Interest
Clause

7.1 In order to recover under this insurance the Assured must have an insurable interest in the subject-matter insured at the time of loss.

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7.2 Subject to 7.1 above the insured shall be entitled to recover for insured loss occurring during the period covered by this insurance, not withstanding that the loss occurred before the contract of insurance was concluded unless the Assured were aware of the loss and the underwriters were not.

BENEFIT OF INSURANCE

8. This insurance shall not inure to the benefit of the Carrier or other bailees.

Not to
Inure
Clause

MINIMISING LOSSES

9. It is the duty of the Assured and their servants and agents in respect of loss recoverable hereunder.

Duty of
Assured Clause

9.1 to take such measures as may be reasonable for the purpose of averting or minimising such loss and
9.2 to ensure that all rights against carriers, bailees or other third parties are properly preserved and exercised by lodging a monetary claim against
railway/road carriers/ bailees within six months from the date of railway/lorry receipt or as prescribed by the relevant stature and the
underwriters will, in addition to any loss recoverable hereunder, reimburse the Assured for any charges properly and reasonably incurred in
pursuance of these duties.

10. Measures taken by the Assured or the underwriters with the object of saving, protecting or recovering the subject-matter insured shall not be considered as a waiver or acceptance of abandonment or otherwise prejudice the rights of either party.

Waiver
Clause

AVOIDANCE OF DELAY

11. It is a condition of this insurance that the assured shall act with reasonable despatch in all circumstances within their control.
Reasonable
Despatch
Clause

Institute War Cancellation Clause (Cargo)- 1/12/1982 CL 271

The cover against war risks (as defined in the relevant Institute War Clauses) may be cancelled by either the Underwriters or the Assured except in respect of any insurance which shall have attached in accordance with the conditions of the Institute War Clauses before the cancellation becomes effective. Such cancellation shall however

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only become effective on the expiry of 7 days from midnight of the day on which notice of the cancellation is issued by or to the Underwriters

Institute Strike Cancellation Clause

The inclusion in this contract of cover granted against the risks of Strikes and Riots may by cancelled either by the Underwriters or the Assured except in respect of any insurance
against the said risks which shall have attached in accordance with the cover granted under the Policy before the cancellation becomes effective, such cancellation shall however
only becomes effective on the expiration of 48 hours from the midnight of the day on which a notice of cancellation is issued by or to Underwriters.

Cargo Ism Endorsement (1 May1998) JC 98/019

In no case shall this insurance cover loss, damage or expense where the subject matter insured is carried by a vessel that is not ISM Code certified or those owners or operators do not hold an ISM Code Document of Compliance when at the time of loading of the subject matter insured on board the vessel, the Assured were aware or in the ordinary course of business should have been aware:

a) Either that such vessel was not certified in accordance with the ISM Code.
b) Or that a current document of compliance was not held by her owners or operators as required under the SOLAS convention 1974 as amended. This exclusion shall not apply where the insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject matter insured in good faith under a binding contract.

Institute Standard Conditions For Cargo Contracts 01.04.82 CL 261

1. This contract is to insure the subject-matter specified for the transits and on the conditions named shipped by or for account of _____ or the
insurance of which is under their control as selling or purchasing agent unless insured elsewhere prior to inception of this contract or to insurable interest being acquired. This contract does not cover the interest of any other person, but this shall not prevent a transfer of the insurance by the Assured or Assignee.
2. It is a condition of this contract that the Assured are bound to declare hereunder every consignment without exception, the Company being bound to accept up to but not exceeding the amount specified in clause 3 below.
3. This contract is for an open amount but the amount declarable may not exceed the following:
₹
in respect of any one vessel and connecting conveyance
₹
in respect of any one aircraft and connecting conveyance
NIL
₹
in respect of anyone road vehicle &/or Road tankers &/or railway wagon
4. Notwithstanding anything to the contrary contained in this contract the Company's liability in respect of any one accident or series of accidents arising from the same event in any one location shall not exceed the sum of ₹
5. In the event of loss accident or arrival before declaration of value it is agreed that the basis of valuation shall be

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Imports : C & F / FOB value
Customs Duty : At Actuals
Tail-End : Landed value + Actual Customs Duty
Domestic Purchases - Purchase Invoice value
Domestic Sales : Sales Invoice value
Exports : C & F / FOB / CIF value + 10%

6. This contract is subject to the Institute Classification Clause.
7. Should the risks of war, strikes, riots and civil commotions be included in the cover granted by this contract, the relevant Institute War Clauses and Institute Strikes Clauses shall apply.
8. This Institute Clauses referred to herein are those current at the inception of this contract but should such clauses be revised during the period of this contract, and provided that the Company Shall have given at least 30 days notice thereof, then the revised Institute Clauses shall apply to risks attaching subsequent to the date of expiry of the said notice.
9. This contract may be cancelled by either the Company or the Assured giving 30 days notice in writing to take effect from the midnight of date of notice but risks covered by Institute War Clauses may be cancelled at seven days notice and risks covered by the Institute Strikes Clauses may be cancelled at seven days notice, or at forty-eight hours notice in respect of shipments to or from the United States of America. Notice shall commence from midnight of the day when it is issued but cancellation shall not apply to any risks which have attached in accordance with the cover granted hereunder before the cancellation becomes effective.

Institute Cargo Clauses (Air) CL 387 01/01/2009

RISKS COVERED
Risks
1. This insurance covers all risks of loss of or damage to the subject-matter insured except as excluded by the provisions of Clauses 3, 4 and 5 below.
Salvage Charges
2. This insurance covers salvage charges incurred to avoid or in connection with the avoidance of loss from any cause except those excluded in Clauses 3, 4 and 5 below.

EXCLUSIONS

3. In no case shall this insurance cover
3.1 loss damage or expense attributable to wilful misconduct of the Assured
3.2 ordinary leakage, ordinary loss in weight or volume, or ordinary wear and tear of the subject-matter insured
3.3 loss damage or expense caused by insufficiency or unsuitability of packing or preparation of the subjectmatter insured to withstand the ordinary incidents of the insured transit where such packing or preparation is carried out by the Assured or their employees or prior to the attachment of this insurance (for the purpose of these Clauses "packing" shall be deemed to include stowage in a container and "employees" shall not include independent contractors)
3.4 loss damage or expense caused by inherent vice or nature of the subject-matter insured
3.5 loss damage or expense arising from unfitness of aircraft conveyance or container for the safe carriage of the subject-matter insured, where loading therein or thereon is carried out prior to attachment of this insurance or by the Assured or their employees and they are privy to such unfitness at the time of loading. This exclusion shall not apply

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where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject-matter insured in good faith under a binding contract.
3.6 loss damage or expense caused by delay, even though the delay be caused by a risk insured against
3.7 loss damage or expense caused by insolvency or financial default of the owners managers charterers or operators of the aircraft where, at the time of loading of the subject-matter insured on board the aircraft, the Assured are aware, or in the ordinary course of business should be aware, that such insolvency or financial default could prevent the normal prosecution of the transit.
This exclusion shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject-matter insured in good faith under a binding contract.
3.8 loss damage or expense directly or indirectly caused by or arising from the use of any weapon or device employing atomic or nuclear fission and/or fusion or other like reaction or radioactive force or matter.

4. In no case shall this insurance cover loss damage or expense caused by
4.1 war civil war revolution rebellion insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power
4.2 capture seizure arrest restraint or detainment (piracy excepted), and the consequences thereof or any attempt thereat
4.3 derelict mines torpedoes bombs or other derelict weapons of war.

5. In no case shall this insurance cover loss damage or expense
5.1 caused by strikers, locked-out workmen, or persons taking part in labour disturbances, riots or civil commotions
5.2 resulting from strikes, lock-outs, labour disturbances, riots or civil commotions
5.3 caused by any act of terrorism being an act of any person acting on behalf of, or in connection with, any organisation which carries out activities directed towards the Overthrowing or influencing, by force or violence, of any government whether or not legally constituted
5.4 caused by any person acting from a political, ideological or religious motive.

DURATION

Transit Clause
6.

6.1 Subject to Clause 9 below, this insurance attaches from the time the subject-matter insured is first moved in the warehouse, premises or at the place of storage (at the place named in the contract of insurance) for the purpose of the immediate loading into or onto the carrying vehicle or other conveyance for the commencement of transit, continues during the ordinary course of transit and terminates either
6.1.1 on completion of unloading from the carrying vehicle or other conveyance in or at the final warehouse, premises or place of storage at the destination named in the contract of insurance,
6.1.2 on completion of unloading from the carrying vehicle or other conveyance in or at any other warehouse, premises or place of storage, whether prior to or at the destination named in the contract of insurance, which the Assured or their employees elect to use either for storage other than in the ordinary course of transit or for allocation or distribution, or
6.1.3 when the Assured or their employees elect to use any carrying vehicle or other conveyance or any container for storage other than in the ordinary course of transit
6.1.4 or on the expiry of 30 days after completion of unloading of the subject-matter insured from the aircraft at the final place of discharge, whichever shall first occur.

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6.2 If, after unloading from the aircraft at the final place of discharge, but prior to termination of this insurance, the subject-matter insured is to be forwarded to a destination other than that to which it is insured, this insurance, whilst remaining subject to termination as provided in Clauses 6.1.1 to 6.1.4, shall not extend beyond the time the subject-matter insured is first moved for the purpose of the commencement of transit to such other destination.
6.3 This insurance shall remain in force (subject to termination as provided for in Clauses 6.1.1 to 6.1.4 above and to the provisions of Clause 7 below) during delay beyond the control of the Assured, any deviation, forced discharge, reshipment or transhipment and during any variation of the adventure arising from the exercise of a liberty granted to the air carriers under the contract of carriage.

Termination of Contract of Carriage

7. If owing to circumstances beyond the control of the Assured either the contract of carriage is terminated at a place other than the destination named therein or the transit is otherwise terminated before unloading of the subject-matter insured as provided for in Clause 6 above, then this insurance shall also terminate unless prompt notice is given to the Insurers and continuation of cover is requested when this insurance shall remain in force, subject to an additional premium if required by the Insurers, either

7.1 until the subject-matter insured is sold and delivered at such place, or, unless otherwise specially agreed, until the expiry of 30 days after arrival of the subject-matter insured at such place, whichever shall first occur,
Or
7.2 if the subject-matter insured is forwarded within the said period of 30 days (or any agreed extension thereof) to the destination named in the contract of insurance or to any other destination, until terminated in accordance with the provisions of Clause 6 above.

Change of Transit

8.

8.1 Where, after attachment of this insurance, the destination is changed by the Assured, this must be notified promptly to Insurers for rates and terms to be agreed. Should a loss occur prior to such agreement being obtained cover may be provided but only if cover would have been available at a reasonable commercial market rate on reasonable market terms.
8.2 Where the subject-matter insured commences the transit contemplated by this insurance (in accordance with Clause 6.1), but, without the knowledge of the Assured or their employees the aircraft leaves for another destination, this insurance will nevertheless be deemed to have attached at commencement of such transit.

CLAIMS
Insurable Interest

9.
9.1 In order to recover under this insurance the Assured must have an insurable interest in the subjectmatter insured at the time of the loss.
9.2 Subject to Clause 9.1 above, the Assured shall be entitled to recover for insured loss occurring during the period covered by this insurance, notwithstanding that the loss occurred before the contract of insurance was concluded, unless the Assured were aware of the loss and the Insurers were not.

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Forwarding Charges

10. Where, as a result of the operation of a risk covered by this insurance, the insured transit is terminated at a place other than that to which the subject-matter insured is covered under this insurance, the Insurers will reimburse the Assured for any extra charges properly and reasonably incurred in unloading storing and forwarding the subject-matter insured to the destination to which it is insured.

This Clause 10, which does not apply to salvage charges, shall be subject to the exclusions contained in Clauses 3, 4 and 5 above, and shall not include charges arising from the fault negligence insolvency or financial default of the Assured or their employees.

Constructive Total Loss

11. No claim for Constructive Total Loss shall be recoverable hereunder unless the subject-matter insured is reasonably abandoned either on account of its actual total loss appearing to be unavoidable or because the cost of recovering, reconditioning and forwarding the subject-matter insured to the destination to which it is insured would exceed its value on arrival.

Increased Value

12.

12.1 If any Increased Value insurance is effected by the Assured on the subject-matter insured under this insurance the agreed value of the subject-matter insured shall be deemed to be increased to the total amount insured under this insurance and all Increased Value insurances covering the loss, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.
In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

12.2 Where this insurance is on Increased Value the following clause shall apply:

The agreed value of the subject-matter insured shall be deemed to be equal to the total amount insured under the primary insurance and all Increased Value insurances covering the loss and effected on the subject-matter insured by the Assured, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.
In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

BENEFIT OF INSURANCE

13.

13.1 covers the Assured which includes the person claiming indemnity either as the person by or on whose behalf the contract of insurance was effected or as an assignee,
13.2 shall not extend to or otherwise benefit the carrier or other bailee.

MINIMISING LOSSES

Duty of Assured

14. It is the duty of the Assured and their employees and agents in respect of loss recoverable hereunder

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14.1 to take such measures as may be reasonable for the purpose of averting or minimising such loss, and
14.2 to ensure that all rights against carriers, bailees or other third parties are properly preserved and exercised and the Insurers will, in addition to any loss recoverable hereunder, reimburse the Assured for any charges properly and reasonably incurred in pursuance of these duties.

Waiver

15. Measures taken by the Assured or the Insurers with the object of saving, protecting or recovering the subjectmatter insured shall not be considered as a waiver or acceptance of abandonment or otherwise prejudice the rights of either party.

AVOIDANCE OF DELAY

16. It is a condition of this insurance that the Assured shall act with reasonable despatch in all circumstances within their control.

LAW AND PRACTICE

17. This insurance is subject to English law and practice

NOTE:- Where a reattachment of cover is requested under Clause 7 or a change of destination is notified under Clause 6, there is an obligation to give prompt notice to the Insurers and the right to such cover is dependent upon compliance with this obligation.

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Institute War Clauses (Air Cargo) CL 388 01/01/2009

RISKS COVERED

Risks

1. This insurance covers, except as excluded by the provisions of Clause 3 below, loss of or damage to the subject-matter insured caused by

1.1 war civil war revolution rebellion insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power

1.2 capture seizure arrest restraint or detainment, arising from risks covered under 1.1 above, and the consequences thereof or any attempt thereat

1.3 derelict mines torpedoes bombs or other derelict weapons of war.

Salvage Charges

2. This insurance covers salvage charges, incurred to avoid or in connection with the avoidance of loss from any cause except those excluded in Clause 3 below.

EXCLUSIONS

3. In no case shall this insurance cover

3.1 loss damage or expense attributable to wilful misconduct of the Assured

3.2 ordinary leakage, ordinary loss in weight or volume, or ordinary wear and tear of the subject-matter insured

3.3 loss damage or expense caused by insufficiency or unsuitability of packing or preparation of the subject-matter insured to withstand the ordinary incidents of the insured transit where such packing or preparation is carried out by the Assured or their employees or prior to the attachment of this insurance (for the purpose of these Clauses "packing" shall be deemed to include stowage in a container and "employees" shall not include independent contractors)

3.4 loss damage or expense caused by inherent vice or nature of the subject-matter insured

3.5 loss damage or expense arising from unfitness of aircraft conveyance or container for the safe carriage of the subject-matter insured, where loading therein or thereon is carried out prior to attachment of this insurance or by the Assured or their employees and they are privy to such unfitness at the time of loading.

This exclusion shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject-matter insured in good faith under a binding contract.

3.6 loss damage or expense caused by delay, even though the delay be caused by a risk insured against

3.7 loss damage or expense caused by insolvency or financial default of the owners managers charterers or operators of the aircraft where, at the time of loading of the subject-matter insured on board the aircraft, the Assured are aware, or in the ordinary course of business should be aware, that such insolvency or financial default could prevent the normal prosecution of the transit

This exclusion shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject-matter insured in good faith under a binding contract.

3.8 any claim based upon loss of or frustration of the transit or adventure

3.9 loss damage or expense directly or indirectly caused by or arising from any hostile use of any weapon or device employing atomic or nuclear fission and/or fusion or other like reaction or radioactive force or matter.

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DURATION

Transit Clause

4.

4.1 This insurance

4.1.1 attaches only as the subject-matter insured and as to any part as that part is loaded on the aircraft for the commencement of the air transit insured and

4.1.2 terminates, subject to 4.2 and 4.3 below, either as the subject-matter insured and as to any part as that part is discharged from the aircraft at the final place of discharge or on expiry of 15 days counting from midnight of the day of arrival of the aircraft at the final place of discharge, whichever shall first occur; nevertheless, subject to prompt notice to the Insurers and to an additional premium, such insurance

4.1.3 reattaches when, without having discharged the subject-matter insured at the final place of discharge, the aircraft departs therefrom,and

4.1.4 terminates, subject to 4.2 and 4.3 below, either as the subject-matter insured and as to any part as that part is thereafter discharged from the aircraft at the final (or substituted) place of discharge,or on expiry of 15 days counting from midnight of the day of re-arrival of the aircraft at the final place of discharge or arrival of the aircraft at a substituted place of discharge, whichever shall first occur.

4.2 If during the insured transit the aircraft arrives at an intermediate place to discharge the subjectmatter insured for on-carriage by aircraft or oversea vessel, then, subject to below and to an additional premium if required, this insurance continues until the expiry of 15 days counting from midnight of the day of arrival of the aircraft at such place,

but thereafter reattaches as the subject-matter insured and as to any part as that part is loaded on an on-carrying aircraft or oversea vessel. During the period of 15 days the insurance remains in force after discharge only whilst the subject-matter insured and as to any part as that part is at such intermediate place. If the subject-matter insured is on-carried within the said period of 15 days or if the insurance reattaches as provided in this Clause 4.2

4.2.1 where the on-carriage is by aircraft this insurance continues subject to the terms of these Clauses, or

4.2.2 where the on-carriage is by oversea vessel, the current Institute War Clauses (Cargo) shall be deemed to form part of the contract of insurance and shall apply to the on-carriage by se

4.3 If the air transit in the contract of carriage is terminated at a place other than the destination agreed therein, that place shall be deemed to be the final place of discharge and this insurance terminates in accordance with 4.1.2. If the subject-matter insured is subsequently consigned to the original or any other destination, then, provided notice is given to the Insurers before the commencement of such further transit and subject to an additional premium, this insurance reattaches

4.3.1 in the case of the subject-matter insured having been discharged, as the subject-matter insured and as to any part as that part is loaded on the on-carrying aircraft for the transit;

4.3.2 in the case of the subject-matter insured not having been discharged, when the aircraft departs from such deemed final place of discharge; thereafter this insurance terminates in accordance with 4.1.4.

4.4 Subject to prompt notice to Insurers, and to an additional premium if required, this insurance shall remain in force within the provisions of these Clauses during any deviation, or any variation of the adventure arising from the exercise of a liberty granted to the air carriers under the contract of carriage. (For the purpose of Clause 4 "oversea vessel" shall be deemed to mean a vessel carrying the subject-matter from one port or place to another where such voyage involves a sea passage by that

vessel)

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Change of Transit

5.

5.1 Where, after attachment of this insurance, the destination is changed by the Assured, this must be notified promptly to Insurers for rates and terms to be agreed. Should a loss occur prior to such agreement being obtained cover may be provided but only if cover would have been available at a reasonable commercial market rate on reasonable market terms.

5.2 Where the subject-matter insured commences the transit contemplated by this insurance (in accordance with Clause 4.1), but, without the knowledge of the Assured or their employees the aircraft leaves for another destination, this insurance will nevertheless be deemed to have attached at commencement of such transit.

6. Anything contained in this contract which is inconsistent with Clauses 3.8, 3.9 or 4 shall, to the extent of such inconsistency, be null and void.

CLAIMS

Insurable Interest

7.

7.1 In order to recover under this insurance the Assured must have an insurable interest in the subjectmatter insured at the time of the loss.

7.2 Subject to Clause 7.1 above, the Assured shall be entitled to recover for insured loss occurring during the period covered by this insurance, notwithstanding that the loss occurred before the contract of insurance was concluded, unless the Assured were aware of the loss and the Insurers were not.

Increased Value

8.

8.1 If any Increased Value insurance is effected by the Assured on the subject-matter insured under this insurance the agreed value of the subject-matter insured shall be deemed to be increased to the total amount insured under this insurance and all Increased Value insurances covering the loss, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.

In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

8.2 Where this insurance is on Increased Value the following clause shall apply:

The agreed value of the subject-matter insured shall be deemed to be equal to the total amount insured under the primary insurance and all Increased Value

insurances covering the loss and effected on the subject-matter insured by the Assured, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured. In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

BENEFIT OF INSURANCE

9. This insurance

9.1 covers the Assured which includes the person claiming indemnity either as the person by or on whose behalf the contract of insurance was effected or as an assignee,

9.2 shall not extend to or otherwise benefit the carrier or other bailee.

MINIMISING LOSSES

Duty of Assured

10. It is the duty of the Assured and their employees and agents in respect of loss recoverable hereunder

10.1 to take such measures as may be reasonable for the purpose of averting or minimising such loss,and

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10.2 to ensure that all rights against carriers, bailees or other third parties are properly preserved and exercised and the Insurers will, in addition to any loss recoverable hereunder, reimburse the Assured for any charges properly and reasonably incurred in pursuance of these duties.

Waiver

11. Measures taken by the Assured or the Insurers with the object of saving, protecting or recovering the subject-matter insured shall not be considered as a waiver or acceptance of abandonment or otherwise prejudice the rights of either party.

AVOIDANCE OF DELAY

12. It is a condition of this insurance that the Assured shall act with reasonable despatch in all circumstances within their control.

LAW AND PRACTICE

13. This insurance is subject to English law and practice

NOTE:- Where a reattachment of cover is requested under Clause 4 or a change of destination is notified under Clause 5, there is an obligation to give prompt notice to the
Insurers and the right to such cover is dependent upon compliance with this obligation.

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CL388
01/01/2009

Institute Strike Clauses (Air Cargo) CL 389 01/01/2009

RISKS COVERED

Risks

1. This insurance covers, except as excluded by the provisions of Clause 3 below, loss of or damage to the subject-matter insured caused by

1.1 strikers, locked-out workmen, or persons taking part in labour disturbances, riots or civil commotions

1.2 any act of terrorism being an act of any person acting on behalf of, or in connection with, any organisation which carries out activities directed towards the overthrowing or influencing, by force or violence, of any government whether or not legally constituted

1.3 any person acting from a political, ideological or religious motive.

Salvage Charges

2. This insurance covers salvage charges incurred to avoid or in connection with the avoidance of loss from any cause except those excluded in Clause 3 below.

EXCLUSIONS

3. In no case shall this insurance cover

3.1 loss damage or expense attributable to wilful misconduct of the Assured

3.2 ordinary leakage, ordinary loss in weight or volume, or ordinary wear and tear of the subject-matter insured

3.3 loss damage or expense caused by insufficiency or unsuitability of packing or preparation of the subjectmatter insured to withstand the ordinary incidents of the insured transit where such packing or preparation is carried out by

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the Assured or their employees or prior to the attachment of this insurance (for the purpose of this Clause 3.3 "packing" shall be deemed to include stowage in a container and "employees" shall not include independent contractors)

3.4 loss damage or expense caused by inherent vice or nature of the subject-matter insured

3.5 loss damage or expense arising from unfitness of aircraft conveyance or container for the safe carriage of the subject-matter insured, where loading therein or thereon is carried out prior to attachment of this insurance or by the Assured or their employees and they are privy to such unfitness at the time of loading. This exclusion shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject-matter insured in good faith under a binding contract.

3.6 loss damage or expense caused by delay, even though the delay be caused by a risk insured against

3.7 loss damage or expense caused by insolvency or financial default of the owners managers charterers or operators of the aircraft where, at the time of loading of the subject-matter insured on board the aircraft, the Assured are aware, or in the ordinary course of business should be aware, that such insolvency or financial default could prevent the normal prosecution of the transit

This exclusion shall not apply where the contract of insurance has been assigned to the party claiming hereunder who has bought or agreed to buy the subject-matter insured in good faith under a binding contract

3.8 loss damage or expense arising from the absence shortage or withholding of labour of any description whatsoever resulting from any strike, lockout, labour disturbance, riot or civil commotion

3.9 any claim based upon loss of or frustration of the transit or adventure

3.10 loss damage or expense directly or indirectly caused by or arising from the use of any weapon or device employing atomic or nuclear fission and/or fusion or other like reaction or radioactive force or matter

3.11 loss damage or expense caused by war civil war revolution rebellion insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power.

DURATION

Transit Clause

4.

4.1 Subject to Clause 7 below, this insurance attaches from the time the subject-matter insured is first moved in the warehouse, premises or at the place of storage (at the place named in the contract of insurance) for the purpose of the immediate loading into or onto the carrying vehicle or other conveyance for the commencement of transit, continues during the ordinary course of transit and terminates either

4.1.1 on completion of unloading from the carrying vehicle or other conveyance in or at the final warehouse, premises or place of storage at the destination named in the contract of insurance,

4.1.2 on completion of unloading from the carrying vehicle or other conveyance in or at any other warehouse, premises or place of storage, whether prior to or at the destination named in the contract of insurance, which the Assured or their employees elect to use either for storage other than in the ordinary course of transit or for distribution, or

4.1.3 when the Assured or their employees elect to use any carrying vehicle or other conveyance or any container for storage other than in the ordinary course of transit or

4.1.4 on the expiry of 30 days after completion of unloading of the subject-matter insured from the aircraft at the final place of discharge, whichever shall first occur.

4.2 If, after unloading from the aircraft at the final place of discharge, but prior to termination of this insurance, the subject-matter insured is to be forwarded to a destination other than that to which it is insured, this insurance, whilst remaining subject to termination as provided in Clauses 4.1.1 to 4.1.4, shall not extend beyond the time the subject-matter insured is first moved for the purpose of the commencement of transit to such other destination.

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4.3 This insurance shall remain in force (subject to termination as provided for in Clauses 4.1.1 to 4.1.4 above and to the provisions of Clause 5 below) during delay beyond the control of the Assured, any deviation, forced discharge, reshipment or transhipment and during any variation of the adventure arising from the exercise of a liberty granted to the air carriers under the contract of carriage.

Termination of Contract of Carriage

5. If owing to circumstances beyond the control of the Assured either the contract of carriage is terminated at a place other than the destination named therein or the transit is otherwise terminated before unloading of the subject-matter insured as provided for in Clause 4 above, then this insurance shall also terminate unless prompt notice is given to the

Insurers and continuation of cover is requested when this insurance shall remain in force, subject to an additional premium if required by the Insurers, either

5.1 until the subject-matter insured is sold and delivered at such place, or, unless otherwise specially agreed, until the expiry of 30 days after arrival of the subject-matter
insured at such place, whichever shall first occur,
Or
5.2 if the subject-matter insured is forwarded within the said period of 30 days (or any agreed extension thereof) to the destination named in the contract of insurance or to
any other destination, until terminated in accordance with the provisions of Clause 4 above.

Change of Transit
6.
6.1 Where, after attachment of this insurance, the destination is changed by the Assured, this must be notified promptly to Insurers for rates and terms to be agreed. Should a loss occur prior to such agreement being obtained cover may be provided but only if cover would have been available at a reasonable commercial market rate on reasonable market terms
6.2 Where the subject-matter insured commences the transit contemplated by this insurance (in accordance with Clause 4.1), but, without the knowledge of the Assured or their employees the aircraft leaves for another destination, this insurance will nevertheless be deemed to have attached at commencement of such transit.

CLAIMS

Insurable Interest
7.

7.1 In order to recover under this insurance the Assured must have an insurable interest in the subjectmatter insured at the time of the loss.
7.2 Subject to Clause 7.1 above, the Assured shall be entitled to recover for insured loss occurring during the period covered by this insurance, notwithstanding that the loss occurred before the contract of insurance was concluded, unless the Assured were aware of the loss and the Insurers were not.

Increased Value

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8.
8.1 If any Increased Value insurance is effected by the Assured on the subject-matter insured under this insurance the agreed value of the subject-matter insured shall be deemed to be increased to the total amount insured under this insurance and all Increased Value insurances covering the loss, and liability under this insurance shall be in such proportion as the sum insured under this insurance bears to such total amount insured.
In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.
8.2 Where this insurance is on Increased Value the following clause shall apply:
The agreed value of the subject-matter insured shall be deemed to be equal to the total amount insured under the primary insurance and all Increased Value insurances
covering the loss and effected on the subject-matter insured by the Assured, and liability under this insurance shall be in such proportion as the sum insured under this
insurance bears to such total amount insured.
In the event of claim the Assured shall provide the Insurers with evidence of the amounts insured under all other insurances.

BENEFIT OF INSURANCE
9. This insurance
9.1 covers the Assured which includes the person claiming indemnity either as the person by or on whose behalf the contract of insurance was effected or as an assignee,
9.2 shall not extend to or otherwise benefit the carrier or other bailee.

MINIMISING LOSSES
Duty of Assured
10. It is the duty of the Assured and their employees and agents in respect of loss recoverable hereunder
10.1 to take such measures as may be reasonable for the purpose of averting or minimising such loss, and
10.2 to ensure that all rights against carriers, bailees or other third parties are properly preserved and exercised and the Insurers will, in addition to any loss recoverable hereunder, reimburse the Assured for any charges properly and reasonably incurred in pursuance of these duties.

Waiver

11. Measures taken by the Assured or the Insurers with the object of saving, protecting or recovering the subjectmatter insured shall not be considered as a waiver or acceptance of abandonment or otherwise prejudice the rights of either party.

AVOIDANCE OF DELAY
12. It is a condition of this insurance that the Assured shall act with reasonable despatch in all circumstances within their control.

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The Registered Office & Corporate Office/Policy Issuing Office: Reliance General Insurance Company Limited, 6th Floor, Oberoi Commerz, International Business Park, Oberoi Garden City, Off Western Express Highway, Goregaon (East), Mumbai – 400 063. Corporate Identity No.U66603MH2000PLC128300. UIN:. Trade Logo displayed above belongs to Anil Dhirubhai Ambani Ventures Private Limited and used by Reliance General Insurance Company Limited under License. RGI/MCOM/CO/HIIP/POLICY-SCHEDULE/Ver. 1.0/121219

LAW AND PRACTICE

13. This insurance is subject to English law and practice.

NOTE:- Where a continuation of cover is requested under Clause 5, or a change of destination is notified under Clause 6, there is an obligation to give prompt notice to the Insurers
and the right to such cover is dependent upon compliance with this obligation.

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CL389
01/01/2009

SRCC Clause (Inland Transit)

RISKS COVERED

1. Subject otherwise to the terms, conditions and warranties of the Policy on goods against transit risk, this insurance covers, except as provided in clause 2 below of or damage to the subject matter insured caused by

1.1 strikes, Locked-out workmen, or persons taking part in labour disturbances, riots or civil commotions.

1.2 any terrorist or any person acting from a political motive.

1.3 persons acting maliciously.

EXCLUSIONS

2. In no case shall this insurance cover

2.1 loss damage or expense proximately caused by delay inherent vice or nature of the subject matter insured.

2.2 loss damage or expense proximately caused by absence, shortage or withholding of labour of any description whatsoever during any strike, lockout, labour disturbances, riot or civil commotion

2.3 any claim for expenses arising from delay or other consequential or indirect loss or damage of any kind

2.4 loss damage or expenses caused by war, civil war, revolution, rebellion, insurrection or civil strike arising therefrom, or any hostile act by or against a belligerent power.

DESPATCH BY PRIVATE CARRIER CLAUSE
(INLAND TRANSIT)

The liability of the Company shall be limited to 75% of the assessed loss where the consignment note is issued limiting the liability of the Carriers in any respect by a special contract duly signed by the consignor, consignee or by the duly authorised representative, agents or where the consignment note is issued by a Private Carrier (other than the Vehicle belonging to the owner of goods) or freight Broker. This warranty would not apply where loss or damage has occurred whilst the goods are not in the custody of the

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Institute Replacement Clause 01 01 1934 CL 161

In the event of loss of or damage to any part or parts of an insured machine caused by a peril covered by the Policy the sum recoverable shall not exceed the cost of replacement or repair of such part or parts plus charges for forwarding and refitting, if incurred but excluding duty unless the full duty is included in the amount insured, in which case loss, if any, sustained by payment of additional duty shall also be recoverable.

Provided always that in no case shall the liability of Underwriters exceed the insured value of the complete machine.

Duty Insurance Clause

This insurance is on increased value of cargo by reason of payment of customs duty at the port or place of destination and is subject to the same clauses and conditions as the
insurance of cargo and to pay the same percentage of duty payable (excluding charges and expenses) as may be paid thereon, but excluding claims in respect of:

a. Total loss of whole or part of cargo prior to the duty becoming payable
b. General Average, Salvage and/or Salvage Charges arising from any casualty occurring prior to the duty becoming payable.

In ascertaining the amount of the claim recoverable thereunder credit shall be given for any rebates or refund of duty which may become
allowable.
This insurance shall not be valid if effected after the arrival of the vessel at the destination port.
Warranted that:
1. The Assured is the holder or assignee of the Import Licence, or is the actual user who has purchased goods from recognised Export House/ Channelising Agency
2. This Policy is not assignable.
3. No Claim shall be paid for Duty until the claim under the C.I.F. value insurance policy is payable and proof of liability for loss under the policy shall be furnished to the Company. This provision need not apply to cases where CIF is insured overseas due to contractual obligation.
4. This is not a valued policy as defined in the Marine Insurance Act. Claims under this policy are payable on the basis of actual duty paid or on the basis of the sum insured whichever is less.
5. In the event of a claim under this policy, immediately notice of loss shall be given to the Company and a reasonable opportunity given to the Company to survey and assess the loss. The Assured shall co-operate with the Company and take all reasonable measures to minimise or
6. prevent loss. The Assured shall also lodge a claim with the Customs Authorities within the stipulated time for refund of duty where admissible, and with the carriers or others for recovery for the duty paid in respect of such damaged or lost cargo and any recovery relating to the duty paid shall be credited to the Company.

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ANNEXURE –XIII

TO

SPECIAL PURCHASE CONDITIONS

VULNERABILITY ATLAS OF INDIA

Vulnerability Atlas of India.

Vulnerability Atlas of India (VAI) is a comprehensive document which provides existing hazard scenario for the entire country and presents the digitized State/UT-wise hazard, maps with respect to earthquakes, winds and floods for district-wise identification of vulnerable areas. It also includes additional digitized maps for thunderstorms, cyclones and landslides. The main purpose of this Atlas is its use for disaster preparedness and mitigation at policy planning and project formulation stage.

This Atlas is one of its kind single point source for the various stakeholders including policy makers, administrators, municipal commissioners, urban managers, engineers, architects, planners, public etc. to ascertain proneness of any city/location/site to multi-hazard which includes earthquakes, winds, floods, thunderstorms, cyclones and landslides. While project formulation, approvals and implementation of various urban housing, buildings and infrastructures schemes, this Atlas provides necessary information for risk analysis and hazard assessment.

The Vulnerability Atlas of India has been prepared by Building Materials and Technology Promotion Council under Ministry of Housing and Urban Affairs, Government of India and available at their website www.bmtpc.org.

It is mandatory for the bidders to refer Vulnerability Atlas of India for multi-hazard risk assessment and include the relevant hazard proneness specific to project location while planning and designing the project in terms of:

i) Seismic zone (II of V) for earthquakes
ii) Wind velocity (Basic Wind Velocity: 55, 50, 47, 44, 39 & 33 m/s)
iii) Area liable to floods and Probable max. surge height
iv) Thunderstorms history
v) Number of cyclonic storms / severe cyclonic storms and max sustained wind specific to coastal region
vi) Landslides incidences with Annual rainfall normal
vii) District wise Probable Max. Precipitation.

ENGINEERS INDIA LIMITED

GENERAL PURCHASE CONDITIONS (INDIGENOUS)

इंजीनियर्स इंडिया लिमिटेड (भारत सरकार का उपक्रम) ENGINEERS INDIA LIMITED (A Govt. of India Undertaking)
Regd. Office : Engineers India Bhawan, 1, Bhikaiji Cama Place, New Delhi - 110066

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1.0 DEFINITIONS

1.1 The following expressions used in these General Purchase Conditions (GPC) and the Purchase shall have the meaning indicated against each of these:

The **PURCHASER / OWNER** means Engineers India Limited, a company incorporated in India having its registered office at Engineers India Bhawan, 1, BhikaijiCama Place, RK Puram, New Delhi-110066 and shall include its successors and assignees.

"GOODS/MATERIALS": Goods and/or materials shall mean any of the Articles, Materials, Machinery, Equipment, Supplies, Drawings, Data and other property and all services including but not limited to design, delivery, installation, inspection, testing and commissioning specified to complete the order.

"SELLER": Seller shall mean the Person, Firm or Corporation to whom the Fax of Acceptance / Purchase Order is issued.

"Purchase Order": **Purchase Order**shall mean the Order placed on the Seller for supply of material/services and shall include the general conditions, bidding conditions, specific conditions, material requisition/Purchase requisition, drawings, Price schedule and subsequent amendments mutually agreed upon. It may also be referred as **order** or **contract.**

Contractual Delivery Date": Contractual Delivery Date is the date on which goods shall be delivered F.O.T dispatching point/destination in accordance with the terms of the Purchase Order. The contractual delivery date/period is inclusive of all the lead time for engineering, procurement of raw materials, manufacturing, inspection, testing packing and any other activities whatsoever required to be accomplished for effecting the delivery at the agreed delivery point.

"Procurement co-coordinators / Managers": Purchaser's authorized representative appointed as procurement coordinators / manager.

"INSPECTORS": Inspectors deputed / authorized by Purchaser including Third Party Inspection Agency.

CLIENT: Client means Project Owner.

2.0 REFERENCE FOR DOCUMENTATION

2.1 Purchase Order / Purchase Requisition number must appear on order confirmation, correspondence, drawings, and invoices, shipping notes, packing and / or any documents or paper connected with the Order.

3.0 CONFIRMATION OF ORDER

3.1 The Seller shall acknowledge the receipt of the Fax of Acceptance (FOA) / Purchase Order (PO) within seven days following the date of the FOA / Purchase Order and shall thereby confirm his acceptance of the FOA / Purchase Order without any exceptions. This acknowledgment will bear on both FOA / Purchase Order and General Purchase Conditions.

4.0 SALES CONDITIONS

4.1 With Seller's acceptance of provision of the Purchase Order, he waives and considers as

cancelled any of his general sales conditions.

5.0 COMPLETE AGREEMENT

5.1 The terms and conditions of the Purchase Order shall constitute the entire Agreement between the parties hereto. Changes will be binding only if the amendments are made in writing and signed by an authorized representative of the Purchaser.

6.0 INSPECTION-CHECKING-TESTING

6.1 The equipment, materials and workmanship covered by the Purchase Order are subject to inspection and testing at any time prior to shipment and/or despatch and to final inspection within a reasonable time after arrival at the place of delivery. Inspectors shall have the right to carry out the inspection and testing which will include the raw materials at manufacturer's shop, at fabricator's shop and at the time of actual despatch before and after completion of packing.

6.2 All tests, mechanical and others as specified in the Purchase Requisition and particularly those required by codes will be performed at Seller's expenses and in accordance with Inspector's instructions. The Seller will also bear the expenses concerning preparation and rendering of tests required by Boiler Inspectorate or such other statutory testing agencies or by Lloyds Register of Shipping and Industrial Services as may be required.

6.3 The salaries and fees of Inspectors and their travelling, lodging and boarding expenses will not be borne by the Seller unless inspection becomes anfractuous due to any omission or commission on the part of the Seller. Before shipping or despatch, the equipment and/or materials will have to be checked and stamped by Inspectors who are authorized also to forbid the use and despatch of any equipment and/or materials which during tests and inspection fail to comply with the specification, codes and testing requirements.

6.4 The Seller shall:

a) Inform Procurement Coordinator/Managers at least eight days in advance of the exact place, date and time of rendering the equipment or materials for required inspection.

b) Provide free access as required to Inspectors during normal and / or extended working hours to Seller's or his/its sub-Supplier's works and place at their disposal all useful means of performing, checking, marking, testing, inspection and final stamping.

6.5 Even if the Inspections and tests are fully carried out, Seller would not be absolved to any degree from his responsibilities to ensure that all equipment and material supplied comply strictly with requirements as per agreement both during manufacturing, at the time of delivery, inspection, on arrival at site and after its erection or start-up and guarantee period as stipulated in Clause 22 (GUARANTEE).

6.6 The Seller's responsibility will not be lessened to any degree due to any comments made by Procurement Coordinators/Managers and Inspectors on the Seller's drawings or specifications or by inspectors witnessing any chemical or physical tests. In any case, the equipment must be in strict accordance with the Purchase Order and/or its attachments failing which the Purchaser shall have the right to reject the goods and hold the Seller liable for non-performance of contract.

7.0 OFFICIAL INSTITUTIONAL TESTING

7.1 In addition to testing and inspection by Inspectors mentioned above, Lloyds register Industrial services or similar institutional agencies like Boiler-Inspectorate may be

assigned for official testing of all coded equipment. The Seller shall ensure that all Procedures for preparation and Performance of test prescribed by such institution shall be complied scrupulously.

7.2 The Seller is required to send to such institutions as may be designed by the Purchaser at least three sets of fabricated / manufactured drawings for each equipment and calculations. All manufacturer's mill test certificates and analytical reports from material laboratories in respect of all raw material and components employed shall have to be presented to such Institution's Inspectors in the number of copies required. Seller shall be responsible for any delay in submission of necessary certificates. The Seller shall maintain close liaison with procurement co-ordinators and Institution's Inspectors to maintain Schedule and delay, if any, in this process will not be taken into consideration as a cause of Force Majeure.

8.0 TRANSIT RISK INSURANCE

8.1 The Purchaser against its/ Client's Open General Policy (The name of the Insurance Co. will be conveyed subsequently) shall cover transit Risk Insurance. The Seller shall advise the dispatch particulars to the Insurance Company under advice to the Procurement Coordinators / Managers before shipment.

9.0 DELIVERY DATES

9.1 Time of delivery as mentioned in the Purchase Order shall be the essence of the agreement and no variation shall be permitted except with prior authorization in writing from the Purchaser. Goods should be delivered securely packed and in good order and condition at the place and within the time specified in the Purchase Order for their delivery. The Purchaser reserves the right to defer the period of delivery in writing.

10.0 DELAYED DELIVERY

10.1 The time and date of delivery of materials/ equipment as stipulated in the Purchase Order shall be deemed to be the essence of the agreement. For any delay in delivery of equipment / materials or part thereof beyond the delivery date stipulated, the Purchaser may:

a) **FOR BUILK ITEMS**: Accept delayed delivery at prices reduced by a sum equivalent to one half of one percent (1/2%) of the total value of delayed item/quantity for every week of delay or part thereof, limited to a maximum of five percent (5%) of the total order value.

b) **FOR ITEMS OTHER THAN BULK ITEMS(WITH OR WITHOUT SITE WORK)**: Accept delayed delivery at prices reduced by a sum equivalent to one half of one percent (1/2%) of the total order value for every week of delay or part thereof, limited to a maximum of five percent (5%) of the total order value.

10.2 The invoice shall be raised after equivalent reduction in the Invoice value before presenting to Purchaser/ Bank for payment. The acceptance of delayed delivery is without prejudice to Purchaser's right of cancelling the purchase order wholly or in part for any delay exceeding the period of maximum price reduction and the Seller shall be liable for all consequences thereof.

