



निविदा पूछताछ
TENDER ENQUIRY

[सीमित निविदा]
[LIMITED TENDER]

माझगांव डॉक शिपबिल्डर्स लिमिटेड
(भारत सरकार का उपक्रम)
MAZAGON DOCK SHIPBUILDERS LIMITED
(Formerly known as Mazagon Dock Limited)
(A Govt. of India Undertaking)
CIN: L35100MH1934GOI002079
Dockyard Road, Mumbai 400 010
Website- www.mazagondock.in
Certified - ISO 9001: 2008 for Shipbuilding Division
GST ID : 27AAACM8029J1ZA

निविदा सं./Tender No	1200003194	विभाग/Department	EY COMMERCIAL
क्रय अधिकारी/Purchase Exec.	Ranjeet Kumar	क्रय अधिकारी/Purchase Exec.	Ranjeet Kumar
सेवा में/To		दूरभाष सं./Telephone No	23763570
		फैक्स सं./Fax No	23741386
		ई-मेल/E-Mail	ranjeetkumar100261@mazdock.com
दूरभाष सं./Telephone		निविदा सं./Tender No	1200003194
फैक्स सं./Fax		निविदा तिथि/ Tender Date	02.04.2024
ई-मेल/E-Mail		निविदा बंद की तिथि/Tender Closing Date	09.04.2024
		निविदा बंद होने का समय/Tender Closing Time	12:00:00
		आरएफक्यू सं./RFQ No	2130000446

निविदा शुल्क/Tender Fee	रु/Rs	0.00
बयाना राशि/EMD Amount	रु/Rs	0.00
पुर्व बिड बैठक तिथि और समय/Pre Bid Meeting Date & Time		,00:00:00
निविदा खोलने की तिथि और समय/Tender Opening Date & Time		09.04.2024,15:00:00
प्रस्ताव वैधता तिथि है/Offer should be valid up to		
सुरक्षा जमा/Security Deposit		5.00 %आदेश मूल्य का/PO value
वरीय बैंक जमानत /Perf. Bank Guarantee		5.00 %आदेश मूल्य का/PO value

(आगे के विवरण हेतु कृपया सम्बंधित नियम शर्तों को पढ़ें। सुनिश्चित करें कि कोटेशन और संबंधित पत्राचार के लिए विभाग का नाम, क्रय अधिकारी का नाम, निविदा संख्या, बंद होने का समय एवं तिथि एवं आरएफक्यू सं. अपने कोटेशनमें लिखें।
Kindly read and refer relevant terms & conditions for further details. Do ensure to Quote Department Name, Purchase Executive & Name, Tender Number, closing date & time and RFQ Number in your Quotation & related correspondence)

प्रिय महोदय/महोदया
Dear Sir / Madam ,

विषय /SUB:- PROCUREMENT OF SMLS PIPES FOR LR BENDS & TIES-IN SPOOL FOR PART REPLACEMENT PIPELINES (PRPP) PROJECT.

माझगाँव डॉक शिपबिल्डर्स लिमिटेड प्रतिष्ठित/संभावित आपूर्तिकर्ताओं से निम्न हेतु, प्रतियोगितात्मक दो बोली प्रणाली में (भाग -I तकनीकी - वाणिज्य बोली एवं भाग II मूल्य बोली) बोली आमंत्रित करती है।
Mazagon Dock Shipbuilders Limited (MDL) invites Competitive – Bid from reputed Supplier for the following in TWO BID system (Part - I Techno - Commercial Bid & Part - II Price Bid) .

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
00100	सामग्री सं./ Material Number :- 350000000000080559 CS SMLS Pipe OD 12.75 inch X 14.3 mm सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 12.75 inch (323.9mm) x Wall	1,728.00 Meter	13.05.2024