11.0 DELAYS DUE TO FORCE MAJEURE

11.1 In the event of causes of Force Majeure occurring within the agreed delivery terms, the

delivery dates can be extended by the Purchaser on receipt of application from the Seller without imposition of price reduction. Only the following shall be considered as force majeure:

a) Act of terrorism;

b) Riot, war, invasion, act of foreign enemies, hostilities (whether war be declared or not), civil war, rebellion, revolution, insurrection of military or usurped power;

c) Ionizing, radiation or contamination, radio activity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive assembly or nuclear component;

d) Epidemics, earthquakes, flood, fire, hurricanes, typhoons or other physical natural disaster, but excluding weather conditions regardless of severity; and

e) Freight embargoes, strikes at national or state-wide level or industrial disputes at a national or state-wide level in any country where Works are performed, and which affect an essential portion of the Works but excluding any industrial dispute which is specific to the performance of the Purchase Order.

11.2 For the avoidance of doubt, inclement weather, third party breach, delay in supply of materials (other than due to a nationwide transporters' strike) or commercial hardship shall not constitute a Force Majeure event.

11.3 The Seller must advise the Purchaser by a registered letter duly certified by a statutory authorities, the beginning and the end of the delay immediately, but in no case later than 10 days of the beginning and end of each cause of Force Majeure condition as defined above.

11.4 The extension of time shall be the sole remedy of the Seller for any delay under this clause and the Seller shall not be entitled in addition to or in lieu of such extension to claim any damages or compensation on any account whatsoever whether under the law governing contracts or any other law in force, and the Seller hereby waives and disclaims any and all contrary rights.

11.5 In case force majeure conditions persists for period exceeding 02 (Two) Months, the Purchaser reserves the right to cancel the Purchase order or part of it.

12.0 REJECTION, REMOVAL OF REJECTED GOODS AND REPLACEMENT

12.1 In case the testing and inspection at any stage by Inspectors reveal that the equipment, material and workmanship do not comply with the specification and requirements, the Seller at his/its own expense and risk shall remove the same within the time allowed by the Purchaser. The Purchaser shall be at liberty to dispose of such rejected goods in such a manner, as he may think appropriate. In the event the Seller fails to remove the rejected goods within the period as aforesaid, all expenses incurred by the Purchaser for such disposal shall be to the account of the Seller. The freight paid by the Purchaser, if any, on the inward journey of the rejected materials shall be reimbursed by the Seller to the Purchaser before the rejected materials are removed by the Seller.

12.2 The Seller shall have to proceed with the replacement of that equipment or part of the equipment at Purchaser's stores / site, if so required by the Purchaser, without claiming any extra payment. The time taken for replacement in such event will not be added to the contractual delivery period.

12.3 Any rejection, removal of rejected goods/material and replacement shall be applicable

only up to guarantee period or extended guarantee period as applicable.

13.0 TRANSFER OF PROPERTY FROM THE SELLER TO THE PURCHASER

13.1 The transfer of property shall be deemed to have taken place as follows subject to the provisions herein contained:

a) F.O.T. despatch point: On handing over the equipment to the carrier against receipt and such receipt having been passed over to the Purchaser.
b) F.O.T. Project Site: on receipt of material at Project site.
c) Equipment sent freight/ carriage paid to the Refinery site: On receipt of goods at site.
d) Equipment erected by the Seller: on acceptance at job site.
e) Equipment commissioned by the Seller: On taking over by the Purchaser for regular operation after test run at maximum capacity for specified period satisfactorily performed.

However, where the sale to or purchase by the Seller is deemed to take place in the course of inter-state trade or commerce or by endorsement/transfer of Railway receipt or Truck/Lorry or any receipt during transit, the sale to the OWNER of the same material shall similarly be deemed to take place by endorsement/transfer during transit in the course of inter-state trade or commerce in respect of which the OWNER will furnish the Seller/Supplier, wherever applicable, Form “C” to qualify to concessional rate of tax.

14.0 PRICE

14.1 Unless otherwise agreed to in the terms of the Purchase Order, the price shall be:

a) Firm and not subject to escalation for any reasons whatsoever till the execution of entire order even though it might be necessary for the order execution to take longer than the delivery period specified in the order.
b) Inclusive of adequate road worthy packing and forwarding charges upto effecting delivery at F.O.T. despatch point in all cases whenever F.O.T destination delivery terms are agreed to but exclusive of transit insurance.

14.2 Exclusive of Central/State Sales Tax, Excise Duty and or such imposts which are leviable by law on sales of finished goods to Purchaser and/or Octroi duty, if any, leviable at destination/ project site. The nature and extent of such levies shall be shown separately.

15.0 TERMS OF PAYMENT

15.1 Payment terms shall be as specified in the Enquiry / Purchase Order.

16.0 RECOVERY OF SUMS DUE

16.1 Whenever any claim against the Seller for payment of sum of money arises out of or under the contract, the Purchaser shall be entitled to recover such sums from any sum then due or which at any time thereafter may become due from the Seller under this or any other contract with the Purchaser including right to en-cash the PBG. In the event of encashment of PBG, the same shall be re-stored to its original amount by the Seller and should this sum be not sufficient to cover the recoverable amount, the Seller shall pay to the Purchaser on demand the balance remaining due.

17.0 CHANGES

17.1 The Purchaser has the option at any time to make changes in quantities ordered or in specifications and drawings. If such changes cause an increase or decrease in the price or in the time required for supply, a claim under this provision must be raised by Seller with documentary evidence/back-up documents/calculations within 7 days from the date the intimation for change is received from Purchaser. Seller shall execute the change only after receipt of change order.

18.0 CANCELLATION

18.1 CANCELLATION FOR DEFAULT

18.1.1 The Purchaser reserves the right to cancel the Purchase Order or any part thereof and shall be entitled to rescind the Purchase Order wholly or in part by a written notice of 10 days to the Seller if:

a) The Seller fails to comply with the terms of the Purchase Order.

b) The Seller fails to adhere to delivery schedule of manufacturing and fails to deliver the goods on time and/or replace the rejected goods promptly.

c) The Seller becomes bankrupt or goes into liquidation.

d) The Seller makes a general assignment for the benefit of creditors.

e) A receiver is appointed for any of the property owned by the Seller.

18.1.2 Upon receipt of the said cancellation notice, the Seller shall discontinue all work on the Purchase Order and matters connected with it.

18.1.3 The Purchaser in that event will be entitled to procure the material in the open market and recover excess payment over the Seller's agreed price, if any, from the Seller reserving to itself the right to forfeit the /Contract Performance Bank Guarantee (CPBG), if any.

18.2 CANCELLATION FOR CONVENIENCE

18.2.1 The PURCHASER may, by written notice of 10 days sent to the SELLER, Cancel the CONTRACT, in whole or part, at any time for his convenience. The notice of cancellation shall specify that cancellation is for the PURCHASER's convenience, the extent to which performance of work under the CONTRACT is cancelled and the date upon which such cancellation becomes effective.

18.2.2 The GOODS that are complete and ready for shipment within 30 days after the SELLER's receipt of notice of cancellation shall be purchased by the PURCHASER at the CONTRACT terms and prices. For the remaining GOODS, the PURCHASER may opt:

a) to have any portion completed and delivered at the CONTRACT terms and prices, and /or

b) to cancel the remainder and pay to the SELLER an agreed amount for partially completed GOODS and for materials and parts previously procured by the SELLER.

19.0 PATENTS AND ROYALTIES

19.1 On acceptance of this order, the Seller will be deemed to have entirely indemnified the Purchaser and Procurement Coordinators/Managers from any legal action or claims

regarding compensation for breach of patent rights which the Seller deems necessary to apply for manufacturing the ordered equipment and/or materials or which can in any way be connected in the manufacture.

20.0 CONTROL REGUALTIONS

20.1 The supply, despatch and delivery of goods shall be arranged by the Seller in strict conformity with the statutory regulations including provision of Industries (Development and Regulation) Act, 1951 and any amendment thereof as applicable from time to time. The Purchaser disowns any responsibility for any irregularity or contravention of any of the statutory regulations in manufacture or supply of his stores covered by this order.

21.0 CONTRACT *CUM PERFORMANCE BANK GUARANTEE (CPBG)*

21.1 Within 30 days from the date of issue of Purchase order, the Seller shall furnish Contracts cum performance guarantee in the form of Bank Guarantee as per the purchaser's proforma for an amount equivalent to 10% of the order value. This shall be 5% in case of bulk items (as listed in Annexure 1 to GPC).

21.2 The proceeds of the CPBG shall be appropriated by the Purchaser as compensation for any loss resulting from the Seller's failure to complete his obligations under the Contract without prejudice to any of the rights or remedies the PURCHASER may be entitled to as per terms and conditions of CONTRACT.

21.3 This CPBG shall also govern the successful performance of Goods and Services during the entire period of Contractual Warrantee/Guarantee.

21.4 The CPBG shall be denominated in the currency of the CONTRACT.

21.5 The Contracts cum Performance Guarantee shall be valid for the duration of 2 months beyond the expiry of Warrantee/Guarantee period. The Bank Guarantee will be discharged by PURCHASER not later than 2 months from the date of expiration of the Seller's entire obligations, including any warrantee obligations, under the CONTRACT.

21.6 In case of Reinforcement Bar, Structural steel, CPBG will be required for 5% of order value having validity up to Contractual delivery period + 2 months claim period.

21.7 In case of limited enquiries, CPBG shall not be required for orders up to Rs. Twenty Five (25) Lakhs in case of Pipes, Fittings, Flanges, Gaskets and Fasteners and for orders up to Rs. Ten (10) Lakhs for all other items. However, in case of NIT, CPBG shall be required for all orders irrespective of order value.

21.8 Bank Guarantee(s) shall be issued through Indian Nationalized Bank/ Indian Scheduled bank (other than Co-operative Banks) / Indian branches of foreign banks registered with Reserve Bank of India as a scheduled foreign bank.

21.9 It will be the responsibility of the Seller to keep the Bank Guarantee fully subscribed. Any shortfall in the value of the Bank Guarantee as a result of encashment by the Purchaser either in full or in part in terms of Seller's Performance shall be replenished by the Seller within two weeks thereof.

22.0 GUARANTEE

22.1 The Seller shall guarantee that any and all materials used in execution of the Purchase Order shall be in strict compliance with characteristics, requirements and specifications and that the same shall be free from any defects. Checking of the Seller's drawings by the Purchaser/Purchaser's representatives and their approval and permission to ship or

despatch the equipment and materials granted by Inspectors shall not relieve the Seller from any part of his/its responsibilities of proper fulfilment of the requirements.

22.2 The Seller will guarantee that all materials and equipments shall be repaired or replaced as the case may be, at his own expense, in case the same have been found to be defective in respect of material, workmanship or smooth and rated operation within a period 15 months after the equipment/ material have been put in service or 30 months from the date of shipment, whichever is earlier. Repaired or replaced equipment/ materials shall be similarly guaranteed by the SELLER for a period of fifteen (15) months from the date of replacement/ repair subject to a maximum of 30 months from the date,the main equipment/ material have been put in service. All expenses for such replacement/ repair of equipment/ material shall be to the account of the Seller including freight, if any.

22.3 Acceptance by the Purchaser or its Inspectors of any equipment and materials or its replacement will not relieve the Seller of its responsibility of supplying the equipment/materials strictly according to the specification and according to the guarantees agreed by the Seller.

23.0 NON-WAIVER

23.1 Failure of the Purchaser / Procurement Coordinators/ Managers to insist upon any of the terms or conditions incorporated in the Purchase Order or failure or delay to exercise any rights or remedies herein or by law or failure to properly notify Seller in the event of breach, or the acceptance of or payment of any goods hereunder or approval of design shall not release the Seller and shall not be deemed a waiver of any right of the Purchaser / Procurement Coordinators/Managers to insist upon the strict performance thereof or any of his or their rights or remedies as to any such goods regardless of when goods are shipped received or accepted nor shall any purported oral modification or revisions of the order by Purchaser/ Procurement Coordinators/Managers act as waiver of the terms hereof.

24.0 NON ASSIGNMENT

24.1 The Seller without obtaining prior written consent of the Purchaser shall not assign the Purchase Order to any other agency.

25.0 SELLER'S DRAWING AND DATA REQUIREMENT

25.1 The Seller shall submit drawings, data and documentation in accordance with but not limited to what is specified in the requisition and/or in the Seller drawings and data form attached to the Purchase Requisition and as called for in Clause 26 *(*PROGRESS SCHEDULE & EXPEDITING). Types, quantities and time limits of submitting this must be respected in its entirety failing which the Purchase Order shall not be deemed to have been executed for all purposes including settlement of payment since the said submission is an integral part of Purchase Order execution.

26.0 TECHNICAL INFORMATION

26.1 Drawings, specifications and details shall be the property of the Purchaser and shall be returned by the Seller on demand. The Seller shall not make use of drawings and specifications for any purpose at any time save and except for the purpose of the Purchaser.

26.2 The Seller shall not disclose the technical information furnished to or gained by the Seller

under or by virtue of or as a result of the implementation of the Purchase Order to any person, firm or body or Corporate authority and shall make all endeavors to ensure that the technical information is kept CONFIDENTIAL. The technical information imparted and supplied to the Seller by the Purchaser shall at all times remain the absolute property of the Purchaser.

27.0 PROGRESS SCHEDULE & EXPEDITING

27.1 Template for progress reporting is available on EIL eDMS portal. SELLER within 2 weeks of award shall submit to PURCHASER, his Delivery schedule regarding the documentation, manufacture, testing, supply, erection and commissioning of the GOODS.

27.2 For items other than bulk, the Delivery schedule will be in the form of a network or a bar chart clearly indicating all main or key events regarding documentation, supply of raw materials, manufacturing, testing, delivery, erection and commissioning.

27.3 SELLER shall update the template online on monthly basis to keep PURCHASER updated on the progress of the execution of Order and achievement of targets set out in time bar chart.

27.4 The Procurement Co-coordinator/ Managers shall have the right to inspect SELLER's premises with a view to evaluating the actual progress of work on the basis of SELLER's Delivery schedule.

27.5 The Procurement Co-coordinator/ Managers shall have free access to Seller's shop and/or sub-Supplier's shop at any time and they shall be provided all the necessary assistance and information to help them perform their job.

27.6 Irrespective of such inspection, in case of any delay, Purchaser cannot be held responsible. However, if delay is expected, at the earliest possible date, SELLER shall advise Purchaser, of anticipated delay in the progress.

27.7 Notwithstanding the above, in case progress on the execution of order at various stages is not as per phased Delivery schedule and is not satisfactory in the opinion of the PURCHASER which shall be conclusive or SELLER shall neglect to execute the order with due diligence and expedition or shall contravene the provisions of the order, PURCHASER shall be entitled to take action in accordance with the provisions of the Order.

28.0 SELLER'S LIABILITIES

28.1 The Seller's workmen or employees shall under no circumstances be deemed to be in Purchaser's employment and the Seller shall hold himself responsible for any claims which they or their heirs, dependents or personal representatives may have or make for damages or compensation for anything done or committed to be done in the course of carrying out of the work covered by this Purchase Order, whether arising on Purchaser's premises or elsewhere and agrees to Indemnify the Purchaser against any such claim or claims if made against the Purchaser and all cost (as between attorney and client) of proceedings, suits or action which the Purchaser may incur or sustain in respect of the same. The Seller shall also procure and keep in force at his own cost comprehensive automobile Liability insurance for adequate coverage in respect of all his vehicle/s visiting or plying in project premises. The Seller shall also be responsible for compliance of existing laws in respect of their workmen and employees.

29.0 PURCHASER'S MATERIAL

29.1 Purchaser's materials shall be delivered to the Seller after the Seller submits the Bank Guarantee for Indemnifying the full value thereof strictly in the manner and as per Performa of Bank Guarantee approved by the Purchaser.

29.2 Wherever possible, the material shall be consigned to goods depot to be specifically confirmed by Seller. The Seller at his responsibility and cost shall arrange Loading/Unloading and any handling from the destination.

29.3 The Seller shall give a firm and binding list of Purchasers issue of materials which shall be duly reviewed & approved by EIL and the desired schedule of its delivery to shop floor strictly in accordance with the sequence of fabrication vis-a-vis the contractual delivery period.

29.4 Unused materials or scrap from material supplied by the Purchaser to the Seller shall be returned by the Seller to the Purchaser or if the Purchaser so directs the Seller may dispose of the same by sale or otherwise on such terms and conditions as the Purchaser may stipulate and the Seller shall pay to the Purchaser the sale proceeds of the material so disposed off by sale deducting there from expenses incurred by the Seller on such sale, the quantum of such deduction to be mutually agreed upon in advance between the Purchaser and the Seller.

30.0 HEADINGS

30.1 The headings of the conditions hereof shall not affect construction thereof.

31.0 ARBITRATION

31.1 Any dispute or difference between the parties hereof arising out of any notified claim of the SELLER included in his final bill and /or arising out of any amount claimed by the OWNER (whether or not the amount claimed by the OWNER or any part thereof shall have been deducted from the Final bill of the supplier or any amount paid by the OWNER to the SELLER in respect of the work) shall be referred to arbitration in accordance with the UNCITRAL Rules as adopted in India by the Arbitration & Conciliation Act, 1996.

31.2 The venue of the arbitration shall be New Delhi.

31.3 Notwithstanding the existence of any dispute or arbitration in terms hereof or otherwise, the Seller shall continue and be bound to continue and perform the works to completion in all respects according to the

31.4 Contract (unless the Contract or works be determined by the Owner or by the Seller under the provisions of the Contract), and the Seller shall remain liable and bound in all respects under the Contract.

32.0 JURISDICTION

32.1 The Seller hereby agrees that the Court situated at New Delhi alone shall have the jurisdiction to hear and determine all action and proceedings arising out of this contract.

33.0 LIMITATION TO LIABILITY

33.1 Notwithstanding anything contrary contained herein, the aggregate total liability of Seller, excluding his liability towards infringement of patent, trade mark or industrial design rights, breach of Confidentiality, Anti-Bribery, Corruption and Conflicts of Interest, under the contract or otherwise shall be limited to 100% of value of Purchase order. However,

neither party shall be liable to the other party for any indirect and consequential damages, loss of profits or loss of production.

34.0 SETTLEMENT OF DISPUTE BETWEEN GOVERNMENT DEPARTMENT/ PUBLIC SECTOR UNDERTAKING

34.1 In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

ANNEXURE- I TO GPC
(LIST OF BULK ITEMS)

LIST OF BULK ITEMS

A. PIPING

1. Pipes
2. Fittings
3. Flanges (all kinds / types)
4. Gaskets
5. Bolts/Nuts
6. Strainers
7. Spring Hangers
8. Sample Cooler
9. Gate, Globe, Check Valves (Std Valves)
10. Steam Traps
11. SS/CR Manifold
12. Piston Valve (Steam Tracing)
13. Ball/Plug/Needle/Butterfly valves (Except high performance butterfly valve)
14. Static mixers
15. High Performance Butterfly Valves
16. Motor Operated Valves; Gate, Ball, Butterfly, Plug Vales
17. Hose Pipe
18. O-Lets
19. Dual Plate Check Valves
20. Cryo-LTCS: Gate, Globe, Check, Ball Valves
21. Diaphragm Valves
22. Sight Glass

B. PIPELINE ENGINEERING

1. Assorted Pipes
2. Flanges
3. Fittings
4. Hose & Hose Coupling

C. ELECTRICAL

1. LT Cable
2. FLP Lighting Fixtures and Control Gears
3. Communication Cables
4. Junction Box

D. INSTRUMENTATION

1. Pressure Gauges
2. Draft Pressure Gauges

3. Differential Pressure Gauges
4. Orifices Plates and Flanges
5. RTD, Temperature Gauges & Thermo-wells (Bimatellic, Filled System)
6. Temperature Elements & Thermo-wells
7. Copper Tubes (Bare, Coated)
8. SS Tubes
9. Instrument Tubing
10. Instrument Valves and Manifolds
11. Junction Boxes and Cable Glands
12. Signal Cable
13. Thermocouple Extension Cables
14. Tank Level Inst. (Float Operated)
15. Gauge Glass Cocks
16. Tube Fittings (SS & Brass)
17. Magnetic Level Gauges
18. Optical Fiber Cables and associated items
19. Pressure Relief Valves (Thermal Relief)
20. Variable Area Flowmeter (Indicator)
21. Rupture disc
22. Solenoid Valves
23. Displacer Level Instrument

स्वदेशी सामग्रियों के लिए पैकिंग, मार्किंग, शिपिंग और दस्तावेज विनिर्देश

PACKING, MARKING, SHIPPING AND DOCUMENTATION SPECIFICATIONS FOR INDIGENOUS MATERIALS

Rev. No	Date	Purpose	Prepared by	Reviewed by	Approved by
1	10-09-2018	ISSUED FOR COMPLIANCE	DDC	DRC	ED (SCM)
0	05-12-2012	ISSUED FOR COMPLIANCE	DDC	DRC	GM (I)

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Abbreviations:

CM	-	Centimeters
EIL	-	Engineers India Limited
E-way bill	-	Electronic Way Bill
Kg	-	Kilograms
FTL	-	Full Truck / Trailer Load
KGS	-	Kilograms
L.R.	-	Lorry Receipt / Goods Receipt
mm	-	Millimetre
MT	-	Metric Ton
NO. / NOS.	-	Number / Numbers
P.O.	-	Purchase Order
RCM	-	Resident Construction Manager

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1. GENERAL

1.1 Purpose

This specification details the minimum requirements for the preservation, packing, marking, shipping and documentation of Products, materials and equipment as specified in the respective Purchase Orders or Contracts. This specification forms an integral part of the Purchase Order or Contract issued. However, whenever specific instructions are detailed in the Purchase Order and are in conflict with this specification, particular instructions mentioned in the individual Purchase Order or Contract shall prevail over this general specification.

1.2 Requirements and Conditions

The following requirements are intended as minimum requirements, and compliance to these requirements in no way absolves or relieves Supplier of any responsibility or obligation outlined in the Purchase Order. Equivalent or better packing methods may be deployed wherever supplier's own packing standards are more stringent to the requirements mentioned herein. Supplier shall submit the packing procedure or its equivalent for purchaser's approval during detailed engineering.

In all circumstances, the packing will be designed and constructed in order to support materials during transportation as well as to prevent the materials from damage due to impact, extreme climatic conditions, sun and rain. It must be ensured that the materials and equipments are delivered to the job site by sea, road or air, in good condition.

The Supplier shall, at its own cost, ensure items to be transported are carefully packed and protected in accordance with best practice, having due regard to the climatic conditions encountered during the passage, method of carriage and handling / loading / unloading processes. In addition to any of the measures detailed within this Specification, the Supplier shall apply any other measures that, in its experience, are required to safeguard the particular item. The Supplier shall obtain the approval of EIL / Owner for any variation to the packing, marking and shipping requirements outlined in this Specification.

1.3 Responsibility and liability

Supplier shall be held responsible for any damages and / or losses of all and any kind that may occur by not respecting these specifications. Owner / EIL reserves the right to reject any packing when the packing does not conform to these specifications / instructions and / or when the packing does not ensure perfect protection of the goods and materials. Supplier is responsible for the weights and dimensions declared and the marking of the packages. Supplier will be held responsible in the event goods and materials becoming useless, broken or damaged as a result of poor packing and / or stowing or due to corrosion because of insufficient or inadequate protection. All direct and indirect costs resulting thereof will be back charged to Supplier.

2. CLEANING AND PRESERVATION

2.1 Cleaning

All equipment, materials and parts shall be thoroughly cleaned inside and outside and shall be free from grease, oil, weld spatter, rust and all other foreign matter prior to preservation.

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2.2 Preservation

Articles may be exposed to severe environmental or climatic conditions, moisture and dust. All materials and equipment shall be packaged suitable to prevent damage and deterioration during transportation and storage. Where damage occurs due to inadequate packaging of items, the liability for costs associated with rectification of the damage will be to the Supplier's account. All metals subject to corrosion shall be treated with a corrosion preservative suitable for the purpose intended. Products susceptible to corrosion must be packaged in a dry non-corrosive environment for the duration of shipment and storage, for a minimum of 1 year. All bright and machined parts shall be coated with a recognized rust preventative suited to the particular application concerned. All internal parts of machinery shall be treated with lubricant containing rust and oxidation inhibitors to protect equipment from any possible damage. Such lubricants shall be compatible with those which will subsequently be used in service and shall be identified by appropriate tagging. Electrical equipment and instrumentation shall be packed with a suitable desiccant. Delicate equipment such as instruments, electrical switchboards and panels etc. shall be packed for protection to eliminate the effects of vibration.

Wherever necessary, desiccant packs shall be kept to avoid excessive moisture in the packing.

3. PACKING

3.1 General

The instructions herein shall be considered as general directives and minimal requirements, which are applicable to the packing of all equipment and materials. The Supplier is responsible for the correct and adequate packing of the equipment and materials so that these equipment and materials will arrive at destination undamaged and the packing itself in such a condition that, if not otherwise required, it will be suitable for a minimum of 1 year storage.

3.2 Packaging Materials

All packaging together with packaging and protective materials shall be new, maintain its integrity and perform its intended function while being transported, handled and stored.

The quality of packing shall provide maximum protection against damage, breakage and pilferage during transport, storage and multiple handling, including handling by hoisting, lifting devices and / or forklift trucks. Material used for packaging, packing, wrapping, sealers, moisture resistant barriers and corrosion preservatives shall be of recognized brands and grades and shall conform to the best world standards.

Packaged Products showing any damage, defect or shortage resulting from improper packaging, packaging materials or packing procedure or having concealed damage or being short at the time of unpacking shall be subject to rejection and be replaced at the Supplier's cost

3.3 Packing requirements

3.3.1 Wooden Boxes and Crates

Interior support board shall be of strength to withstand multiple handling. Tops of crates shall be one piece wherever possible to avoid seepage through cracks; otherwise a top coating is required. Waterproof lining shall be used for sides, ends and top of crates, proper venting of cargo boxes containing machinery is required, as well as sufficient use

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of desiccants. Crates shall be diagonally braced on all faces and suitable for hooks, slings and forklifts. Heavy items shall be secured with wood braces. Fragile items shall be cushioned. Material packed in large boxes shall be layered between plywood sheets to maintain load integrity during transit. Banding shall be used on all boxes to prevent distortion / deformation of the box.

3.3.2 Pallets

When equipment and/or materials are packed on pallets (wood or synthetic), these should be solid double deck pallets that provide adequate load support during transportation and storage (under not always ideal conditions). The pallets should have a dynamic load capacity, enough to carry the mass loaded on the pallet. Where feasible, the top surface of the pallet must be flat. The pallet design must enable safe handling by forklift, cranes etc. and storage on rough surface. Pallets shall be covered with wrapping. All corners, horizontal and vertical shall be protected with cardboard protection strips. The pallet must be tide on all sides with steel or synthetic straps.

3.4 Packaging

All equipment and materials shall be properly fixed (by bolts, clamps, supporting beams, etc.) in such a way that internal movements and / or loosening is impossible. Under the top cover (roof) depending on the case and crate length, a. sufficient number of strong beams shall be placed and properly fixed in order to allow stacking of the cases and crates avoiding any compression. Equipment parts and materials which may be subject to damage by vibration and /or shock must be protected using shock-absorbing material. All equipment and materials which may be damaged by moisture shall be packed in airtight bags in which sufficient desiccant material (e.g. silica gel) is placed. All openings on the equipment must be closed with wooden / metal or plastic covers to prevent damage to the openings and interiors. Fragile and loose parts easily damageable pertaining to the equipment must be securely and properly packed in a separate case.

3.5 Waterproofing

Cases including the cover shall be internally lined with a strong type of waterproof paper or plastic foil. Equipment and materials shall always be packed in a foil (polyethylene or aluminum) for extra (double) protection against rainfall. Those foils shall be applied in such a way that they are self draining.

3.6 Hazardous cargo

The hazardous materials shall be packed in accordance with and in cognizance to the applicable rules, regulations and tariff of all Governmental Authorities and other Governing bodies. Hazardous materials shall always be packed and documented separately from any other material. It shall be the responsibility of the seller of hazardous materials to designate the materials as hazardous and to identify each material by its proper commodity name and its hazardous materials class code. Safety and emergency procedures shall be displayed outside the package. Any certificates required for transportation or for authorities to be supplied before shipment of the goods

4. GUIDELINES FOR PACKING GOODS

In subsequent paragraphs details of different types of packing for different types of goods are defined. Supplier shall make packing details / procedure based on the guidelines and submit for approval.

Chemicals in powder form, catalysts, refractories & like materials etc. shall be packed in drums only.

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4.1 Pipe

All pipes 2" included and below shall be packed in crates. All pipes to be capped and ends sealed with waterproof tape. Pipes over 2" up to 6", shall be bundled and banded in bundles of uniform length. Bundling is carried out with U-IRON or traversal planks, joined with threaded connecting rods with locknuts.. Bundle weight shall not exceed 2,000 kg. All pipes are to be capped and ends sealed with waterproof tape (tape is not necessary if end caps are of the pre-shrunk or self-sealing type).Pipes larger than 6" shall be shipped as single lengths with the ends capped. End caps are to be of the recessed type to enable the use of soft faced hooks, but still completely sealing the end and also protecting the weld. All stainless steel / non-ferrous piping must be packed separately in wooden crates. Any banding of bundles is to be with the same material. The bundling and packing of pipe and instrument tubing shall enable the safe discharge of pipe on site using clamps and forklifts. All pipes shall be supported along their lengths to prevent bending / flexing during transport. During loading / unloading slings shall be applied to the center of the load as well as each end to prevent bowing.

Pipe and rigid conduit smaller than DN50 diameter shall be bundled in units not to exceed 1000 kg. Threaded and coupled pipe shall be equipped with plastic thread protectors. All material shall be segregated and shipped by generic material type to prevent cross contamination. Where wire rope or chains are used, adequate padding shall be used at points of contact with pipe. Care must be taken to prevent any chafing of pipes against each other or against the metal structures of the vehicle during transportation. Where necessary, such metal structures must be padded with planks or plastic tubes. Skids and dunnage must be used between the bundles in transit as well as in the storage of coated pipes.

4.2 Pipe Fittings, Flanges, Valves and Gaskets

All pipe fittings, flanges and valves up to 6", are to be packed in cases / crates. For items over 6", these may be fixed securely to a pallet base and enclosed in a crate, for protection. All flange faces / bevel ends shall be suitable protected with plastic caps / end protectors. Where valves have actuators attached, rigidity must be ensured for the valve and actuator. The vulnerable parts of the actuator are to be completely protected within a wooden crate. Empty spaces shall be filled with expanded PU foam to restrict movement in the crate. All stainless steel fittings, flanges and valves of all sizes, must be packed separately in wooden crates. Any strapping is to be with the same material. Gaskets are considered fragile and shall be treated as such. Individual gasket sizes shall be boxed and labeled separately.

All threaded fittings and pipes should be greased and provided with plastic caps.

4.3 Steel Structure and Plates

Structural steel sections and plates shall be strapped in bundles of convenient size and weight for handling. Rolled and shaped plates shall be provided with suitable bracing to eliminate distortion during transit, and shall be bundled in uniform lengths. Each bundle shall be marked with a metal tag, hard stamped, secured under steel wrapping. A 2000 kg limitation shall be imposed for lifts in this category unless exempted.

4.4 Itemized Equipment

Units or parts belonging to main equipment but separately packed shall be clearly marked for easy identification with the main equipment to which they relate.

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All flanges, machined working surfaces and threaded parts of all equipment shall be suitably protected. All flanged connections of vessels shall be protected by metal plates correctly casketed by wooden plugs or plastic caps suitably secured in position.

Vessels shall, where possible, be packed on skid constructions and secured with adjustable steel straps. Manholes and other major openings shall be protected with cover flanges or metallic plates firmly secured. Smaller openings shall be closed with plastic plugs / caps.

All vessel internals and items not installed by Supplier at works including accessories such as small parts, bolts, nuts, gaskets, etc. shall be packed in wooden cases separately for each vessel or apparatus and marked with the same item number as the vessel / apparatus in order to protect all parts from loss or damage in transit. Internals, bolts and gaskets for service / testing operations shall be supplied with the vessels / items by Supplier and all internals shall be boxed separately and marked according to marking procedure; each item shall be supplied correctly and identified for field installation by others.

All vessels / heat exchangers or items of such construction shall be dried, thoroughly cleaned inside and be free of all dirt and loose foreign materials. The equipment shall be filled with Nitrogen. Make up arrangement for loss of Nitrogen along with a pressure gauge shall be installed.

All commissioning spare parts shall be packed separately and marked with the relevant main item number.

Pumps, compressors, rotating equipment, turbines and motors will require specific packing and preservation as per the relevant Technical Specification. For skidded equipment openings, flange faces, threaded connections, wires, valve stems, and other component parts that may be subjected to mechanical damage or corrosion shall be adequately protected. This protection shall be applied to all components, both those removed and boxed and those remaining in place on the skid assembly. Each skid shall have one box strapped to it containing a complete set of drawings together with a manual covering installation and operating instructions and other pertinent instructions required for reassembly of components that were disassembled for shipment.

4.5 Control Panels and Electrical Devices

Equipment such as control panels, instruments and electrical devices shall be packed in an interior moisture / vapor-proof barrier with silica gel or comparable desiccant. Desiccants shall be bagged to avoid dispersing in containers. The quantity of desiccant shall be calculated in accordance with the manufacturer's recommendations. Equipment must be secured to the case with bolts, blocks or straps. Adequate precautions (for example, shaft locks to prevent longitudinal / rotational movement of rotor shafts in motors) shall be included in the packaging of all equipment which has plain, ball or roller bearings so as to minimize the risk of bearing damage.

4.6 Instruments

Instruments shall be thoroughly clean, dry and free from rust and individually wrapped using polythene sheets / U foam / Thermocol sheets depending upon the items and then packed in wooden boxes. The left out spaces and top of the boxes should be filled with rubberized coir to get proper cushioning effect. Special attention shall be paid for arresting movements of their operating mechanism during transportation. Silica gel or

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other approved desiccant shall be strapped inside but shall not come into contact with the paintwork.

4.7 Cables

All electric cables to be packed in new cable drums made of steel and painted with epoxy resin paint. Cable ends to be carefully protected before packing. Polythene sheet should be wrapped over the cables and sealed properly. Cable drum can be put in wooden crates for ease in handling and transportation.

4.8 Saddles, Supports, Spiders and Lifting Equipment

All items which cannot be transported without independent supports must be supplied with Shipping saddles suitable for land and / or ocean transit. Such transport saddles are to be included within the scope of supply. Supplier is to advise of any requirement for lifting beams or other specialized lifting equipment and will include provision for use of such equipment for loading purposes. The Supplier is responsible for ensuring that all modules and oversize items are adequately braced and where required, plastic wrapped suitable for transport. Modules and oversize items shall be packaged to prevent damage during transport.

4.9 Assortment Of Package / Spare Parts for Erection and Commissioning

Equipment and / or parts of different item numbers shall not be packed together in the same package. Small goods such as accessories, spare parts for erection and commissioning and special tools shall be packed separately in respective inner boxes with tags or labels attached there being clearly indicating their contents. In case such accessories, spare parts and special tools are packed in separate boxes / crates, item no. of main equipment shall be clearly mentioned in Main Shipping Mark for easy identification.

5. MARKING

5.1 General

The purpose of the marking is to identify the packages and detail the weight and dimensions to assure efficient and correct handling during transport and upon arrival at destination.

5.2 Marking Instructions & dispatch details

Packages and crates will be marked with indelible black paint. Marking must be perfectly legible. All packages shall be clearly and properly marked in English language if not otherwise specified.

The shipping marks, which will be shall be stenciled on two sides and one end in clear characters at least 5 centimeters high (where crate size permits, otherwise use optimum size for each package dimension).

The texts shall be printed by means of stamps, stencil-plates or electronically. The use of stickers is not allowed, unless securely covered by plastic. Bundles shall be marked by embossing on two metal tags bearing the shipping marks and placed on each side of the package and securely attaching them to the goods. Paint shall be used on metal surfaces.

Labels or tags to be clearly visible and shall be of a quality to remain visible and attached during transit, handling and storage for a minimum period of 12 Months.

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Crates containing fragile articles must be packed with special precaution against risk of breakage and must be stenciled on all sides "FRAGILE - HANDLE WITH CARE". Where crates are not to be overturned, Supplier must show on the crates, clear and readily visible identification, to ensure they are kept in the correct position.

Packages / equipment of 2,000 kg or more must be marked with slinging points on all sides, in addition to the centre of gravity marks.

Number packages consecutively i.e. 1 of 10, 2 of 10, etc. Do not duplicate package numbers. SUPPLIER is responsible for any loss or damage caused by incorrect marking.

All cases/crates shall also be marked with the appropriate international standard graphic symbols for handling.

As a minimum, all cases/crates are to be marked clearly on all four sides with:

"HANDLE WITH CARE" "RIGHT SIDE UP" "KEEP DRY"

In the case of packages with a single gross weight totaling 2,000 kg and / or a height of more than 1m, the centre of gravity shall be clearly marked with the symbol on two adjoining sides. For all items of equipment with an eccentric centre of gravity this symbol shall be marked at the bottom, side and top of the package.

The slinging and lashing points shall be marked with a chain symbol.

When packing in cases / crates, these packages shall also have metal corners at the slinging points.

External front and rear sides of the boxes shall be planed for writing instructions. To facilitate identification, the required colour coding as per the specifications shall be carried out on each package and on corners of pipes & plates.

In case of bundles or other packages wherever marking cannot be stenciled, the same shall be embossed on metal or similar tag and wired securely at minimum two convenient points and both ends shall be protected / covered with gunny bags upto 18" (Eighteen Inches). In case of loose pipes, sticker of above markings should be pasted on inner wall corner of each pipe on both sides

Dispatch details such as consignor / consignee address, contract and case details, stacking instructions shall be written on one side of the boxes. One copy of packing slip wrapped in polyethylene bag covered with aluminum packing slip holder to be nailed on the external surface of the box. A packing list and preservation instructions shall be enclosed in a clear weatherproof plastic re-sealable envelope stapled to the box such that the receiver may determine contents without opening the container. An additional packing list is to be enclosed in a clear waterproof plastic re-sealable envelope stapled inside the container. Stapling of the envelopes shall not prevent removal of the documents.

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5.3 Shipping Marks

Each package shall be marked on three sides with proper paints / indelible waterproof ink as follows:

(OWNER)



(DESTINATION)

PURCHASE ORDER NO. ----------

NET WEIGHT ---------- KGS. GROSS WEIGHT ---------- KGS.

DIMENSIONS ---------- X ---------- X ---------- CMS

PACKAGE NOS. (SL. NO. OF PACKAGE) OF (TOTAL NO. OF PACKAGES)

TAG / ITEM NO. ----------

SUPLLIER'S NAME----------

The details of the Owner / Project are defined specifically in the Purchase Order / Contract.

5.4 Storage Code

The type of storage required is required to be specified, it will be shown on each packaging in RED colour

X	Crates or packages to be stored outdoor without covers
XX	Crates or packages to be stored under tarpaulin
XXX	Crates or packages to be stored in covered or enclosed premises
XXXX	Crates or packages which must be stored in air-conditioned premises

6. SHIPMENT

Dispatch of material shall be made in accordance with the relevant terms of Purchase Order. Name of the owner, Project, location and other relevant information shall be as per the relevant annexure(s) to the Purchase Order / Contract.

Any change in mode of transport shall be resorted to only after prior approval in writing. Supplier shall ensure dispatch of equipment / materials immediately after they are

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inspected and released. All consignments should be booked in the name of 'owner' and not under 'self' basis.

6.1 Dispatch By Road:

a) The Materials shall be dispatched on Door-Delivery basis (smalls or FTL) through a registered transporter.

However, in case, the transporter is nominated by EIL / Owner, the goods shall be dispatched through the same only.

b) The supplier shall ensure with Transport Company the delivery of materials within a reasonable transit period. A complete set of dispatch documents (Delivery Challan / Invoice / Packing List / Test Certificate / L.R. / E-way Bill number etc.) shall be sent to Head (Shipping) at EIL New Delhi and the Resident Construction Manager (RCM) at site.

6.2 Shipment By Air:

Whenever supplier is instructed by EIL/ Owner to airfreight any material, the supplier shall take prompt action for the same. Immediately after air-shipment is effected, the vendor shall intimate by e-mail, the details of Airway Bill number and date, the flight No., Number of packages etc. to Head-Shipping, EIL New Delhi and Resident Construction Manager at EIL (Site).

6.3 Destination:

The consignments should be dispatched to the Consignee / Address as detailed in the Purchase Order.

6.4 Advance Information:

Immediately after a shipment is made supplier shall intimate Underwriter, Head (Shipping) and RCM vide mail regarding particulars of materials, value, Purchase Order No., date of dispatch, L.R. number, E-way Bill No., truck no., name of Transport Company.

6.5 Transmission of Dispatch Documents :

Supplier shall, within 48 hrs. of the dispatch of the materials depending upon the payment terms of the Purchase Order, either negotiate through Owner's / EIL's Bankers or forward directly, by Courier the complete set of dispatch Documents (as detailed in Purchase Order) to Owner / EIL. The supplier shall be responsible for any delay in clearance of the consignment at destination and consequent wharfage / demurrage, if any, due to delay in transmittal of the required documents.

7. TRANSIT RISK INSURANCE

All equipments / materials will be insured for transit risk by (Owners) unless otherwise specified. The insurance cover will be provided from warehouse-to-warehouse.

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OISD - GDN - 192
July, 2000

FOR RESTRICTED CIRCULATION

SAFETY PRACTICES DURING CONSTRUCTION

OISD-GDN-192

Oil Industry Safety Directorate

Government of India
Ministry of Petroleum & Natural Gas
8th Floor, OIDB Bhavan, Plot No. 2, Sector – 73, Noida – 201301 (U.P.)

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OISD - GDN - 192
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Prepared by

COMMITTEE ON
SAFETY PRACTICES DURING CONSTRUCTION

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Preamble

Indian petroleum industry is the energy lifeline of the nation and its continuous performance is essential for sovereignty and prosperity of the country. As the industry essentially deals with inherently inflammable substances throughout its value chain – upstream, midstream and downstream – Safety is of paramount importance to this industry as only safe performance at all times can ensure optimum ROI of these national assets and resources including sustainability.

While statutory organizations were in place all along to oversee safety aspects of Indian petroleum industry, Oil Industry Safety Directorate (OISD) was set up in 1986 Ministry of Petroleum and Natural Gas, Government of India as a knowledge centre for formulation of constantly updated world-scale standards for design, layout and operation of various equipment, facility and activities involved in this industry. Moreover, OISD was also given responsibility of monitoring implementation status of these standards through safety audits.

In more than 25 years of its existence, OISD has developed a rigorous, multi-layer, iterative and participative process of development of standards – starting with research by in-house experts and iterating through seeking & validating inputs from all stake-holders – operators, designers, national level knowledge authorities and public at large – with a feedback loop of constant updation based on ground level experience obtained through audits, incident analysis and environment scanning.

The participative process followed in standard formulation has resulted in excellent level of compliance by the industry culminating in a safer environment in the industry. OISD – except in the Upstream Petroleum Sector – is still a regulatory (and not a statutory) body but that has not affected implementation of the OISD standards. It also goes to prove the old adage that self-regulation is the best regulation. The quality and relevance of OISD standards had been further endorsed by their adoption in various statutory rules of the land.

Petroleum industry in India is significantly globalized at present in terms of technology content requiring its operation to keep pace with the relevant world scale standards & practices. This matches the OISD philosophy of continuous improvement keeping pace with the global developments in its target environment. To this end, OISD keeps track of changes through participation as member in large number of International and national level Knowledge Organizations – both in the field of standard development and implementation & monitoring in addition to updation of internal knowledge base through continuous research and application surveillance, thereby ensuring that this OISD Standard, along with all other extant ones, remains relevant, updated and effective on a real time basis in the applicable areas.

Together we strive to achieve NIL incidents in the entire Hydrocarbon Value Chain. This, besides other issues, calls for total engagement from all levels of the stake holder organizations, which we, at OISD, fervently look forward to.

Jai Hind!!!

Executive Director
Oil Industry Safety Directorate

FOREWORD

The Oil Industry in India is nearly 100 years old. Due to various collaboration agreements a variety of international codes, standards and practices are in vogue. Standardisation in design philosophies, operating and maintenance practices at a national level was hardly in existence. This lack of uniformity coupled with feedback from some serious accidents that occurred in the recent past in India and abroad, emphasised the need for the industry to review the existing state of art in designing, operating and maintaining oil and gas installations.

With this in view, the Ministry of Petroleum and Natural Gas in 1986 constituted a Safety Council assisted by the Oil Industry Safety Directorate (OISD) staffed from within the industry in formulating and implementing a series of self-regulatory measures aimed at removing obsolescence, standardising and upgrading the existing standards to ensure safer operations. Accordingly OISD constituted a number of functional committees comprising of experts nominated from the industry to draw up standards and guidelines on various subjects.

The present document on "Safety Practices during Construction" was prepared by the Functional Committee on "Safety Practices during Construction". This document is based on the accumulated knowledge and experience of industry members and the various national and international codes and practices.

It is hoped that provisions of this document if implemented objectively, may go a long way to improve the safety to reduce accidents in Oil and Gas Industry. Users are cautioned that no document can be substitute for the judgment of responsible and experienced engineer.

Suggestions are invited from the users after it is put into practice to improve the document further. Suggestions for amendments, if any, to this standard should be addressed to:

The Co-ordinator
Committee on "Safety Practices during Construction"

Oil Industry Safety Directorate

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Ministry of Petroleum & Natural Gas
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This document in no way supersedes the statutory regulations of Chief Controller of Explosives (CCE), Factory Inspectorate or any other statutory body, which must be followed as applicable.

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Though every effort has been made to assure the accuracy and reliability of the data contained in these documents. OISD hereby expressly disclaims any liability or responsibility for loss or damage resulting from their use.

These documents are intended to supplement rather than replace the prevailing statutory requirements.

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SAFETY PRACTICES DURING CONSTRUCTION

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SAFETY PRACTICES DURING CONSTRUCTION

1.0 INTRODUCTION

Safety in Construction Management deserves utmost attention especially in the hydrocarbon industry, such as Exploration, Refineries, Pipelines and Marketing installations, Gas Processing units etc. Construction is widely recognised as one of the accident prone activities. Most of the accidents are caused by inadequate planning, failure during the construction process and/or because of design deficiencies. Besides property loss, accidents also result in injuries and fatalities to the personnel; same needs to be prevented.

The reasons for accidents during construction activities are related to unique nature of the industry, human behaviour, difficult work-site conditions, extended odd duty hours, lack of training & awareness and inadequate safety management. Unsafe working methods, equipment failure and improper housekeeping also tend to increase the accident rate in construction.

Ensuring good quality of materials, equipment and competent supervision along with compliance of standard engineering practices shall go a long way to in built safety into the system.

The objective of this standard is to provide practical guidance on technical and educational framework for safety and health in construction with a view to:

(a) prevent accidents and harmful effects on the health of workers arising from employment in construction;
(b) ensure appropriate safety during implementation of construction;
(c) provide safety practice guidelines for appropriate measures of planning, control and enforcement.

2.0 SCOPE

This document specifies broad guidelines on safe practices to be adhered to during construction activities in oil industry. However, before commencing any job, specific hazards and its effects should be assessed and necessary corrective/preventive actions should be taken by all concerned. The document is intended only to supplement and not to replace or supersede the prevailing statutory requirements, which shall also be followed as applicable. For Personal Protective Equipment, OISD-STD-155 (Part I&II) shall be referred to. The scope of this document does not include the design aspects and quality checks during construction.

3.0 DEFINITIONS

Definitions of various terminology are given below:

- *Adequate, appropriate or suitable* are used to describe qualitatively or quantitatively the means or method used to protect the worker.

- *Brace:* A structural member that holds one point in a fixed position with respect to another point; bracing is a system of structural members designed to prevent distortion of a structure.

- *By hand:* The work is done without the help of a mechanised tool.

- *Competent Authority:* A stautory agency having the power to issue regulations, orders or other instructions having the force of law.

- *Competent person:* A person possessing adequate qualifications, such as suitable training and sufficient knowledge, experience and skill for the safe performance of the specific work. The competent authorities may define appropriate criteria for the designation of such persons and may determine the duties to be assigned to them.

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- *Execution agency:*

  Any physical or legal person, having contractual obligation with the owner, and who employs one or more workers on a construction site

- *Owner:*

  Any physical or legal person for whom construction job is carried out.

  It shall also include owner's designated representative/consultant/nominee/agent, authorised from time to time to act for and on its behalf, for supervising/ coordinating the activities of the execution agency.

- *Hazard:* Danger or potential danger.

- *Guard-rail:* An adequately secured rail erected along an exposed edge to prevent persons from falling.

- *Hoist:* A machine, which lifts materials or persons by means of a platform, which runs on guides.

- *Lifting gear:* Any gear or tackle by means of which a load can be attached to a lifting appliance but which does not form an integral part of the appliance or load.

- *Lifting appliance:* Any stationary or mobile appliance used for raising or lowering persons or loads.

- *Means of access or egress:* Passageways, corridors, stairs, platforms, ladders and any other means for entering or leaving the workplace or for escaping in case of danger.

- *Scaffold:* Any fixed, suspended or mobile temporary structure supporting workers and material or to gain access to any such structure and which is not a lifting appliance as defined above.

- *Toe-board:* A barrier placed along the edge of a scaffold platform, runway, etc., and secured there to guard against the slipping of persons or the falling of material.

- *Worker:* Any person engaged in construction activity.

- *Workplace:* All places where workers need to be or to go by reason of their work.

4.0 GENERAL DUTIES

4.1 GENERAL DUTIES OF EXECUTION AGENCIES

4.1.1 Execution agency should:

i) provide means and organisation to comply with the safety and health measures required at the workplace.

ii) provide and maintain workplaces, plant, equipment, tools and machinery and organise construction work so that, there is no risk of accident or injury to health of workers. In particular, construction work should be planned, prepared and undertaken so that:

(a) dangers, liable to arise at the workplace, are prevented;
(b) excessively or unnecessarily strenuous work positions and movements are avoided;
(c) organisation of work takes into account the safety and health of workers;
(d) materials and products used are suitable from a safety and health point of view;
(e) working methods are adopted to safeguard workers against the harmful effects of chemical, physical and biological agents.

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iii) establish committees with representatives of workers and management or make other arrangement for the participation of workers in ensuring safe working conditions.

iv) arrange for periodic safety inspections by competent persons of all buildings, plant, equipment, tools, machinery, workplaces and review of systems of work, regulations, standards or codes of practice. The competent person should examine and ascertain the safety of construction machinery and equipment.

v) provide such supervision to ensure that workers perform their work with due regard to safety and health of theirs as well as that of others.

vi) Employ only those workers who are qualified, trained and suited by their age, physique, state of health and skill.

vii) satisfy themselves that all workers are informed and instructed in the hazards connected with their work and environment and trained in the precautions necessary to avoid accidents and injury to health.

viii) Ensure that buildings, plant, equipment, tools, machinery or workplaces in which a dangerous defect has been found should not be used until the defect has been rectified.

ix) Organise for and remain always prepared to take immediate steps to stop the operation and evacuate workers as appropriate, where there is an imminent danger to the safety of workers.

x) establish a checking system by which it can be ascertained that all the members of a shift, including operators of mobile equipment, have returned to the camp or base at the close of work on dispersed sites and where small groups of workers operate in isolation.

xi) provide appropriate first aid, training and welfare facilities to workers as per various statutes like the Factories Act, 1948 etc. and, whenever collective measures are not feasible or are insufficient, provide and maintain personal protective equipment and clothing in line with the requirement as per OISD-STD-155 (Vol. I& II) on Personnel Protective Equipment. They should also provide access to workers to occupational health services.

xii) Educate workers about their right and the duty at any workplace to participate in ensuring safe working conditions to the extent of their control over the equipment and methods of work and to express views on working procedures adopted as may affect safety and health.

xiii) Ensure that except in an emergency, workers, unless duly authorised, should not interfere with, remove, alter or displace any safety device or other appliance furnished for their protection or the protection of others, or interfere with any method or process adopted with a view to avoiding accidents and injury to health.

xiv) Ensure that workers do not operate or interfere with plant and equipment that they have not been duly authorised to operate, maintain or use.

xv) Ensure that workers do not sleep, rest or cook etc in dangerous places such as scaffolds, railway tracks, garages, confined spaces or in the vicinity of fires, dangerous or toxic substances, running machines or vehicles and heavy equipment etc.

xvii) Obtain the necessary clearance/permits as required and specified by owner

xviii) As per the Govt. circular as amended from time to time all contractors who employ more than 50 workers or where the contract value exceeds Rs. 50 crores, the following facilities are to be provided by contractor at site :

- Arrangement for drinking water
- Toilet facilities
- A creche where 10 or more women workers are having children below the age of 6 years
- Transport arrangement for attending to emergencies

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xix) should deploy a safety officer at site

4.2 GENERAL DUTIES OF OWNERS

4.2.1 Owners should:

i) co-ordinate or nominate a competent person to co-ordinate all activities relating to safety and health on their construction projects;
ii) inform all contractors on the project of special risks to health and safety;
iii) Ensure that executing agency is aware of the owner's requirements and the executing agency's responsibilities with respect to safetry practices before starting the job.

5.0 SAFETY PRACTICES AT WORK PLACES

5.1. GENERAL PROVISIONS

5.1.1 All openings and other areas likely to pose danger to workers should be clearly indicated.

5.1.2 Workers & Supervisors should use the safety helmet and other requisite Personal Protective Equipment according to job & site requirement. They should be trained to use personal protective equipment.

5.1.3 Never use solvents, alkalis and other oils to clean the skin.

5.1.4 Lift the load with back straight and knees bent as far as possible. Seek the help in case of heavy load.

5.1.5 Ensure the usage of correct and tested tools and tackles. Don't allow the make shift tools and tackles.

5.1.6 No loose clothing should be allowed while working near rotating equipment or working at heights.

5.2 MEANS OF ACCESS AND EGRESS

Adequate and safe means of access (atleast two, differently located) to and egress from all workplaces should be provided. Same should be displayed and maintained.

5.3 HOUSEKEEPING

5.3.1 Ensure:

i) proper storage of materials and equipment;
ii) removal of scrap, inflammable material, waste and debris at appropriate intervals.

5.3.2 Removal of loose materials, which are not required for use, to be ensured. Accumulation of these at the site can obstruct means of access to and egress from workplaces and passageways.

5.3.3 Workplaces and passageways, that are slippery owing to oil, grease or other causes, should be cleaned up or strewn with sand, sawdust, ash etc.

5.4 PRECAUTIONS AGAINST THE FALL OF MATERIALS & PERSONS AND COLLAPSE OF STRUCTURES

5.4.1 Precautions should be taken such as the provision of fencing, look-out men or barriers to protect any person against injury by the fall of materials, or tools or equipment being raised or lowered.

5.4.2 Where necessary to prevent danger, guys, stays or supports should be used or other effective precautions should be taken to prevent the collapse of structures or parts of structures that are being erected, maintained, repaired, dismantled or demolished.

5.4.3 All openings through which workers are liable to fall should be kept effectively covered or fenced and displayed prominently.

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5.4.4 As far as practicable, guardrails and toe-boards should be provided to protect workers from falling from elevated workplaces.

5.5 PREVENTION OF UNAUTHORISED ENTRY

5.5.1 Construction sites located in built-up areas and alongside vehicular and pedestrian traffic routes should be fenced to prevent the entry of unauthorised persons.

5.5.2 Visitors should not be allowed access to construction sites unless accompanied by or authorised by a competent person and provided with the appropriate protective equipment.

5.6 FIRE PREVENTION AND FIRE FIGHTING

5.6.1 All necessary measures should be taken by the executing agency and owner to:

i) avoid the risk of fire;
ii) control quickly and efficiently any outbreak of fire;
iii) bring out a quick and safe evacuation of persons.
iv) Inform unit/fire station control room, where construction work is carried out within existing operating area.

5.6.2 Combustible materials such us packing materials, sawdust, greasy/oily waste and scrap wood or plastics should not be allowed to accumulate in workplaces but should be kept in closed metal containers in a safe place.

5.6.3 Places where workers are employed should, if necessary to prevent the danger of fire, be provided with:

i) suitable and sufficient fire-extinguishing equipment, which should be easily visible and accessible;
ii) an adequate water supply at sufficient pressure meeting the requirements of various OISD standards.

5.6.4 To guard against danger at places having combustible material, workers should be trained in the action to be taken in the event of fire, including the use of means of escape.

5.6.5 At sites having combustible material, suitable visual signs should be provided to indicate clearly the direction of escape in case of fire.

5.6.6 Means of escape should be kept clear at all times. Escape routes should be frequently inspected particularly in high structures and where access is restricted.

5.7 LIGHTING

5.7.1 Where natural lighting is not adequate, working light fittings or portable hand-lamps should be provided at workplace on the construction site where a worker will do a job.

5.7.2 Emergency lighting should be provided for personnel safety during night time to facilitate standby lighting source, if normal system fails.

5.7.2 Artificial lighting should not produce glare or disturbing shadows.

5.7.3 Lamps should be protected by guards against accidental breakage.

5.7.4 The cables of portable electrical lighting equipment should be of adequate size & characteristics for the power requirements and of adequate mechanical strength to withstand severe conditions in construction operations.

5.8 PLANT, MACHINERY, EQUIPMENT AND HAND TOOLS

5.8.1 General Provisions

i) Plant, machinery and equipment including hand tools, both manual and power driven, should:

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a) be of proper design and construction, taking into account health, Safety and ergonomic principles.
b) be maintained in good working order;
c) be used only for work for which they have been designed.
d) be operated only by workers who have been authorised and given appropriate training.
e) be provided with protective guards, shields or other devices as required.

ii) Adequate instructions for safe use should be provided.

iii) Safe operating procedures should be established and used for all plant, machinery and equipment.

iv) Operators of plant, machinery and equipment should not be distracted while work is in progress.

v) Plant, machinery and equipment should be switched off when not in use and isolated before any adjustment, clearing or maintenance is done.

vi) Where trailing cables or hose pipes are used they should be kept as short as practicable and not allowed to create a hazard.

vii) All moving parts of machinery and equipment should be enclosed or adequately guarded.

viii) Every power-driven machine and equipment should be provided with adequate means, immediately accessible and readily identifiable to the operator, of stopping it quickly and preventing it from being started again inadvertently.

ix) Operators of plant, machinery, equipment and tools should be provided with PPEs, including where necessary, suitable ear protection.

5.8.2 Hand tools

i) Hand tools should be repaired by competent persons.

ii) Heads of hammers and other shock tools should be dressed or ground to a suitable radius on the edge as soon as they begin to mushroom or crack.

iii) When not in use and while being carried or transported sharp tools should be kept in sheaths, shields, chests or other suitable containers.

iv) Only insulated or nonconducting tools should be used on or near live electrical installations.

v) Only non-sparking tools should be used near or in the presence of flammable or explosive dusts or vapours.

5.8.3 Pneumatic Tools

i) Operating triggers on portable pneumatic tools should be:
a) so placed as to minimise the risk of accidental starting of the machine.
b) so arranged as to close the air inlet valve automatically when the pressure of the operator's hand is removed.

ii) Hose and hose connections for compressed air supply to portable pneumatic tools should be:

a) designed and tested for the pressure and service for which they are intended;
b) fastened securely on the pipe outlet and equipped with the safety chain, as appropriate.

iii) Pneumatic shock tools should be equipped with safety clips or retainers to prevent dies and tools from being accidentally expelled from the barrel.

iv) Pneumatic tools should be disconnected from power and the pressure in hose lines released before any adjustment or repair is made.

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5.8.4 Electrical Tools

i) Low voltage portable electrical tools should generally be used.

ii) All electrical tools should be earthed, unless they are "all insulated" or "double insulated" tools which do not require earthing.

iii) All electrical tools should get inspected and maintained on a regular basis by a competent electrician and complete records kept.

5.8.5 Engines

i) Engines should:

a) be installed so that they can be started safely and the maximum safe speed cannot be exceeded.
b) have controls for limiting speed.
c) have devices to stop them from a safe place in an emergency.

ii) IC engines should not be run in confined spaces unless adequate exhaust ventilation is provided.

iii) When IC engines are being fuelled:

a) the engine should be shut off.
b) care should be taken to avoid spilling fuel;
c) no person should smoke or have an naked light in the vicinity.
d) a fire extinguisher should be kept readily available.

iv) Secondary fuel reservoir should be placed outside the engine room.

6.0 CONSTRUCTION ACTIVITIES

The various common activities in construction are as under:

- Excavation
- Scaffolding, Platforms & Ladders
- Structural Work, Laying of Reinforcement & Concreting
- Road Work (Laying of roads)
- Cutting /Welding
- Working in Confined Space
- Proof/Pressure Testing
- Working at Heights
- Handling & Lifting Equipments
- Vehicle Movement
- Electrical
- Offshore
- Demolition
- Radiography
- Sand/shot blasting/ spray painting
- Work above water

The safe practices to be followed during the implementation of above construction activities are given below:

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6.1 EXCAVATION

6.1.1 All excavation work should be planned and the method of excavation and the type of support work required should be decided considering the following:

i) the stability of the ground;
ii) the excavation will not affect adjoining buildings, structures or roadways;
iii) to prevent hazard, the gas, water, electrical and other public utilities should be shut off or disconnected, if necessary;
iv) presence of underground pipes, cable conductors, etc.,
v) the position of culvert/bridges, temporary roads and spoil heaps should be determined;

6.1.2 Before digging begins on site, all excavation work should be planned and the method of excavation and the type of support work required decided.

6.1.3 All excavation work should be supervised.

6.1.4 Sites of excavations should be thoroughly inspected:

i) daily, prior to each shift and after interruption in work of more than one day;
ii) after every blasting operation;
iii) after an unexpected fall of ground;
iv) after substantial damage to supports;
v) after a heavy rain, frost or snow;
vi) when boulder formations are encountered.

6.1.5 Safe angle of repose while excavating trenches exceeding 1.5m depth upto 3.0m should be maintained. Based on site conditions, provide proper slope, usually 45^0,and suitable bench of 0.5m width at every 1.5m depth of excavation in all soils except hard rock or provide proper shoring and strutting to prevent cave-in or slides.

6.1.6 As far as possible, excavated earth should not be placed within one meter of the edge of the trench or depth of trench whichever is greater.

6.1.7 Don't allow vehicles to operate too close to excavated area. Maintain atleast 2m distance from edge of excavation. No load, plant or equipment should be placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endanger any person unless precautions such as the provision of shoring or piling are taken to prevent the sides from collapsing.

6.1.8 Adequately anchored stop blocks and barriers should be provided to prevent vehicles being driven into the excavation. Heavy vehicles should not be allowed near the excavation unless the support work has been specially designed to permit it.

6.1.9 If an excavation is likely to affect the security of a structure on which persons are working, precautions should be taken to protect the structure from collapse.

6.1.10 Barricade at 1m height (with red & white band/self glowing caution board) should be provided for excavations beyond 1.5m depth. Provide two entries/exits for such excavation.

6.1.11 Necessary precautions should be taken for underground utility lines like cables, sewers etc. and necessary approvals/clearances from the concerned authorities shall be obtained before commencement of the excavation job.

6.1.12 Water shall be pumped/bailed out, if any accumulates in the trench. Necessary precautions should be taken to prevent entry of surface water in trenches.

6.1.13 During rains, the soil becomes loose. Take additional precaution against collapse of side wall.

6.1.14 In hazardous areas, air should be tested to ascertain its quality. No one should be allowed entry till it is suitable for breathing.

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6.1.15 In case of mechanised excavation, precaution shall be taken to not to allow anybody to come within one meter of extreme reach of the mechanical shovel. The mechanised excavator shall be operated by a well-trained experienced operator. When not in operation, the machine shall be kept on firm leveled ground with mechanical shovel resting on ground. Wheel or belt shall be suitably jammed to prevent any accidental movement of the machine. Suitable precautions as per manufacturer guidelines should be taken for dozers, graders and other heavy machines.

6.1.16 In case of blasting, follow strictly IS:4081-1986 & Indian Explosive Act and rules for storage, handling and carrying of explosive materials and execution of blasting operation.

6.2 SCAFFOLDING, PLATFORMS & LADDERS

6.2.1 Metal as material of construction

i) A scaffold should be provided and maintained or other equally safe and suitable provision should be made where work cannot safely be done on or from the ground or from part of a building or other permanent structure.

ii) Scaffolds should be provided with safe means of access, such as stairs, ladders or ramps. Ladders should be secured against inadvertent movement.

iii) Every scaffold should be constructed, erected and maintained so as to prevent collapse or accidental displacement when in use.

iv) Every scaffold and part thereof should be constructed :

(a) in such a way so as not to cause hazards for workers during erection and dismantling;
(b) in such a way so as guard rails and other protective devices, platforms, ladders, stairs or ramps can be easily put together;
(c) with sound material and of requisite size and strength for the purpose for which it is to be used and maintained in a proper condition.

v) Boards and planks used for scaffolds should be protected against splitting.

vi) Materials used in the construction of scaffolds should be stored under good conditions and apart from any material unsuitable for scaffolds.

vii) Couplers should not cause deformation in tubes. Couplers should be made of drop forged steel or equivalent material.

viii) Tubes should be free from cracks, splits and excessive corrosion and be straight to the eye, and tube ends cut cleanly square with the tube axis.

ix) Scaffolds should be designed for their maximum load as per relevant code.

x) Scaffolds should be adequately braced.

xi) Scaffolds which are not designed to be independent should be rigidly connected to the building at designated vertical and horizontal places.

xii) A scaffold should never extend above the highest anchorage to an extent which might endanger its stability and strength.

xiii) Loose bricks, drainpipes, chimney-pots or other unsuitable material should not be used for the construction or support of any part of a scaffold.

xiv) Scaffolds should be inspected and certified:

(a) before being taken into use;
(b) at periodic intervals thereafter as prescribed for different types of scaffolds;
(c) after any alteration, interruption in use, exposure to weather or seismic conditions or any other occurrence likely to have affected their strength or stability.

xv) Inspection should more particularly ascertain that:

(a) the scaffold is of suitable type and adequate for the job;

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(b) materials used in its construction are sound and of sufficient strength;
(c) it is of sound construction and stable;
(d) that the required safeguards are in position.

xvi) A scaffold should not be erected, substantially altered or dismantled except by or under the supervision.

xvii) Every scaffold should be maintained in good and proper condition, and every part should be kept fixed or secured so that no part can be displaced in consequence of normal use.

xviii) If out-rigger scaffolding is to be used, it should be specifically designed and inspected before putting in use.

6.2.2 Lifting appliances on scaffolds

i) When a lifting appliance is to be used on a scaffold:

(a) the parts of the scaffold should be carefully inspected to determine the additional strengthening and other safety measures required;
(b) any movement of the scaffold members should be prevented;
(c) if practicable, the uprights should be rigidly connected to a solid part of the building at the place where the lifting appliance is erected.

6.2.3 Prefabricated scaffolds

i) In the case of prefabricated scaffold systems, the instructions provided by the manufacturers or suppliers should be strictly adhered to. Prefabricated scaffolds should have adequate arrangements for fixing bracing.

ii) Frames of different types should not be intermingled in a single scaffold.

iii) Scaffolding shall be erected on firm and level ground.

iv) All members of metal scaffolding shall be checked periodically to screen out defective / rusted members. All joints should be properly lubricated for easy tightening.

v) Entry to scaffolding should be restricted.

vi) Erection, alteration and removal shall be done under supervision of experienced personnel.

vii) Use of barrels, boxes, loose bricks etc., for supporting platform shall not be permitted.

viii) Each supporting member of platform shall be securely fastened and braced

ix) Where planks are butt-joined, two parallel putlogs shall be used, not more than 100mm apart, to give support to each plank.

x) Platform plank shall not project beyond its end support to a distance exceeding 4 times the thickness of plank, unless it is effectively secured to prevent tipping. Cantilever planks should be avoided.

xi) The platform edges shall be provided with 150mm high toe board to eliminate hazards of tools or other objects falling from platform.

xii) Erect ladders in the “four up-one out position”

xiii) Lash ladder securely with the structure.

xiv) Using non-slip devices, such as, rubber shoes or pointed steel ferules at the ladder foot, rubber wheels at ladder top, fixing wooden battens, cleats etc.

xv) When ladder is used for climbing over a platform, the ladder must be of sufficient length, to extend at least one meter above the platform, when erected against the platform in “four up-one out position.”

xvi) Portable ladders shall be used for heights not more than 4mt. Above 4mt flights, fixed ladders shall be provided with at least 600 mm landings at every 6mt or less.

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xvii) The width of ladder shall not be less than 300mm and rungs shall be spaced not more than 300mm.

xviii) Every platform and means of access shall be kept free from obstruction.

xix) If grease, mud, gravel, mortar etc., fall on platform or scaffolds, these shall be removed immediately to avoid slippage.

xx) Workers shall not be allowed to work on scaffolds during storms or high wind. After heavy rain or storms, scaffolds shall be inspected before reuse.

xxi) Don't overload the scaffolding. Remove excess material and scrap immediately.

xxii) Dismantling of scaffolds shall be done in a pre-planned sequential manner.

6.2.4 Suspended scaffolds/boatwain's chair

i) In addition to the requirements for scaffolds in general as regards soundness, stability and protection against the risk of falls, suspended scaffolds should meet the following specific requirements.

(a) platforms should be designed and built with dimensions that are compatible with the stability of the structure as a whole, especially the length;
(b) the number or anchorage should be compatible with the dimensions of the platform;
(c) the safety of workers should be safeguarded by an extra rope having a point of attachment independent of the anchorage arrangements of the scaffold;
(d) the anchorage and other elements of support of the scaffold should be designed and built in such a way as to ensure sufficient strength;
(e) the ropes, winches, pulleys or pulley blocks should be designed, assembled, used and maintained according to the requirements established for lifting gear adapted to the lifting of persons according to national laws and regulations;
(f) Before use, the whole structure should be checked by a competent person.

6.2.5 Bamboo Scaffolding

i) In general, it should be avoided as far as possible. It should not be used in the unit/off-site areas and where hot work is to be done.

ii) For construction and maintenance of residential and office buildings, situated outside explosive licensed area, bamboo scaffold, if used, should conform to provisions given in IS-3696 (Part 1)-1987.

6.3 STRUCTURAL WORK, LAYING OF REINFORCEMENT & CONCRETING

6.3.1 General provisions

i) The erection or dismantling of buildings, structures, civil engineering works, formwork, falsework and shoring should be carried out by trained workers only under the supervision of a competent person.

ii) Precautions should be taken to guard against danger to workers arising from any temporary state of weakness or instability of a structure.

iii) Formwork, falsework and shoring should be so designed, constructed and maintained that it will safely support all loads that may be imposed on it.

iv) Formwork should be so designed and erected that working platforms, means of access, bracing and means of handling and stabilising are easily fixed to the formwork structure.

6.3.2. Erection and dismantling of steel and prefabricated structures

i) The safety of workers employed on the erection and dismantling of steel and prefabricated structures should be ensured by appropriate means, such as provision and use of:

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(a) ladders, gangways or fixed platforms;
(b) platforms, buckets, boatswain's chairs or other appropriate means suspended from lifting appliances;
(c) safety harnesses and lifelines, catch nets or catch platforms;
(d) Power-operated mobile working platforms.

ii) Steel and prefabricated structures should be so designed and made that they can be safely transported and erected.

iii) In addition to the need for the stability of the part when erected, the design should explicitly take following into account:

(a) the conditions and methods of attachment in the operations of transport, storing and temporary support during erection or dismantling as applicable;
(b) Methods for the provision of safeguards such as railings and working platforms, and, when necessary, for mounting them easily on the structural steel or prefabricated parts.

iv) The hooks and other devices built in or provided on the structural steel or prefabricated parts that are required for lifting and transporting them should be so shaped, dimensioned and positioned as:

(a) to withstand with a sufficient margin the stresses to which they are subjected;
(b) Not to set up stresses in the part that could cause failures, or stresses in the structure itself not provided for in the plans, and be designed to permit easy release from the lifting appliance. Lifting points for floor and staircase units should be located (recessed if necessary) so that they do not protrude above the surface;
(c) To avoid imbalance or distortion of the lifted load.

v) Storeplaces should be so constructed that:

(a) there is no risk of structural steel or prefabricated parts falling or overturning;
(b) storage conditions generally ensure stability and avoid damage having regard to the method of storage and atmospheric conditions;
(c) racks are set on firm ground and designed so that units cannot move accidentally.

vi) While they are being stored, transported, raised or set down, structural steel or prefabricated parts should not be subjected to stresses prejudicial to their stability.

vii) Every lifting appliance should:

(a) be suitable for the operations and not be capable of accidental disconnection;
(b) be approved or tested as per statutory requirement.

viii) Lifting hooks should be of the self-closing type or of a safety type and should have the maximum permissible load marked on them.

ix) Tongs, clamps and other appliances for lifting structural steel and prefabricated parts should:

(a) be of such shape and dimensions as to ensure a secure grip without damaging the part;
(b) be marked with the maximum permissible load in the most unfavourable lifting conditions.

x) Structural steel or prefabricated parts should be lifted by methods or appliances that prevent them from spinning accidentally.

xi) When necessary to prevent danger, before they are raised from the ground, structural steel or prefabricated parts should be provided with safety devices such as railings and working platforms to prevent falls of persons.

xii) While structural steel or prefabricated parts are being erected, the workers should be provided with appliances for guiding them as they are being lifted and set down, so as to avoid crushing of hands and to facilitate the operations. Use of such appliances should be ensured.

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xiii) A raised structural steel or prefabricated part should be so secured and wall units so propped that their stability cannot be imperiled, even by external agencies such as wind and passing loads before its release from the lifting appliance.

xiv) At work places, instruction should be given to the workers on the methods, arrangements and means required for the storage, transport, lifting and erection of structural steel or prefabricated parts, and, before erection starts, a meeting of all those responsible should be held to discuss and confirm the requirements for safe erection.

xv) During transportation within the construction area, attachments such as slings and stirrups mounted on structural steel or prefabricated parts should be securely fastened to the parts.

xvi) Structural steel or prefabricated parts should be so transported that the conditions do not affect the stability of the parts or the means of transport result in jolting, vibration or stresses due to blows, or loads of material or persons.

xvii) When the method of erection does not permit the provision of other means of protection against fall of persons, the workplaces should be protected by guardrails, and if appropriate by toe-boards.

xviii) When adverse weather conditions such as snow, ice and wind or reduced visibility entail risks of accidents, the work should be carried on with particular care, or, if necessary, interrupted.

xix) Structures should not be worked on during violent storms or high winds, or when they are covered with ice or snow, or are slippery from other causes.

xx) If necessary, to prevent danger, structural steel parts should be equipped with attachments for suspended scaffolds, lifelines or safety harnesses and other means of protection.

xxi) The risks of falling, to which workers moving on high or sloping girders are exposed, should be limited by all means of adequate collective protection or, where this is impossible, by the use of a safety harness that is well secured to a strong support.

xxii) Structural steel parts that are to be erected at a great height should as far as practicable be assembled on the ground.

xxiii) When structural steel or prefabricated parts are being erected, a sufficiently extended area underneath the workplace should be barricaded or guarded

xxiv) Steel trusses that are being erected should be adequately shored, braced or guyed until they are permanently secured in position.

xxv) Load-bearing structural member should not be dangerously weakened by cutting, holing or other means.

xxvi) Structural members should not be forced into place by the hoisting machine while any worker is in such a position that he could be injured by the operation.

xxvii) Open-web steel joists that are hoisted singly should be directly placed in position and secured against dislodgment.

6.3.3 Reinforcement

i) Ensure that workers use Personnel Protective equipment like safety helmet, safety shoes, gloves etc.

ii) Don't place the hand below the rods for checking clear distance. Use measuring devices.

iii) Don't wear loose clothes while checking the rods.

iv) Don't stand unnecessarily on cantilever rods.

v) To carry out welding/cutting of rods, safety procedures/precautions as mentioned in Item No. 6.5 to be followed.

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vi) For supplying of rods at heights, proper staging and/or bundling to be provided.

vii) Ensure barricading and staging for supplying and fixing of rods at height.

viii) For short distance carrying of materials on shoulders, suitable pads to be provided.

ix) While transporting material by trucks/trailers, the rods shall not protrude in front of or by the sides of driver's cabin. In case such protrusion cannot be avoided behind the deck, then it should not extend 1/3rd of deck length or 1.5M which ever is less and tied with red flags/lights.

6.3.4 Concreting

i) Ensure stability of shuttering work before allowing concreting.

ii) Barricade the concreting area while pouring at height/depths.

iii) Keep vibrator hoses, pumping concrete accessories in healthy conditions and mechanically locked.

iv) Pipelines in concrete pumping system shall not be attached to temporary structures such as scaffolds and formwork support as the forces and movements may effect their integrity.

v) Check safety cages & guards around moving motors/parts etc. provided in concreting mixers.

vi) Use Personal Protective Equipment like gloves, safety shoes etc. while dealing with concrete and wear respirators for dealing with cement.

vii) Earthing of electrical mixers, vibrators, etc. should be done and verified.

viii) Cleaning of rotating drums of concrete mixers shall be done from outside. Lockout devices shall be provided where workers need to enter.

ix) Where concrete mixers are driven by internal combustion engine, exhaust points shall be located away from the worker's workstation so as to eliminate their exposure to obnoxious fumes.

x) Don't allow unauthorised person to stand under the concreting area.

xi) Ensure adequate lighting arrangements for carrying out concrete work during night.

xii) Don't allow the same workers to pour concrete round the clock. Insist on shift pattern.

xiii) During pouring, shuttering and its supports should be continuously watched for defects.

6.4 ROAD WORK

6.4.1 Site shall be barricaded and provided with warning signs, including night warning lamps at appropriate locations for traffic diversion.

6.4.2 Filled and empty bitumen drums shall be stacked separately at designated places.

6.4.3 Mixing aggregate with bitumen shall preferably be done with the help of bitumen batch mixing plant, unless operationally non-feasible.

6.4.4 Road rollers, Bitumen sprayers, Pavement finishers shall be driven by experienced drivers with valid driving license.

6.4.5 Workers handling hot bitumen sprayers or spreading bitumen aggregate mix or mixing bitumen with aggregate, shall be provided with PVC hand gloves and rubber shoes with legging up to knee joints.

6.4.6 At the end of day's work, surplus hot bitumen in tar boiler shall be properly covered by a metal sheet, to prevent anything falling in it,

6.4.7 If bitumen accidentally falls on ground, it shall be immediately covered by sprinkling sand, to prevent anybody stepping on it. Then it shall be removed with the help of spade.

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6.4.8 For cement concrete roads, besides site barricading and installation of warning signs for traffic diversion, safe practices mentioned in the chapter on "Concreting", shall also be applicable.

6.5 CUTTING/WELDING

6.5.1 Common hazards involved in welding/cutting are sparks, molten metal, flying particles, harmful light rays, electric shocks etc. Following precautions should be taken: -

i) A dry chemical type fire extinguisher shall be made available in the work area.

ii) Adequate ventilation shall be ensured by opening manholes and fixing a shield or forced circulation of air etc, while doing a job in confined space.

iii) Ensure that only approved and well-maintained apparatus, such as torches, manifolds, regulators or pressure reducing valves, and acetylene generators, be used.

iv) All covers and panels shall be kept in place, when operating an electric Arc welding machine.

v) The work piece should be connected directly to Power supply, and not indirectly through pipelines/structures/equipments etc.

vi) The welding receptacles shall be rated for 63 A suitable for 415V, 3-Phase system with a scraping earth. Receptacles shall have necessary mechanical interlocks and earthing facilities.

vii) All cables, including welding and ground cables, shall be checked for any worn out or cracked insulation before starting the job. Ground cable should be separate without any loose joints.

viii) Cable coiling shall be maintained at minimum level, if not avoidable.

ix) An energised electrode shall not be left unattended.

x) The power source shall be turned off at the end of job.

xi) All gas cylinders shall be properly secured in upright position.

xii) Acetylene cylinder shall be turned and kept in such a way that the valve outlet points away from oxygen cylinder.

xiii) Acetylene cylinder key for opening valve shall be kept on valve stem, while cylinder is in use, so that the acetylene cylinder could be quickly turned off in case of emergency. Use flash back arrestors to prevent back-fire in acetylene/oxygen cylinder.

xiv) When not in use, valves of all cylinders shall be kept closed.

xv) All types of cylinders, whether full or empty, shall be stored at cool, dry place under shed.

xvi) Forced opening of any cylinder valve should not be attempted.

xvii) Lighted gas torch shall never be left unattended.

xviii) Store acetylene and oxygen cylinders separately.

xix) Store full and empty cylinders separately.

xx) Avoid cylinders coming into contact with heat.

xxi) Cylinders that are heavy or difficult to carry by hand may be rolled on their bottom edge but never dragged.

xxii) If cylinders have to be moved, be sure that the cylinder valves are shut off.

xxiii) Before changing torches, shut off the gas at the pressure reducing regulators and not by crimping the hose.

xxiv) Do not use matches to light torches, use a friction lighter.

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xxv) Move out any leaking cylinder immediately.

xxvi) Use trolleys for oxygen & acetylene cylinder and chain them.

xxvii) Always use Red hose for acetylene and other fuel gases and Black for oxygen, and ensure that both are in equal length.

xxviii) Ensure that hoses are free from burns, cuts and cracks and properly clamped.

xxix) Avoid dragging hoses over sharp edges and objects

xxx) Do not wrap hoses around cylinders when in use or stored.

xxxi) Protect hoses from flying sparks, hot slag, and other hot objects.

xxxii) Lubricants shall not be used on Ox-fuel gas equipment.

xxxiii) During cutting/welding, use proper type goggles/face shields.

6.6 WORKING IN CONFINED SPACES

6.6.1 Following safety practices for working in confined space like towers, columns, tanks and other vessels should be followed in addition to the safety guidelines for specific jobs like scaffolding, cutting/welding etc.

i) Shut down, isolate, depressurise and purge the vessel as per laid down procedures.

ii) Entry inside the vessel and to carry out any job should be done after issuance of valid permit only in line with the requirement of OISD-STD-105.

iii) Ensure proper and accessible means of exit before entry inside a confined space.

iv) The number of persons allowed inside the vessel should be limited to avoid overcrowding.

v) When the work is going on in the confined space, there should always be one man standby at the nearby manway.

vi) Before entering inside the vessels underground or located at lower elevation, probability of dense vapours accumulating nearby should also be considered in addition to inside the vessel.

vii) Ensure requisite O_2 level before entry in the confined space and monitor level periodically or other wise use respiratory devices.

viii) Check for no Hydrocarbon or toxic substances before entry and monitor level periodically or use requisite Personal Protective Equipment.

ix) Ensure adequate ventilation or use respiratory devices.

x) Depending upon need, necessary respirator system, gas masks and suit shall be worn by everyone entering confined space. In case of sewer, OWS or in the confined area where there is a possibility of toxic or inert gas, gas masks shall be used by everyone while entering.

xi) Barricade the confined spaces during hoisting, radiography, blasting, pressure testing etc.

xii) Use 24V flameproof lamp fittings only for illumination.

xiii) Use tools with air motors or electric tools with maximum voltage of 24V.

xiv) House keeping shall be well maintained.

xv) Safety helmet, safety shoes and safety belt shall be worn by everyone entering the confined space.

xvi) Don't wear loose clothing while working in a confined space.

xvii) In case of the vessels which are likely to contain pyropheric substances (like Iron Sulphide), special care need to be taken before opening the vessel. Attempt should be

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made to remove the pyropheric substances. Otherwise, these should be always kept wet by suitable means.

xviii) The cutting torches should also be kept outside the vessel immediately after the cutting.

xix) The gas cylinders used for cutting/welding shall be kept outside.

xx) All cables, hoses, welding equipment etc., shall be removed from confined space at end of each work day, even if the work is to be resumed in the same space the next day.

xxi) To the extent possible sludge shall be cleared and removed from outside before entering.

xxii) No naked light or flame or hot work such as welding, cutting and soldering should be permitted inside a confined space or area unless it has been made completely free of the flammable atmosphere, tested and found safe by a competent person. Only non-sparking tools and flameproof hand lamps protected with guard and safety torches should be used inside such confined space or area for initial inspection, cleaning or other work required to be done for making the area safe.

xxiii) Communication should be always maintained between the worker and the attendant.

6.7 PROOF/PRESSURE TESTING

6.7.1 Review test procedure before allowing testing with water or air or any other fluid.

6.7.2 Provide relief valves of adequate size while testing with air or other gases.

6.7.3 Ensure compliance of necessary precautions, step wise loading, tightening of fasteners, grouting etc. before and during testing.

6.7.4 Inform all concerned in advance of the testing.

6.7.5 Keep the vents open before opening any valve for filling/draining of liquid used for hydrotesting. The filling/draining should not exceed the designed rate for pressure testing.

6.7.6 Provide separate gauges of suitable range for pressurising pump and the equipment to be tested.

6.7.7 Provide gauges at designated locations for monitoring of pressures.

6.7.8 Check the calibration of all pressurising equipment and accessories and maintain records.

6.7.9 Take readings at pre-defined intervals.

6.8 WORKING AT HEIGHTS

6.8.1 General Provision

i) While working at a height of more than 3 meters, ISI approved safety belt shall be used.

ii) While working at a height of more than 3 meters, permit should be issued by competent person before commencement of the job.

iii) Worker should be well trained on usage of safety belt including its proper usage at the time of ascending/descending.

iv) All tools should be carried in tool kits to avoid their falling.

v) If the job is on fragile/sloping roof, roof walk ladders shall be used.

vi) Provide lifeline wherever required.

vii) Additional safety measures like providing Fall Arrestor type Safety belt, safety net should be provided depending upon site conditions, job requirements.

viii) Keep working area neat and clean. Remove scrap material immediately.

ix) Don't throw or drop material/equipment from height.

x) Avoid jumping from one member to another. Use proper passageway.

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xi) Keep both hands free while climbing. Don't try to bypass the steps of the ladder.

xii) Try to maintain calm at height. Avoid over exertion.

xiii) Avoid movements on beam.

xiv) Elevated workplaces including roofs should be provided with safe means of access and egress such as stairs, ramps or ladders.