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
	Thickness 14.3mm Material Specification API 5L X 60 (CS NACE)		
00200	सामग्री सं./ Material Number :- 350000000000080565 CS SMLS Pipe OD 10.75 inch X 14.3 mm सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 10.75 inch (273.1mm) x Wall Thickness 14.3mm Material Specification API 5L X 60 (CS NACE)	432.00 Meter	13.05.2024
00300	सामग्री सं./ Material Number :- 350000000000080570 CS SMLS Pipe OD 8.625 inch X 14.3 mm सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 8.625 inch (219.1mm) x Wall Thickness 14.3mm Material Specification API 5L X 52 CS	216.00 Meter	13.05.2024
00400	सामग्री सं./ Material Number :- 350000000000080575 CS SMLS Pipe OD 6.625 inch X 12.7mm सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 6.625 inch (168.3mm) x Wall Thickness 12.7mm Material Specification API 5L X 52 (CS)	216.00 Meter	13.05.2024
00500	सामग्री सं./ Material Number :- 350000000000080539 CS SMLS Pipe OD 14 inch X 17.5 mm SR9 सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 14.00 Inch (355.6mm) x Wall Thickness 17.5mm Material Specification API 5L GR. X -60 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	120.00 Meter	13.05.2024
00600	सामग्री सं./ Material Number :- 350000000000080540 CS SMLS Pipe OD 12.75 inch X 15.9 mm सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 12.75 Inch (323.85mm) x Wall Thickness 15.9mm Material Specification API 5L GR. X -60 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	384.00 Meter	13.05.2024
00700	सामग्री सं./ Material Number :- 350000000000080551 CS SMLS Pipe OD 12.75 inch X 19.05 mm	48.00 Meter	13.05.2024

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
	सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 12.75 Inch (323.85mm) x Wall Thickness 19.05mm Material Specification API 5L GR. X -52 Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)		
00800	सामग्री सं./ Material Number :- 350000000000080547 CS SMLS Pipe OD 10.75 inch X 15.9 mm सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 10.75 Inch (273.05mm) x Wall Thickness 15.9mm Material Specification API 5L GR. X -60 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	96.00 Meter	13.05.2024
00900	सामग्री सं./ Material Number :- 350000000000080549 CS SMLS Pipe OD 8.625 inch X 15.9 mm सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 8.625 Inch (219.075mm) x Wall Thickness 15.9mm Material Specification API 5L GR. X -52 Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	48.00 Meter	13.05.2024
01000	सामग्री सं./ Material Number :- 350000000000080555 CS SMLS Pipe OD 6.625 inch X 13.9 mm सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 6.625 Inch (168.275mm) x Wall Thickness 13.9mm Material Specification API 5L GR. X -52 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	48.00 Meter	13.05.2024
01100	सामग्री सं./ Material Number :- 350000000000080486 CS SMLS Pipe OD 14.0 Inch X 15.90mm SR9 सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 14.00 Inch x Wall Thickness 15.90mm Material Specification API 5L X 60 (CS NACE) Design pressure 141 kg/cm ² Design temperature 93.0 Degree	432.00 Meter	13.05.2024
01200	सामग्री सं./ Material Number :- 350000000000080490 CS SMLS Pipe OD 12.75Inch X 17.50mm SR13 सामग्री वर्णन/Material Description :CS Seamless Pipe Outer Dia 12.75 Inch x Wall Thickness 17.50 mm Material Specification API 5L X 52 (CS) Design pressure 151.6 kg/cm ² Design temperature 55.0 Degree	216.00 Meter	13.05.2024

नियम और शर्तें : भाग ए मे लिखी हुई और इतर संलग्नपत्रे इस निविदा एक अभिन्न अंग हैं। हमें आशा है की, हमें प्रतियोगित्मिक और उचित प्रस्ताव इस निविदा के लिए प्राप्त होगा।
Terms & Conditions as indicated in Part A of this tender and other enclosures / annexures form an integral part of this tender document. We look forward to receive your most competitive and reasonable offer against this Tender.

माझगाँव डॉक शिपबिल्डर्स लिमिटेड के लिए /For Mazagon Dock Shipbuilders Ltd

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
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नियम और शर्तें : भाग ए में लिखी हुई और इतर संलग्नपत्रे इस निविदा एक अभिन्न अंग हैं। हमें आशा है की, हमें प्रतियोगित्मिक और उचित प्रस्ताव इस निविदा के लिए प्राप्त होगा।
Terms & Conditions as indicated in Part A of this tender and other enclosures / annexures form an integral part of this tender document. We look forward to receive your most competitive and reasonable offer against this Tender.

माझगाँव डॉक शिपबिल्डर्स लिमिटेड के लिए /For Mazagon Dock Shipbuilders Ltd

Mazagon Dock Shipbuilders Limited

Limited tender **(Two-Bid System)**

TENDER ENQUIRY FORM (TEF)

DIVISION: SUBMARINE & HEAVY ENGINEERING
DEPARTMENT- COMMERCIAL (EAST YARD)

This is a Limited Tender enquiry for nominated Vendors only. Intimations to this vendor is communicated by email separately for bidding against this tender. Unsolicited bids submitted by all other vendors will be summarily rejected.