6.8.2 Roof Work

i) All roof-work operations should be pre-planned and properly supervised.

ii) Roof work should only be undertaken by workers who are physically and psychologically fit and have the necessary knowledge and experience for such work.

iii) Work on roofs shouldn't be carried on in weather conditions that threaten the safety of workers.

iv) Crawling boards, walkways and roof ladders should be securely fastened to a firm structure.

v) Roofing brackets should fit the slope of the roof and be securely supported.

vi) Where it is necessary for a person to kneel or crouch near the edge of the roof, necessary precautions should be taken.

vii) On a large roof where work have to be carried out at or near the edge, a simple barrier consisting of crossed scaffold tubes supporting a tubing guardrail may be provided.

viii) All covers for openings in roofs should be of substantial construction and be secured in position.

ix) Roofs with a pitch of more than 10 should be treated as sloping.

x) When work is being carried out on sloping roofs, sufficient and suitable crawling boards or roof ladders should be provided and firmly secured in position.

xi) During extensive work on the roof, strong barriers or guardrails and toe-boards should be provided to stop a person from falling off the roof.

xii) Where workers are required to work on or near roofs or other places covered with fragile material, through which they are liable to fall, they should be provided with suitable roof ladders or crawling boards strong enough and when spanning across the supports for the roof covering to support those workers.

xiii) A minimum of two boards should be provided so that it is not necessary for a person to stand on a fragile roof to move a board or a ladder, or for any other reason.

6.8.3 Work on tall chimneys

i) For the erection and repair of tall chimneys, scaffolding should be provided. A safety net should be maintained at a suitable distance below the scaffold.

ii) The scaffold floor should always be at least 65 cm below the top of the chimney.

iii) Under the working floor of the scaffolding the next lower floor should be left in position as a catch platform.

iv) The distance between the inside edge of the scaffold and the wall of the chimney should not exceed 20 cm at any point.

v) Catch platforms should be erected over:

(a) the entrance to the chimney;
(b) Passageways and working places where workers could be endangered by falling objects.

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vi) For climbing tall chimneys, access should be provided by:

(a) stairs or ladders;
(b) a column of iron rungs securely embedded in the chimney wall;
(c) Other appropriate means.

vii) When workers use the outside rungs to climb the chimney, a securely fastened steel core rope looped at the free end and hanging down at least 3 m should be provided at the top to help the workers to climb on to the chimney.

viii) While work is being done on independent chimneys the area surrounding the chimney should be enclosed by fencing at a safe distance.

ix) Workers employed on the construction, alteration, maintenance or repair of tall chimneys should not:

a) work on the outside without a safety harness attached by a lifeline to a rung, ring or other secure anchorage;
b) put tools between the safety harness and the body or in pockets not intended for the purpose;
c) haul heavy materials or equipment up and down by hand to or from the workplace on the chimney;
d) fasten pulleys or scaffolding to reinforcing rings without first verifying their stability;
e) work alone;
f) climb a chimney that is not provided with securely anchored ladders or rungs;
g) Work on chimneys in use unless the necessary precautions to avoid danger from smoke and gases have been taken.

x) Work on independent chimneys should not be carried on in high winds, icy conditions, fog or during electrical storms.

6.9 HANDLING AND LIFTING EQUIPMENT:

6.9.1 General Provisions

Following are the general guidelines to be followed with regard to all types of handling and lifting equipment in addition to the guidelines for specific type of equipments dealt later on.

i) There should be a well-planned safety programme to ensure that all the lifting appliances and lifting gear are selected, installed, examined, tested, maintained, operated and dismantled with a view to preventing the occurrence of any accident;

ii) All lifting appliances shall be examined by competent persons at frequencies as specified in "The Factories act".

iii) Check thoroughly quality, size and condition of all lifting tools like chain pulley blocks, slings, U-clamps, D-shackles etc. before putting them in use.

iv) Safe lifting capacity of all lifting & handling equipment, tools and shackles should be got verified and certificates obtained from competent authorities before its use. The safe working load shall be marked on them.

v) Check periodically the oil, brakes, gears, horns and tyre pressure of all moving equipments like cranes, forklifts, trailers etc as per manufacturer's recommendations.

vi) Check the weights to be lifted and accordingly decide about the crane capacity, boom length and angle of erection.

vii) Allow lifting slings as short as possible and check packing at the friction points.

viii) While lifting/placing of the load, no unauthorised person shall remain within the radius of the boom and underneath the load.

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ix) While loading, unloading and stacking of pipes, proper wedges shall be placed to prevent rolling down of the pipes.

x) Control longer jobs being lifted up from both ends.

xi) Only trained operators and riggers should carry out the job. While the crane is moving or lifting the load, the trained rigger should be there for keeping a vigil against hitting any other object.

xii) During high wind conditions and nights, lifting of heavy equipments should be avoided. If unavoidable to do erection in night, operator and rigger should be fully trained for night signaling. Also proper illumination should be there.

xiii) Allow crane to move on hard, firm and leveled ground.

xiv) When crane is in idle condition for long periods or unattended, crane boom should either be lowered or locked as per manufacturer's guidelines.

xv) Hook and load being lifted shall remain in full visibility of crane operators, while lifting, to the extent possible.

xvi) Don't allow booms or other parts of crane to come within 3 meters reach of overhead electrical cables.

xvii) No structural alterations or repairs should be made to any part of a lifting appliance, which may affect the safety of the appliance without the permission and supervision of the competent person.

6.9.2 Hoists

i) Hoist shafts should be enclosed with rigid panels or other adequate fencing at:

(a) ground level on all sides;
(b) all other levels at all points at which access is provided;
(c) all points at which persons are liable to be struck by any moving part.

ii) The enclosure of hoist shafts, except at approaches should extend where practicable at least 2mt above the floor, platform or other place to which access is provided except where a lesser height is sufficient to prevent any person falling down the hoistway and there is no risk of any person coming into contact with any moving part of the hoist, but in no case should the enclosure be less than 1mt in height.

iii) The guides of hoist platforms should offer sufficient resistance to bending and, in the case of jamming by a safety catch, to buckling.

iv) Where necessary to prevent danger, adequate covering should be provided above the top of hoist shafts to prevent material falling down them.

v) Outdoor hoist towers should be erected on firm foundations, and securely braced, guyed and anchored.

vi) A ladderway should extend from the bottom to the top of outdoor hoist towers, if no other ladderway exists within easy reach.

vii) Hoisting engines should be of ample capacity to control the heaviest load that they will have to move.

viii) Hoists should be provided with devices that stop the hoisting engine as soon as the platform reaches its highest stopping place.

ix) Winches should be so constructed that the brake is applied when the control handle is not held in the operating position.

x) It should not be possible to set in motion from the platform a hoist, which is not designed for the conveyance of persons.

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xi) Winches should not be fitted with pawl and ratchet gears on which the pawl must be disengaged before the platform is lowered.

xii) Hoist platforms should be capable of supporting the maximum load that they will have to carry with a safety factor.

xiii) Hoist platforms should be equipped with safety gear that will hold the platform with the maximum load if the hoisting rope breaks.

xiv) If workers have to enter the cage or go on the platform at landings there should be a locking arrangement preventing the cage or platform from moving while any worker is in or on it.

xv) On sides not used for loading and unloading, hoist platforms should be provided with toe-boards and enclosures of wire mesh or other suitable material to prevent the fall of parts of loads.

xvi) Where necessary to prevent danger from falling objects, hoist platforms should be provided with adequate covering.

xvii) Counterweights consisting of an assemblage of several parts should be made of specially constructed parts rigidly connected together.

xviii) Counterweights should run in guides.

xix) Platforms should be provided at all landings used by workers.

xx) Following notices should be posted up conspicuously and in very legible characters:

(a) on all hoists:

- on the platform: the carrying capacity in kilograms or other appropriate standard unit of weight;
- on the hoisting engine: the lifting capacity in kilograms or other appropriate standard unit of weight;

(b) on hoists authorised or certified for the conveyance of persons:

- on the platform or cage: the maximum number of persons to be carried at one time;

(c) *on* hoists for goods only:

- on every approach to the hoist and on the platform: prohibition of use by persons.

xxi) Hoists intended for the carriage of persons should be provided with a cage so constructed as to prevent any person from falling out or being trapped between the cage and any fixed part of the structure when the cage gate is shut, or from being struck by the counterbalance weight or by articles or materials tailing down the hoistway.

xxii) On each side in which access is provided, the cage should have a gate fitted with devices which ensure that the gate cannot be opened except when the cage is at a landing and that the gate must be closed before the cage can move away from the landing.

xxiii) Every gate in the enclosure of the hoist shaft which gives access from a landing place to the cage should be fitted with devices to ensure that the gate cannot be opened except when the cage is at that landing place, and that the cage cannot be moved away from that landing place until the gate is closed.

6.9.3 Derricks

Stiff-leg derricks

i) Derricks should be erected on a firm base capable of taking the combined weight of the crane structure and maximum rated load.

ii) Devices should be used to prevent masts from lifting out of their seating.

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iii) Electrically operated derricks should be effectively earthed from the sole plate or framework.

iv) Counterweights should be so arranged that they do not subject the backstays, sleepers or pivots to excessive strain.

v) When derricks are mounted on wheels:

a) a rigid member should be used to maintain the correct distance between the wheels;
b) they should be equipped with struts to prevent them from dropping if a wheel breaks or the derrick is derailed.

vi) The length of a derrick jib should not be altered without consulting the manufacturer.

vii) The jib of a scotch derrick crane should not be erected within the backstays of the crane.

Guy derricks

i) The restraint of the guy ropes should be ensured by fitting stirrups or anchor plates in concrete foundations.

ii) The mast of guy derricks should be supported by six top guys spaced approximately equally.

iii) The spread of the guys of a guy derrick crane from the mast should not be more than 45^0 from the horizontal.

iv) Guy ropes of derricks should be equipped with a stretching screw or turnbuckle or other device to regulate the tension.

v) Gudgeon pins, sheave pins and fool bearings should be lubricated frequently.

vi) When a derrick is not in use, the boom should be anchored to prevent it from swinging.

6.9.4 Gin poles

i) Gin poles should:

(a) be straight;
(b) consist of steel or other suitable metal;
(c) be adequately guyed and anchored;
(d) be vertical or raked slightly towards the load;
(e) be of adequate strength for the loads that they will be required to lift/move.

ii) Gin poles should not be spliced and if a gin pole is composed of different elements, they should be assembled in conformity with their intrinsic material strength.

iii) Gin poles should be fastened at their feet to prevent displacement in operation.

iv) Gin poles, which are moved from place to place and re-erected, should not be taken into use again before the pole, lifting ropes, guys, blocks and other parts have been inspected, and the whole appliance has been tested under load.

v) When platforms or skips are hoisted by gin poles, precautions should be taken to prevent them from spinning and to provide for proper landing.

6.9.5 Tower cranes

i) Where tower cranes have cabs at high level, persons, capable and trained to work at heights, should only be employed as crane operators.

ii) The characteristics of the various machines available should be considered against the operating requirements and the surroundings in which the crane will operate before a particular type of crane is selected.

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iii) Care should be taken in the assessment of wind loads both during operations and out of service. Account should also be taken of the effects of high structures on wind forces in the vicinity of the crane.

iv) The ground on which the tower crane stands should have the requisite bearing capacity. Account should be taken of seasonal variations in ground conditions.

v) Bases for tower cranes and tracks for rail-mounted tower cranes should be firm and level. Tower cranes should only operate on gradients within limits specified by the manufacturer. Tower cranes should only be erected at a safe distance from excavations and ditches.

vi) Tower cranes should be sited where there is clear space available for erection, operation and dismantling. As far as possible, cranes should be sited so that loads do not have to be handled over occupied premises, over public thoroughfares, other construction works and railways or near power cables.

vii) Where two or more tower cranes are sited in positions where their jibs could touch any part of the other crane, there should be direct means of communication between them and a distinct warning system operated from the cab so that one driver may alert the other of impending danger.

viii) The manufacturers' instructions on the methods and sequence of erection and dismantling should be followed. The crane should be tested before being taken into use.

ix) The climbing operation of climbing tower cranes should be carried out in accordance with manufacturers' instructions. The free-standing height of the tower crane should not extend beyond what is safe and permissible in the manufacturers' instructions.

x) When the tower crane is left unattended, loads should be removed from the hook, the hook raised, the power switched off and the boom brought to the horizontal. For longer periods or at times when adverse weather conditions are expected, out of service procedures should be followed. The main jib should be slewed to the side of the tower away from the wind, put into free slew and the crane immobilised.

xi) A windspeed measuring device should be provided at an elevated position on the tower crane with the indicator fitted in the drivers' cab.

xii) Devices should be provided to prevent loads being moved to a point where the corresponding safe working load of the crane would be exceeded. Name boards or other items liable to catch the wind should not be mounted on a tower crane other than in accordance with the manufacturers' instructions.

xiii) Tower cranes should not be used for magnet, or demolition ball service, piling operations or other duties, which could impose excessive loading on the crane structure.

6.9.6 Lifting ropes

i) Only ropes with a known safe working capacity should be used as lifting ropes.

ii) Lifting ropes should be installed, maintained and inspected in accordance with manufacturers' instructions.

iii) Repaired steel ropes should not be used on hoists.

iv) Where multiple independent ropes are used, for the purpose of stability, to lift a work platform, each rope should be capable of carrying the load independently.

6.10 VEHICLE MOVEMENT

6.10.1 Park vehicles only at designated places. Don't block roads to create hindrance for other vehicles.

6.10.2 Don't overload the vehicle.

6.10.3 Obey speed limits and traffic rules.

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6.10.4 Always expect the unexpected and be a defensive driver.

6.10.5 Drive carefully during adverse weather and road conditions.

6.10.6 Read the road ahead and ride to the left.

6.10.7 Be extra cautious at nights. Keep wind screens clean and lights in working condition.

6.10.8 All vehicles used for carrying workers and construction materials must undergo predictive/preventive maintenance and daily checks

6.10.9 Driver with proper valid driving license shall only be allowed to drive the vehicle

6.10.10 Routes shall be leveled, marked and planned in such a way so as to avoid potential hazards such as overhead power lines and sloping ground etc.

6.10.11 While reversing the vehicles, help of another worker should be ensured at all times

6.10.12 An unattended vehicle should have the engine switched off

6.10.13 Wherever possible one-way system shall be followed

6.10.14 Barriers/fixed stops should be provided for excavation/openings to prevent fall of vehicle

6.10.15 Load should be properly secured

6.10.16 The body of the tipper lorry should always be lowered before driving the vehicle off.

6.10.17 Signs/signals/caution boards etc. should be provided on routes .

6.11 ELECTRICAL

6.11.1 General Provisions

i) Only persons having valid licenses should be allowed to work on electrical facilities.

ii) No person should be allowed to work on live circuit. The same, if unavoidable, special care and authorisation need to be taken.

iii) Treat all circuits as "LIVE" unless ensured otherwise.

iv) Electrical "Tag Out" procedure "MUST" be followed for carrying out maintenance jobs.

v) Display voltage ratings prominently with "Danger" signs.

vi) Put caution/notice signs before starting the repair works.

vii) All electrical equipment operating above 250V shall have separate and distinct connections to earth grid.

viii) Proper grounding to be ensured for all switch boards and equipment including Portable ones prior to taking into service.

ix) Make sure that electrical switch boards, portable tools, equipments (like grinding machine etc.) don't get wet during their usage. If it happens, stop the main supply, make the tools dry and then only use them. Check proper earthing.

All temporary switch boards/ KIOSKS put up at work site should be suitably protected from rain and the level of same should be high enough to avoid contact with water due to water logging.

x) Don't work wet on electrical system.

xi) Don't overload the electrical system.

xii) Use only proper rated HRC fuses.

xiii) Industrial type extension boards and Plug sockets are only to be used.

xiv) ELCB for all temporary connections must be provided. Use insulated 3-pin plug tops.

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xv) All power supply cables should be laid properly and neatly so that they don't cause hindrance to persons working and no physical damage also takes place to the cables during various construction activities.

xvi) All Power cables to be properly terminated using glands and lugs of proper size and adequately crimped.

xvii) Use spark-proof/flame proof type electrical fittings in Fire Hazard zones as per area classification under OISD-STD-113.

xviii) Check installations of steel plates/pipes to protect underground cables at crossings.

xix) Don't lay unarmored cable directly on ground, wall, roof or trees. All temporary cables should be laid at least 750 mm below ground and cable markers should be provided. Proper sleeves should be provided at road crossings. In case temporary cables are to be laid on wooden poles/steel poles, the minimum cable heights should be 4.5 M.

xx) Maintain safe overhead distance of HT cables as per Indian Electricity Rules and relevant acts.

xxi) Don't connect any earthing wire to the pipelines/structures.

xxii) Don't make any unsafe temporary connections, naked joints/wiring etc.

xxiii) Ensure that temporary cables are free from cuts, damaged insulation, kinks or improper insulated joints.

xxiv) Check at periodic intervals that pins of sockets and joints are not loose.

xxv) Protect electrical wires/equipments from water and naked flames.

xxvi) Illuminate suitably all the work areas.

xxvii) All switchboards should be of MS structure only and incoming source should be marked.

xxviii) Hand lamps should not be of more than 24V rating.

xxix) Fire extinguishers (DCP/CO_2/Sand buckets) should be kept near temporary switch boards being used for construction purposes. Don't use water for fighting electrical fires.

xxx) Insulating mats shall be provided in the front and back end of switch boards.

xxxi) All parts of electrical installations should be so constructed, installed and maintained as to prevent danger of electric shock, fire and external explosion.

Periodic checking/certification of electrical safety appliances such as gloves, insulating mats, hoods etc. to be done/witnessed along with maintaining a register at site signed by competent authority.

xxxii) A notice displaying following, should be kept exhibited at suitable places:

a) prohibiting unauthorised persons from entering electrical equipment rooms or from handling or interfering with electrical apparatus;
b) containing directions as to procedures in case of fire, rescue of persons in contact with live conductors and the restoration of persons suffering from electric shock;
c) specifying the person to be notified in case of electrical accident or dangerous occurrence, and indicating how to communicate with him.

xxxiii) No other cables/pipes to be laid in trench used for electrical cables.

xxxiv) Utmost care should be taken while excavating Earth from cable trench to avoid damage or any accident.

xxxv) Sub-station floor cut-outs meant for switch board installations to be covered wherever installation is incomplete.

NOTE: A Residual Current Operated Circuit Breaker (RCCB) or Earth Leakage Circuit Breaker (ELCB), when installed, protects a human being to the widest extent. RCCB or ELCB should be provided as per Indian Electricity Rules.

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6.11.2 Inspection and maintenance

i) All electrical equipment should be inspected before taking into use to ensure suitability for its proposed use.

ii) At the beginning of every shift, the person using the electrical equipment should make a careful external examination of the equipment and conductors, especially the flexible cables.

iii) Apart from some exceptional cases, work on or near live parts of electrical equipment should be forbidden.

iv) Before any work is begun on conductors or equipment that do not have to remain live:

a) the current should be switched off by a responsible authorised person;
b) precautions should be taken to prevent the current from being switched on again;
c) the conductors or the equipment should be tested to ascertain that they are dead;
d) the conductors and equipment should be earthed and short-circuited;
e) neighbouring live parts should be adequately protected against accidental contact.

v) After work has been done on conductors and equipment, the current should only be switched on again on the orders of a competent person after the earthing and short-circuiting have been removed and the workplace reported safe.

vi) Electricians should be provided with approved and tested tools, and personal protective equipment such as rubber gloves, mats etc.

vii) All conductors and equipment should be considered to be live unless there is a proof of the contrary.

viii) When work has to be done in dangerous proximity to live parts the current should be cut off. If for operational reasons this is not possible, the live parts should be fenced off or enclosed by qualified staff from the sub-station concerned.

6.11.3. Testing

i) Electrical installations should be inspected and tested and the results recorded.

ii) Periodic testing of the efficiency of the earth leakage protective devices should be carried out.

iii) Particular attention should be paid to the earthing of apparatus, the continuity of protective conductors, polarity and insulation resistance, protection against mechanical damage and condition of connections at points of entry.

6.12 OFFSHORE

6.12.1 General

The isolated nature of offshore installations are hazardous. They call for greater need for safety and survival at offshore. Safety at offshore is safety of installations and safety of personnel. Safety problems and accidents at offshore have high risks due to limited space, helicopter operation, sea transport etc. Following are the general safety guidelines to be followed in addition to the safety guidelines stipulated for specific jobs dealt later on:

i) Workers should be well trained to do their job independently with high degree of self-control and self-discipline.

ii) On arrival at offshore, everyone should be briefed about the safety rules to be followed at offshore, evacuation system etc. All personnel should wear overall (dangri), helmet and shoes for personnel protection.

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iii) In case of emergency, workers should follow instruction of Field Production Superintendent (F.P.S.) In certain cases instructions may be given to abandon the offshore installation and evacuate the persons to safe location.

iv) To overcome above problems, offshore personnel must receive training for using life saving appliances and other personal survival techniques.

v) Any person working at offshore should have one person as standby for any eventuality.

6.12.2 Drilling Rigs

i) Location of jack up rigs should not be less than 5 Kms from shipping route. Orientation of the rig, wind direction etc are required for safe landing of helicopter. Information w.r.t. sea currents, wind speed, Hi-lo tide etc are required for mooring of supply vessels.

ii) Sea bed condition at every location should be ensured for safety of rig.

iii) Radio and other communication facilities should be such to maintain contact with base all times.

iv) During toeing of rig, the rig deck should be clear of load, toeing lines should be in good condition and tensions in various toeing lines should be constantly monitored.

v) Few steps during toeing are:

a) crane booms should be secured to their vesta,
b) all hatches and water tight doors should be closed,
c) number of personnel on board should be restricted,
d) evacuate in case of emergency and operation should be completed preferably in day light.

6.12.3 Drilling

i) In view of CO_2 and H_2S gas cut from well, effective ventilation should be provided where drilling is in progress.

ii) Safety alarm shall be checked in advance in view of failure of ventilation system.

iii) Suitable sensors for H_2S and Methane should be function tested time to time and suitable colour code should be given.

iv) Working areas of the crane should be illuminated during night to avoid accident.

v) Clear space should be available for despatch and receipt of load and, in particular, basket transfer of passengers. Persons engaged in loading/unloading of materials should be protected from falling into the sea.

vi) Signal light should be fitted at the top of the jib.

vii) Crane hook should be fitted with safety latches.

viii) Experienced person should be engaged in operation of specific equipment like winches, cranes etc.

ix) At least three cable turns shall always be there on the winch drum.

x) Adequate communication like walkie talkie, round robin phone should be available between the crane operator, supervisor and helper.

xi) Crane operation should be completely stopped during helicopter landing/taking off.

xii) Except for helicopter landing deck, all decks, platforms, bridges, ladders should have rigid and fixed guard rails atleast one meter high and should have one intermediate rail midway between the handrail and 100 mm toe board.

xiii) Wooden ladders shall not be used at offshore.

xiv) Flow sensor in the flow line should be ensured for safe working and to avoid blow out.

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xv) Hydrogen sulphuide gas In offshore is of great risk and at 10 ppm (0.001%) concentration in air, a person should not be exposed for more than 8 hours, If concentration is more, then breathing apparatus should be used. Corrosion of equipment is also caused by H_2S.

xvi) Portable H_2S gas detector should be continously used.

6.12.4 Production Platforms

i) In case hydrocarbon Is released due to overpressure, leak, overflow, gas blow etc., shut down process to stop flow *of* hydrocarbon. Prevent ignition of released hydrocarbon and in case of fire shut in the process complex and follow emergency contigency plan.

ii) Sub surface safetv valve (SSSV)) below the well head should be actuated during uncontrolled well -flow and they should be regularly checked.

iii) Surface safety valve or SDV should be checked for no gas leakage from bleed port / flange etc., in the well head area. It should not be in "mechanical override" or bypassed from panel.

iv) High pressure gas lift lines - blowdown system should be O.K.

v) Auto actuation of SDVs in the inlet of pressure vessels should be O.K. and in "normal position" from shutdown panels. A record of status of switches normal/bypassed in auto-con* panels (PSH, PSL, LSL, ILSL) should be maintained.

* Shut Down Panels

vi) Welders rectifier set and electrical connections to it should be checked and approved by electrical-in- charge for proper electrical safely.

vii) “SCADA" telementry system if available should be operational for remote opening and closing of wells at unmanned platforms (through RPMC).

viii) Local ESD/FSD (near the work site) should be provided for jobs of very critical nature, so that the persons working can access it immediately in emergency for safety. Safety officer should judge the requirement & inform FPS for the same.

ix) Railings and Gratings etc. in and around work area should be O.K. and inspected to avoid slippage of man into sea.

x) Emergency shut down (ESD) system is initiated when an abnormal condition is detected. ESD should be checked once in six months.

xi) Platform should be manned round the clock.

xii) Welding and cutting work should be regulated by hot work permit.

xiii) All detectors should be calibrated as per recommendation of the manufacturer.

xiv) No system should be by-passed which affects the system of platform.

xv) In H_2S field platforms, due care shall be taken as per recommendations.

xvi) Follow the instructions of F.P.S. during stay at platform

6.12.5 Fire Prevention And Control

i) Provision be made for safe handling and storage of dirty rags, trash, and waste oil. Flammable liquids and chemicals applied on platform should be immediately cleaned.

ii) Paint containers and hydrocarbon samples, gas cylinders for welding and cutting should be stored properly. Cylinders should be transported in hand-cart.

iii) Smoking should be restricted and no smoking area should be identified.

iv) Special attention should be given to crude oil pump seals, diesel and gas engines which are potential source of ignition in the event of failure.

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v) Fire and smoke detectors i.e. ultraviolet heat, thermal and smoke detector should be function tested once in three months.

vi) Fire is controlled in offshore by water spraying, Halon, CO_2 flooding, DCP and sprinkler system.

vii) Foaming agent is applied for controlling fire in liquid hydrocarbon. The system is not effective in gas fire.

viii) Light weight breathing system should be used.

ix) The fire control plan at offshore should reveal control station, fire alarms and fire detectors, deluge valves and sprinkler, fire extinguishing appliances, fireman outfit and ventilation system.

x) Fire fighting equipment should be maintained in ready to use condition.

6.12.6 Life Saving Appliances

i) Life boats with a speed of 6 knots and carrying capacity upto 50 persons are used in offshore.

ii) No. of life boats on one installation should have a capacity to accommodate twice the number of persons onboard installation.

iii) Launching appliances and life boat equipment should be checked every week.

iv) Boat landing areas should be adequately illuminated.

v) Life raft has no power and they rely on drift.

vi) Life jacket lifts the wearer after entering water.

vii) Life buoys are used to rescue persons if any person accidentally falls in the sea.

viii) All life saving appliances should be inspected by the MMD surveyor /sr. officials once a year.

ix) Every life boat shall be inspected once a week.

x) Every life boat and life raft should be serviced once a year by a competent authority,

6.12.7 Safety Precautions during Helicopter Transportation

i) Passenger briefing regarding safety rules while travelling in helicopter should be carried out before boarding the helicopter.

ii) Emergency procedure should be briefed to all the passenger In case helicopter is to ditch into the sea.

iii) Heli-pad should have a non-skid surface. Nylon rope net should be stretched on the deck.

iv) Proper drainage should be available on helideck.

v) There should be no obstruction on the helideck itself and within 3 meters of its parameter. Closest super structure above the helideck should have red obstruction light.

vi) While landing fire crew of two persons should be standby adjacent to helideck.

vii) Heli-deck should be properly illuminated for night landing.

viii) During switching off helicopter, persons should not be allowed to go out/ towards helicopter

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6.13 DEMOLITION

6.13.1. General provisions

i) When the demolition of any building or structure might present danger to workers or to the public:

(a) necessary precautions, methods and procedures should be adopted, including those for the disposal of waste or residues;
(b) the work should be planned and undertaken only under the supervision of a competent person.

ii) Before demolition operations begin:

(a) structural details and builders' drawings should be obtained wherever possible;
(b) details of the previous use should be obtained to identify any possible contamination and hazards from chemicals, flammables, etc.;
(c) an initial survey should be carried out to identify any structural problems and risks associated with flammable substances and substances hazardous to health. The survey should note the type of ground on which the structure is erected, the condition of the roof trusses, the type of framing used in framed structures and the load-bearing walls;
(d) a method of demolition should be formulated after the survey and recorded in a method statement having taken all the various considerations into account and identifying the problems and their solutions;

iii) All electric, gas, water and steam service lines should be shut off and, as necessary, capped or otherwise controlled at or outside the construction site before work commences.

iv) If it is necessary to maintain any electric power, water or other services during demolition operations, they should be adequately protected against damage.

v) As far as practicable, the danger zone round the building should be adequately fenced off and sign posted. To protect the public a fence 2m high should be erected enclosing the demolition operations and the access gates should be secured outside working hours.

vi) The fabric of buildings contaminated with substances hazardous to health should be decontaminated. Protective clothing and respiratory devices should be provided and worn.

vii) Where plant has contained flammable materials, special precautions should be taken to avoid fire and explosion.

viii) The plant to be demolished should be isolated from all other plant that may contain flammable materials. Any residual flammable material in the plant should be rendered safe by cleaning, purging or the application of an inert atmosphere as appropriate.

ix) Care should be taken not to demolish any parts, which would destroy the stability of other parts.

x) Demolition activities should not be continued under adverse climatic conditions such as high winds, which could cause the collapse of already weakened structures.

xi) To prevent hazards parts of structures should be adequately shored, braced or otherwise supported.

xii) Structures should not be left in a condition in which they could be brought down by wind pressure or vibration.

xiii) Where a deliberate controlled collapse technique is to be used, expert engineering advice should be obtained, and:

(a) it should only be used where the whole structure is to come down because it relies on the removal of key structural members to effect a total collapse;

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(b) it should only be used on sites that are fairly level and where there is enough surrounding space for all operatives and equipment to be withdrawn to a safe distance.

xiv) When equipment such as power shovels and bulldozers are used for demolition, due consideration should be given to the nature of the building or structure, its dimensions, as well as to the power of the equipment being used.

xv) If a swinging weight is used for demolition, a safety zone having a width of at least one-and-a-half times the height of the building or structure should be maintained around the points of impact.

6.13.2. Demolition of structural steelwork

i) All precautions should be taken to prevent danger from any sudden twist, spring or collapse of steelwork, ironwork or reinforced concrete when it is cut or released.

ii) Steel construction should be demolished tier by tier.

iii) Structural steel parts should be lowered and not dropped from a height.

6.14 RADIOGRAPHY

6.14.1 All radiography jobs shall be carried out as per BARC Safety Regulations

6.14.2 During field radiography, nearby area around the radiation source should be cordoned off.

6.14.3 If the field radiography is to be done at the same location repeatedly, it is advisable to provide either a wire fencing around or a temporary brick enclosure.

6.14.4 Special permission/permit should be taken for radiography from area-in-charge.

6.14.5 As far as possible, field radiography should be done only during night time when there is little or no occupancy there.

6.14.6 Radiation warning signals should be pasted all along the cordoned off area.

6.14.7 Entry into the restricted area by unauthorised persons should be strictly prohibited during exposure.

6.14.8 The radiation level alongwith the cordon should be monitored by a suitable and well-calibrated radiation survey meter.

6.14.9 All personnel working with radiography sources should wear appropriate protective equipment and film badges issued by BARC.

6.14.10 Protection facilities such as manipulator rod, remote handling tongs, lead pots, radiation hazard placards and means of cordon off shall be available at each site.

6.14.11 The radiography source shall never be touched or handled directly with hands.

6.14.12 The package containing radiography cameras and sources should never be carried by public transport like bus, train etc.

6.14.13 Radiography sources and cameras, when not in use, should be stored inside a source pit with lock and key arrangement as approved by BARC. The storage room should preferably be located in an isolated area of minimum occupancy and radiation level outside the storage room should not exceed 0.25 mR/hr as per BARC Regulations.

6.14.14 In case of an accident (due to loss or of damage to radiography source), action should be taken in line with BARC Safety Rules/Guidelines.

6.15 SAND/SHOT BLASTING/ SPRAY PAINTING

6.15.1 Sand blasting should be used only after approval from competent person.

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6.15.2 Air Compressor used for sand/shot blasting/painting should have guard and positioned away from the work place.

6.15.3 Exhaust of the prime mover, if IC engine is used, should be directed away from the work place.

6.15.4 In case of motor driven compressor, the body of the motor as well as the compressor to be properly earthed.

6.15.5 The hoses used for compressed air should be of proper quality, and health of the same to be ensured through regular check/ test.

6.15.6 The operator of sand/shot blasting/painting should wear suitable PPE's including mask.

6.15.7 Adequate measures to be taken to suppress dust/spray particle.

6.15.8 Sand used for sand blasting should be suitably covered & protected from to rain/moisture.

6.15.9 When these activities are done in confined places, adequate measure to be taken for proper ventilation.

6.16 WORK ABOVE WATER

6.16.1 General Provisions

i) Where work is done over or in close proximity to water & where possibility of drowning exists, provision should be made for:
   a) Preventing workers from falling into water;
   b) The rescue of workers in danger of drowning;
   c) Safe and sufficient transport.

ii) Provisions for the safe performance of work over or in close proximity to water should include, where appropriate, the provision and use of suitable and adequate:

   a) fencing, safety nets and safety harnesses;
   b) lifebuoys, life jackets and manned boats;
   c) protection against such hazards as reptiles and other animals.

iii) Gangways, pontoons, bridges, footbridges and other walkways or work places over water should:
   a) possess adequate strength and stability;
   b) be sufficiently wide to allow safe movement of workers;
   c) have level surfaces free from tripping hazards;
   d) be adequately lit when natural light is insufficient;
   e) where practicable and necessary, to prevent danger, be provided with toe-boards, guard rails, hand ropes etc.
   f) be secured to prevent dislodgment by rising water or high winds;
   g) if necessary, be equipped with ladders which should be sound, of sufficient strength and length and be securely lashed to prevent slipping.

iv) All deck openings including those for buckets should be fenced.

6.16.2 Rescue & Emergency procedures

i) Persons who work over water should be provided with some form of buoyancy aid. Life jackets should provided sufficient freedom of movement, have sufficient buoyancy to bring persons to the surface and keep them afloat face upwards, be easily secured to the body, be readily visible by way of self luminous paint/strip.

ii) Nobody should work alone on or above water.

iii) Each worker should be trained in the procedure to be followed in the event of an emergency.

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7.0 ADDITIONAL SAFETY PRECAUTION FOR UNITS WITH HYDROCARBONS

In addition to general safety precautions as outlined above for the activities in Clause 6.0, following additional safety precautions need to be taken for the sites within the operating area or nearby, where presence of Hydrocarbons cannot be ruled out.

i) No job shall be carried out without a valid permit. Permit should be in line with OISD-STD-105 "Work Permit System".

ii) Smoking should be prohibited in all places containing readily combustible or flammable materials and "No Smoking" notices be prominently displayed.

iii) In confined spaces and other places where flammable gases, vapours or dusts can cause danger, following measures should be taken:

(a) only approved type electrical installations and equipment, including portable lamps, should be used;
(b) there should be no naked flames or source of ignition;
(c) oily rags, waste and clothes or other substances liable to spontaneous ignition should be removed without delay to a safe place;
(d) ventilation should be provided.

iv) Regular inspections should be made of places where there are fire risks. These include the vicinity of heating appliances, electrical installations and conductors, stores of flammable and combustible materials, welding and cutting operations.

v) Welding, flame cutting and other hot work should only be done after issuance of work permit in line with the requirement of OISD-STD-105 after appropriate precautions, as required, are taken to reduce the risk of fire. For carrying out other jobs also, OISD-STD-105 should be followed strictly.

vi) Fire-extinguishing equipment should be well maintained and inspected at suitable intervals by a competent person. Access to fire-extinguishing equipment such as hydrants, portable extinguishers and connections for hoses should be kept clear at all times.

vii) All supervisors and a sufficient number of workers should be trained in the use of fire-extinguishing equipment, so that adequate trained personnel are readily available during all working periods.

viii) Audio means to give warning in case of fire should be provided where this is necessary to prevent danger. Such warning should be clearly audible in all parts of the site where persons are liable to work. There should be an effective evacuation plan so that all persons are evacuated speedily without panic and accounted for and all plant and processes shut down.

ix) Notices should be posted at conspicuous places indicating:

(a) the nearest fire alarm;
(b) the telephone number and address of the nearest emergency services.

x) The work site shall be cleared of all combustible materials, as Sparks and molten metal coming from the welding job can easily ignite combustible materials near or below the welding site. If the combustible materials cannot be removed from the area, the same shall be properly shielded.

xi) A dry chemical type fire extinguisher shall be made available in the work area. Also fire protection facilities like running hoses etc. as per permit should be complied with.

xii) Wherever required, welding screens shall be put up to protect other equipment in adjoining areas against flying sparks. Material used should be metal/asbestos/water curtain.

xiii) Welding or cutting of vessels/ equipments used in Hydrocarbon/ hazardous chemicals shall be done after proper gas freeing and verifying the same with the explosive-meter.

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xiv) The confined space/equipment shall be gas freed and cleaned.

xv) Absence of any toxic gas and any flammable gas above explosion limit shall be ensured with the help of gas detection instrument and explosive meter respectively.

xvi) Used and hot electrode stubs shall be discarded in a metal bucket.

xvii) Use approved and certified flame arrestors for vehicles.

xviii) Work permit to be obtained, if construction work is carried out within existing operating area.

8.0 FIRST AID

First aid facilities should be provided in line with various statutory regulations like factory act etc. However following care should be taken:

i) First aid, including the provision of trained personnel should be ensured at work sites. Arrangement should be made for ensuring the medical attention of the injured workers. First aid box should be as per the Factory rules.

ii) Suitable rescue equipment, like stretchers should be kept readily available at the construction site.

iii) First-aid kits or boxes, as appropriate and as per statutory requirements, should be provided at workplaces and be protected against contamination by dust, moisture etc.

iv) First-aid kit or boxes should not keep anything besides material for first aid in emergencies.

v) First-aid kits and boxes should contain simple and clear instructions to be followed, be kept under the charge of a responsible person qualified to render the first aid and be regularly inspected and stocked.

vi) Where the work involves risk of drowning, asphyxiation or electric shock, first-aid personnel should be proficient in the use of resuscitation and other life saving techniques and in rescue procedures.

vii) Emergency telephone numbers of nearby Hospitals, Police, Fire Station and Administration should be prominently displayed.

9.0 DOCUMENTATION

The intention of keeping documentation of all types of accident(s) is to prevent recurrence of similar accident(s). All accidents should be reported as per OISD Guidelines (OISD-GDN-107) and Factories act, 1948.

All accidents (major, minor or near miss) should be investigated, analysed and recommendations should be documented along with implementation status.

All related data should be well-documented and further analysis highlighting the major cause(s) of accidents be done. This will help in identifying thrust areas and training needs for prevention of accidents.

10.0 SAFETY AWARENESS & TRAINING

Safety awareness to all section of personnel ranging from site-in-charge to workmen helps not only preventing the risk but also build up the confidence. Time and expenditures also get saved as a result.

Safety awareness basically seeks to persuade/inform people on safety besides supplementing skill also. Awareness programme may include followings:

i) **Poster:** Posters with safety slogan in humorous, gruesome demonstrating manner may be used to discourage bad habits attributable to accidents by appealing to the workers'

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pride, self-love, affection curiosity or human aspects. These should be displayed in prominent location(s).

ii) **Safety Sign Boards**: Different type of message of cautioning, attention, notice etc. should be displayed at the appropriate places for learning/ awareness of the workmen while working at site.

iii) **Films & Slides:** Film(s) narrating the accident including the causes and possible remedial ways of preventing the recurrence of a similar accident should be displayed at regular intervals. Slides consisting main points of the film show may also be shown to workers.

iv) **Talks, lectures & conferences:** The success of these events would depend much on audience's understandings of the speaker (s). The speakers are to be knowledgeable and good presenter. Speakers should know to hold the attention and to influence the audiences.

v) **Competitions:** Organise competition(s) between the different deptts/categories of workers. The sense of reward/recognition also will improve safety awareness and result in enhancing safety levels.

vi) **Exhibitions:** Exhibitions also make the workers acquainted with hazards and means of preventive measures.

vii) **Safety Publication:** Safety publications including pocket books dealing with ways of investigation and prevention in the field of safety and so on, may be distributed to workers to promote the safety awareness.

viii) **Safety Drives:** From time to time, an intensive safety drive by organising a safety day or a safety week etc. should be launched.

ix) **Training:** Training for covering the hazards for different trade should be imparted. Training should also include the specific hazards related to a job in addition to the general safety training as has been dealt in various chapters and should include all workers. Reference may be drawn from OISD-STD-154.

11.0 REFERRENCES

i) *Factory Act, 1948*

ii) *Indian Electricity Rules*

iii) *Safety & Health in Construction by ILO*

iv) *The Building & Other Construction Workers (Regulation, Employment and Conditions of Service) Act 1996*

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ANNEXURE I

LIST OF SAFETY CODES FOR CIVIL WORKS PUBLISHED BY BUREAU OF INDIAN STANDARDS

Sr.no	Code No.	Title
01.	IS : 818	Code of Practice for Safety and Health Requirements in Electric and Gas Welding and Cutting Operations – First Revision.
02.	IS : 875	Code of practice for Structural safety of buildings: Masonry walls
03.	IS : 933	Specification for Portable Chemical Fire Extinguisher, Foam Type – Second Revision.
04.	IS : 1179	Specification for Equipment for Eye and Face Protection during Welding – First Revision.
05.	IS : 1904	Code of practice for Structural safety of buildings: Shallow foundations
06.	IS : 1905	Code of practice for Structural safety of buildings: Masonry walls
07.	IS : 2171	Specification for Portable Fire Extinguishers, Dry Powder Type – Second Revision.
08.	IS : 2361	Specification for Building Grips – First Revision.
09.	IS : 2750	Specification for Steel Scaffoldings.
10.	IS : 2925	Specification for Industrial Safety Helmets – First Revision.
11.	IS : 3016	Code of Practice for Fires Precautions in Welding and Cutting Operations – First Revision.
12.	IS : 3521	Industrial safety belts and harnesses
13.	IS : 3696 – Part I	Safety Code for Scaffolds and Ladders : Part I – Scaffolds.
14.	IS : 3696 – Part II	Safety Code for Scaffolds and Ladders : Part II – Ladders.
15.	IS : 3764	Safety Code for Excavation Work.
16.	IS : 4014 -Part I & II	Code of practice for Steel tubular scaffolding
17.	IS : 4081	Safety Code for Blasting and Related Drilling Operations.
18.	IS : 4082	Recommendations on staking and storage of construction materials at site
19.	IS : 4130	Safety Code for Demolition of Buildings – First Revision.
20.	IS : 4138	Safety Code Working in Compressed Air-First Revision
21.	IS : 4756	Safety code for Tunneling works
22.	IS : 4912	Safety requirements for Floor and Wall Openings, Railings and toe Boards –First Revision.
23.	IS : 5121	Safety Code for Piling and other Deep Foundations.
24.	IS : 5916	Safety Code for Construction involving use of Hot Bituminous Materials.
25.	IS : 5983	Specification for Eye Protectors – First Revision.
26.	IS : 6922	Structures subject to underground blasts, criteria for safety and design of

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27.	IS : 7155	Code of recommended practices for conveyor safety
28.	IS : 7205	Safety Code for Erection on Structural Steel Works.

Sr.no	Code No.	Title
29.	IS : 7069	Safety Code for Handling and Storage of Building Materials.
30.	IS : 7293	Safety Code for Working with Construction Machinery.
31.	IS : 7323	Guidelines for operation of Reservoirs
32.	IS : 7969	Safety code for handling and storage of building material
33.	IS : 8758	Recommendation for Fire Precautionary Measures in construction of Temporary Structures and Pandals.
34.	IS : 8989	Safety Code for Erection of Concrete Framed Structures.
35.	IS : 9706	Code of Practices for construction of Arial ropeways for transportation of material
36.	IS : 9759	Guidelines for de-watering during construction
37.	IS : 9944	Recommendations on safe working load for natural and man-made fibre roap slings
38.	IS : 10291	Safety code for dress divers in civil engineering works
39.	IS :10386 – Part I	Safety Code for Construction, Operation and Maintenance for River Valley Projects.
40.	IS :10386 – Part II	Safety Code for Construction, Operation and Maintenance of River Valley Projects.
41.	IS : 11057	Code of practice for Industrial safety nets
42.	IS : 13415	Code of Practice on safety for Protective barriers in and around building
43.	IS : 13416	Recommendations for preventive measures against hazards at working places

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OISD – GDN – 207

FOR RESTRICTED CIRCULATION ONLY

OCTOBER 2002

CONTRACTOR SAFETY

OISD – GUIDELINES – 207

Oil Industry Safety Directorate
Government of India
Ministry of Petroleum & Natural Gas

CONTRACTOR SAFETY

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CONTRACTOR SAFETY

1.0 INTRODUCTION

Oil and Gas operations like Drilling, Production, Refining, Transportation and Distribution are inherently hazardous. A large number of contractor workforce is deployed to carry out construction, maintenance and other jobs. The analysis of the incidents in the Petroleum Sector indicates that a large number of incidents involved contractor workforce and have resulted in either casualty or injury besides leading to property damage and operational interruptions and environmental degradation.

In order to improve the safety levels of oil installations, the contractor safety is of utmost importance and there is a need to institute a good contractor safety system.

2.0 SCOPE

This standard covers broadly the guidelines on the management system for enhancing the safety levels of the contractor workforce deployed in construction, maintenance and operation activities in the hydrocarbon industry.

The safety precautions to be taken while carrying out different activities during construction / maintenance have separately been covered in OISD-GDN-192 on "Safety Practices during Construction".

3.0 DEFINITIONS

Work station/Work site

A place/unit where the job is carried out by contractor/executing agency in specified manner with safety, during construction phase or in operation phase.

Owner

Any physical or legal person/entity for whom prescribed job is carried out.

It shall also include owner's designated representative / consultant /nominee / agent, authorised from time to time to act for and on its behalf, for supervising / co-ordinating the activities of the contractor/execution agency.

Contractor / Executing Agency

A physical or legal person/entity having contractual obligation with the owner, and who deploys one or more worker on the site.

Contractor Worker

It covers all workmen who are either self-employed or employed through contractor, the casual workers and includes contractor's supervisor, working at a location / site employed directly by Owner or through their contractor.

Incident

An incident is an unplanned, uncontrolled, unintended or unforeseen event, caused by unsafe acts and / or unsafe conditions, resulting in or having the potential to result in personal injury and/or property damage.

Consultant

Consultant is a physical or legal person/entity engaged by owner to provide the consultancy services to owner for management of the contract on their behalf or as specified.

Designer

Designer is a physical or legal person / entity engaged by owner to provide design services of a work site.

Owner's Representative / Engineer In Charge

The Owner's representative/Engineer-in-charge is the one, who has been designated by the owner to manage the contract.

Owner's Safety Officer

A properly trained person designated by owner who ensures safety at work site.

4.0 DUTIES/ RESPONSIBILITIES

4.1 OWNER

4.1.1 Owner's Management

The commitment to safety has to be emphasised by the owner by practice by its own management and employees at all levels. The duties and responsibilities of owner should include:

i) To institute a mechanism for identification and compliance of all applicable statutory rules & regulations (Refer Annexure I for a list of few important Bureau of Indian Standards & statutory regulations).

ii) To provide specific information to contractors and make workers aware on the hazards associated with job assigned.

iii) To provide information about Risk Mitigation measures available at the place of work.

iv) To provide the contractor with information on Owners Safety Plan & Regulations, Emergency Management Plan, lockout/ tag out procedure, confined space entry, work permit system, excavation/trench permit system etc.

v) To specify rules (e.g. for security including access arrangements) and safety rules such as fire protection, first aid arrangements, Work Permit systems etc.

vi) To provide comprehensive list of statutory regulations / standards and specification, to be complied with during execution of contract, in the tender document itself.

vii) To ensure training of the contractor workforce, medical examination, and proper usage of safety equipment.

viii) To specify the requirements of Health, Safety and Environment (HSE) (commensurate with the nature of job) in Pre- Qualification criteria.

ix) To designate Engineer-in-charge and safety officer.

x) To arrange for a multi-disciplinary safety audit team to conduct surprise / regular safety audits and monitor the implementation of the recommendations.

xi) To introduce suitable schemes for motivation of the contractor worker to adhere to safety guidelines.

xii) To review safety practices & their implementation through periodic surprise visit of the work sites and monthly review meeting.

xiii) To develop the HSE plans and incorporate the same in the tender document.

xiv) To liaise with external agencies like press, public etc and with law enforcement, regulatory, statutory agencies etc.

xv) To report to statutory agencies on safety compliance and accidents, if any.

4.1.2 Owner's Representative/Engineer-in-charge

The duties & responsibilities of engineer-in-charge should include:

i) To ensure that all Contract requirements including Health, Safety, Environment & Security are complied with.

ii) To ensure that contractor workforce deployed is adequately qualified, trained and in state of health to commensurate with the requirements of the job.

iii) To ensure that the Tools / Tackles and Machinery being used are properly

tested and are in sound working conditions and necessary resources proposed for providing safe place of work and necessary PPE are being used.

iv) To take the required necessary corrective action immediately upon noticing or receipt of a report on noncompliance or any such condition which poses a threat to health, safety or environment. If during the course of execution of the contract, any situation of non-compliance with the contractor's safety and health plan are noticed / reported, the same will be taken up with the contractor for correction. In the event of repeated non compliance, suitable action to be initiated as per the contract.

v) To ensure that the incidents are reported to all concerned within stipulated timeframe.

vi) To ensure submission of a plan for safe working (Method Statement) from contractor and approval of the same by competent person / department.

vii) To ensure that Work Permit System in line with OISD-STD-105 is adhered to.

viii) To ensure availability of all the documentation needed for the execution of contract.

ix) To ensure that the quality controls have been maintained during fabrication/erection and all jobs required for safe commissioning have been carried out.

x) To ensure safe dismantling of all temporary facilities/connections put up by the contractor, after completion of work.

xi) To compile a report on the safety performance (at the conclusion of each contract or periodically such as annually for renewable and long-term contracts), which is to be considered in future when selecting contractors.

xii) To ensure that the Consultant, contractor and sub-contractor employ / designate qualified & trained Safety Engineer / Officer commensurate with requirement of the job.

4.1.3 Owner's Safety Officer

The duties & responsibilities of the Owner's Safety Officer should include:

i) To assess the hazards associated with jobs in consultation with all concerned and establish safe working procedure including identification of the escape routes.

ii) To establish a written record of factors which can cause injuries and illnesses.

iii) To undertake routine/surprise inspections of all work sites and identify unsafe conditions & practices, if any. Check for compliance of the safety practices being followed with approved HSE Plan.

iv) To investigate promptly the incidents (including near-miss) in order to advise corrective and/or preventive action.

v) To maintain statistical information for use in analyzing all phases of incidents and events involving contract personnel.

vi) To provide the means for complying with the reporting requirements for occupational injuries and illnesses.

vii) To check whether the proposed working arrangements are safe and satisfactory, particularly at the interface between the contractor's planned work and owner’s existing facilities.

viii) To communicate to the Contractor the imposed restrictions which may affect the work/personnel such as the temporary closure of a corridor or electrical isolation of equipment.

ix) To review and monitor the contractor's adherence to approved HSE plan and all applicable environmental, health, and safety requirements.

x) To ensure that Consultant, Contractor's Managers, Supervisors and workmen at all levels (who will plan, monitor, oversee and carry out the work) undergo Health, Safety and Environmental training in their respective responsibilities with respect to conducting work safely and with due regard for the protection of the environment.

xi) To identify areas of operations where specialized training is required to deal with potential dangers.

xii) To document and to bring to the attention of the Owner's Supervisor and Contractor any non-compliance/violation of the safety norms against approved safety and health plan or safety and health requirements and also raise these issues in the Safety Committee Meetings.

xiii) To take part in Tool Box Meetings at random and to ensure maintenance of records.

4.2 CONTRACTOR

4.2.1 Contractor's Management

Duties & responsibilities of the contractor should include the following:

i) To implement safe methods and practices, deploy appropriate machinery, tools & tackles, experienced supervisory personnel and skilled work force etc. required for execution.

ii) To prepare a comprehensive and documented plan for implementation, monitoring and reporting of Health, Safety and Environment (HSE) and implement the same after its approval.

iii) To nominate qualified & trained Safety Engineers / Officers reporting to the Site in charge, for supervision, co-ordination and, liaison for the implementation of the safety plan.

Similar HSE Plan should be implemented at the sub- contractor's or supplier's site /office. However the compliance with the HSE Plan is to be the sole responsibility of the Contractor.

iv) To arrange suitable facilities in liaison with the owner for drinking water, toilets, lighting, canteen, crèche etc as applicable as per Laws/ Legislation at site and also arrange for workmen compensation insurance, third party liability insurance, registration under ESI / PF act etc as applicable.

v) To arrange for fire protection equipment as per the advice of owner.

vi) To ensure that its employees have completed appropriate health and safety training as required by the statute / regulation and also as per requirements of the Owner / Consultant. The documentation of such training imparted to all its employees should be maintained and produced for verification as required.

vii) To comply with all the security arrangements of owner.

viii) To ensure that the plant and equipment used on-site by him / his employees is correctly registered, controlled and maintained in sound working condition.

ix) To ensure availability of First Aid boxes and First Aid trained attendant.

x) To ensure that all incidents including near misses are reported to all concerned immediately.

In construction projects where sub-contractors are engaged, the contractor should set out the responsibilities, duties and safety measures that are expected of

the sub-contractor's workforce. These measures should include the provision and use of specific safety equipment, methods of carrying out specific tasks on safety and the inspection and appropriate use of tools.

The responsibilities indicated separately under contractor's Supervisor, Safety Officer and contract worker are contractually that of the Contractor and legally binding on the Contractor only. However the specific detailing as above has been given separately for guidance and operational convenience.

The selection of sub contractors, if employed, should be approved by the owner. Sub-contractor should comply fully with all safety rules and conditions applicable to the main contractor.

4.2.2 Contractor's Supervisor / Safety Officer

Duties & responsibilities of the Contractor's supervisor/Safety Officer should include the following:

i) To ensure strict compliance with work permit system by carrying out work only with appropriate work permits and after ensuring that all safety precautions / conditions in the permit are complied with and closing the same after job completion.

ii) To ensure that required guards and protective equipment are provided, used, and properly maintained.

iii) To ensure that tools and equipment are properly maintained and tested.

iv) To plan the workload and assign workers to jobs in commensuration with their qualification, experience and state of health.

v) To ensure that the workers understand the work to be done, the hazards that may be encountered, and the proper precautions/procedure for carrying out the work safely.

vi) To take immediate action to correct any violation of safety rules observed or reported.

vii) To ensure that the workers likely to be exposed to hazardous chemicals/materials have access to appropriate Material Safety Data Sheets (MSDS), wherever applicable, and provide necessary mitigation measures.

viii) To ensure inspection and certification of all tools (hand operated as well as mechanically operated) being used. Defective tools shall be immediately removed.

ix) To ensure that appropriate warning signboards or tags are displayed.

x) To ensure that workers have proper training for their job assignments, including use of appropriate PPE and first aid fire fighting equipment.

xi) To comply with all applicable safety and health standards, rules, regulations and orders issued by competent authority pertaining to the assigned activities.

xii) To ensure that sick and/or injured workers receive appropriate first aid and/or medical attention.

xiii) To report each incident and/or injury in accordance with established procedures and assist in investigation.

xiv) To take necessary action for correction of any unsafe act / condition at the workplace. However, in case the same is outside the limits of authority, it should be reported to Owner's Engineer-in-charge immediately.

xv) To conduct daily inspections to ensure compliance with safety standards, codes, regulations, rules and orders applicable to the work concerned.

xvi) To ensure that workers under their supervision are aware of their responsibilities.

xvii) To arrange daily tool box meeting and regular site safety meetings and maintain records in the required formats. (Refer Clause 5.9.1)

xviii) To arrange stand-by supervisor/ worker where situations so demand.

xix) To develop methods and display banners/posters to inculcate safety consciousness.

xx) To attend training and ensure participation of his workers for training as per schedule arranged by the Owner / Consultant and keeps himself updated.

xxi) To keep records of number of persons working at the site.

xxii) To keep a constant liaison with Engg-in-charge / owners' representative on safety issues.

xxiii) To maintain accident & nearmiss record in a register.

xxiv) To ensure that only PPE of the approved type by owner is used at site.

A separate Safety Officer should be assigned, where more than 100 workers are employed at site. For smaller jobs, the supervisor should assume the role of the safety officer also.

4.2.3 Contract workers

The duties & responsibilities of the contractor worker should include the following:

i) To perform work safely as per the job requirement and instructions.

ii) To inform all concerned regarding unsafe conditions/acts.

iii) To wear PPE as stipulated and necessary for the job.

iv) To inform promptly to their supervisor regarding all work related incidents resulting in personal injury, illness and/or property damage.

v) To take all necessary and appropriate safety precautions to protect themselves, other personnel and the environment.

4.3 CONSULTANT

The activities and responsibilities covered under the scope of the Owner may be delegated to the consultant in those cases as applicable, based on the respective contract conditions. The primary responsibility of Consultant is to ensure compliance with agreed HSE plan for the contract by the Contractor. However those responsibilities conferred on Owner as Principal employer cannot be delegated to consultant.

Where the consultant's scope involves Engineering and Design, those factors under **Designer** should also be applicable.

In all cases, the Consultant's scope should include submission of latest HSE plans for work under his and Contractor's purview and implementing the same till job completion. It should conform to owner's overall HSE plan. This should include Guidelines and Implementation and Reporting Methodology to be followed with required report formats.

Adequate number of Safety Officers shall be provided by the Consultant with necessary skills required for the work to be performed.

The Consultant shall review the documents submitted by the contractor and advise owner on acceptance as well as advise suitability and number of Contractor's safety officers / supervisors.

4.4 DESIGNER

The Process Designer should identify all hazards and risks likely to be encountered during fabrication, erection including

dismantling, Pre-commissioning, commissioning and Performance run to meet the Guarantees and advise the risk mitigation measures.

All the hazards and safety measures to be adopted while handling Dangerous chemicals and Catalysts should be detailed by the Process Licensor and the same should be again included in the scope of the suppliers. Specific write ups/MSDS should be obtained from Patented single source suppliers also.

Designs should recognize, include and apply safe practice during preparation, construction and subsequent operational use and maintenance after completion of the Project.

All documents including drawings and calculations are to be originated, checked and approved in accordance with latest international codes, standards, specifications and design basis philosophy.

Preferred use of low risk materials, policy on hazardous substances, preferred use of low noise and dust-suppressed equipment etc. should be encouraged.

5.0 SAFETY MANAGEMENT

5.1 JOB SAFETY ANALYSIS (JSA)

Job safety analysis (JSA) provides a mechanism by which the contractor, safety officer or supervisor take a detailed look at how an individual task is performed and its inherent hazards and preventive measures. This procedure helps in integrating accepted safety and health principles and practices into a particular operation. In a JSA, each step of the job is examined to identify potential hazards and to determine the safest way to do the job.

A job safety analysis includes five steps as below:

- Select a job
- Break the job down into a sequence of steps
- Identify the hazards against each of these steps (based on knowledge of accident, causes of injuries and personal experience) and determine the preventive measures to overcome these hazards
- Apply the controls to the hazards
- Evaluate the controls

5.2 CRITERIA OF SELECTION OF A CONTRACTOR

“Contractor Safety” can be ensured to a large extent if competent agency for execution of assignment or job, based on HSE system agreed upon by owner, is selected. It is necessary to assess his capabilities and competencies to perform work safely.

A databank should be developed for all the contractors for their past performance on HSE aspects. An attempt should also be made to get similar data from other similar industries.

The data required will depend upon complexity involved in the job and type / size of resources required. Format needs to be suitably developed depending upon size, nature of the job & hazard associated therein. The format designed should also take care of the skill required to carry out the job.

Performance review is essential for all type of contractors. It helps in recording actual performance/experience with contractors while the contract is in progress. It is essential that resources agreed as per the contract are reviewed at mobilization stage for ensuring compliance from the day one and thorough effective supervision / monitoring system are at place.

This activity also helps in taking timely action in case of unsatisfactory performance to correct the situation and ensure safe work during execution period and deciding about suitability of the contractor for future jobs.

The periodicity of such performance review will depend upon size/type/complexity of contract. However, the performance should be reviewed at least at mobilisation stage and at the end of the contract.

5.3 SITE PLANNING AND LAYOUT

Before starting the construction/maintenance job at existing workplace in operation or green field locations, following should be ensured: -

i) Details regarding location of workshop/ fabrication yard, site office, stores, laboratory, electrical installations, placement of construction machinery, medical and welfare facilities, lighting underground and above ground piping route, cable route etc. should be decided prior to commencement of the work in consultation with owner / Consultants and implementation should be ensured. Layout should be displayed at strategic locations.

ii) The resources required to meet any emergency situations like fire fighting, first aid etc. should be planned and mobilized as per the job requirement.

iii) The sequence or order in which work to be done and any hazardous operations or processes should be identified.

iv) Free access to site shall be provided with clear roads, passage, gangways, staircases etc. Access to construction site should be leveled, open and free from any obstructions like construction material or scrap/waste, exposure to hazards such as falling materials, material handling equipment and vehicles. Any pit or ditch shall be covered or barricaded.

v) Arrangements should be made to maintain good housekeeping at site. Scrap and debris generated out of construction work should be removed/disposed off at a regular interval as directed. Emergency exit should be provided in case of blockade of primary exit.

vi) Suitable warning notices and also the routes to and from welfare facilities should be displayed prominently.

vii) Pedestrian pathways and routes for vehicular traffic (light/heavy vehicles including material handling equipment) should be earmarked.

viii) Artificial lighting to be provided at places where work continues or workers pass by after sunset or in case natural light is insufficient like confined spaces.

ix) Keep all equipment /machines under cover to prevent them from dust, rain/flood water, heat etc. and follow storage instructions as applicable for each of them.

5.4 GATE ENTRY PROCEDURE

Gate entry at any site / workplace / unit is to be restricted to ensure entry of only authorised persons / vehicles.

5.4.1 Entry procedure for all contractor worker should be as follows:

A. Issuance of Pass

i) The passes are to be issued after the owner's representative/engineer-in-charge forwards the application of the contractor providing complete details of the workers being engaged. The contractor may be asked to submit Character & Antecedents (C&A) verification of individual worker from concerned authorities.

ii) With regard to issuance of passes for all vehicles including material handling equipment, owner's representative / engineer-in-charge should forward the application only after ensuring that all documents pertaining to the fitness of the vehicle/equipment and valid driving license of the driver etc. are available.

iii) The passes should be serially numbered with address, contractor name, identification mark, signature of the worker etc.

iv) Special colour code for passes should be used for persons entering different

areas like Administrative Block, Unit area, Project Area (wherever applicable).

v) Contractor workers engaged on routine basis for long periods should be provided with monthly photo pass.

vi) Special permit is required separately for working beyond normal working hours and holidays.

B. Gate Entry

i) Entry of the contractor's employees should be permitted with valid gate passes only.

ii) Entry of contractor's workers should be allowed in presence of authorized representative of contractor.

iii) Records of persons at the time of entry/exit should be maintained.

iv) At the entry gate of the location, a physical checking for non-carrying of lighter, matchboxes, explosives etc. should be carried out.

v) Gate passes/Identity Cards should be displayed on persons at all the times.

vi) For Mega-projects at existing / operating installations, it is preferable to have a separate gate for entry of contractor workers and also the project areas should be segregated fencing from operational area by fencing / other physical means.

vii) No vehicle should be allowed to enter in an operational area without proper flame arrestor.

viii) Awareness on Safety through training / posters etc. highlighting Do's and Don'ts should be spread within entire contractor workforce. Video/Audio tapes on Safety Topics should be played preferably.

ix) For occasionally engaged labourers such as for material handling etc., spot photograph may be preferably taken with two copies (one for preparing the pass and other for attachment with gate register). Specific advice and recommendation of User Department may be given due cognizance. Relevant details are to be written. The pass should be collected back at the gate after day's work.

5.4.2 Tank Truck Loading (TTL) Operation :

At the loading / unloading location, a large no. of Tank Trucks of petroleum products enter the installation. Crew members are generally not regular entrants. The procedure should be as follows:

i) The gate pass should be issued to the individual crew members on written request of the transporter mentioning TT registration nos., License and certificate of training as per MV rule 9.

ii) Character & Antecedent (C & A) verification of the TTL crew through local police is to be done preferably and record maintained.

iii) For loading/unloading purpose, register entry at security gate is made before allowing entry into the premises with recording of names of crew members, time of entry, pass Sr. No., TT no. etc.

iv) For loading/unloading, crew is allowed entry alongwith TT only, after checking of TT from explosive/security point of view.

v) Out time, invoice no., Destination etc., are recorded while TTs go out of the security gate.

5.5 TRAINING

Training is to educate contractor workforce on various hazards associated with the job/workplace and on the respective preventive / mitigation measures to avoid untoward incidents.

i) Workers should be adequately and suitably:

(a) informed of potential safety and health hazards to which they may be exposed to at their workplace;

(b) instructed and trained in the measures available for the prevention, control and protection against those hazards.

ii) No person should be employed in any work at a workplace unless that person has received the necessary information, instruction and training so as to be able to do the work competently and safely. The competent authority should, in collaboration with employers, promote training programs to enable all the workers to read and understand the information / instructions related to safety and health matters.

iii) The information, instruction and training should be given in a language understood by the worker and written, Oral, visual and participative approaches should be used to ensure that the worker has assimilated the information.

iv) Every worker should receive instruction and training regarding the general safety and health measures common to the workplace. This should include:

(a) general rights and duties of workers at the workplace;

(b) means of access and egress both during normal working and in an emergency;

(c) measures for good housekeeping;

(d) location and proper use of welfare amenities and first aid facilities provided;

(e) proper use and care of the items of personnel protective equipment and protective clothing provided to the worker;

(f) general measures for personal hygiene and health protection;

(g) fire precautions to be taken;

(h) action to be taken in case of an emergency;

(i) requirements of relevant safety and health rules and regulations.

Copies of the relevant safety and health rules, regulations and procedures should be available to workers upon the commencement of and upon any change of employment.

5.5.1 Training Techniques

a) Lectures

This technique should be applied when it is required to transfer information in local language to a large contractor workforce with controlled content and time.

b) Case Study

This is an effective technique based on the presentation of case of real events by Trainer to highlight probable causes like Human Error, ignorance about the job etc.

c) Videos

Videos, an effective technique of communication, should be used to display the right techniques of performing a task in a safe manner and hazards associated with a job.

d) Demonstration at site

Right way to do a job should invariably be demonstrated to workers at the site itself. The right way is also a safe way. Hazards due to wrong procedures, short cuts and their adverse effects etc. should also be highlighted.

5.5.2 Training/Awareness Module and Frequency

A. General Safety Training to all categories of contractor employees should be imparted before induction and annually thereafter. No person should be allowed to enter the installation without undergoing this training. This training program may cover:

i) Mandatory uses of PPE like Cotton clothes, Helmet, Safety Shoes, Safety Belts etc.

ii) Probable Hazards

iii) Important Telephone No / Escape route

iv) First Aid

v) Use of Fire extinguisher

The contractor workers, if engaged in operation of the plants/facilities, should be trained in line with Clause No. 4.6 of OISD-GDN-206 on “Safety Management System”. For other categories of contractor workers, training modules for different category employees are as follows:

B. Contractor Supervisor

Contractor Supervisor should be trained in accordance with the provision of clause no. 5.1.1.2, 5.2.7, 5.3.10, 5.6.12 and 5.7.8 of OISD-STD-154 on 'Safety Aspects in Functional Training'

C. Contractor Worker

Yearly training programme should be carried out for contractor worker and the records should be maintained. The training programme should cover at least the following:

i) Worker responsibility for safety of himself and work area.

ii) Associated hazards with the job and job area including electrical shock hazards.

iii) Importance of First Aid fire fighting equipment, their use & operations

iv) Communication system at the installation

v) Fire / Accident Reporting procedure

vi) General Safety rules

vii) Safety Measures during execution of job such as:

- Welding / Cutting / Grinding
- Working at height
- Confined space entry
- X ray / radiation
- Erection / Dismantling of scaffolding
- Tank construction and repairs
- Handling of chemicals etc.

viii) Importance & use of PPE

ix) Emergency Routes

x) Assembly Points

xi) Job Specific Training

D. Consultant / Contractor

Awareness program should be carried out for Consultant / Contractor at the time of induction. This program should cover at least the following:

i) Responsibility of contractor for safety of their personnel and work area

ii) Hazardous property of Petroleum products and chemical used

iii) Communication system

iv) Fire / Accident Reporting procedure

v) Medical facility available

vi) Statutory requirements

vii) Importance of First Aid equipment and required at the site

viii) Work Permit system

ix) Direct/ Indirect losses due to accident

x) Safety Measures while executing the jobs such as:

- Welding / Cutting / Grinding
- Working at height
- Confined space entry
- X ray / radiation
- Erection / Dismantling of scaffolding
- Tank construction and repairs
- Handling of chemicals etc.
- electrical jobs

xi) Safety training needs of their supervisors and workers

xii) Importance & Use of PPE at the site

xiii) General Safety rules at the installation

E Security Personnel

Training program should be carried out for Security personnel at the time of induction and annually thereafter and the records should be maintained. The training program should cover at least the following:

i) Layout of Plant and Facilities
ii) Vulnerable locations
iii) Safety regulations (Statutory and in company)
iv) Fire Protection Facilities and Locations
v) Role in case of Fire / Disaster
vi) Emergency Procedure and Drills
vii) Industrial First Aid
viii) Use of Personnel Protective Equipment
ix) Disaster Management Plan

5.6 INSPECTION / AUDIT

Inspection / Audit is a tool to evaluate compliance of all safety requirements. Most of the information could be gathered through site inspection using ready-made check lists to ensure that contractors / agencies abide by the safety rules and norms while working at operating / construction sites.

A checklist, while carrying out different type of jobs, should be developed based on hazards associated with the job being performed and requirements as per OISD-GDN-192 on "Safety Practices during Construction". Typical format is enclosed at Annexure II, which should be modified to suit the requirement of the site / job to be done.

Before starting the work and at regular intervals thereafter, Contractor's Supervisor/safety Officer and Owner's representative / Engineer-in charge/safety Officer should inspect as per the checklist so prepared to ensure that contractor has prepared to start the work with all safety precaution required for safe execution of job.

5.7 PENALTIES FOR NON-COMPLIANCE

Financial or other type of penalties like seizure of gate passes, stoppage of work for a limited period etc. may be levied on the contractors or their workers for non-compliance of safety rules. A provision of suitable accident severity based penalty clause for contractor may be incorporated to ensure adherence of systems and procedures. A few of the usual non-compliance are as follows:

-- Non-usage of PPEs like Safety helmet / Safety shoes / Safety goggles / Respiratory protection etc. by the contractor personnel

-- Non-usage of the safety belt and life line by the workers while working at height

-- Non-provision of basic safety requirement such as 24 V lamp for working in confined space, uncertified / non standard lifting tools, earth leakage protection & earthing connections for electrical appliances as per Indian Electricity Rules, emergency isolation switches etc.

-- Violation of Safety Permit conditions like Fire fighting equipment

-- Non-barricading of area while rigging, digging etc.

-- Working without valid work permit

-- Unauthorised road closure/blockage

5.8 INCIDENT REPORTING AND INVESTIGATION SYSTEM

All the incidents including near-miss should be reported immediately by contractor's Supervisor to Contractor and owner's Supervisor/Engineer-in-charge, who should inform to Owner's Safety Officer and owner's Management. Owner's Safety Department will be required for onward reporting as per OISD, Statutory requirements.

All accidents regardless of the extent of injury or damage should be investigated in order to find probable causes, lessons learnt thereof and remedial measures required to prevent its recurrence.

The incident investigation should be done as per provision of clause no. 4.12 of OISD-GDN-206 on 'Safety Management System' . All the recommendations of investigation / Enquiry Report need to be monitored closely for its implementation. A proper record needs to be maintained to ensure implementation of all the recommendations and same should be reviewed from time to time.

5.9 SAFETY COMMITTEE MEETINGS

Following three type of safety committee meetings should be held aiming at raising the level of safety consciousness at the site:

5.9.1 Toolbox meeting

To maintain awareness, update training and convey important safety and health information, contractor supervisors should conduct tool box meetings at least weekly and also prior to start of any work. All the contractor workers should attend this meeting. The owner's supervisor/Engineer-in-charge and safety officers should also attend these meetings on random basis. Tool box meeting should be conducted more frequently depending upon circumstances. Record of the same can be maintained in the following typical format.

TOOLBOX MEETING FORM

SUBJECT :
PRESENTER :
DATE :
TIME : From….. To…..
CONTENT IN BRIEF :

Participant's Name	Signature
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5.9.2 Site Safety Committee Meeting

Primary purpose of this safety committee is to enable owner, contractor and workers to work together to monitor the site safety and health plan so as to prevent accidents and improve working condition on site. Its size and membership will depend on the size and nature of job.

The safety committee should include representatives of owner, consultant, contractor identified as safety officer/supervisor. It should be headed by Engineer-in-charge.

The safety committee should have regular and frequent meetings, atleast fortnightly, to discuss the safety and health program on site and to make suggestions for improvement. The meetings should be documented with a time bound action plan. The functions carried out by safety committee should include:

i) Review compliance of pending items of last Safety meetings.

ii) Consideration of the reports of safety personnel.

iii) Discussion of accident/near-miss and illness reports in order to make appropriate recommendation for prevention.

iv) Examination/evaluation of suggestions made by workers.

v) Dissemination of acquired knowledge through training programs and information sharing sessions.

vi) Discussion & review of Fire Prevention & Disaster Management Plan.

vii) To send recommendation to Apex Body for consideration/approvals.

5.9.3 Safety Review Meeting by Location Head

This meeting should be headed by the Location head and attended by Owner's Supervisor/Engineer-in-charge, owner's safety Officer and all concerned department heads. Prime purpose of this review is to ensure that all the recommendations of various committees are being complied with and to take decisions on critical points raised. This meeting should take place at least once in every quarter. All the investigation reports/ audit findings with status of implementation of recommendations should be discussed.

5.10 SAFETY EQUIPMENT / PERSONNEL PROTECTIVE EQUIPMENT

The type of safety equipment to be used is decided based on the job requirement. Selection should be made based on OISD-GDN-192, OISD-STD-155 (Part I & II) and the job requirement. Safety equipment / Personnel Protective Equipment (PPE) shall be of approved make. Contractor shall provide necessary training to each employee regarding proper usage and upkeep of PPE including its limitation.

A register showing stock and issue of PPE should be maintained by the contractor at site and must be available for inspection.

6.0 REFERENCES

1) OISD-GDN-206 on "Safety Management System"

2) OISD-GDN-192 on "Safety During Construction"

3) OISD-STD-155 Part(I&II) on "Personnel Protective Equipment"

4) Building & Other Construction workers (Regulation of Employment & Condition of Service) Act 1996

ANNEXURE I

LIST OF SAFETY CODES FOR CIVIL WORKS PUBLISHED BY BUREAU OF INDIAN STANDARDS

Sl.no.	Code No.	Title
1	IS: 818	Code of Practice for Safety and Health Requirements in Electric and Gas Welding and Cutting Operations – First Revision.
2	IS: 875	Code of practice for Structural safety of buildings: Masonry walls
3	IS: 933	Specification for Portable Chemical Fire Extinguisher, Foam Type – Second Revision.
4	IS: 1179	Specification for Equipment for Eye and Face Protection during Welding – First Revision
5	IS: 1904	Code of practice for Structural safety of buildings: Shallow foundations
6	IS: 1905	Code of practice for Structural safety of buildings: Masonry walls
7	IS: 1989 – Part II	Leather Safety Boots and shoes for heavy metal industry
8	IS: 2171	Specification for Portable Fire Extinguishers, Dry Powder Type – Second Revision
9	IS: 2361	Specification of Building Grips – First Revision
10	IS: 2750	Specification for Steel Scaffoldings
11	IS: 2925	Specification for Industrial Safety Helmets – First Revision
12	IS: 3016	Code of Practice for Fires Precautions in Welding and Cutting Operations – First Revision
13	IS: 3521	Industrial Safety Belts and harnesses
14	IS: 3696 – Part I	Safety Code for Scaffolds and Ladders: Part I – Scaffolds
15	IS: 3696 – Part II	Safety Code for Scaffolds and Ladders: Part II – Ladders
16	IS: 3764	Safety Code for Excavation Work
17	IS: 4014 – Part I & II	Code of Practice for Steel Tubular Scaffolding
18	IS: 4081	Safety Code for Blasting and Related Drilling Operations
19	IS: 4082	Recommendations on stacking and storage of construction materials at site
20	IS: 4130	Safety Code for Demolition of Buildings – First Revision
21	IS: 4138	Safety Code for working in compressed air – First Revision

22	IS: 4756	Safety Code for Tunneling works
23	IS: 4912	Safety requirements for Floor and Wall openings, Railings and toe boards – First Revision
24	IS: 5216 – Part I & II	Recommendations on safety procedures and practices in electrical work
25	IS: 5121	Safety code for piling and other deep foundations
26	IS: 5916	Safety Code for Construction involving use of Hot Bituminous materials
27	IS: 6994 – Part I	Specifications for safety gloves: Part I – Leather and Cotton gloves
28	IS: 5983	Specification for Eye Protectors – First Revision
29	IS: 6922	Criteria for safety and design of structures subject to underground blasts
30	IS: 7155	Code of recommended practices for conveyor safety
31	IS: 7205	Safety Code for Erection on Structural Steel Works
32	IS: 7069	Safety Code for Handling and Storage of Building Materials
33	IS: 7293	Safety Code for Working with Construction Machinery
34	IS: 7323	Guidelines for operation of Reservoirs
35	IS: 7969	Safety Code for handling and storage of building materials
36	IS: 8758	Recommendation for Fire Precautionary Measures in construction of Temporary Structures and Pandals
37	IS: 8989	Safety Code for Erection of Concrete Framed Structures
38	IS: 9706	Code of Practices for construction of Arial ropeways for transportation of material
39	IS: 9759	Guidelines for de-watering during construction
40	IS: 9944	Recommendations on safe working load for natural and manmade fibre rope slings
41	IS: 10667	Guide for selection of industrial safety equipment for protection foot and leg
42	IS: 10291	Safety Code for dress divers in civil engineering works
43	IS: 10386 – Part I	Safety Code for Construction, Operation and Maintenance for River Valley Projects
44	IS: 10386 – Part II	Safety Code for Construction, Operation and Maintenance for

		River Valley Projects
45	IS: 11057	Code of Practice for Industrial Safety Nets
46	IS: 13415	Code of Practice on safety for Protective barriers in and around building
47	IS: 13416	Recommendations for preventive measures against hazards at working places

Statutory Regulations

Latest Statutory Acts and Rules, as given below, may be referred:-

1. The Petroleum Acts 1934 and Petroleum Rules 2002
2. The Factory Act, 1948 (As amended by Factory Amendment Act 1987) and concerned Factory Rules
3. The Water (Prevention and Control of Pollution) Act 1974 & Rules 1975
4. The Environment (Protection) Act 1986
5. The Manufacturing, Storage and Import of Hazardous Rules 1989
6. The Hazardous Wastes Management (Management & Handling) Rules 1989
7. The Indian Electricity Act 1901 and Rules 1956
8. The Indian Explosive Acts, 1884 & The Indian Explosive Rules 1983
9. The Gas Cylinder Rules 1981and the static & Mobile Pressure Vessels (Unfired) Rules 1981
10. The Indian Boiler Act 1923 and Regulations 1950
11. The Public Liability Act 1991 as amended in 1992
12. The Motor Vehicle act 1988 and Central Motor Vehicle rules 1989
13. Building & Other Construction workers (Regulation of Employment & Condition of Service) Act 1996

In addition to above, various other statutory acts like EPF, ESIS, Minimum wage act and other local statutory requirements shall also be complied with.

ANNEXURE II

CHECK LIST FOR SAFETY INSPECTION / AUDIT

Job _____ Location _____ Date of Audit_____Frequency _____

Inspected by _____ Contractor (s) _____

Sl.no.	ITEM	YES	NO	NA	REMARKS / ACTION
1.0	**PERSONNEL PROTECTIVE EQUIPMENT (PPE):** Are following PPEs being used as per the job requirements?				
1.1	Safety Helmets				
1.2	Safety Shoes				
1.3	Gum Boots				
1.4	Safety Belts with life line				
1.5	Gloves				
1.6	Ear Plug				
1.7	Goggles				
1.8	Shield Glass				
1.9	Face Protection				
1.10	Breathing Apparatus				
1.11	Canister Mask				
1.12	Hand wash / Eye wash/ Respirating filter / cloth				
1.13	Boiler Suit				
1.14	Others				
2.0	**HOUSE KEEPING**				
2.1	Whether Waste Bins are provided / used				
2.2	Are Passageways / Walkways clear?				
2.3	Is General neatness O.K.?				
2.4	Is the Ground free from oil, grease etc. and is not found to be slippery?				
2.5	Others				

3.0	**EXCAVATION**				
3.1	Whether soil stability is checked?				
3.2	Whether proper shoring for the excavation is provided to prevent cave-in for side of slope >45 Degree?				
3.3	Whether proper precautions have been taken if the excavation is adjoining to heavy structure like building, street and roadways?				
3.4	While excavating whether proper slope usually 45^0 & suitable benches of 0.5 m width at each 1.5 m depth are provided?				
3.5	Whether barricading of 1m height with glowing caution board is provided for excavation beyond 1.5m depth?				
3.6	Whether excavating earth is placed beyond 1m of the edge of the trench?				
3.7	Whether heavy vehicle movement is restricted to come too close to the excavating area?				
3.8	Whether necessary precaution is taken for underground pipes, sewers, cables by contractors?				
3.9	Whether excavation hot work permit is taken?				
3.10	Whether extra precaution is taken for bailing out water properly while excavating?				
3.11	During rains whether the excavation is done with extra precaution to prevent caving in?				
3.12	Whether two separate entry/ exit points with necessary ladders / steps, as per requirement, have been provided?				
3.13	Whether one person is available at all the time to communicate any hazards noticed with workers working in deep trenches or excavation?				
3.14	Whether necessary precautions like				

	regular gas testing are being taken in areas having hydrocarbons and LPG so that no gas accumulation takes place in the trenches.				
3.15	Whether IS: 4081-1986 & Indian Explosive act & rules for storage, handling & carrying of explosive material and execution of blasting operation is followed?				
3.16	Whether in case of mechanised excavation, caution board is provided for do's and don'ts like 'Nobody to enter' within one meter of the extreme reach?				
3.17	Whether the following are inspected during excavation work :- a) Boulder formation encountered b) Collapsing / development of cracks of sides c) Marked damage to support d) Unexpected fall of ground e) Inspection of site after each blast.				
3.18	Others				
4.0	**PERMITS**				
4.1	Whether valid work permit is issued to start any work?				
4.2	Whether all conditions of the permit are fulfilled before starting the job?				
4.3	As noted in the permit, whether compliance of all the recommendations are ensured?				
4.4	Whether permits are available at work site all the times?				
4.5	Whether hot work permit registered in fire station?				
4.6	Whether permits are being closed after the completion of job?				
4.7	Others				
5.0	**SAFETY IN CUTTING / WELDING/GRINDING**				
5.1	Whether LPG / Oxygen / Acetylene/ Gas				

	cylinders are kept outside only while working in confined space?				
5.2	Are Acetylene /LPG cylinders kept in upright position and secured at designated places under shed – wet gunny bags wrapped around it if the same is under sun at designated place?				
5.3	Check cylinder and cylinder valves for any kind of damage?				
5.4	Whether protective valves are kept on cylinder while not in use?				
5.5	Whether proper means and method for transportation of cylinders to avoid dropping and rolling are being adopted / followed?				
5.6	Whether gas cylinders, regulators are kept away/free from oil and grease?				
5.7	Whether all hoses were found to be free of any damage or crack?				
5.8	Whether oxygen and acetylene cylinders are stored separately?				
5.9	Whether color coding is being used for easy identification of different type of cylinders and hoses?				
5.10	Whether cylinder keys are available near the cylinder?				
5.11	Whether gas torches with NRV with flash back arrestor of approved make are only being used?				
5.12	Whether pressure gauges are in working condition and checked from time to time?				
5.13	Whether welding shields are used while welding?				
5.14	Whether proper earthing for welding machines are provided?				
5.15	Whether power is taken from approved sources (welding receptacles)?				
5.16	Whether welding receptacles are properly grounded?				

5.17	Whether welding cables are maintained in good condition and without any joints/ cuts?				
5.18	Whether to avoid short circuit, welding machines are protected against rain?				
5.19	Whether earth connectors are securely connected to the job and not to the adjoining pipeline or structure?				
5.20	Whether flame arrestor of DG set is of approved make and quality?				
5.21	Others				
6.0	**SAND / SHOT BLASTING**				
6.1	Whether sand blasting is used only after getting approval from competent authority?				
6.2	Whether air compressor used for sand / shot blasting are positioned away from work place?				
6.3	Whether exhaust of the prime mover is directed away from the work place?				
6.4	Whether in case of motor driven compressor, the body of the motor as well as the compressor is properly earthed?				
6.5	Whether line operator of sand/shot blasting wear suitable PPEs including mask?				
6.6	Whether adequate measures are adopted to confine dust/spray particles?				
6.7	Whether adequate measures are taken for proper ventilation while the work is done in confined space?				
6.8	Others				
7.0	**SAFETY WHILE WORKING AT HEIGHTS / SCAFFOLDING / LADDERS**				
7.1	Whether work permit is obtained to take up work at height above 3 mts?				
7.2	Whether steel pipes scaffoldings are used in unit/off site areas?				

7.3	Whether provision for suitable platform with all scaffoldings are made? Whether its construction is as per specification with toe board and railing?				
7.4	Whether the area below working at height is cordoned?				
7.5	Whether suitable platform is provided?				
7.6	Whether ISI approved quality and good condition safety belts are used while working at heights?				
7.7	Whether life line of safety belt is Anchored to an independent secured support capable of withstanding load of a falling person?				
7.8	Whether the area around the scaffold is cordoned off to prohibit the entry of unauthorized person?				
7.9	Whether ropes used are of good condition and adequate strength free of defects?				
7.10	Whether ladder is placed at secured and leveled surface?				
7.11	Whether it is extended 1.5 Mts. Above the landing point?				
7.12	Whether ladder used are of adequate length and tying short ladder is avoided?				
7.13	Whether metallic ladders are placed away from electrical system?				
7.14	Whether tools or materials are removed after completion of the day's job at heights?				
7.15	Whether a valid permit is obtained before taking up work on asbestos or fragile roof?				
7.16	Whether sufficient precaution is taken while working on fragile roof?				
7.17	Whether provision is made to arrange duck ladder, crawling board for working at fragile roof?				
7.18	Whether scaffolding has been erected on rigid / firm / levelled surfaces only?				