MAZAGON DOCK SHIPBUILDERS LIMITED (MDL), Mumbai India, a premier Warship building, Ship repair, Submarine Construction & Refits and Heavy Engineering Company owned by Government of India under Ministry of Defence.

Issue of E - Tender Enquiry Document: This e-tender enquiry can be downloaded from our E-procurement website <http://eprocaremdl.nic.in>. To login and quote against this e-tender on E-procurement portal, bidders should have Digital Signature Certificate (DSC). The details of DSC are available on the MDL website.

Tender opening: Technical bid (PART-I) will be opened immediately after the tender closing date and time through e-procurement portal. Bidders can view details of quotation received against tender after tender opening on e-procurement website.

Price bid opening: Similarly after completion of Technical scrutiny/evaluation, price bid (PART-II) opening will be done and intimation will be forwarded to Techno-Commercially accepted bidders. Bidders can view the details of price bid opening against the tender on e-procurement web site.

SUBJECT: - PROCUREMENT OF TIE-IN SPOOL LENGTH PIPE OF PART REPLACEMENT PIPELINES PROJECT (PRPP) FOR ONGC.

1. Description:

PROCUREMENT OF SMLS PIPES FOR LR BENDS & TIE- IN SPOOLS FOR PART REPLACEMENT PIPELINES PROJECT (PRPP) FOR ONGC.

Note:

- i) **There should be provision for 10% increase / decrease in quantity and the quoted unit prices to remain fixed(unchanged) for the same.**

Provisions for 10% increase/decrease in quantity" is as under:

- 10% increase in quantity will be absorbed in the same PO price. No additional amount will be paid to vendor.
- In case of 10% decrease in quantity, amount equivalent to 10% short/less material will be deducted from the vendor amount.

- ii) **Each pipes length should be average 12.2mtr (11.7mtr to 12.5mtr) unless otherwise mentioned in individual line items.**

iii) Pipes to be manufactured and supplied from ONGC approved mills as per SVL only.

SR NO.	Material /service details	QTY	Unit
310	Material Number: -350000000000080559 Material Details: - CS Seamless Pipe Outer Dia 12.75 inch (323.9mm) x Wall Thickness 14.3mm Material Specification API 5L X 60 (CS NACE)	1728	M
320	Material Number: -350000000000080565 Material Details: - CS Seamless Pipe Outer Dia 10.75 inch (273.1mm) x Wall Thickness 14.3mm Material Specification API 5L X 60 (CS NACE)	432	M
340	Material Number: -350000000000080570 Material Details: - CS Seamless Pipe Outer Dia 8.625 inch (219.1mm) x Wall Thickness 14.3mm Material Specification API 5L X 52 CS	216	M
350	Material Number: -350000000000080575 Material Details: - CS Seamless Pipe Outer Dia 6.625 inch (168.3mm) x Wall Thickness 12.7mm Material Specification API 5L X 52 (CS)	216	M
360	Material Number: -350000000000080539 Material Details: - CS Seamless Pipe Outer Dia 14.00 Inch (355.6mm) x Wall Thickness 17.5mm Material Specification API 5L GR. X -60 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	120	M
370	Material Number: -350000000000080540 Material Details: - CS Seamless Pipe Outer Dia 12.75 Inch (323.85mm) x Wall Thickness 15.9mm Material Specification API 5L GR. X -60 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	384	M

380	Material Number: -350000000000080551 Material Details: - CS Seamless Pipe Outer Dia 12.75 Inch (323.85mm) x Wall Thickness 19.05mm Material Specification API 5L GR. X -52 Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	48	M
390	Material Number: -350000000000080547 Material Details: - CS Seamless Pipe Outer Dia 10.75 Inch (273.05mm) x Wall Thickness 15.9mm Material Specification API 5L GR. X -60 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	96	M
400	Material Number: -350000000000080549 Material Details: - CS Seamless Pipe Outer Dia 8.625 Inch (219.075mm) x Wall Thickness 15.9mm Material Specification API 5L GR. X -52 Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	48	M
410	Material Number: -350000000000080555 Material Details: - CS Seamless Pipe Outer Dia 6.625 Inch (168.275mm) x Wall Thickness 13.9mm Material Specification API 5L GR. X -52 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	48	M
420	Material Number: -350000000000080486 Material group: - 1000000 - MISC ITEMS (On charge off basis) Material Details: - CS Seamless Pipe Outer Dia 14.00 Inch x Wall Thickness 15.90mm Material Specification API 5L X 60 (CS NACE) Design pressure 141 kg/cm ² Design temperature 93.0 Degree	432	M
430	Material Number: -350000000000080490 Material group: - 1000000 - MISC ITEMS (On charge off basis) Material Details: - CS Seamless Pipe Outer Dia 12.75 Inch x Wall Thickness 17.50 mm Material Specification API 5L X 52 (CS) Design pressure 151.6 kg/cm ² Design temperature 55.0 Degree	216	M

Detailed Scope of Supply is attached at the **Enclosure**. Bidders shall confirm that the Scope of Supply at **Enclosure** is fully understood by them on their letterhead.