7.19	Whether scaffold has been inspected by competent person prior to being put in use?				
7.20	Whether the scaffolding has been designed for the load to be borne?				
7.21	Whether the erection and dismantling of the scaffolding is being done only by trained persons and under supervision?				
7.22	Whether safety net with proper working arrangement and life line has been provided?				
7.23	Others				
8.0	**SAFETY IN CONFINED SPACE**				
8.1	Whether a permit is obtained to enter a confined space?				
8.2	Whether gas test for hydrocarbon, toxic gas, oxygen level is obtained before entering any confined space?				
8.3	Whether adequate oxygen level is ensured in confined space before entering? If not, whether all precaution like using of Breathing Apparatus set is ensured?				
8.4	Whether, in case of chance of ingress of hydrocarbon gases / toxic gases, Personnel Monitoring System (PMS) is used or not?				
8.5	Whether only in presence of a supervisor, worker enters in confined space?				
8.6	Whether provision of sufficient means of entry and exit is available?				
8.7	Whether provision of ventilation to remove welding fumes, dust, exhaust gases are made?				
8.8	Whether provision of 24V (Hand lamps with cage as per OISD-STD-155) light for working inside space is made?				

8.9	Is it strictly ensured that a stand-by trained person is standing outside before a person enters a confined space and communication is being maintained all the time with workers working inside?				
8.10	Whether life belt with one end under control of stand-by person outside is kept while working in confined space?				
8.11	Whether Personnel protective Equipment are in good condition as specified in the permit?				
8.12	Whether absence of Hydrogen Sulfide, CO or other toxic gas is ensured before entering into a confined space? If yes, whether proper required PPE like BA, Gas Mask are used.				
8.13	Whether boxing up is being done only as per the approved procedures and by competent persons?				
8.14	Whether all the safety precautions listed in OISD-GDN-192 are taken while working in sewers, OWS etc.?				
8.15	Whether proper house keeping is being maintained inside the confined space?				
8.16	Whether training has been provided to workers working in the confined space and the workers only of sound health are being asked to work in the confined space?				
8.17	Others				
9.0	**SAFETY IN MATERIAL HANDLING**				
9.1	Whether all lifting tools, tackles, machines, chains, ropes etc. are of sound construction, made of sound material and maintained in good condition?				
9.2	Whether safe working load, date of testing visibly marked/painted on the equipment?				
9.3	Whether lifting tools, tackles are of adequate strength for the load to be handled?				
9.4	Whether all parts including the working gears fixed or movable of every lifting machine, chain, rope, tackles specify the				

	following condition: a) Thoroughly examined by competent person at least once a year or such interval as required by statutory authority. b) Document of such examination are maintained and produced to owner supervisor before use of particular equipment?				
9.5	Whether chain blocks and cables are inspected before each use to assure their sound condition?				
9.6	Whether hoist and lift if used are: a) Properly maintained and thoroughly examined by competent authority at least once in every year. b) A register to be maintained to record particulars of such examination in prescribed forms and shall be produced to the owner supervisor before use.				
9.7	Whether area below the movement of boom of crane is cleared to avoid injury from falling objects?				
9.8	Whether it is ensured that crew of truck leave the truck in crane handling area before starting loading / unloading, if not involved in rigging operation?				
9.9	Whether transporting material from one place to another is done by suitable means?				
9.10	Whether carrier with sufficient capacity without projecting parts is used for transporting materials?				
9.11	Whether riggers engaged are well trained and conversant with signaling procedures including night signalling if required?				
9.12	Whether permission of authorized person is obtained before working on or near an overhead crane?				
9.13	Whether trained riggers are available all the time along with crane?				

9.14	Whether barricading has been done to ensure no unauthorised person enters in the working area of the crane?				
9.15	Whether lifting plan has been prepared and approved before start of the work?				
9.16	Whether route of crane movement has been planned before the crane moves out of the garage?				
9.17	Whether it has been ensured that no electrical cable come within 3 metres or safe distance from the boom of the crane?				
9.18	Whether boom is being kept in the horizontal position or locked while idling?				
9.19	Whether material is being stacked / destacked in trucks with the help of wedges to ensure no slippage while loading / unloading takes place?				
9.20	Whether the forklift / crane is being operated only by trained person?				
9.21	Others				
10.0	**ELECTRICAL SAFETY**				
10.1	Has the Electrical Line Clearance procedure been followed involving electrical and other concerned Dept. and filling of formats?				
10.2	Have Danger Signs with Voltage rating/ Men at work signboards been displayed at both Sub Station as well as the work site?				
10.3	Has the contractor worker understood the electrical circuit on which he is going to work with probable electrical hazards and mitigation measures to be adopted?				
10.4	Whether contractor has engaged electrician (s) having valid electrical licence in line with provisions in Indian Electricity Rules?				

10.5	Have all checks prior to switching operation been carried out and authorisation of owner/ user section obtained subsequently?				
10.6	Have all earthing links on electrical conductors removed before charging the line/ apparatus?				
10.7	Have PPE as prescribed under Indian Electricity Rules been in place, kept healthy and used?				
10.8	Are earthing and bonding arrangement of non-current carrying metallic parts in line with provisions of Indian Electricity Rules – 1956 amended time to time as IS: 3043?				
10.9	Have electrical part of OISD-GDN-192 and Clause No. 9.0 for Temporary installations in OISD-173 been understood and followed wherever applicable?				
10.10	Are flexible wires having voltage of 240 volts above earth potential taken through PVC conduits?				
10.11	Whether portable hand lamps with a voltage rating of not more than 24 volts used with flameproof enclosures in confined spaces within columns, vessels etc?				
10.12	Have the Switches, MCBs, fuses etc. been inspected for proper ratings?				
10.13	Has Earth Leakage Circuit Breaker (ELCB) been used on the incoming side to protect against leakage of current? Is the device tested every time the work is started?				
10.14	Whether all portable appliances are provided with insulated Three pin Plugs and socket arrangement?				
10.15	Whether industrial type extension boards and plug sockets are used?				
10.16	Has the electrical equipment brought to site by contractor been inspected by owner's supervisor/ safety officer for damage/cuts/abrasion etc? Is record of				

	Insulation Resistance, wherever required , being kept?				
10.17	Have standard practices for termination of conductors/ cables been followed (e.g. use of proper lugs, crimping tool, cable glands etc)? Is cable armour in continuity from feeding point to load?				
10.18	Are the Contractor supervisor and workmen well acquainted with first aid for electrical shock?				
10.19	Are the wires/ cables identifiable along their route towards the load by using colour coding and/or markers?				
10.20	Others				
11.0	**ROAD WORK**				
11.1	Whether site is barricaded and provided with warning signs including night warning lamps/ self glowing markers at appropriate location for diversion of traffic?				
11.2	Whether mixing aggregates with bitumen is done with the help of batch mixing plants? If no, whether adequate precautions have been taken?				
11.3	Whether road rollers, bitumen sprayers, pavement finishers are driven by experienced drivers with valid driving licenses?				
11.4	Whether the worker handling hot bitumen sprayers or spreading bitumen aggregate mix or mixing bitumen with aggregate are provided with PVC hand gloves rubber shoes with pegging upto knee joints?				
11.5	Others				
12.0	**FORM WORK, REINFORCEMENT**				
12.1	Whether form work, shuttering, shoring etc. are adequately designed and provided to erect the structure and to support the expected load?				

12.2	Whether staging (support) for shuttering is designed for loads like worker movement, impact load and other incidental loads during construction?				
12.3	Whether workers use PPEs at work site?				
12.4	Whether all safety procedures are adopted while cutting rod?				
12.5	Whether proper staging and bundling is provided for supplying rods at height?				
12.6	Whether sufficient cross bracings are provided for high staging works at vulnerable points?				
12.7	Others				
13.0	**CONCRETING**				
13.1	Whether the concreting area is barricaded?				
13.2	Whether vibrator hoses, pumping concrete accessories are in healthy condition and mechanically strong?				
13.3	Whether it is ensured that no pipe line in concrete pumping system is attached to any temporary strut such as scaffolds etc.?				
13.4	Whether it is checked that safety guards around moving parts are provided in concrete mixer/ machines?				
13.5	Whether earthing of electrical mixers, vibrator etc. are checked?				
13.6	Whether entry of unauthorised person in the concreting area is restricted?				
13.7	Whether adequate lighting arrangement is made in the concreting area if working during night?				
13.8	Whether PPEs like gum boots, gloves and dust masks etc. are being used?				
13.9	For overhead or underground work, whether form work and shuttering have been checked so that the same do not collapse during concreting?				

13.10	Others				
14.0	**DEMOLISHING (DEMOLISHING BY BLAST NOT CONSIDERED)**				
14.1	Has the stability of structure been examined by competent person and found OK?				
14.2	Are non-sparking tools being used, if required?				
14.3	Is intermittent clearing operation being done to keep the area reasonably tidy and clean?				
14.4	Whether effective barricading has been provided?				
14.5	Whether Electrical and other facilities like water, oil, gas pipelines have been isolated/protected?				
14.6	Whether the plan of demolition (including sequence of activities) has been prepared and approved prior to start of the work?				
14.7	Others				
15.0	**RADIOGRAPHY**				
15.1	Are safety precautions for handling of source as per guidelines of BARC being followed?				
15.2	Is the potency of the source being used within acceptable limits as per the BARC regulations?				
15.3	Is the area being cordoned with proper signs during radiography?				
15.4	Does proper place exist as per BARC regulations for storage of source / Personnel safety equipment?				
15.5	Does the radiographer has valid certificate of radiography from competent authority (BARC)?				
15.6	Is radiographer using Exposure Meter / Dosi Meter?				
15.7	Whether minimum occupancy of the				

	premises / workplace is being ensured while radiography is in progress?				
15.8	Is permit system being followed?				
15.9	Others				
16.0	**ADDITIONAL SAFETY PRECAUTION FOR UNITS WITH HYDROCARBONS**				
16.1	Are jobs being carried out with a valid work permit only as per OISD-STD-105 "Work Permit System".				
16.2	Is smoking prohibited in all places containing combustible or flammable materials and "No Smoking" notices prominently displayed.				
16.3	Are only approved type electrical installations and equipment, including portable lamps, being used?				
16.4	Are oily rags, waste, wooden materials and clothes or other substances liable to spontaneous ignition being removed?				
16.5	Are the combustible materials properly shielded in case same cannot be removed from the area?				
16.6	Has welding screens (like metal/asbestos/ water curtain) been put up to protect other equipment / facilities/ OWS/ drains in adjoining areas against flying sparks, as may be required?				
16.7	Is Gas-testing being done with the means of a calibrated Gas detection Meter prior to start of Hot work and being done subsequently at regular intervals as per the requirement?				
16.8	Are regular inspections being done of places where there are fire risks like in the vicinity of heating appliances, electrical installations and conductors, stores of flammable and combustible materials, welding and cutting operations?				
16.9	Are fire-extinguishing equipment being placed at strategic locations and are kept well maintained and inspected at suitable intervals by a competent person.				
16.10	Are access to fire-extinguishing equipment such as hydrants, portable				

	extinguishers and connections for hoses kept clear at all times?				
16.11	Are all supervisors and a sufficient number of workers trained in the use of fire-extinguishing equipment?				
16.12	Are audio means, to give warning in case of fire provided, audible in all parts of the site where persons are liable to work?				
16.13	Is there an effective evacuation plan in place so that all persons are evacuated speedily without panic?				
16.14	Others				
17.0	**EMERGENCY PROCEDURES**				
17.1	Is signaling / siren system effective?				
17.2	Is arrangement for rescuing affected person adequate?				
17.3	Are signs showing emergency exit route installed?				
17.4	Is emergency exit route clear of obstacles?				
17.5	Is communication system adequate?				
17.6	Whether emergency vehicle with driver has been provided to meet any emergency situation?				
17.7	Does any tie-up with hospitals or local doctors exist?				
17.8	Has the assembly point for workers in case of emergency been identified and earmarked?				
17.9	Has training been provided to a few workers for First Aid?				
17.10	Others				
18.0	**WELFARE FACILITIES**				
18.1	Is hygienic conditions prevailing at labour camps?				
18.2	Are First Aid facilities available?				

18.3	Does proper sanitation exist at site office and labour camps?				
18.4	Does any arrangement of medical facilities like tie ups with nearby hospital exist?				
18.5	Is proper drinking water facility available for workmen & staff?				
18.6	Are crèches provided for children (if applicable)?				
18.7	Is any proper place/canteen/restroom provided for eating food and taking rest?				
18.8	Is any place earmarked for storing / keeping clothing?				
18.9	Is Adequate washing facility available?				
18.10	Does proper ventilation at working place exist?				
18.11	Others				
19.0	**GENERAL**				
19.1	Are illumination levels at workplace and passages adequate?				
19.2	Is communication system adequate?				
19.3	Are display and caution boards provided at strategic locations?				
19.4	Are road barriers being used for blocking any roads/passage?				
19.5	Has the structure been adequately secured against storm/high winds during construction/ erection?				
19.6	Are the equipment properly earthed?				
19.7	Are vehicles being checked like brakes, oil, lights etc. on regular basis?				
19.8	Is compressed air being used only for its intended purpose and not for any other purpose?				
19.9	Are only proper clothes and not loose clothes being used while working around				

	machinery?				
19.10	Are nails or other sharp objects being removed or bent?				
19.11	Are machine guards over moving parts of machinery such as coupling, pulley, wheel etc. installed?				
19.12	Whether after maintenance of machinery the guards are securely fitted before putting into operation?				
19.13	Are working platforms / gangways provided with hand rails & toe guards?				
19.14	Are swing platforms provided with chains & secured adequately when not in use?				
19.15	Are the approaches to work sites being maintained & kept clear of obstacles?				
19.16	Whether engines of equipment entering into the operating area have exhaust and muffler system with approved spark arrestor?				
19.17	Whether vehicles/engine driven equipment, electrical equipment and tools used are certified?				
19.18	Whether contractors inform his workers about hazards and safe procedures?				
19.19	Whether sufficient care is taken so that spark do not go outside working enclosure & falls below?				
19.20	Whether contractor's qualified / trained supervisor is present?				
19.21	Whether all exhausts of engines are provided with approved type of flame arrestors and exhaust is not facing toward the place where the workers are working?				
19.22	Others				

Signature of the Auditor

निर्माण स्थल पर स्वास्थ्य, सुरक्षा एवं पर्यावरण प्रबंधन हेतु मानक विनिर्देश

STANDARD SPECIFICATION FOR HEALTH, SAFETY & ENVIRONMENTAL MANAGEMENT AT CONSTRUCTION SITES

Rev. No.	Date	Purpose	Prepared by	Checked by	Standards Committee Convenor	Standards Bureau Chairman
					Approved by	
2	18/04/2023	REVISED & UPDATED	BT	RK	JPV	SM
1	07/06/2022	REVISED & UPDATED	BT	RK	JPV	SM
0	23/12/2020	REVISED & UPDATED	BT	RK	AKK	S Mazumdar

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Abbreviations:

AERB	:	Atomic Energy Regulatory Board
ANSI	:	American National Standards Institute
BARC	:	Bhabha Atomic Research Centre
BS	:	British Standard
BOCW	:	Building and other construction workers
BOO/BOOT	:	Build, Own, Operate/Build, Own, Operate, Transfer
EIL	:	Engineers India Limited
EIC	:	Engineer In charge
ELCB	:	Earth Leakage Circuit Breaker
EPC	:	Engineering, Procurement and Construction
EPCC	:	Engineering, Procurement, Construction and Commissioning
ESI	:	Employee State Insurance
GCC	:	General Conditions of Contract
GM	:	General Manager
GTAW	:	Gas Tungsten Arc Welding
HOD	:	Head of Department
HSE	:	Health, Safety & Environment
HIRAC	:	Hazard, Identification Risk Assessment & Control
HMV	:	Heavy Motor Vehicle
HV	:	High Voltage
IS	:	Indian Standard
ISO	:	International Organization for Standardization
IE	:	Indian Electricity
LTI	:	Lost Time Injuries
LMV	:	Light Motor Vehicle
LOTO	:	Lock Out & Tag Out
LPG	:	Liquefied Petroleum Gas
LSTK	:	Lump Sum Turn Key
MV	:	Medium Voltage
OH&S	:	Occupational Health and Safety
OISD	:	Oil Industry Safety Directorate
PPE	:	Personal Protective Equipment
PUC	:	Pollution Under Control
RC	:	Registration Certificate
RCCB	:	Residual Current Circuit Breaker
RCM	:	Resident Construction Manager or Site-in-Charge, as applicable
SCC	:	Special Conditions of Contract
SLI	:	Safe Load Indicator
SWL	:	Safe Working Load
TPI	:	Third Party Inspection
TBT	:	Tool Box Talks

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Members: Sh.Janak Kishore, ED (Projects)
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1.0 SCOPE

This specification establishes the Health, Safety and Environment (HSE) management requirement to be complied by Contractors/Vendors including their sub-contractors/sub vendors during construction.

This specification is not intended to replace the necessary professional judgment needed to design & implement an effective HSE system for construction activities and the contractor is expected to fulfill HSE requirements in this specification as a minimum. It is expected that contractor shall implement best HSE practices beyond whatever are mentioned in this specification.

Requirements stipulated in this specification shall supplement the requirements of HSE Management given in relevant Act(s)/ Legislations, General Conditions of Contract (GCC), Special Conditions of Contract (SCC) and Job (Technical) Specifications. Where different documents stipulate different requirements, the most stringent shall apply.

2.0 REFERENCES

The document should be read in conjunction with following:

- General Conditions of Contract (GCC)
- Special Conditions of Contract (SCC)
- Building and other construction workers Act, (Refer Appendix-D)
- Indian Factories Act,(Refer Appendix-D)
- Job (Technical) specifications
- Relevant International/ National Codes (refer Appendix-A for standards/codes on HSE)
- Relevant State & National Statutory requirements.
- Operating Manuals Recommendation of Manufacturer of various construction Machineries
- Occupation Health and Safety Management System (OHSAS 18001:2007/ISO 45001) and Environmental Management System (ISO 14001:2015)

3.0 REQUIREMENTS OF HEALTH, SAFETY & ENVIRONMENTAL (HSE) MANAGEMENT SYSTEM TO BE COMPLIED BY BIDDERS

3.1 Management Responsibility

3.1.1 HSE Policy & Objectives

The Contractor should have a documented and duly approved HSE policy &objectives to demonstrate commitment of their organization to ensure health, safety and environmental aspects in their line of operations.

The Contractor's senior management shall provide strong visible leadership and continuously demonstrate commitment to develop, operate and maintain, review and continually improve a HSE culture at site which empowers individuals to take responsibility for their safety and embrace and accept nothing but responsible HSE behaviour.

Contractor shall refer in clause No. 3.3.23 for Key Performance Indicator (KPI).

3.1.2 Management System

The HSE management system of the Contractor shall cover the HSE requirements & commitments to fulfill them, including but not limited to what have been specified under clauses 1.0 and 2.0 above. The Contractor shall obtain the approval of its site specific HSE Plan from EIL/ Owner prior to commencement of any site works. Corporate as well as Site management of the Contractor shall ensure compliance of their HSE Plan at work sites in its entirety in true spirit.

3.1.3 Indemnification

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Contractor shall indemnify & hold harmless, Owner/EIL & their representatives, free from any and all liabilities arising out of non-fulfillment of HSE requirements or its consequences.

3.1.4 Deployment &Qualifications of Safety Personnel

The Contractor shall designate/deploy various categories of HSE personnel at site as indicated below insufficient number. In no case, deployment of safety Supervisor / Safety Steward shall substitute deployment of Safety Officer / Safety Engineer what is indicated in relevant statute of BOCW Act i.e. deployment of safety officer/Safety Engineer is compulsory at project site. The Safety supervisors, Safety stewards/Observer etc. would facilitate the HSE tasks at grass root level for construction sites and shall assist Safety Officer /Engineers.

Contractor shall appoint safety personnel as given below for every work shift:

(i) Safety Observer/Steward: Contractor shall depute one Safety Observer/Steward for every 100 workers or part thereof

(ii) Safety Supervisor: In addition to above(i), contractor shall depute one Safety Supervisor for every 250 workers or part thereof

(iii) Safety Engineer: In addition to above (i&ii), one safety engineer/ officer for every 1000 workers or part thereof.

Contractor shall intimate/obtain prior permission from EIC before demobilizing any safety personnel. The Contractor shall mobilize suitable safety personnel as replacement.

a) Safety Steward/Observer

As a minimum, he shall possess class XII pass certificate and trained in fire-fighting as well as in safety/occupational health related subjects, with minimum two year of practical experience in construction work environment and should have adequate knowledge of the local language spoken by majority of the workers at the construction site.

b) Safety Supervisor

As a minimum, he shall possess a recognized graduation Degree in Science (with Physics & Chemistry) or a Diploma in Engg. Or Tech. with minimum Two years of practical experience in construction work environment and should possess requisite skills to deal with construction safety & fire related day-to-day issues.

c) Safety Officer / Safety Engineer

Safety Officer/Engineer should possess following qualification & experience:

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(i) Recognized degree in any branch of Engg. or Tech. or Architecture with practical experience of working in a building or other construction work in supervisory capacity for a period of not less than two years, **or** possessing recognized diploma in any branch of Engg. or Tech with practical experience of working in a building or other construction work in supervisory capacity for a period of not less than five years.

(ii) Recognized degree or one year diploma in Industrial safety(from any Indian Institutes recognized by AICTE or State Council of Tech. Education of any Indian State/Union territory) with at least one paper in construction safety (as an elective subject).

(iii) Preferably have adequate knowledge of the language spoken by majority of the workers at the construction site.

Alternately

(i) Person possessing Graduation Degree in Science with Physics **or** Chemistry and degree or one year diploma in Industrial Safety (from any Indian institutes recognized by AICTE or State Council of Tech. Education of any Indian State/ Union Territory) with practical experience of working in a building, plant or other construction works (as Safety Officer, in line with Indian Factories Act, 1948) for a period of not less than five years, may be considered as Safety Officer.

d) HSE In-Charge

In case there is more than one Safety Officer at any project construction site, one of them, who is senior most by experience (in HSE discipline), may be designated as HSE In-Charge. Duties & responsibilities of such person shall be commensurate with that of relevant statute and primarily to coordinate with top management of EIL/Client and contractors.

In case the statutory requirements i.e. State or Central Acts and / or Rules as applicable like the Building and Other Construction Workers' Regulation of Employment and Conditions of Service- Act,1996 or State Rules (wherever notified), the Factories Act, 1948 or Rules (wherever notified), etc. are more stringent than above clarifications, the same shall be followed.

Contractors shall ensure physical availability of safety personnel at the place of specific work location, where Hot Work Permit is required/granted. No work shall be started at any of the project sites until above safety personnel & concerned Site Engineer of Contractor are physically deployed at site. The Contractor shall submit a HSE Organogram clearly indicating the lines of responsibility and reporting system and elaborate the responsibilities of safety personnel in their HSE Plan.

Upon fulfilling the basic requirement of qualification and relevant experiences, the performance of contractor HSE personnel's is to be monitored.

The good performing contractor's HSE personnel at site shall be rewarded upon assessment of performance by EIL/Owner. The non-performing HSE personnel shall be counselled by EIL/Owner & suitable action may be taken for suspension from site for 3-6 days. Contractor shall arrange training for non performing HSE personnel.

HSE In –Charge of the contractor shall be given the status at par with the other heads of department and shall report to Head of Project.

The Contractor shall verify & authenticate credentials of such safety personnel and furnish Bio-Data/Resume/Curriculum Vitae of the safety personnel as above for EIL/Owner's approval, at least 1 month before the mobilization. The Contractor, whenever required, shall arrange submission of original testimonials/certificates of their Safety personnel, to EIL/Owner (for verification/scrutiny, etc.)

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Imposition/ Realization of penalty shall not absolve the Contractor from his/her responsibility of deploying competent safety officer at site.

Adequate planning and deployment of safety personnel shall be ensured by the Contractor so that field activities do not get affected because of non-deployment of competent & qualified safety personnel in appropriate numbers.

3.1.5 **Implementation, Inspection/Monitoring**

a) The Contractor shall be fully responsible for planning, reporting, implementing and monitoring all HSE requirements and compliance of all laws & statutory requirements.

b) The Contractor shall also ensure that the HSE requirements are clearly understood & implemented conscientiously by their site personnel at all levels at site.

c) The Contractor shall ensure physical presence of their field engineers / supervisors, during the continuation of their contract works / site activities including all material transportation activities. Physical absence of experienced field engineers / supervisors of Contractor at critical work spot during the course of work may invite halting / stoppage of work.

d) The Contractor shall regularly review inspection report internally and implement all practical steps / actions for improving the status continuously.

e) Contractor skilled workmen like riggers, scaffold erectors, welders, crane operators etc. should have sufficient past experience and skill on the relevant job.

f) The Contractor shall ensure important safety checks right from beginning of works at every work site locations and to this effect format No. HSE-10 "Daily Safety Check List" shall be prepared by field engineer & duly checked by safety personnel for conformance.

g) The Contractor shall carry out inspection to identify various unsafe conditions of work sites/machinery/equipment's as well as unsafe acts on the part of workmen/supervisor/engineer while carrying out different project related works.

h) Adequate records for all inspections shall be maintained by the Contractor and the same shall be furnished to EIL/Owner, whenever sought.

i) To demonstrate involvement/commitment of site management of Contractor, at least one Monthly Safety Walk through in a month shall be carried out by Contractor's head of site (along with his area manager/field engineers)and a report shall be furnished to EIL/Owner as per format No: HSE-1" Safety walk through report" followed by compliance for unsatisfactory remarks.

j) As a general practice lifting tools/tackles, machinery, accessories etc. shall be inspected, tested and examined by competent person(approved by concerned State authorities) before being used at site and also at periodical interval (e.g. during replacement, extension, modification, elongation/reduction of machine/parts, etc.) as per relevant statutes. Hydraulic Mobile Crane, cranes, lifting machinery, mobile equipment's/ machinery/ vehicles, etc. shall be inspected regularly by only competent / experienced personnel at site and requisite records for such inspections shall be maintained by contractor. Contractor shall also maintain records of maintenance of all other site machinery (e.g. generators, rectifiers, compressors, cutters, etc.) & portable tools/equipment's being used at project related works (e.g. drills, abrasive wheels, punches, chisels, spanners, etc.).The Contractor shall not make use of arbitrarily fabricated 'derricks' at project site for lifting/ lowering of construction materials.

k) Site facilities /temporary. installations, e.g. batching plant, cement godown, DG-room, temporary electrical panels/distribution boards, shot-blasting booth, fabrication yards, etc. and site welfare facilities, like labour colonies, canteen/pantry, rest-shelters, motor cycle/bicycle-shed, First-aid centers, urinals/toilets, etc. should be periodically inspected by Contractor (preferably utilizing HR/Admin. personnel to inspect site welfare facilities) and records to be maintained.

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3.1.6 **Behaviour Based Safety**

a) The contractor shall develop a system to implement Behavior-Based Safety (BBS) through which work groups can identify, measure and change the behaviors of employees and workers towards construction safety aspects.

b) The BBS process shall include the following:
- Identify the behaviors critical to achieve required safety performance.
- Communicate the behaviors and how they are performed correctly byall
- Observe the work force and record safe/at risk behaviors. Intervene with workers to give positive reinforcement when unsafe behaviors are observed. Provide coaching/correction when at risk behaviors are observed
- Collect and record observation data
- Summarize and analyze observation data
- Communicate observation data and analysis results to all employees
- Provide recognition or celebrate when safe behavior improvements occur
- Change behaviors to be observed or change activators or change consequences as appropriate.
- Communicate any changes to workforce

c) Contractor through its own HSE committee shall implement the above process.

d) The necessary procedures and Monthly reporting formats shall be developed by the contractor for approval by EIL/Owner.

e) The HSE committee of contractor shall observe individual's behavior for safe practices adapted for utilization/execution of work for followings a minimum:-
- PPE
- Tools & equipment's
- Hazard Identification & control
- House keeping
- Confined space entry
- Hot works
- Excavation
- Loading & unloading
- Work at height
- Stacking & storage
- Ergonomics

f) EIL/Owner and Contractor's site staff at all levels shall monitor the behavior of contractor employees that create and/or contribute to the unsafe situations at work place.

g) Contractor shall arrange Behavior Based safety (BBS) training of their employees at site on yearly basis.

3.1.7 **Awareness and Motivation**

a) The Contractor shall promote and develop awareness on Health, Safety and Environmental protection among all personnel working for the Contractor.

b) The contractor shall display safety statistics board at all prominent location .Also shall provide dedicated notice board for displaying of safety alerts or any other safety related notices for awareness site workforces.

c) Regular awareness programs and fabrication shop/work site meetings at least on monthly basis shall be arranged on HSE activities to cover hazards/risks involved in various operations during construction.

d) Contractor's workmen & supervisory staff shall participate in common Tool Box Meeting as & when organized/required at site to avoid any incident/accident or occupational disease arising out of multidisciplinary jobs/activities being performed by various contracting agencies in the same location at different elevation.

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e) Contractor to motivate & encourage the workmen & supervisory staff by issuing/ awarding them with tokens/ gifts/ mementos/ monetary incentives/ certificates etc. The motivational program shall be organized on regular basis.

f) Contractor shall assess & recognize the behavioral change of its site engineers / supervisors periodically and constantly motivate / encourage them to implement HSE practices at project works

g) Life Saving Rules (refer Appendix-I for details) are to be displayed at prominent location of site.

3.1.8 **Fire Prevention & First-Aid**

The Contractor shall deploy First aider & suitable First-aid measures such as First Aid Box (Refer Appendix-B for details), stand-by Emergency Vehicle. Additionally separate ambulance with trained personnel/male or female nurse to administer First Aid shall be provided by the Contractor beyond deployment of 500 workmen during day/night working hours.

a) The Contractor shall arrange installation of fire protection measures such as adequate number of steel buckets with sand & water and adequate number of appropriate portable fire extinguishers (Refer Appendix-C for details) to the satisfaction of EIL/Owner.

b) The Contractor shall arrange EMERGENCY MOCK DRILL like fire, bomb threat, gas leakage, earth quake, etc. at each site at least once in three months, involving site workmen and site supervisory personnel & engineers. The Contractor shall maintain record of such mock drills at project site.

c) The contractor shall require to tie-up with the hospitals located in the neighborhood for attending medical emergency.

3.1.9 **Documentation**

The Contractor shall evolve a comprehensive, planned and documented system covering the following as a minimum for implementation and monitoring of the HSE requirements and the same shall be submitted for approval by owner/EIL.

- HSE Organogram
- Site specific HSE Plan
- Safety Procedures, forms and Checklist. Indicative list of HSE procedures is attached as Appendix :H
- Inspections and Test Plan
- Risk Assessment & HIRAC for critical works.
- HIRAC Register as per Format no: HSE-19 to identify, assess, analyze & mitigate the construction hazards& incorporate relevant control measures before actually executing site works.
- Environmental Aspect Impact Register as per Format no: HSE-18 (identify, assess, analyze & mitigate the environmental impact & incorporate relevant control measures).
- Legal Register to identify and comply to all applicable HSE related legal requirements.

The monitoring for implementation shall be done by regular inspections and compliance of the observations thereof. The Contractor shall get similar HSE requirements implemented at his sub-contractor(s) work site/office, if applicable. However, compliance of HSE requirements shall be the responsibility of the Contractor. Any review/approval by EIL/Owner shall not absolve contractor of his responsibility/liability in relation to fulfilling all HSE requirements.

3.1.10 **Audit**

Safety Audit shall be conducted at initial stage by EIL/Owner to understand the readiness to start the job after mobilization of contractor's RCM at site& Suitable action shall be taken by contractor to comply the audit observation(s).

The Contractor shall submit an Audit Plan to EIL/Owner indicating the type of audits covering following as minimum:

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a) Internal HSE audits regularly on six monthly basis by engaging internal qualified auditors (viz. safety officers/Construction personnel having 5years experience in construction safety and Lead Auditor Course: OHSAS 18001/ISO 45001 certification).However, minimum two internal HSE audit will have to be conducted irrespective of time period of the contract.

b) External HSE audits regularly on yearly basis by engaging authorized auditing agencies (viz. National Safety Council etc.)or qualified external auditors (viz safety officers/Construction personnel having 10years experience in construction safety and Lead Auditor Course: OHSAS 18001/ISO 45001certification). However, minimum one external HSE audit will have to be conducted irrespective of time period of the contract.

c) EIL/Owner may participate in Opening and closing meeting of external audits and provide inputs to the external auditor. Outcome of external audit shall be discussed during HSE Meeting with EIL/Owner.

All HSE shortfalls/ non-conformances on HSE matters brought out during review/audit, shall be resolved forthwith(generally within a week) by Contractor& compliance report shall be submitted to EIL/Owner.

In addition to above audits by contractor, the contractor's work shall be subjected to HSE audit by EIL/Owner at any point of time during the pendency of contract. The Contractor shall take all actions required to comply with the findings of the Audit Report and issue regular Compliance Reports for the same to OWNER/ EIL till all the findings of the Audit Report are fully complied.

Failure to carry-out HSE Audits& its compliance (internal & external) by Contractor, shall invite penalization.

3.1.11 **Meetings**

i. The Contractor shall ensure participation of his top most executive at site (viz. Resident Construction Manager / Resident Engineer/ Project Manager / Site-in-Charge) along with safety officer in Safety Committee/HSE Committee meetings arranged by EIL/Owner usually on monthly basis or as and when called for. In case Contractor's top most executive at site is not in a position to attend such meeting, he shall inform EIL/Owner in writing before the commencement of such meeting indicating reasons of his absence and nominate his representative – failure to do so may invite very stringent penalization against the specific Contractor, as deemed fit as per Contract. The obligation of compliance of any observations during the meeting shall be always time bound. The Contractor shall always assist EIL/Owner to achieve the targets set by them on HSE management during the project implementation.

ii. In addition, the Contractor shall also arrange internal HSE meetings chaired by his top most executive at site on fortnightly basis and maintain records. Such internal HSE meetings shall essentially be attended by field engineers / supervisors including safety personnel of the Contractor and its associates. Records of such internal HSE meetings shall be maintained by the Contractor for review by EIL/Owner or for any HSE Audits.

iii. Agenda of internal HSE meeting should broadly cover: -

a) Confirmation of record notes /minutes of previous meeting
b) Discussion on outstanding subjects of previous points / subjects, if any
c) Incidents / Accidents (of all types) at project site, if any
d) Current topics related to site activities / subjects of discussion
e) House keeping
f) Behavioral Safety
g) Information / views / deliberations of members / site sub-contractors
h) Report from Owner / Client
i) Status of Safety awareness, Induction programs & Training programs

The time frame for such HSE meeting shall be religiously maintained by one and all.

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3.1.12 Intoxicating drinks & drugs and smoking

a) The Contractor shall ensure that his staff members & workers (permanent as well casual) shall not be in a state of intoxication during working hours and shall abide by any law relating to consumption & possession of intoxicating drinks or drugs in force.

b) The Contractor shall not allow any workman to commence any work at any locations of project activity who is/are influenced / effected with the intake of alcohol, drugs or any other intoxicating items being consumed prior to start of work or working day.

c) Awareness about local laws on this issue shall form part of the Induction Training and compulsory work-site discipline.

d) The Contractor shall ensure that all personnel working for him comply with "No-Smoking" requirements of the Owner as notified from time to time. Cigarettes, lighters, auto ignition tools or appliances as well as intoxicating drugs, dry tobacco powder, etc. shall not be allowed inside the project / plant complex.

e) Smoking shall be permitted only inside smoking booths, if any, exclusively designated & authorized by the Owner/EIL.

3.1.13 Penalty

The Contractor shall adhere consistently to all provisions of HSE requirements. In case of non-compliances and also for repeated failure in implementation of any of the HSE provisions, EIL/Owner may impose stoppage of work without any cost & time implication to the Owner and/or impose a suitable penalty.

The amount of penalty to be levied against defaulted Contractor shall be up to a cumulative limit of

2.0% (Two percent) of the contract value for Item Rate or Composite contracts with an overall ceiling of 1,00,00,000(Rupees One Crore).

0.5% (Zero decimal five percent) of the contract value for LSTK, OBE, EPC,BOO/BOOT, EPCC or Package contracts with an overall ceiling of 10,00,00,000(Rupees Ten Crores.)

This penalty shall be in addition to all other penalties specified elsewhere in the contract. The decision of imposing stop-work-instruction and imposition of penalty shall rest with EIL/Owner. The same shall be binding on the Contractor. Imposition of penalty does not make the Contractor eligible to continue the work in unsafe manner.
The amount of penalty applicable for the Contractor on different types of HSE violations is specified below:

Sl. No.	Violation of HSE Norms	Penalty Amount
1.	For not using personal protective equipment like Helmet, Safety Shoes, and other safety gadgets as applicable as per nature of work.	Rs.500/- per day/Item / Person
2.	Working without Work Permit/Clearance	Rs.20,000/- per occasion
3	Execution of work without deployment of requisite field engineer / supervisor at work spot	Rs.5,000/- per violation per day
4.	Unsafe electrical practices (not installing ELCB, using poor joints of cables, using naked wire without top plug into socket, laying wire/cables on the roads, electrical jobs by incompetent person, etc.)	Rs.10,000/- per item per day

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Sl. No.	Violation of HSE Norms	Penalty Amount
5.	Working at height without full body harness, using non-standard/ rejected scaffolding and not arranging fall protection arrangement as required, like hand-rails, life-lines, Safety Nets etc.	Rs.10,000/- per case per day
6.	Unsafe handling of compressed gas cylinders (No trolley, jubilee clips double gauge regulator, and not keeping cylinders vertical during storage/handling, not using safety cap of cylinder).	Rs.1,000/- per item per day
7.	Use of domestic LPG for cutting purpose / not using flash back arresters on both the hoses/tubes on both ends.	Rs.5,000/-per occasion
8.	No fencing/barricading of excavated areas / trenches.	Rs.5,000/- per occasion
9.	Not providing shoring/strutting/proper slope and not keeping the excavated earth at least 1.5M away from excavated area.	Rs.5,000/-per occasion
10.	Non display of scaffold tags, caution boards on erected scaffolds.	Rs.1,000/- per occasion per day
11.	Traffic rules violations like over speeding of vehicles, rash driving, talking on mobile phones during vehicle driving, wrong parking, not using seat belts, vehicles not fitted with reverse horn / warning alarms / flicker lamps during foggy weather.	Rs.3,000/-per occasion per day
12.	Absence of Contractor's RCM/SIC or his nominated representative (prior approval must be taken for each meeting for nomination) from site HSE meetings whenever called by EIL/Owner& failure to nominate his immediate deputy for such HSE meetings.	Rs.10,000/- per meeting
13.	Failure to maintain HSE records by Contractor Safety personnel, in line with approved HSE Plan/Procedures/Contract specifications.	Rs.10,000/- per month
14.	Failure to conduct daily site safety inspection (by Contractor's Site Engineer &safety officer), internal HSE meeting, internal HSE Awareness/Motivation Program and Site HSE Training at predefined frequencies (as approved in HSE Plan).	Rs.10,000/- per occasion
15.	Failure to fill online/submit the monthly HSE report by 5th of subsequent month to Engineer-in-Charge/ Owner	Rs10,000/-per occasion and Rs.1,000/-per day of further delay
16.	Poor House Keeping	Rs.5,000 /- per occasion per subject
17.	Failure to report &follow-up accident (including Near Miss) reporting system within specific time-frame.	Rs.20,000/- per occasion
18.	Degradation of environment (not confining toxic spills, spilling oil/lubricants onto ground)	Rs.10,000/- per occasion

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Sl. No.	Violation of HSE Norms	Penalty Amount
19.	Not medically examining the workers before allowing them to work at height / to work in confined space / to work in shot-blasting / to work for painting / to work in bitumen or asphalt works, not providing ear muffs while allowing them to work in noise polluted areas, made them to work in air polluted areas without respiratory protective devices, etc.	Rs.5,000/- per occasion per worker
20.	Violation of any other safety condition as per job HSE plan / work permit and HSE conditions of contract (e.g.using crowbar on cable trenches, improper welding booth, not keeping fire extinguisher ready at hot work site, unsafe rigging practices, non-availability of First-Aid box at site, not providing dead man handle switch for blasting, whiplash arrestor for the compressor line, not using hood with respiratory devices by blaster for shot//grit blasting, etc.)	Rs.5,000/- per occasion
21.	Penalty for non-deployment of ambulance in case of man-power more than 500 or not providing dedicated emergency vehicle in case of man-power less than 500.	Rs.3,000 per day
22.	Failure to carry-out Safety audit in time (internal & external),close-out of identified shortfalls of Observations of Safety Aspects(OSA),etc.	Rs.20,000/- per occasion (for internal audit &OSA). Rs.30,000/-per occasion for external audit
23.	Carrying out sand blasting instead of grit/shot blasting	Rs.50,000/- per day
24.	Failure to deploy adequately qualified and competent Safety Officer	Rs.10,000/- per day per Officer
25.	Utilization of Hydraulic Mobile Crane /back-hoe loader for material shifting or any other unauthorized /unsafe lifting works	Rs.25,000/- per occasion
26.	Any Fatal Accident	Rs.10,00,000/-per fatality
27.	Any violation not covered above	To be decided by EIL/Owner.

Note: Penalty amount deducted from the contractor shall be utilized by owner/EIC for the promotion of the safety during the currency of the project.

The Contractor shall make his field engineers/supervisors fully aware of the fact that they keep track with the site workmen for their behavior and compliance of various HSE requirements. Safety lapses / defects of project construction site shall be attributable to the concerned job supervisor / engineer of the Contractor, (who remains directly responsible for safely executing field works). For repeated HSE violations, concerned job supervisor / engineer shall be reprimanded or appropriate action, as deemed fit, shall be initiated (with information to EIL & Owner) by the concerned Contractor.

Contractor shall initiate verbal warning shall be given to the worker/employee during his first HSE violation. A written warning shall be issued on second violation and specific training shall be arranged / provided by the Contractor to enhance HSE awareness/skill including feedback on the mistakes/ flaws. Any further violation of HSE stipulations by the erring individuals shall call

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for his forthright debar from the specific construction site. A record of warnings for each worker/employee shall be maintained by the Contractor, like by punching their cards / Gate passes or by displaying their names at the Project entry gate. Warnings, penalizations, appreciations etc. shall be discussed in HSE Committee meetings by site Head of the Contractor.

3.1.14 **Accident/ Incident investigation**

All accidents/incidents shall be informed to EIL/Owner at least telephonically by Contractor immediately and in writing within 24 hours on Format No. HSE-2 as applicable, by Contractor. Thereafter, a Supplementary Accident/Incident investigation Report on Format No. HSE-3 shall be submitted to EIL/Owner within 72 hours. Near Miss incident(s), Dangerous accidents/incident shall also be reported on Format No. HSE-4 within24 hours. The accident/ incident shall be investigated by a team of Contractor's senior Site personnel (involving Site-in-Charge or at least by his deputy) for establishing root-cause and recommending corrective & preventive actions. Findings shall be documented and suitable actions taken to avoid recurrences shall be communicated to EIL/Owner. Owner/EIL shall have the liberty to independently investigate such occurrences and the Contractor shall extend all necessary help and cooperation in this regard. EIL/Owner shall have the right to share the content of this report with the outside world.

3.2 House Keeping

The Contractor shall ensure that a high degree of housekeeping is maintained and shall ensure inter-alia; the followings:

a) All surplus earth and debris are removed/disposed-off from the working areas to designated location(s).

b) Unused/surplus cables, steel items and steel scrap lying scattered at different places within the working areas are removed to identify location(s).

c) All wooden scrap, empty wooden cable drums and other combustible packing materials, shall be removed from work place to identified location(s).

d) Roads shall be kept clear and materials like pipes, steel, sand, boulders, concrete, chips and bricks etc. shall not be allowed on the roads to obstruct free movement of men & machineries.

e) Fabricated steel structural, pipes & piping materials shall be stacked properly.

f) Water logging on roads shall not be allowed.

g) No parking of trucks/trolleys, cranes and trailers etc. shall be allowed on roads, which may obstruct the traffic movement.

h) Utmost care shall be taken to ensure over all cleanliness and proper upkeep of the working areas.

i) Protective measures to be ensured with projected rebar by suitable means.

j) Trucks carrying sand, earth and pulverized materials etc. shall be covered while moving within the plant area/ or these materials shall be transported with top surface wet.

k) The contractor shall ensure that the atmosphere in plant area and on roads is free from particulate matter like dust, sand, etc. by keeping the top surface wet for ease in breathing.

l) At least two exits for any unit area shall be assured at all times – same arrangement is preferable for digging pits/ trench excavation/ elevated work platforms/ confined spaces etc.

m) Welding cables and the power cable must be segregated and properly stored and used. The same shall be laid away from the area of movement and shall be free from obstruction.

n) Upkeep/cleaning of site to be carried out on regular basis by the contractor. Contractor shall earmark the area for waste/scrap disposal and ensure that all waste/scrap arising out of the day's work is properly disposed to the earmarked area.

o) Hazardous waste shall be segregated and shall be kept separately at designated place.

p) Contractor shall present the status of housekeeping in HSE meeting.

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The Contractor shall carry-out regular checks (minimum one per fortnight) as per format No. HSE-11 for maintaining high standard of housekeeping and maintain records for the same. The Contractor shall provide supervisor for housekeeping exclusively for management of day-to-day housekeeping activities.

3.3 HSE Measures

3.3.1 Construction Hazards

The Contractor shall ensure identification of all Occupational Health, Safety & Environmental hazards in the type of work he is going to undertake and enlist mitigation measures. Contractor shall carry out HIRAC specifically for high risk jobs/critical jobs like

a) Working at height (+2.0 Mts height) for cold (incl. colour washing, painting, insulation etc.) & hot works.
b) Work in confined space,
c) Deep excavations &trench cutting (depth > 2.0 mts.)
d) Operation & Maintenance of Batching Plant.
e) Shuttering / concreting (in single or multiple pour) for columns, parapets & roofs.
f) Erection & maintenance of Tower Crane.
g) Erection of structural steel members / roof-trusses / pipes at height more than 2.0 Mts. with or without crane.
h) Erection of pipes (full length or fabricated) at height more than 2.0 Mts. height with Crane of 100T capacity.
i) All lifts using 100T Crane plus mechanical pulling.
j) All lifts using two cranes in unison (Tandem Lifting).
k) Any lift exceeding 80% capacity of the lifting equipment's (Hydraulic Mobile Crane, crane etc.).
l) Laying of pipes (isolated or fabricated) in deep narrow trenches – manually or mechanically.
m) Maintenance of crane / extension or reduction of crane-boom on roads or in yards.
n) Erection of any item at >2.0 Mts. height using 100T crane or of higher capacity
o) Hydrostatic test of pipes, vessels & columns and water-flushing.
p) Radiography jobs (in-plant & open field)
q) Work in Live Electrical installations / circuits
r) Handling of explosives &Blasting operations
s) Demolishing/ dismantling activities
t) Welding/ gas cutting jobs at height (+2.0 Mts.)
u) Lifting/placing roof-girders at height(+2.0 Mts.)
v) Lifting & laying of metallic / non-metallic sheet over roof/structures.
w) Lifting of pipes, gratings, equipment's/vessels at heights (+2.0 Mts.) with & without using cranes
x) Calibration of equipment, instruments and functional tests at yards / work-sites.
y) Operability test of Pump, Motors (after coupling) & Compressors.
z) Cold or Hot works inside Confined Space.
aa) Transportation & shifting of ODC consignments into project areas.
bb) Working in "Charged/Live" elect. Panels
cc) Stress Relieving works (Electrically or by Gas-burners).
dd) Pneumatic Tests
ee) Card board blasting
ff) Grit Blasting activity
gg) Catalyst loading/unloading
hh) Erection/dismantling of scaffolding
ii) Chemical cleaning

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The necessary HSE measures devised shall be put in place, prior to start of an activity &also shall be maintained during the course of works, by the Contractor. Copies of such HIRAC shall be kept available at work sites by the Contractor to enable all concerned carrying out checks / verification.

A list of typical construction hazards along with their effects & preventive measures is given in **Appendix-E.**

3.3.2 **Accessibility**

h) The Contractor shall provide safe means of access(in sufficient numbers)& efficient exit to any working place including provisions of suitable and sufficient scaffolding at various stages during all operations of the work for the safety of his workmen and EIL/Owner.

i) The Contractor shall implement use of all measures including use of "life line", "fall-arresters", "retractable fall arresters", "safety nets" etc. during the course of using all safe accesses& exits, so that in no case any individual remains at risk of slip & fall during their travel.

j) A ladder or step- ladder must have a level and firm footing, in case of use of fixed ladders, sufficient foot hold and hand hold to be provided.

k) The access to operating plant / project complex shall be strictly regulated. Any person or vehicle entering such complex shall undergo identification check, as per the procedures in force / requirement of EIL/Owner.

l) Accessibility to 'confined space' shall be governed by specific system / regulation, as established at project site.

3.3.3 **Personal Protective Equipment (PPEs)**

a) The Contractor workmen shall be permitted entry inside the project premises only with proper PPEs.

b) The Contractor shall ensure that all their staff, workers and visitors including their sub-contractor(s) have been issued (records to be kept) & wear appropriate PPEs like nape strap type safety helmets preferably with head &sweat band with ¾" cotton chin strap (made of industrial HDPE), High ankle safety shoes with steel toe cap and antiskid sole, Coverall, full body harness (CE marked and conforming to EN361), protective goggles, gloves, ear muffs, respiratory protective devices, etc. All these gadgets shall conform to applicable IS Specifications/CE or other applicable international standards. The Contractor shall implement a regular regime of inspecting physical conditions of the PPEs being issued / used by the workmen of their own & also its sub-agencies and the damaged / unserviceable PPEs shall be replaced forthwith.

c) Owner/EIL may issue a comprehensive color scheme for helmets to be used by various agencies. The Contractor shall follow the scheme issued by the owner/EIL and shall choose colour other than white (for Owner) or blue (for EIL). All HSE personnel shall preferably wear dark green band on their helmet or green color safety helmet so that workmen can approach them for guidance during emergencies.HSE personnel shall preferably wear such dresses with fluorescent stripes, which are noticeable during night, when light falls on them.

d) Florescent jackets with respective company logo to be worn by the contractor workmen with different color coding for categories like supervisor and workmen.

e) Workers required using or handling alkalies, acid or other similar corrosive substance at site shall be provided with appropriate protective equipment, in accordance with MSDS.

f) For shot blasting, the usage of protective face shield and helmets, gauntlet and protective clothing is mandatory. Such protective clothing should conform relevant IS Specification.

g) For off-shore jobs/contracts, contractor shall provide PPEs (new) of all types to EIL & Owner's personnel, at his (contractor's) cost. All personnel shall wear life jacket at all time.

h) An indicative list of HSE standards/codes is given under **Appendix-A**.

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i) Contractor shall ensure procurement & usage of following safety equipment's/ accessories (conforming to applicable IS mark / CE standard) by their staff, workmen & visitors including their subcontractors all through the span of project construction / pre-commissioning/ Commissioning:-

i. PPEs (Helmet with company name/logo, Safety Goggles, Coverall, Ear-muff, Face Shield, Hand Gloves, High Ankle Safety Shoes, Gum Boot etc.)
ii. Barricading tape / warning signs
iii. Rechargeable Safety torch (flame-proof)
iv. Safety nets (with tie-chords)
v. Fall arresters
vi. Emergency Man-basket/rescue kit for height works
vii. Portable ladders (varying lengths)
viii. Life-lines (steel wire-rope, dia. not less than 8.0 mm)
ix. Full body double lanyard Safety harness with Rebar/ladder hook or scaffolding hook.
x. Lanyard
xi. Karabiner
xii. Retractable fall arresters (various length)
xiii. Portable fire extinguishers (DCP type) – 5 kg&10 kg capacity
xiv. Portable Multi Gas detector
xv. Sound level meter
xvi. Digital lux meter
xvii. Fire hoses & flow nozzles
xviii. Fire blankets/ Fire retardant cloth (with eyelets)
xix. Flame retardant/Flame resistant coverall-based on hazard identification & risk assessment, if required.

3.3.4 **Working at height**

a) The Contractor shall issue permit for working (PFW) at height after verifying and certifying the checkpoints as specified in the attached permit (Format No. HSE-6). He shall also undertake to ensure compliance to the conditions of the permit during the currency of the permit including adherence of personal protective equipment's. Contractor's Safety Officer shall verify compliance status of the items of permit document after implementation of action is completed by Contractor's execution / field engineers at work site. HIRAC for specific works at height duly commented by EIL/Owner, shall be kept attached with particular Permit for Work (PFW) at site for ready reference & follow-up.

b) Such PFW shall be initially issued for one single shift or expected duration of normal work and extended further for balance duration, if required. EIL/Owner can devise block-permit system at any specific area, in consultation with project specific HSE Committee to specify the time-period of validity of such PFW or its renewal. This permit shall be applicable in areas where specific clearance from Owner's operation Deptt./Safety Deptt. is not required. EIL / Owner's field Engineers/Safety Officers/Area Coordinators may verify and counter sign this permit (as an evidence of verification) during the execution of the job.

c) All personnel shall be medically examined & certified by registered doctor, confirming their 'medical fitness(Vertigo or epilepsy must be covered under test report)for working at height. Contractor shall develop the model for conducting vertigo test. The fitness examination shall be done once in six months. Sticker for "PASS FOR HEIGHT WORK" shall be pasted on the safety helmet of the site personnel.

d) In case work is undertaken without taking sufficient precautions as given in the permit, EIL/Owner Engineers may exercise their authority to cancel such permit and stop the work till satisfactory compliance/rectification is arranged made. Contractors are expected to maintain a register for issuance of permit and extensions thereof including preserving the

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used permits for verification during audits etc.

e) The Contractor shall arrange (at his cost) and ensure use of Fall Arrester Systems by his workers. Fall arresters are to be used while climbing/descending tall structures or vessels / columns etc. These arresters should lock automatically against the anchorage line, restricting free fall of the user. The device is to be provided with a double security opening system to ensure safe attachment or release of the user at any point of rope. In order to avoid shock, the system should be capable of keeping the person in vertical position in case of a fall. All the fall arrest systems should be cleaned after use and stored in a clean &dry area. Defective Safety Harness, lanyards & life line must be discarded from workplace and record to be maintained.

f) The Contractor shall ensure that Full body harnesses with double lanyards conforming EN361 and having authorized CE marking is used by all personnel while working at height. The lanyards and life lines should have enough tensile strength to take the load of the worker in case of a fall. One end of the lanyard shall be firmly tied with the harnesses and the other end with life line. The harness should be capable of keeping the workman vertical in case of a fall, enabling him to rescue himself.

g) The Contractor shall provide Roof Top Walk Ladders for carrying out activities on sloping roofs in order to reduce the chances of slippages and falls.

h) The Contractor shall ensure that a proper Safety Net System is used wherever the hazard of fall from height is present. The safety net, preferably a knotted one with mesh ropes conforming to IS 5175/ ISO 1140 shall have a border rope & tie cord of minimum 12mm dia. The Safety Net shall be located not more than 6.0 meters below the working surface extending on either side upto. sufficient margin to arrest fall of persons working at different heights.

i) In case of accidental fall of person on such Safety Net, the bottom most portion of Safety Net should not touch any structure, object or ground.

j) Grade separators shall be provided in Pipe-rack/Tech-structures to arrest falling objects like welding spatters, welding rods, nuts, bolts, tools etc. and to facilitate U/G and A/G works simultaneously.

k) Beam Clamps may be used for construction of localized temporary working platforms sheds for welding booths etc. at height in all types of steel structure due to faster installation and requirement of less scaffolding materials.

l) Hanging Platform, manufactured by Standard HSE equipment vendors must be encouraged for painting of Buildings etc.

m) All the tools used at height (like spanner, screw driver etc.) shall be provided with securing arrangement like back-pack/waist pouch to prevent accidental slippage from worker hand.

n) The Contractor shall install temporary lightening arrester in tall structures during construction to save human life and to avoid damage to equipment's& machineries. During the possibility of a thunderstorm, all the work at height where a person can be exposed to lightning shall be stopped.

o) To the extent possible use Roller arrangement to shift overhead pipes from one end to other in Pipe Racks Area.

p) Providing of steel scaffold stair tower system with landings at regular intervals as and when required for height work.

q) The Contractor shall ensure positive isolation while working at different levels like in the pipe rack areas. The working platforms with toe boards & hand rails shall be sufficiently strong & shall have sufficient space to hold the workmen and tools& tackles including the equipment's required for executing the job. Such working platforms shall have mid-rails, to enable people work safely in sitting posture.

3.3.5 Scaffoldings& Barricading

a) Suitable steel scaffoldings only shall be provided to workmen for all works that cannot be safely done from the ground or from solid construction except such short period work that

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can be safely done using ladders or certified (by 3rd party competent person) man-basket. When a ladder is used, an extra workman shall always be engaged for holding the ladder. The ladder shall be inspected before use for cracked or split stiles, missing, broken, loose or damaged rungs & splinters. The ladder shall be of adequate length to enable it to extend to at least 1.0m above the landing place or working point. Metallic ladders shall be only used as access.

b) The Contractor shall ensure that the scaffolds used during construction activities shall be strong enough to take the designed load. Main Contractor shall always furnish duly approved construction-design details of scaffold &SWL (from competent designers) free of charge, before they are being installed/ constructed at site. Owner/EIL reserves the right to ask the Contractor to submit certification and or design calculations from his Head Office/ Design/Engineering expert regarding load carrying capacity of the scaffoldings. All steel tubing, couplers and fittings used for scaffolding shall conform to IS 3696 or an acceptable equivalent. Only metallic scaffold boards shall be allowed to use. Steel tubes shall be free from cracks, splits. Surface flaws & other defects. All couplers & fittings shall be properly oiled and maintained. Nuts shall have a free running fit on their bolts. Bolts with worn or damaged thread shall be replaced.

c) All scaffolds shall be inspected by a competent Scaffolding Inspector (person with scaffolding related experience in construction field and having a training of scaffolding supervisor from a institute/agency like National Safety Council etc.). He shall paste a GREEN tag (duly signed by competent Scaffolding Inspector) on each scaffold found safe and a RED tag (duly signed by competent Scaffolding Inspector) on each scaffold found unsafe. Scaffolds with GREEN tag only shall be permitted to be used and Scaffolds with RED ones shall immediately be made inaccessible. Work being found continuing on scaffolds with RED tag shall be considered unauthorized work by Contractor and may invite penalization from EIL/Owner. For every 120-125 m^2 /m^3 area / volume or its parts thereof minimum one TAG shall be provided.

d) The Contractor shall ensure positive barricading (indicative as well as protective) of the excavated, radiography, heavy lift, high pressure hydrostatic & pneumatic testing and other such areas. Sufficient warning signs shall be displayed along the barricading areas.

e) Scaffolding shall be constructed using foot seals or base plates only. Base plates shall be used below each standard on surface .Sole plate of timber shall be used beneath the base plate to achieve greater load distribution.

3.3.6 **Electrical installations**

a) All electrical installations/ connections shall be carried out as per the provisions of latest revision of following codes/standards, in addition to the requirements of Statutory Authorities and IE/applicable international rules& regulations:

- OISD STD 173 : Fire prevention & protection system for electrical installations
- SP 30 (BIS) : National Electric Code

b) All electrical installations shall be approved by the concerned statutory authorities.

c) All temporary electrical installations / facilities shall be regularly checked by the licensed/competent electricians of the Contractor and appropriate records shall be maintained in format no: HSE-12" Inspection of temporary electrical booth/installation at project construction site". Such inspection records are to be made available to EIL/Owner, whenever asked for.

3.3.6.1 The Contractor shall meet the following requirements:

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a. Shall make Single Line Diagram (SLD) for providing connection to each equipment's & machinery and the same (duly approved by EIL/Owner) shall be pasted on the front face of DBs (distribution boards) or JBs (Junction boxes) at every site.(A typical Switch Board Sketch is attached as Appendix -G)

b. Ensure that electrical systems and equipment including tools & tackles used during construction phase are properly selected, installed, used and maintained as per provisions of the latest revision of the Indian Electrical/ applicable international regulations.

c. Shall deploy qualified & licensed electricians for proper & safe installation and for regular inspection of construction power distribution system/points including their earthing. A copy of the license shall be submitted to EIL / Owner for records. Availability of at least one competent (ITI qualified) / licensed electrician (by State Elec. authorities) shall be ensured at site round the clock to attend to the normal/emergency jobs.

d. All switchboards / welding machines shall be kept in well-ventilated & covered shed/ with rain shed protection. The shed shall be elevated from the existing ground level to avoid water logging inside the shed. Installation of electrical switch board must be done taking care of the prevention of shock and safety of machine.

e. No flammable materials shall be used for constructing the shed. Also flammable materials shall not be stored in and around electrical equipment / switchboard. Adequate clearances and operational space shall be provided around the equipment.

f. Fire extinguishers and insulating mats shall be provided in all power distribution centers.

g. Temporary electrical equipment shall not be employed in hazardous area without obtaining safety permit.

h. Proper housekeeping shall be done around the electrical installations.

i. All temporary installations shall be tested before energizing, to ensure proper earthing, bonding, suitability of protection system, adequacy of feeders/cables etc.

j. All welders shall use hand gloves irrespective of holder voltage.

k. Multilingual (Hindi, English and local language) caution boards, shock treatment charts and instruction plate containing location of isolation point for incoming supply, name & telephone No. of contact person in emergency shall be provided in substations and near all distribution boards / local panels.

l. ELCB tester /test meter shall be used for testing the ELCBs operation. ELCBs testing shall be carried out by using ELCB tester on monthly basis but in specific cases like heavy rain as decided by owner/EIC. Record of the testing shall be maintained.

m. Regular inspection of all installations at least once in a month. (**Ref. Format HSE-12**).

3.3.6.2 The following features shall also be ensured for all electrical installations during construction phase by the contractor:

a. Each installation shall have a main switch with a protective device, installed in an enclosure adjacent to the metering point. The operating height of the main switch shall not exceed 1.5 M. The main switch shall be connected to the point of supply by means of armoured cable.

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b. The outgoing feeders shall be double or triple pole switches with fuses / MCBs. Loads in a three phase circuit shall be balanced as far as possible and load on neutral should not exceed 20% of load in the phase.

c. The installation shall be adequately protected against overload, short circuit and earth leakage by the use of suitable protective devices. Fuses wherever used shall be HRC type. Use of rewirable fuses shall be strictly prohibited. ELCB/RCCB (Residual Current Circuit Breaker) must be fitted with all Electrical installation. The earth leakage devices shall have an operating current not exceeding 30 mA.

d. All connections to the hand tools / welding receptacles shall be taken through proper switches, sockets and plugs.

e. All single phase sockets shall be minimum 3 pin type only. All unused sockets shall be provided with socket caps.

f. Only 3 core (P+N+E) overall sheathed flexible cables with minimum conductor size of 1.5 mm^2 copper shall be used for all single phase hand tools.

g. Only metallic distribution boxes with double earthing shall be used at site. No wooden boxes shall be used.

h. All power cables shall be terminated with compression type cable glands. Tinned copper lugs shall be used for multi-strand wires / cables.

i. Cables shall be free from any insulation damage.

j. Minimum depth of cable trench shall be 750 mm for MV & control cables and 900 mm for HV cables. These cables shall be laid over a sand layer and covered with sand, brick & soil for ensuring mechanical protection. Cables shall not be laid in waterlogged area as far as practicable. Cable route markers shall be provided at every 25 M of buried trench route.

When laid above ground, cables shall be properly cleated or supported on rigid poles of atleast 2.1 M high. Minimum head clearance of 6 meters shall be provided at road crossings.

k. Underground road crossings for cables shall be avoided to the extent feasible. In any case no underground power cable shall be allowed to cross the roads without pipe sleeve.

l. All cable joints shall be done with proper jointing kit. No taped/temporary joints shall be used.

m. An independent earthing facility should preferably be established within the temporary installation premises. All appliances and equipment shall be adequately earthed. In case of armored cables, the armour shall be bonded to the earthing system. IS: 3043 Code for earthing practices shall be followed at project site.

n. All cables(green colour) and wire rope used for earth connections shall be terminated through tinned copper lugs.

o. In case of local earthing, earth electrodes shall be buried near the supply point and earth continuity wire shall be connected to local earth plate for further distribution to various appliances. All insulated wires for earth connection shall have insulation of green colour. Periodical check tests of all electrodes should be carried out and record shall be maintained of such checks.

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p. Separate core shall be provided for neutral. Earth / Structures shall not be used as a neutral in any case.

q. ON/OFF position of all switches shall be clearly designated / painted for easy isolation in emergency.

3.3.7 Welding/ Grinding/Gas cutting

a) Contractor shall ensure that flash back arrestors conforming to BS:6158 or equivalent are installed on all gas cylinders as well as at the torch end of the gas hose, while in use.

b) All cylinders shall be mounted on trolleys and provided with a closing key. Empty & filled-up gas cylinders shall be stored separately with TAG, protecting them from direct sun or rain. Minimum 2 nos. of Portable DCP type fire extinguishers (10 kg) shall be maintained at the gas cylinder stores. Stacking & storing of compressed gas cylinders shall be arranged away from DG set, hot works, Elect. Panels / Elec. boards, etc.

c) The burner and the hose placed downstream of pressure reducer shall be equipped with Flash Back Arrester/Non Return Valve device.

d) The hoses for acetylene and oxygen cylinders must be of different colours. Their connections to cylinders and burners shall be made with a safety collar.

e) At end of work, the cylinders in use shall be closed and hoses depressurized.

f) Cutting of metals using gases, other than oxygen &acetylene, shall require written concurrence from Owner.

g) Grinding activity shall not be carried out in confined spaces without a valid work permit.

h) All grinding/cutting machines shall be guarded and fitted with Dead-Man switch and this shall not be bypassed any time.

i) All welding/grinding machines shall have effective earthing at least at distinctly isolated two points.

j) In order to help maintain good housekeeping, and to reduce fire hazard, live electrode bits shall be contained safely and shall not be thrown directly on the ground.

k) The hoses of Acetylene and Oxygen shall be kept free from entanglement & away from common pathways / walkways and preferably be hanged overhead in such a manner which can avoid contact with cranes, Hydraulic Mobile Crane or other mobile construction machinery.

l) Hot spatters shall be contained / restricted appropriately (by making use of effective fire-retardant cloth/fabric) and their flying-off as well as chance of contact with near-by flammable materials shall be stopped. The Fire retardant blanket shall be woven from ceramic yarn with eyelets.

m) The Contractor shall arrange adequate systems & practices for accumulation / collection of metal & other scraps and remnant electrodes and their safe disposal at regular interval so as to maintain the fabrication and other areas satisfactorily clean & tidy.

n) All gas cylinders must have a cylinder cap on at all times when not in use.

3.3.8 Ergonomics and tools & tackles

a) The Contractor shall assign to his workmen, tasks commensurate with their qualification, experience and state of health. Competency of the crane operator to be thoroughly checked prior to engaging in crane operation.

b) All lifting tools, tackles, equipment, trailers, trucks/dumpers, accessories including cranes shall be tested periodically by statutory/competent authority for their condition and load carrying capacity. Valid test & fitness certificates from the applicable authority shall be submitted to Owner/EIL for their review/acceptance before the lifting tools, tackles,

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equipment, trailers, trucks/dumpers, accessories and cranes are used. Third party inspection certificate is mandatory for all lifting tools & tackles before put into use.

c) Load testing of Cranes by competent person must be made mandatory after each modification/alteration of crane configuration/change in boom length. All heavy equipment's including cranes must be maintained in good condition &record of such maintenance shall be maintained. Routine preventive maintenance of the crane to be carried out& record to be maintained for such preventive maintenance. Healthiness of the crane to be checked by Crane Expert on regular basis as per manufacturer guidelines.
d) HIRAC/JSA for assembly/dismantling activity of the crane to be submitted for approval of EIC.
e) No one should stand/work below the mast & boom of the crane. Mast of the crane should not be used for unintended lifts.
f) Mast of the crane to be kept in right position during dismantling activity of the crane.
g) Log book of all crane to be maintained.
h) Only authorized person shall be allowed to give signal to the operator.
i) Lifting/Loading/Unloading activities shall be carried out by the trained riggers under supervision of rigging Foreman.
j) Prior to marching/movement of the crane, obstructions free access/route to be ensured.
k) Skilled Technician to be engaged for AC gas checking and refilling of refrigerant and should follow the safe operating procedure for cranes.
l) Manufacturer's instructions to be followed without any deviation.
m) The contractor shall not be allowed to use defective equipment or tools not adhering to safety norms.
n) Adequate capacity of Chain pulley blocks with valid TPI certificate to be used for lifting/lowering/dragging/erection of piping material .
o) Colour coding system for lifting tools & tackles shall be followed on quarterly basis for a particular colour as mentioned below:

Period	Colour Code
January, February, March	Blue
April,May, June	Yellow
July, August, September	Green
October, November, December	Orange
For Quarantine (Unsafe Tools & Tackles)	Red

Contractor shall arrange non-sparking tools for project construction works in operating plant areas / hydrocarbon prone areas.

i. Wherever required the Contractor shall make use of Elevated Work Platforms (EWP) or Aerial Work Platforms (mobile or stationary) to avoid ergonomical risks and workmen shall be debarred to board such elevated platform during the course of their shifting / transportation.

ii. Contractor shall ensure installation of Safe Load Indicator (SLI) on all cranes (while in use) to minimize overloading risk. SLI shall have capability to continuously monitor and display the load on the hook, and automatically compare it with the rated crane capacity at the operating condition of the crane. The system shall also provide visual and audible warnings at set capacity levels to alert the operator in case of violations.

iii. The contractor shall be responsible for safe operations of different equipments mobilized and used by him at the workplace like transport vehicles, Tower Crane, engines, cranes, mobile ladders, scaffoldings, work tools, etc. Strictly avoid standing close to Hydraulic Mobile Crane/vehicles tyres during operation.

iv. The contractor shall deploy cranes in good working condition of maximum allowable years of service from the year of manufacture as specified below: -

20 years for cranes of 50 MT & below capacity,25 years for 51 MT to 100 MT,30 years for cranes above 101 MT.

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v. In general Man basket shall not be lifted by Hydraulic Mobile Crane. Generally Crane shall be used for lifting the man basket.

vi. Tower Crane, Crane, Hydraulic Mobile Crane or equivalent, Hydraulic Rig &Boom Lift shall be inspected on fortnightly basis as per Format No. HSE-20, HSE-21, HSE-22, HSE-23 & HSE-24.

vii. The Contractor shall arrange periodical training for the operators of Hydraulic Mobile Crane, crane, excavator, mobile machinery, Tower Crane, etc. at site by utilizing services from renowned manufacturers.

viii. Hydraulic Mobile Crane or equivalent having steering control mechanism shall be permitted at construction site only for the purpose of loading/unloading. However, continuous rigger availability during marching of hydraulic crane at site shall be ensured by contractor.

3.3.9 **Occupational Health**

a) The contractor shall identify all operations that can adversely affect the health of its workers and issue & implement mitigation measures.

b) For surface cleaning operations, sand blasting shall not be permitted even if not explicitly stated elsewhere in the contract.

c) To eliminate radiation hazard, Tungsten electrodes used for Gas Tungsten Arc Welding shall not contain Thorium.

d) Appropriate respiratory protective devices(hood with respiratory devices) shall be used to protect workmen from inhalation of air borne contaminants like silica, asbestos, gases, fumes, etc.

e) Workmen shall be made aware of correct methods for lifting, carrying, pushing & pulling of heavy loads. Wherever possible, manual handling shall be replaced by mechanical lifting equipment's.

f) Fuelling of construction equipments/Diesel Generator set shall be carried out by hand operated pump.

g) In view of the congested working environment and associated hazards, deployment of manpower/machineries shall be in staggered manner keeping adequate safe distance between two adjacent work spot.

h) For jobs like drilling/demolishing/dismantling/steam blowing/cardboard blasting etc. where noise pollution exceeds the specified limit of 85decibels, ear muffs shall be provided to the workers. The Noise level monitoring record shall be maintained.

i) To avoid work related upper limb disorders (WRULD) and backaches, Display Screen Equipments' workplace stations shall be carefully designed & used with proper sitting postures. Power driven hand-held tools shall be maintained in good working condition to minimize their vibrating effects and personnel using these tools shall be taught how to operate them safely & how to maintain good blood circulation in hands.

j) The Contractor shall arrange health check-up(by registered medical practitioner) for all the workers at the time of induction. Health check may have to be repeated if the nature of duty assigned to him is changed necessitating health check or doubt arises about his wellness. EIL/Owner reserves the right to ask the contractor to submit medical test reports. Regular health check-ups are mandatory for the workers assigned with Welding, Radiography, Blasting, Painting, Heavy Lift and Height (>2m) jobs. All the health check-ups shall be conducted by registered Medical practitioner and records are to be maintained by the Contractor.

k) The Contractor shall arrange Medical Camps at regular intervals at work sites and labor colonies to assess health condition of workers.

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l) The Contractor shall ensure vaccination of all the workers including their families, during the course of entire project span.

3.3.10 Hazardous substances

a) Hazardous, inflammable and/or toxic materials such as solvent coating, thinners, anti-termite solutions, water proofing materials shall be stored in appropriate containers preferably with lids having spillage catchment trays and shall be stored in a good ventilated area. These containers shall be labeled with the name of the materials highlighting the hazards associated with its use and necessary precautions to be taken. Respective MSDS (Material Safety Data Sheet) shall be made available at site &may be referred whenever problem arises.

b) Where contact or exposure of hazardous materials are likely to exceed the specified limit or otherwise have harmful effects, appropriate personal protective Equipment's such as gloves, goggles/face-shields, aprons, chemical resistant clothing, respirator, etc. shall be used.

c) The work place shall be checked prior to start of activities to identify the location, type and condition of any asbestos materials which could be disturbed during the work. In case asbestos material is detected, usage of appropriate PPEs by all personnel shall be ensured and the matter shall be reported immediately to EIL/ Owner.

3.3.11 Slips, trips & falls

a) The contractor shall establish a regular cleaning and basic housekeeping programme that covers all aspects of the workplace to help minimize the risk of slips, trips & falls. The contractor shall take positive measures like keeping the work area tidy, storing waste in suitable containers & harmful items separately, keeping passages, stairways, entrances & exits especially emergency ones clear, cleaning up spillages immediately and replacing damaged carpet/ floor tiles, mats & rugs at once to avoid slips, trips & falls.

b) Grating removal permit system should be implemented during construction phase. So that after permanent gratings are installed on platforms and tech structure floors; removal of any gratings for whatever purpose (including for lifting piping material etc.) is required to be sanctioned by signed permit by HSE officers of both contractor and Engineer-in-charge. The spot where gratings are removed shall be hard-barricaded during course of work. The removed gratings shall be re-installed immediately after completion of work or at the time of cessation of work every day whichever is earlier and the permit shall be closed on daily basis. A register shall be maintained for recording all the grating removal permits and their closure shall be monitored on daily basis.

3.3.12 Radiation exposure

a) All personnel exposed to physical agents such as ionizing &non-ionizing radiation, including ultraviolet rays or similar other physical agents shall be provided with adequate shielding or protection commensurate with the type of exposure involved.

b) For Open Field Radiography works, requirements of Bhabha Atomic Research Centre (BARC)/ Atomic Energy Regulatory Board (AERB) shall be followed.

c) The Contractor shall implement an effective system of control (as described in the AERB regulations) at site for handling radiography-sources & for avoiding its misuse & theft.

d) The contractor shall generate the Format No: HSE-8 "Permit for radiation work" before start of work.

e) In case the radiography work has to be carried out at day time, suitable methodology to be used so that other works, people are not affected.

3.3.13 Explosives/Blasting operations

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a) Blasting operations shall be carried out as per latest Explosive Rules (Indian/ International) with prior permission. The Contractor shall obtain license from Chief Controller of Explosives (CCoE) for collection, transportation, storage of explosives as well as for carrying out blasting operations.

b) The Contractor shall prepare exclusive method statement (in cognizance with statutory requirements)for rock blasting works &diffusing unfired explosives, if any, at project site before carrying out actual task. Nowhere blasting shall be carried out by the Contractor or its agency without the involvement of competent supervisor and licensed blaster.

3.3.14 Demolition/ Dismantling

a) The contractor shall adhere to safe demolishing/ dismantling practices at all stages of work to guard against unsafe working practices.

b) The contractor shall disconnect service lines (power, gas supply, water, etc.)/ make alternate arrangements prior to start of work and restore them, ifrequired as directed by EIL/ Owner at no extra cost.

c) Before carrying out any demolition/dismantling work, the contractor shall take prior approval of EIL/Owner and generate the Format No.HSE-9. For revamp jobs in operating plants where location of underground utilities is not known with certainty, the contractor shall depute an experienced engineer for supervision and shall make adequate arrangements for Fire-fighting& First-Aid during the execution of these activities.

d) The Contractor shall arrange approved HIRAC/ Method Statement for the specific demolition / dismantling task and corresponding action plan commensurate with hazards / risks associated therein. In no case any activity related to demolition / dismantling shall be carried out by the Contractor without engaging own supervision / field engineer.

3.3.15 Road Safety

a) The Contractor shall ensure adequately planned road transport safety management system.

b) The vehicles shall be fitted with reverse warning alarms & flashing lights / fog-lights and usage of seat belts shall be ensured.

c) The Contractor shall also ensure a separate pedestrian route for safety of the workers and comply with all traffic rules & regulations, including maintaining speed limit of 20 KMPH or indicated by owner for all types of vehicles / mobile machinery. The maximum allowable speed shall be adhered to.

d) In case of an alert or emergency, the Contractor must arrange clearance of all the routes, roads, access. The Contractor shall deploy sufficient number of traffic controllers at project site routes / roads/ accesses, to alert reversing movement of vehicles & machinery as well as pedestrians. Experienced drivers/operators with valid driving license (LMV/HMV)shall be allowed to drive/operate the vehicles/equipment's. The Contractor shall maintain copy of PUC,RC and Insurance etc. for all the vehicles/equipment's.

e) Dumpers, Tippers, etc. shall not be allowed to carry workers within the plant area and also to & from the labour colony to & from project sites.

f) Hydraulic Mobile Crane or equivalent)shall only be allowed for handling(loading/unloading) the materials at fabrication/ storage yards and in no case shall be allowed to transport the materials over project / plant roads.

g) The Contractor shall not deploy any such mobile machinery / Equipment's, which do not have competent operator and / or experienced banks-man/signal-man. Such machinery/equipment's shall have effective limit-switches, reverse-alarm, front& rear-end lights etc. and shall be maintained in good working order.

h) The Contractor shall not carry-out maintenance of vehicles / mobile machinery occupying space on project / plant roads and shall always arrange close supervision for such works.

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i) For pipeline jobs, the contractor shall submit a comprehensive plan covering transportation, loading / unloading of pipes, movement of side booms, movement of vehicles on the ROW, etc.

j) Height barrier/Restriction to be provided on both side of the HT lines, if required.

k) Contractor's shall arrange /install visible road signs, diversion boards, caution boards, etc. on project roads for safe movement of men and machinery.

3.3.16 Welfare measures

Contractor shall, at the minimum, ensure the following facilities at work sites:

a) A crèche at site where 10 or more female workers are having children below the age of 6 years.

b) Adequately ventilated / illuminated rooms at labour camps & its hygienic up-keeping.

c) Reasonable canteen facilities at site and in labour camps at appropriate location depending upon site conditions. Contractor shall make use of "industrial" variety of LPG cylinder & satisfactory illumination at the canteens. Necessary arrangement for efficient disposal of wastes from canteens & urinals /toilets shall also be made and regular review shall be made to maintain the ambience satisfactorily hygienic &shall also comply with all applicable statutory requirements.

d) Adequately lighted & ventilated Rest rooms at site (separate for male workers and female workers).

e) Provision for suitable mobile toilets to be made available by Contractor for remote/scattered job locations.

f) Urinals, Toilets, drinking water, washing facilities, adequate lighting at site and labour camps, commensurate with applicable Laws/ Legislation.

g) The contractor shall ensure the test report of drinking water.

h) The contractor at periodic interval shall arrange to prevent mosquito breeding by fumigation/spraying of insecticides at workplace/fabrication yard.

3.3.17 Environment Protection

Contractor shall ensure proper storage and utilization methodology of materials that are detrimental to the environment. Where required, Contractor shall ensure that only the environment friendly materials are selected and emphasize on recycling of waste materials, such as metals, plastics, glass, paper, oil & solvents. The waste that cannot be minimized, reused or recovered shall be stored and disposed of safely. In no way, toxic spills shall be allowed to percolate into the ground. The contractor shall not use the empty areas for dumping the wastes.

The contractor shall ensure availability of stack emission test report of DG set. Monitoring of air quality emission of DG stack shall be carried out on yearly basis. However, air quality emission shall be monitored first time on commissioning of DG Set.

Contractor to submit Environmental Aspect Impact Register detailing the list of activities in his scope, the respective environmental impact and the actions taken to minimize the impact. Environmental Aspect Impact Register to be prepared as per Format HSE-18 and to be updated and maintained till job completion. Environmental Aspect Impact Register of the contractor shall be reviewed by EIL/Owner on half-yearly basis.

The contractor shall strive to conserve energy and water wherever feasible.

The contractor shall ensure dust free environment at workplace by sprinkling water on the ground at frequent intervals. The air quality parameters for dust, poisonous gases, toxic releases,

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harmful radiations, etc. shall be checked by the contractor on daily basis and whenever need arises.

The contractor shall not be allowed to discharge chemicals, oil, silt, sewage, sullage and other waste materials directly into the controlled waters like surface drains, streams, rivers, ponds. A discharge plan suggesting the methods of treating the waste before discharging shall be submitted to EIL/Owner for approval.

For pipeline jobs, top soil shall be stacked separately while making ROW through fields. This fertile soil shall be placed back on top after backfilling.

For offshore construction barges, arrangements shall be made for safe disposal of human, food & other wastes and applicable laws in this regard shall be followed.

3.3.18 Rules & Regulations

All persons deployed at site shall be knowledgeable of and comply with the environmental laws, rules & regulations relating to the hazardous materials, substances and wastes. Contractor shall not dump, release or otherwise discharge or disposes off any such materials without the express authorization of EIL/Owner. An indicative list of Statutory Acts & Rules relating to HSE is given under Appendix-D.

3.3.19 Weather Protection

Contractor shall take appropriate measures to protect workers from severe storms, rain, solar radiations, poisonous gases, dust, etc. by ensuring proper usage of PPEs like Sun glasses, Sun screen lotions, respirators, dust masks, etc. and rearranging/ planning he construction activities to suit the weather conditions. Effective arrangement (without creating inconvenience to project facilities & permanent installations) for protecting workmen from hailstorm, drizzle in the form of temporary shelter shall be made at site.

3.3.20 Communication

All persons deployed at the work site shall have access to effective means of communication so that any untoward incident can be reported immediately and assistance sought by them.

All health & safety information shall be communicated in a simple & clear language easily understood by the local workforce.

For information to all, typical subjects that should be communicated are: -

Inside the company (Top to down)

a. Quality Policy
b. HSE Policy contents
c. Environment Policy
d. HSE Objectives
e. Safety Cardinal Rules
f. HSE Target – reached or missed
g. Praises & Warnings to personnel for HSE Management
h. Safety Walk Through Reports and safety defects / shortfalls (by management)
i. HSE Audit results
j. Revised Statutory Health & Safety provisions, if any
k. H & S publicity
l. Suggestions

Inside the Company (Bottom to up)

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a. Complaints
b. Compliances on safety defects / shortfalls
c. Suggestions
d. Proposals for changes & improvements
e. HSE Reports (including near-miss reports)

3.3.21 Confined Space Entry

The contractor shall generate a work permit (Format No. HSE -7) before entering a confined space. People, who are permitted to enter into confined space, must be medically examined & certified by registered doctor, confirming their 'medical fitness for working in confined space'. All necessary precautions mentioned therein shall be adhered to. An attendant shall be positioned outside a confined space for extending help during an emergency. Effective communication shall be maintained between personnel in confined space and outside by combination of visual/voice or portable radio. Compressed gas cylinders shall not be taken into confine space. Entry Register for confined space to be maintained with the name and time of entry/exit. All appropriate PPEs and air quality parameters shall be checked before entering a confined space. It shall be ensured that the piping of the equipment which has to be opened is pressure- free by checking that blinds are in place, vents are open and volume is drained. Inside confined space works, only electrical facilities / installations of 24V shall be permitted. Contractor shall ensure usage of safe & suitable arrangement of oxygen supply for individual workmen (during the course of work in confined space), if oxygen concentration is found to be less than 19.5% (v/v) there. All persons must be made aware of the risk associated with Nitrogen &all precautionary measures shall be taken when vessel/sphere/pipelines etc. are being purged with nitrogen.
Rescue arrangement must be readily available at workplace to fulfill requirement of the emergency situation.

3.3.22 Heavy Lifts

a) The contractor shall submit detailed rigging study/ plan for EIL/ Owner approval prior to lifting equipment requiring a crane of approx. 100 MT capacity or more due to constraints of its dimensions, location of foundation height, approach & weight.
b) Contractor shall generate the format no. HSE-15 "Permit for heavy lift/critical erection"
c) The Safe Working Load (SWL) and manufacturer's serial numbers shall be clearly marked on the slings and the lifting gears, either by tagging, stamping, engraving or embossing.
d) Prior to actual lifting activities, contractor shall check the validity of the crane inspection certificate issued by statutory/ competent authority. This requirement shall also apply to all rigging equipment's utilized for the job.
e) The contractor shall, at all times, be responsible for all rigging activities.
f) The Contractor shall ensure medical fitness of all workmen who are engaged / involved in erection of equipment's, vessels etc. and such fitness checks shall be carried-out every six months interval with the help of a registered medical practitioner & record shall be maintained
g) Adequate safety measures such as positive barricading, usage of appropriate PPEs, permit to work, etc. shall be taken during all heavy or critical lifts.
h) Ground condition should be suitable to sustain the Ground Bearing Load of the Crane with full load condition.
i) For lifting any material (irrespective of shape, size or volume), at any height, it is always advisable to prepare a Plan of Erection (PoE) taking into consideration hazards & risks associated therein – this can enable people to put their own experiences of various natures & side-by-side establish a practical method for risk-free erection / lifts. The contractor shall

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prepare PoE & shall document the same, when risks are identified as "medium" or "high" and the same shall be approved by its competent / qualified engineer.

3.3.23 Key Performance Indicators

The contractor shall measure an activity in both leading & trailing indicators for statistical and performance measurement. The activities pertaining to key performance indicators are covered in Monthly HSE Report (Format No. HSE-5). The contractor shall try to achieve a statistically fair record and strive for its continual improvement.

Leading Indicators viz:-:

- Number of Safety Inductions carried-out at site (for workmen & staff members)
- Number of HSE inspections carried out
- Number of "Safety Walk Through" carried-out by site-head.
- Number of HSE shortfalls / lapses identified per contractor& closed-out in time.
- Number of Safety Meetings conducted (in-house / with contractors)
- Number of HSE Audits made (internal & external) vis-à-vis non conformances raised
- Number of HSE Awareness / Motivational program conducted by contractors
- Number of HSE Trainings conducted at site for supervisors & workmen
- Study of Near miss case reported
- Encouragements / Awards / Recognitions to workmen, job supervisors & field engineers.
- Suggestions for improvement

Trailing Indicators viz:-:

- Calculation of HSE statistics viz frequency rate, severity rate, LTA free man hours etc.
- Analysis of incidents / accidents (nature, severity, types etc.)
- Study of Incident / Accident with respect to :-
    - Variety
    - Period of the year / project span
    - Timings of the incident / accident
    - Age profile of victims
    - Body parts involved
    - Penalty levied for causing incident / accident

3.3.24 Unsuitable Land Conditions

Contractor shall take appropriate measures and necessary work permits/clearances if work is to be done in or around marshy areas, river crossings, mountains, monuments, etc. The Contractor shall make right assessment and take all necessary action for developing work areas to make them safe & suitable for crane operations or other vehicular movement before carrying out any project related activity / operation. Contractor shall take all necessary actions to make the surroundings of its site establishments (site office, stores, lay-down area etc.) work-worthy safe and secure.

3.3.25 Under Water Inspection

Contractor shall ensure that boats and other means used for transportation, surveying & investigation works shall be certified seaworthy by a recognized classification society. It shall be equipped with all life saving devices like life jackets, adequate fire protection arrangement sand shall possess communication facilities like cellular phones, wireless, walkie-talkie. All divers used for seabed surveys, underwater inspections shall have required authorized license, suitable life-saving kit. Number of hours of work by divers shall be limited as per regulations. EIL/ Owner shall have the right to inspect the boat and scrutinize documents in this regard.

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3.3.26 **Excavation**

The Contractor shall obtain permission from competent authorities prior to excavation wherever required.

The Contractor shall locate the position of buried utilities (water line, cable route, etc.) by referring to project / plant drawing / in consultation with EIL/Owner. The Contractor shall start digging manually to locate the exact position of buried utilities & thereafter use mechanical means.

In case of non-availability of sufficient data/drawings, underground services i.e. underground cable/ pipe shall be checked by cable detector/pipe locator by the contractor.

The Contractor shall keep soil heaps at least 1.5 M away from edge or a distance equal to depth of pit (whichever is more)

All excavated pits greater than 10 Sq.M plan area and depth more than 1.5M shall have at least two access routes for ingress and egress. Also, additional access routes shall be provided such that distance between any two access routes shall not be more than 20M.

The Contractor shall maintain sufficient "angle of repose" during excavation – shall also provide slope or suitable bench as decided by EIL / Owner.

The Contractor shall arrange "battering" or "benching" wherever required for preventing collapse of edge of excavations.

Avoid vertical wall of less than 2mtrs between two adjacent deep excavated pit/area. Further deep excavation should not be kept open for a longer duration.

The Contractor shall identify & arrange de-watering pump or well-point system to prevent earth collapse due to heavy rain / influx of underground water.

The Contractor shall arrange protective fencing/hard barricading with warning signal around excavated pits, trenches, etc. along with minimum 2 (two) entries, exits / escape ladders.

The Contractor must avoid "underpinning" / under-cutting to prevent collapse of chunk of earth during excavation.

The Contractor shall use "stoppers" to prevent over-run of vehicle wheels at the edge of excavated pits / trenches. Vehicles movement should be restricted to minimum three meters away from the excavated pit.

The Contractor shall arrange strengthening of "shoring" & "strutting" proactively to avoid collapse of earth / edges due to vehicular movement in close proximity of excavated areas / pits/ trenches, etc.

3.4 Tool Box Talks (TBT)

Contractor shall conduct daily TBT with workers prior to start of work and shall maintain proper record of the meeting. A suggested format is given below. The Job specific TBT is to be conducted by the immediate supervisor of the workers.

The Contractor shall conduct TBT before start of every morning or evening shift or night shift activities, for alerting the workers on specific hazards and their appropriate dos & don'ts. The Contractor shall provide sufficient rests to the site workmen and their foremen to avert fatigue & thereby endangering their lives during the course of site works.

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TOOLBOX TALK RECORDING SHEET		
Date & Time		
Work Location		
Subject (Nature of work)		
Presenter		
Hazards involved		
Precautions to be taken		
Worker's Name	Signature	Section
Remarks, in any		

The topics during TBT shall include

- Hazards related to work assigned on that day and precautions to be taken.
- Any forthcoming HSE hazards/events/instruction/orders, etc.

The above record can be kept in local language, which workers can read. These records shall be made available to EIL/ Owner whenever demanded.

3.5 Training & Induction Programme

a) Initial induction of workers into Construction oriented activities and appraising them about the methodology of works and how to carry-out safely and the same should not be inter mixed with Tool Box Talks or HSE Training. In this regard careful action should be made& maintained for imparting HSE induction to every individual, irrespective of his task/designation/level of employment, whereas, HSE Training should be imparted to specific person/group of people who are to carry-out that specific task more than once – for example, Riggers must be trained for working at heights, welders must be trained for work in confined space, fitters/carpenters, mesons must be trained for work at heights, etc.
Contractor shall arrange suitable facilities (e.g training room/place, audio visual facilities etc.) for organizing such training on HSE.

b) Contractor shall conduct Safety induction programme on HSE for all his workers and maintain records. Sticker for "Safety Induction" shall be pasted on the safety helmet of the site personnel. The Gate Pass shall be issued only to those workers who successfully qualify the Safety induction programme. Contractor to conduct effective safety induction program at work site by making efforts to arrange Video film/Virtual Reality (VR) technology pertaining to the escape routes, assembly points, risks involved in the event of an emergency etc while imparting safety induction.

c) The Contractor brief the visitors about the HSE precautions which are required to be taken before their proceeding to site and make necessary arrangements to issue appropriate PPEs like Aprons, hard hats, ear-plugs, goggles & safety shoes etc., to his visitors. The Contractor shall always maintain relevant acknowledgement from visitor on providing him brief information on HSE actions.

d) Contractor shall submit job specific training schedule for approval of EIL/Owner &ensure that all his personnel possess appropriate training to carry out the assigned job safely. The training should be imparted in a language understood by them and should specifically be trained about

- Potential hazards to which they may be exposed at their workplace

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- Measures available for prevention and elimination of these hazards

The topics during training shall cover, at the minimum: -

- Why safety should be considered during work - explanation
- Education about hazards and precautions required
- Employees' duties & responsibilities
- Emergency and evacuation plan
- HSE requirements during project activities
- Fire fighting and First-Aid
- Use of PPEs
- Occupational health issues – dos & don'ts
- Local laws on intoxicating drinks, drugs, smoking in force
- Common environmental subjects – lighting, ventilation, vibration, smoke/fumes etc.

e) Records of the training shall be kept and submitted to EIL/ Owner.

f) The Contractor shall make regular program for conducting Safety Training on various topics related to various activities & their safe-guarding utilizing experienced persons / outside agency / faculty. A program for Safety Training (indicative list as per Appendix –F) shall be furnished by the Contractor in its HSE Plan.

g) For offshore and jetty jobs, contractor shall ensure that all personnel deployed have undergone a structured sea survival training including use of lifeboats, basket landing, use of radio communication etc. from an agency acceptable to Owner/EIL.

3.6 ADDITIONAL SAFETY REQUIREMENTS FOR WORKING INSIDE A RUNNING PLANT

As a minimum, the contractor shall ensure adherence to following safety requirements while working in or in the close vicinity of an operating plant:

a) Contractor shall obtain permits for Hot work, Cold work, Excavation and Confined Space from Owner in the prescribed format.

b) The contractor shall monitor record and compile list of his workers entering the operational plant/unit each day and ensure & record their return after completing the job.

c) Contractor's workers and staff members shall use designated entrances and proceed by designated routes to work areas only assigned to them. The workers shall not be allowed to enter units' area, tanks area, pump rooms, etc. without work authorization permit.

d) Work activities shall be planned in such a way so as to minimize the disruption of other activities being carried out in an operational plant/unit and activities of other contractors.

e) The contractor shall submit a list of all chemicals/toxic substances that are intended to be used at site and shall take prior approval of the Owner.

f) Specific training on working in a hydrocarbon plant shall be imparted to the work force and mock drills shall be carried out for Rescue operations/First-Aid measures.

g) Proper barricading/cordoning of the operational units/plants shall be done before starting the construction activities. No unauthorized person shall be allowed to trespass. The height and overall design of the barricading structure shall be finalized in consultation with the Owner and shall be got approved from the Owner.

h) Care shall be taken to prevent hitting underground facilities such as electrical cables, hydrocarbon piping during execution of work.

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i) Barricading with water curtain shall be arranged in specific/critical areas where hydrocarbon vapors are likely to be present such as near horton spheres or tanks. Positioning of fire tenders (from owner) shall also be ensured during execution of critical activities.

j) Emergency evacuation plan shall be worked out and all workmen shall be apprised about evacuation routes. Mock drill operations may also be conducted.

k) Flammable gas test shall be conducted prior to any hot work using appropriate measuring instruments. Sewers, drains, vents or any other gas escaping points shall be covered with flame retardant tarpaulin.

l) Respiratory devices shall be kept handy while working in confined zones where there is a danger of inhalation of poisonous gases. Constant monitoring of presence of Gas/Hydrocarbon shall be done.

m) Clearance shall be obtained from all parties before starting hot tapping, patchwork on live lines and work on corroded tank roof.

n) Positive isolation of line/equipment by blinding for welding/cutting/grinding shall be done. Closing of valve will not be considered sufficient for isolation.

o) Welding spatters shall be contained properly by using fire retardant blanket and in no case shall be allowed to fall on the ground containing oil. Similar care shall be taken during cutting operations. Fire watcher to be deployed to ensure the same.

p) The vehicles, cranes, engines, etc. shall be fitted with spark arresters on the exhaust pipe and got it approved from Safety Department of the Owner.

q) Plant air should not be used to clean any part of the body or clothing or use to blow off dirt on the floor.

r) Gas detectors should be installed in gas leakage prone areas as per requirement of Owner's plant operation personnel.

s) Flame proof electrical distribution board, plug and socket shall be used for electrical appliances.

t) Experienced full time safety personnel shall be exclusively deployed to monitor safety aspects in running plants.

3.7 Self-Assessment and Enhancement

The contractor shall develop a method of check & balance through self-assessment& enhancement techniques and shall explore the opportunities for continual improvement in the HSE system.

3.8 HSE Promotion

The contractor shall encourage his workforce to promote HSE efforts at workplace by way of organizing workshops/seminars/training programs, celebrating HSE awareness weeks &National Safety Day, conducting quizzes & essay competitions, distributing pamphlets, posters & material on HSE, providing incentives for maintaining good HSE practices and granting incentives/ bonus for completing the job without any lost time accident.

3.9 Lock Out and Tag Out(LOTO) for Isolation of Energy Source

a) Contractor shall follow the LOTO/Isolation procedure of owner for all energy source isolations installed/under purview by /of owner i.e. "Brown field"

b) For all the other energy source (not under purview of client/owner)i.e. "Green field" Contractor shall develop a system to ensure the isolation of equipments, pipelines, Vessel, electrical panels from the energy source covering following as minimum:-

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- Identification of all energy source viz electrical, mechanical, hydraulic, pneumatic, chemical, thermal, gravitational, radiation and other forms of stored or kinetic energy.
- Establishing the energy isolation devices viz manually operated electrical circuit breakers, disconnection switches, blind flanges, etc.
- Installation of Lock Out devices for preventing the inadvertent release of stored energy and Tag Out devices ("Danger", "Do Not operate" or Do not Remove"tags) to indicate that testing, maintenance or servicing is underway and the device cannot be operated until the tag out device is removed.
- Lock Out and Tag out log book
- Permit for isolation and de-isolation of energy source as per format No.: HSE-16
- Availability of competent persons like experienced operators at substations, pump house, units etc. supervisors etc.

c) Contractor shall ensure that all the sources are locked out and tagged properly before giving clearance to start the job.

d) After the completion of job, contractor shall ensure all tools and tackles are removed and nobody is present in the working area and signing on LOTO log book.

e) Only on confirmation of above the contractor will remove their lock and tag from the isolation points and give instructions for energizing the same. Only the person carrying out the task shall himself carry the key for the lock in /Lock out.

4.0 DETAILS OF HSE MANAGEMENT SYSTEM BY CONTRACTOR

4.1 On Award of Contract

The Contractor shall submit a comprehensive Health, Safety and Environmental Plan or programme for approval by EIL/Owner prior to start of work. The Contractor shall participate in the pre-start meeting with EIL/Owner to finalize HSE Plans which shall including the following:

- HSE policy & Objectives
- Job procedure to be followed by the Contractor for construction activities including handling of equipment's, scaffolding, electric installations, etc. describing the risks involved, actions to be taken and methodology for monitoring each activity. Indicative list of procedures is enclosed as Annexure-H
- EIL/Owner review/audit requirement.
- Organization structure along with responsibility and authority, on HSE activities.
- Administrative & disciplinary steps involving implementation of HSE requirements
- Emergency evacuation plan/ procedures for site and labour camps
- Procedures for reporting & investigation of accidents and near misses.
- HSE Inspection
- HSE Training programme at project site
- HSE Awareness program eat project site
- Reference to Rules, Regulations and statutory requirements.
- HIRAC
- Environment Aspect Impact Register
- Legal Register
- HSE documentation viz reporting, analysis & record keeping.

4.2 During Job Execution

Contractor shall implement approved Health, Safety and Environment management plan or programme including but not limited to as brought out under para 3.0. Contractor shall also ensure:

a) to arrange workmen compensation insurance, registration under ESI Act, third party liability insurance, registration under BOCW Act etc., as applicable.

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b) to arrange all HSE permits before start of activities (as applicable), like permits for hot work, working at heights (Refer Format No. HSE-6), confined space (Refer Format No. HSE-7), Radiation Work Permit (Refer Format No. HSE-8), Demolishing/ Dismantling Work Permit (Refer Format No. HSE-9),Permit for erection/modification & dismantling of scaffolding(Refer Format No:HSE-14),Permit for heavy lift/critical erection (Refer Format No:HSE-15) ,Permit for energy Isolation & De-isolation" (HSE-16) ,storage of chemical/explosive materials & its use and implement all precautions mentioned therein. In this regard, requirements of *Oil industry Safety Directorate Standard No.* Std -105 "Work Permit Systems" shall be complied with while working in existing Oil or Gas processing plants. List of the persons involved shall be maintained as annexure to the work permit issued for a particular activity.

c) to submit, timely, the completed checklist on HSE activities in Format No.HSE-1, Monthly HSE report in Format No.HSE-5 (use of web based package (www.eil.co.in/conthse) is compulsory wherever the facility is available else a hard copy is to be submitted), accident/ incident reports, investigation reports etc. as per EIL/Owner requirements. Compliance of instructions on HSE shall be done by Contractor and informed urgently to EIL/Owner.

d) that his top most executive at site attends all the Safety Committee/HSE meetings arranged by EIL/Owner and carries out safety walk regularly. Only in case of his absence from site that a second senior most person shall be nominated by him, in advance, and communicated to EIL/Owner for performing the above tasks.

e) display at site office and at prominent locations HSE Policy, caution boards, list of hospitals, emergency services available, safety signs like Men at work, Speed Limits, Hazardous Area, various do's & don'ts, etc.

f) provide posters, banners for safe working to promote safety consciousness.

g) identify, assess, analyze & mitigate the construction hazards& incorporate relevant control measures before actually executing site works. (HIRAC = Hazard Identification, Risk Analysis and Control).

h) identify, assess, analyze & mitigate the environmental impact & incorporate relevant control measures through Environmental Aspect Impact Register

i) Identify and comply to all applicable HSE related legal requirements by preparing and maintaining a Legal register.

j) To maintain & monitor the level of legal compliance at site, a committee shall be formed comprising of contractor's RCM as Head and lead representatives as member(s)from HR/Legal, HSE and discipline engineer(s) (Civil, Mechanical, Electrical, Instrumentation) as applicable. Committee shall review the applicable legal requirements during periodical meetings and monitor the compliance status.

k) arrange testing, examination, inspection of own as well as borrowed construction equipment's/ machinery (stationary &mobile) before being used at site and also at periodical interval, through own resources and also by 3rd party competent agencies (as deemed fit in statutes). Records of such test, examination etc. shall be maintained & shall be submitted to EIL/Owner as & when asked for.

l) carryout audits/inspection (internal & external) at his works as well as sub-contractor works as per approved HSE plan/procedure/programme & submit the compliance reports of identified shortfalls for EIL/Owner review.

m) Arranging HSE training for site workmen (of his own &subcontractors) through internal or external faculty at periodical intervals.

n) Assistance& cooperate during HSE audits by EIL/Owner or any other 3rd party and submit compliance report.

o) Generate & submit of HSE records/report as per this specification.

p) Contractor shall arrange minimum 100 lux. illumination level at construction site for night works& record shall be maintained.

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q) Mobile phones shall not be permitted in operational area of the Project Site. However, intrinsically safe mobile phone can be permitted on approval from EIL/Owner. Alternatively, telephone booth(s) may be set up by the contractor after obtaining approval from EIL/Owner. Use of mobile phone shall also be restricted during construction activities such as height work, erection of material, confined space and Pre-commissioning & Commissioning activities at all project sites.

r) The contractor shall assign responsible person as in charge for night works and it shall be informed to owner/EIL.

s) Appraise EIL/Owner on HSE activities at site regularly.

t) Carry-out all dismantling activities safely, with prior approval of EIL/Owner representative.

u) The Contractor shall ensure that "Hot works" and painting works do not continue at the same place/ location at project site for which chance or probability of "fire" incident exists.

4.3 During Short Listing of the Sub-Contractors

The contractor shall review the HSE management system of the sub-contractors in line with the requirements given in this specification. The contractor shall be held responsible for the shortcomings observed in the HSE management system of the sub-contractor(s) during execution of the job.

5.0 RECORDS

At the minimum, the contractor shall maintain/ submit HSE records in the following reporting formats:

Safety Walk Through Report	HSE-1
Accident/ Incident Report	HSE-2
Supplementary Accident/ Incident Investigation report	HSE-3
Near Miss Incident Report	HSE-4
Monthly HSE Report	HSE-5
Permit for working at height	HSE-5
Permit for working in confined space	HSE-7
Permit for radiation work	HSE-8
Permit for demolishing/ dismantling	HSE-9
Daily Safety checklist	HSE-10
Housekeeping Assessment & compliance	HSE-11
Inspection of temporary electrical booth/installation	HSE-12
Inspection for scaffolding	HSE-13
Permit for erection/modification &dismantling of scaffolding	HSE-14
Permit for heavy lift/critical erection.	HSE-15
Permit for Energy isolation and de-isolation.	HSE-16
Permit for Excavation	HSE-17
Environmental Aspect Impact Register	HSE-18
HIRAC Register	HSE-19
Checklist for Tower Crane	HSE-20
Crane Inspection Checklist	HSE-21
Hydraulic Mobile Crane Inspection Checklist	HSE-22
Hydraulic Rig Inspection Checklist	HSE-23

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Boom Lift Inspection Checklist	HSE-24
Inspection reports of Equipment/tools/tackles	*
Report of Toolbox Talks	As indicated in specification
PPE issue report/register	*
Site inspection reports	*
Training records	*

(*) The formats shall be developed by contractor in consultation with EIL/Owner.

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APPENDIX-A
(Sheet 1 of 2)

A. IS CODES ON HSE

SP: 53	Safety code for the use, Care and protection of hand operated tools.
IS: 838	Code of practice for safety & health requirements in electric and gas welding and cutting operations
IS: 1179	Eye & Face precautions during welding, equipment etc.
IS: 1860	Safety requirements for use, care and protection of abrasive grinding wheels.
IS: 1989 (Pt -II)	Leather safety boots and shoes
IS: 2925	Industrial Safety Helmets
IS: 3016	Code of practice for fire safety precautions in welding & cutting operation.
IS: 3043	Code of practice for earthing
IS: 3764	Code of safety for excavation work
IS: 3786	Methods for computation of frequency and severity rates for industrial injuries and classification of industrial accidents
IS: 3696	Safety Code of scaffolds and ladders
IS: 4083	Recommendations on stacking and storage of construction materials and components at site
IS: 4770	Rubber gloves for electrical purposes
IS: 5121	Safety code for piling and other deep foundations
IS: 5216 (Pt-I)	Recommendations on Safety procedures and practices in electrical works
IS: 5557	Industrial and Safety rubber lined boots
IS: 5983	Eye protectors
IS: 6519	Selection, care and repair of Safety footwear
IS: 6994 (Pt-I)	Industrial Safety Gloves (Leather & Cotton Gloves)
IS: 7293	Safety Code for working with construction Machinery
IS: 8519	Guide for selection of industrial safety equipment for body protection
IS: 9167	Ear protectors
IS: 11006	Flash back arrestor (Flame arrestor)
IS: 11016	General and safety requirements for machine tools and their operation
IS: 11057	Specification for Industrial safety nets
IS: 11226	Leather safety footwear having direct moulded rubber sole
IS: 11972	Code of practice for safety precaution to be taken when entering a sewerage system
IS: 13367	Code of practice-safe use of cranes
IS: 13416	Recommendations for preventive measures against hazards at working place

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APPENDIX-A
(Sheet 2 of 2)

B. INTERNATIONAL STANDARDS ON HSE

Safety Glasses	:	ANSI Z 87.1, ANSI ZZ 87.1, AS 1337, BS 2092, BS 1542, BS 679, DIN 4646/ 58311
Safety Shoes	:	ANSI Z 41.1, AS 2210, EN 345
Hand Gloves	:	BS 1651
Ear Muffs	:	BS 6344, ANSI S 31.9
Hard Hat	:	ANSI Z 89.1/89.2, AS 1808, BS 5240, DIN 4840
Goggles	:	ANSI Z 87.1
Face Shield	:	ANSI Z 89.1
Breathing Apparatus	:	BS 4667, NIOSH
Welding & Cutting	:	ANSI Z49.1
Safe handling of compressed:	P-1	(Compressed Gas Association Gases in cylinders 1235 Jefferson Davis Highway, Arlington VA 22202 - USA)
Full body harness	:	EN-361
Lanyard	:	EN-354
Karabiner	:	EN-362 and EN-12275

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APPENDIX-B

DETAILS OF FIRST AID BOX

SL. NO.	DESCRIPTION		QUANTITY
1.	Small size Roller Bandages, 1 Inch Wide	(Finger Dressing small)	6 Pcs.
2.	Medium size Roller Bandages, 2 Inches Wide	(Hand & Foot Dressing)	6 Pcs.
3.	Large size Roller Bandages, 4 Inches Wide	(Body Dressing Large)	6 Pcs.
4.	Large size Burn Dressing	(Burn Dressing Large)	4 Pkts.
5.	Cotton Wool	(20 gms packing)	4 Pkts.
6.	Antiseptic Solution Dettol (100 ml.) or Savlon		1 Bottle
7.	Mercurochrome Solution (100 ml.) 2% in water		1 Bottle
8.	Ammonia Solution (20 ml.)		1 Bottle
9.	A Pair of Scissors		1 Piece
10.	Adhesive Plaster (1.25 cm X 5 m)		1 Spool
11.	Eye pads in Separate Sealed Pkt.		4 pcs.
12.	Tourniqut		1 No.
13.	Safety Pins		1 Dozen
14.	Tinc. Iodine/ Betadine (100 ml.)		1 Bottle
15.	Polythene Wash cup for washing eyes		1 No.
16.	Potassium Permanganate (20 gms.)		1 Pkt.
17.	Tinc. Benzoine (100 ml.)		1 Bottle
18.	Triangular Bandages		2 Nos.
19.	Band Aid Dressing		5 Pcs.
20.	Iodex/Moov(25 gms.)		1 Bottle
21.	Tongue Depressor		1 No.
22.	Boric Acid Powder (20 gms.)		2 Pkt.
23.	Sodium Bicarbonate (20 gms.)		1 Pkt.
24.	Dressing Powder (Nebasulf) (10 gms.)		1 Bottle
25.	Medicinal Glass		1 No.
26.	Duster		1 No.
27.	Booklet (English& Local Language)		1 No. each
28.	Soap		1 No.
29.	Toothache Solution		1 No.
30.	Vicks (22 gms.)		1 Bottle
31.	Forceps		1 No.
32.	Snake –Bite Lancet		1No.
33.	Note Book		1 No.
34.	Splints		4 Nos.
35.	Lock		1 Piece
36.	Life Saving/Emergency/Over-the counter Drugs		As decided at site

Box size: Suitable size first aid box to be used for first aid items

Note : The medicines prescribed above are only indicative. Equivalent medicines can also be used. A prescription, in this regard, shall be required from a qualified Physician.

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APPENDIX-C

TYPE OF FIRES VIS-À-VIS FIRE EXTINGUISHERS

Fire / Extinguisher	Water	Foam	CO_2	Dry Powder	Multi purpose (ABC)
Originated from paper, clothes, wood	✔	✔	can control minor surface fires	can control minor surface fires	✔
Inflammable liquids like alcohol, diesel, petrol, edible oils, bitumen	×	✔	✔	✔	✔
Originated from gases like LPG, CNG, H_2	×	×	✔	✔	✔
Electrical fires	×	×	✔	✔	✔

LEGEND : ✔ : CAN BE USED

× : NOT TO BE USED

Note: Fire extinguishing equipment must be checked atleast once a year and after every use by an authorized person. The equipment must have an inspection label on which the next inspection date is given. Type of extinguisher shall clearly be marked on it.

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APPENDIX-D

List of Statutory Acts & Rules Relating to HSE

- The Indian Explosives Act and Rules
- The Motor Vehicle Act and Central Motor Vehicle Rules
- The Factories Act and concerned Factory Rules
- The Petroleum Act and Petroleum Rules
- The Workmen Compensation Act
- The Gas Cylinder Rules and the Static & Mobile Pressure Vessels Rules
- The Indian Electricity Act and Rules
- The Indian Boiler Act and Regulations
- The Water (Prevention & Control & Pollution) Act
- The Water (Prevention & Control of Pollution) Cess Act
- The Mines & Minerals (Regulation & Development) Act
- The Air (Prevention & Control of Pollution) Act
- The Atomic Energy Act
- The Radiation Protection Rules
- The Indian Fisheries Act
- The Indian Forest Act
- The Wild Life (Protection) Act
- The Environment (Protection) Act and Rules
- The Hazardous Wastes (Management & Handling) Rules
- The Manufacturing, Storage & import of Hazardous Chemicals Rules
- The Public Liability Act
- The Building and Other Construction Workers (Regulation of Employment and Condition of Service) Act
- Other statutory acts Like EPF, ESIS, Minimum Wages Act.

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APPENDIX-E(Sheet 1 of 12)

CONSTRUCTION HAZARDS, THEIR EFFECTS & PREVENTIVE MEASURES

ACTIVITY	TYPE OF HAZARD	EFFECT OF HAZARD	PREVENTIVE MEASURES
(A) EXCAVATION Pit Excavation upto 3.0m	Falling into pit	Personal injury	Provide guard rails/ barricade with warning signal Provide atleast two entries/ exits. Provide escape ladders.
	Earth Collapse	Suffocation/ Breathlessness Buried	Provide suitable size of shoring and strutting, if required. Keep soil heaps away from the edge equivalent to 1.5m or depth of pit whichever is more. Don't allow vehicles to operate too close to excavated areas. Maintain atleast 2m distance from edge of cut. Maintain sufficient angle of repose. Provide slope not less than 1:1 and suitable bench of 0.5m width at every 1.5m depth of excavation in all soils except hard rock. Battering/benching the sides.
	Contact with buried electric cables Gas/ Oil Pipelines	Electrocution Explosion	Obtain permission from competent authorities, prior to excavation, if required. Locate the position of buried utilities by referring to plant drawings. Start digging manually to locate the exact position of buried utilities and thereafter use mechanical means.
Pit Excavation beyond 3.0m	Same as above plus Flooding due to excessive rain/ underground water	Can cause drowning situation	Prevent ingress of water Provide ring buoys Identify and provide suitable size dewatering pump or well point system
	Digging in the vicinity of existing Building/ Structure	Building/Structure may collapse Loss of health & wealth	Obtain prior approval of excavation method from local authorities. Use under-pining method Construct retaining wall side by side.
	Movement of vehicles/ Equipments close to the edge of cut.	May cause cave-in or slides. Persons may get buried.	Barricade the excavated area with proper lighting arrangements Maintain at least 2m distance from edge of cut and use stop blocks to prevent over-run Strengthen shoring and strutting

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APPENDIX-E: (Sheet 2 of 12)

CONSTRUCTION HAZARDS, THEIR EFFECTS & PREVENTIVE MEASURES (...Contd.)

ACTIVITY	TYPE OF HAZARD	EFFECT OF HAZARD	PREVENTIVE MEASURES
Narrow deep excavations for pipelines, etc.	Same as above plus Frequent cave-in or slides	May cause severe injuries or prove fatal	Battering/benching of sides Provide escape ladders
	Flooding due to Hydro- static testing	May arise drowning situation	Same as above plus Bail out accumulated water Maintain adequate ventilation.
Rock by excavation blasting	Improper handling of explosives	May prove fatal	Ensure proper storage, handling & carrying of explosives by trained personnel. Comply with the applicable explosive acts & rules.
	Uncontrolled explosion	May cause severe injuries or prove fatal	Allow only authorized persons to perform blasting operations. Smoking and open flames are to be strictly prohibited
	Scattering of stone pieces in atmosphere	Can hurt people	Use PPE like goggles, face mask, helmets etc.
Rock excavation by blasting (Contd)	Entrapping of persons/ animals.	May cause severe injuries or prove fatal	Barricade the area with red flags and blow siren before blasting.
	Misfire	May explode suddenly	Do not return to site for atleast 20 minutes or unless announced safe by designated person.
Piling Work	Failure of pile-driving equipment	Can hurt people	Inspect Piling rigs and pulley blocks before the beginning of each shift.
	Noise pollution	Can cause deafness and psychological imbalance.	Use personal protective equipment's like ear plugs, muffs, etc.
	Extruding rods/casing	Can hurt people	Barricade the area and install sign boards Provide first-aid
	Working in the vicinity of 'Live-Electricity'	Can cause electrocution/ Asphyxiation	Keep sufficient distance from Live-Electricity as per IS code. Shut off the supply, if possible Provide artificial/rescue breathing to the injured
(B) CONCRETING	Air pollution by cement	May affect Respiratory System	Wear respirators or cover mouth and nose with wet cloth.
	Handling of ingredients	Hands may get injured	Use gloves & other PPE.
	Protruding reinforcement rods.	Feet may get injured	Provide platform above reinforcement for movement of workers or provide end caps for protection on reinforcement bars.

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APPENDIX-E :(Sheet 3 of 12)

CONSTRUCTION HAZARDS, THEIR EFFECTS & PREVENTIVE MEASURES (...Contd.)

ACTIVITY	TYPE OF HAZARD	EFFECT OF HAZARD	PREVENTIVE MEASURES
	Earthing of electrical mixers, vibrators, etc. not done.	Can cause electrocution/ asphyxiation	Ensure earthing of equipments and proper functioning of electrical circuit before commencement of work.
	Falling of materials from height	Persons may get injured	Use hard hats Remove surplus material immediately from work place. Ensure lighting arrangements during night hours
	Continuous pouring by same gang	Cause tiredness of workers and may lead to accident.	Insist on shift pattern Provide adequate rest to workers between subsequent pours.
	Revolving of concrete mixer/ vibrators	Parts of body or clothes may get entrapped.	Allow only mixers with hopper Provide safety cages around moving motors Ensure proper mechanical locking of vibrator.
Super-structure	Same as above plus Deflection in props or shuttering material	Shuttering/props may collapse and prove fatal	Avoid excessive stacking on shuttering material Check the design and strength of shuttering material before commencement of work Rectify immediately the deflection noted during concreting.
	Passage to work place	Improperly tied and designed props/planks may collapse	Ensure the stability and strength of passage before commencement of work. Do not overload and stand under the passage.
(C) REINFOR-CEMENT	Curtailment and binding of rods	Persons may get injured	Use PPE like gloves, shoes, helmets, etc. Avoid usage of shift tools
	Carrying of rods for short distances/at heights	Workers may get injured their hands and shoulders.	Provide suitable pads on shoulders and use safety gloves. Tie up rods in easily liftable bundles Ensure proper staging.
	Checking of clear distance/ cover with hands	Rods may cut or injure the fingers	Use measuring devices like tape, measuring rods, etc.
	Hitting projected rods and standing on cantilever rods.	Persons may get injured and fell down	Use safety shoes and avoid standing unnecessarily on cantilever rods Avoid wearing of loose clothes

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APPENDIX-E:(Sheet 4 of 12)

CONSTRUCTION HAZARDS, THEIR EFFECTS & PREVENTIVE MEASURES (...Contd.)

ACTIVITY	TYPE OF HAZARD	EFFECT OF HAZARD	PREVENTIVE MEASURES
	Falling of material from height	May prove fatal	Use helmets Provide safety nets
	Transportation of rods by trucks/ trailers	Protruded rods may hit the persons	Use red flags/lights at the ends Do not protrude the rods in front of or by the side of driver's cabin. Do not extend the rods 1/3rd of deck length or 1.5m whichever is less
(D)WELDING AND GAS CUTTING	Welding radiates invisible ultraviolet and infra-red rays	Radiation can damage eyes and skin.	Use specified shielding devices and other PPE of correct specifications. Avoid thoriated tungsten electrodes for GTAW
	Improper placement of oxygen and acetylene cylinders	Explosion may occur	Move out any leaking cylinder Keep cylinders in vertical position Use trolley for transportation of cylinders and chain them Use flashback arrestors
	Leakage/ cuts in hoses	May cause fire	Purge regulators immediately and then turn off Never use grease or oil on oxygen line connections and copper fittings on acetylene lines Inspect regularly gas carrying hoses Always use red hose for acetylene & other fuel gases and black for oxygen
	Opening-up of cylinder	Cylinder may burst	Always stand back from the regulator while opening the cylinder Turn valve slowly to avoid bursting Cover the lug terminals to prevent short circuiting
	Welding of tanks, container or pipes storing flammable liquids	Explosion may occur	Empty & purge them before welding Never attach the ground cable to tanks, container or pipe storing flammable liquids Never use LPG for gas cutting

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APPENDIX-E:(Sheet 5 of 12)

CONSTRUCTION HAZARDS, THEIR EFFECTS & PREVENTIVE MEASURES ...(Contd.)

ACTIVITY	TYPE OF HAZARD	EFFECT OF HAZARD	PREVENTIVE MEASURES
(E) RADIOGRAPHY	Ionizing radiation	Radiations may react with the skin and can cause cancer, skin irritation, dermatitis, etc.	Ensure Safety regulations as per BARC/AERB before commencement of job. Cordon off the area and install Radiation warning symbols Restrict the entry of unauthorized persons Wear appropriate PPE and film badges issued by BARC/AERB
	Transportation and Storage of Radiography source	Same as above	Never touch or handle radiography source with hands Store radiography source inside a pit in an exclusive isolated storage room with lock and key arrangement. The pit should be approved by BARC/AERB. Radiography source should never be carried either in passenger bus or in a passenger compartment of trains. BARC/AERB has to be informed before source movement. Permission from Director General of Civil Aviation is required for booking radio isotopes with airlines.
	Loss of Radio isotope	Same as above	Try to locate with the help of Survey Meter. Inform BARC/AERB (*)
(F) ELECTRICAL INSTALLATION ANDUSAGE	Short circuiting	Can cause Electrocution or Fire	Use rubberized hand gloves and other PPE Don't lay wires under carpets, mats or door ways. Allow only licensed electricians to perform on electrical facilities Use one socket for one appliance Ensure usage of only fully insulated wires or cables Don't place bare wire ends in a socket Ensure earthing of machineries and equipment's Do not use damaged cords and avoid temporary connections Use spark-proof/flame proof type field distribution boxes.

(*) Atomic Energy Regulatory Board (AERB),
Bhabha Atomic Research Centre (BARC)
Anushakti Nagar, Mumbai – 400 094

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APPENDIX-E:(Sheet 6 of 12)

CONSTRUCTION HAZARDS, THEIR EFFECTS & PREVENTIVE MEASURES (...Contd.)

ACTIVITY	TYPE OF HAZARD	EFFECT OF HAZARD	PREVENTIVE MEASURES
			Do not allow open/bare connections Provide all connections through 30mAELCB Protect electrical cables/equipments from water and naked flames Check all connections before energizing
	Overloading of Electrical System	Bursting of system can occur which leads to fire	Display voltage and current ratings prominently with 'Danger' signs. Ensure approved cable size, voltage grade and type Switch off the electrical utilities when not in use Do not allow unauthorized connections. Ensure proper grid wise distribution of Power
	Improper laying of overhead and underground transmission lines/cables	Can cause electrocution and prove fatal	Do not lay un armoured cable directly on ground, wall, roof of trees Maintain atleast 3m distance from HT cables All temporary cables should be laid atleast 750 mm below ground on 100 mm fine sand overlying by brick soling Provide proper sleeves at crossings/ inter-sections Provide cable route markers indicating the type and depth of cables at intervals not exceeding 30m and at the diversions/termination
(G) FIRE PREVENTION AND PROTECTION	Small fires can become big ones and may spread to the surrounding areas	Cause burn injuries and may prove fatal	In case a fire breaks out, press fire alarm system and shout "Fire, Fire". Keep buckets full of sand & water/ fire extinguishing equipment near hazardous locations. Confine smoking to 'Smoking Zones' only. Train people for using specific type of fire fighting equipments under different classes of fire. Keep fire doors/shutters, passages and exit doors unobstructed. Maintain good housekeeping and first-aid boxes (for details refer Appendix-B). Don't obstruct assess to Fire extinguishers. Do not use elevators for evacuation during fire. Maintain lightening arrestors for elevated structures. Stop all electrical motors with internal combustion.

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APPENDIX-E :(Sheet 7 of 12)

CONSTRUCTION HAZARDS, THEIR EFFECTS & PREVENTIVE MEASURES (...Contd.)

ACTIVITY	TYPE OF HAZARD	EFFECT OF HAZARD	PREVENTIVE MEASURES
			Move the vehicles from dangerous locations. Remove the load hanging from the crane booms Remain out of the danger areas.
	Improper selection of Fire extinguisher	It may not extinguish the fire	Ensure usage of correct fire extinguisher meant for the specified fire (for details refer Appendix-C). Do not attempt to extinguish Oil and electric fires with water. Use foam cylinders/CO_2/sand or earth.
	Improper storage of highly inflammable substances	Same as above	Maintain safe distance of flammable substances from source of ignition. Restrict the distribution of flammable materials to only min. necessary amount. Construct specifically designed fuel storage facilities. Keep chemicals in cool and dry place away from heat. Ensure adequate ventilation. Before welding operation, remove or shield the flammable material properly. Store flammable materials in stable racks, correctly labeled preferably with catchment trays. Wipe off the spills immediately
	Short circuiting of electrical system	Same as above Can cause Electrocution	Don't lay wires under carpets, mats or door ways Use one socket for one appliance. Use only fully insulated wires or cables. Do not allow open/bare connections. Provide all connections through 30mAELCB. Ensure earthing of machineries and equipments.
(H) VEHICULAR MOVEMENT	Crossing the Speed Limits (Rash driving)	Personal injury	Obey speed limits and traffic rules strictly. Always expect the unexpected and be a defensive driver. Use seat belts/helmets. Blow horn at intersections and during overtaking operations. Maintain the vehicle in good condition. Do not overtake on curves, bridges and slopes.
	Adverse weather condition	Same as Above	Read the road ahead and ride to the left. Keep the wind screen and lights clean. Do not turn at speed. Recognize the hazard, understand the defense and act correctly in time.

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APPENDIX-E :(Sheet 8 of 12)

CONSTRUCTION HAZARDS, THEIR EFFECTS & PREVENTIVE MEASURES (...Contd.)

ACTIVITY	TYPE OF HAZARD	EFFECT OF HAZARD	PREVENTIVE MEASURES
	Consuming alcohol before and during the driving operation	Same as above	Alcohol and driving do not mix well. Either choose alcohol or driving. If you have a choice between hitting a fixed object or an on-coming vehicle, hit the fixed object Quit the steering at once and become a passenger. Otherwise take sufficient rest and then drive. Do not force the driver to drive fast and round the clock. Do not day dream while driving
	Falling objects/ Mechanical failure	May prove fatal	Ensure effective braking system, adequate visibility for the drives, reverse warning alarm. Proper maintenance of the vehicle as per manufacturer instructions
(I) PROOF TESTING (HYDROSTATIC/ PNEUMATIC TESTING)	Bursting of piping Collapse of tanks Tanks flying off	May cause injury and prove fatal	Prepare test procedure & obtain EIL/owner's approval. Provide separate gauge for pressurizing pump and piping/equipment. Check the calibration status of all pressure gauges, dead weight testers and temperature recorders. Take dial readings at suitable defined intervals and ensure most of them fall between 40-60% of the gauge scale range. Provide safety relief valve (set at pressure slightly higher than test pressure) while testing with air/ nitrogen. Ensure necessary precautions, stepwise increase in pressure, tightening of bolts/nuts, grouting, etc. before and during testing. Keep the vents open before opening any valve while draining out of water used for hydro-testing of tanks. Pneumatic testing involves the hazard of released energy stored in compressed gas. Specific care must therefore be taken to minimize the chance of brittle failure during a pneumatic leak test. Test temperature is important in this regard and must be considered when the designer chooses the material of construction.

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APPENDIX-E :(Sheet 9 of 12)

CONSTRUCTION HAZARDS, THEIR EFFECTS & PREVENTIVE MEASURES (...Contd.)

ACTIVITY	TYPE OF HAZARD	EFFECT OF HAZARD	PREVENTIVE MEASURES
			A pressure relief device shall be provided, having a set pressure not higher than the test pressure plus the lesser of 345 KPa (50 psi) or 10% of the test pressure. The gas used as test fluid, if not air, shall be nonflammable and nontoxic.
(J) WORKING AT HEIGHTS	Person can fall down	May sustain severe injuries or prove fatal	Provide guard rails/barricade at the work place Use PPE like full body harness, life line, helmets, safety shoes, etc. Obtain a permit before starting the work at height above 2 meters Fall arrest and safety nets, etc. must be installed Provide adequate working space(min. 0.6 m) Tie/weld working platform with fixed support Use roof top walk ladder while working on a slopping roofs Avoid movement on beams
		May hit the scrap/material stacked at the ground or in between	Keep the work place neat and clean Remove the scrap immediately
	Material can fall down	May hit the workers working at lower levels and prove fatal	Same as above plus Do not throw or drop materials or equipment from height. i.e. do not *bomb* materials All tools to be carried in a tool-kit Bag or on working uniform Remove scrap from the planks Ensure wearing of helmet by the workers working at lower levels. Multiple activities at same location to be avoided. .
(K) CONFINED SPACES	Suffocation/ drowning	Unconsciousness, death	Use respiratory devices, if reqd. Avoid overcrowding inside a confined space Provide Exhaust fans for ventilation Do not wear loose clothes, neck ties, etc. Fulfill conditions of the permit

Signature Not Verified
Digitally signed by SACHIN KANESH
Date: 2025.03.21 18:01:25 IST
Location: eProcure-EPROC

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