Note: - Any technical query related to SOW shall be forwarded to following:

Mr. Rupesh Mahajan, Chief Manager (PLG-EY).

E-mail: rpmahajan@mazdock.com

Phone - 022-2376 3604

Or

Mr Prashant Patil, Chief Manager (D-EY)

E-mail: pbpatil@mazdock.com

Phone - 022-2376 3604

2. Instructions to the bidder:

- a. Bidder should submit all documents strictly through e-portal only. Physical copy of the bid will not be accepted except for the physical copies of documents requested in the tender.
- b. In case of supply/services of duplicate / spurious / substandard items by the firm, MDL will resort to prosecution of the firm by legal action with all the stringent measures against the firm for supplying such items which had led to delay of the project of national importance and has endangered the national security. The firm will also be blacklisted in MDL & will be debarred from quoting in future MDL tenders and the same will be intimated to all other public sector undertakings and other Government organization.
- c. Bidders are requested to ensure that only relevant documents complete in all respect as indicated in the tender should be attached with their offer. The first page of every uploaded set of scanned document shall be an index of its contents. In case the offers received against this tender are more than 20, no opportunity will be extended for submission of deficient documents after opening of bids. The evaluation of the offers will be carried out and bidders will be qualified based on the documents received along with their offer.
- d. Delivery date mentioned in the RFQ/Tender is tentative. However, bidders have to follow delivery schedule as per purchase order. Non-compliance of the same beyond the contractual terms may lead to imposition of liquidated damages or cancellation of contract/ Purchase order.
- e. Where requests are made by bidders with reasons for extension of the tender closing date provided such an extension will not adversely affect the project schedule and bidders are instructed for submission of such request in the concerned commercial department at least 2 days in advance excluding the day of tender closing date, amendment to the tender enquiry may be issued.
- f. Any participating firm which has been debarred/blacklisted by Central/State Governments or by any entity controlled by Central/State Governments from participating in any of their project, as on date of submission of Tender, shall not be eligible to submit the Tender.

3. Validity Period of Bid:

Bid shall remain valid for a period of not less than **180 days** after the deadline date for bid submission.

4. Delivery Schedule/period:

Delivery shall start from 03 weeks and should be completed within 06 weeks from the date of PO.

5. Receipt of Bids / Offers:

Bidder should submit all documents strictly through e-portal only. Physical copy of the bid will not be accepted except for the physical copies of documents requested in the tender.

6. Submission of Revised Bids:

The bidders if so desire may modify their bids prior to the closing date and time of the tender enquiry. However, it shall be the responsibility of the bidder to ensure that they have submitted the revised bid.

7. Bid Rejection Criteria:**i) Categorical Rejection Criteria**

The following conditions / deviations are non-negotiable and therefore, any bid falling under these conditions / deviations shall be summarily rejected. Bidders to note that they shall not be provided any opportunity to rectify these conditions / deviations post bid opening:

- a) Bidders who are debarred under PPP MII order 2017, CPPP including Tender holiday issued by MDL.

ii) Liable for Rejection Criteria:

- a) Non-compliance/non-acceptance to any of the terms and conditions of the tender shall render the bid liable for rejection. Equal time and opportunity for submission of deficient techno commercial documents and clarification shall be given to the bidders. Bidders are required to submit such documents / clarifications within the duration / date stipulated by MDL failing which their bids will be rejected.

- b) Bids received without Integrity Pact duly signed by the bidder on each page.

8. Guarantee & warranty:

Warranty period shall be for 12 months from the date of supply. Valid warranty certificate must be submitted. During this period, all defect arising out of defective material and faulty workmanship will be rectified by repairing or replacing part or whole material as necessary free of charge on delivery basis. Any consequential damage/defect or loss of item due to poor workmanship/poor material quality/ negligence etc. attribute to the bidder to be rectified / replaced by the bidder free of cost.

Note:

Any material, equipment, infrastructure facility, required directly or indirectly for completing the subject work, as per the scope of work & drawing given, if not mentioned in MDL's scope, has to be arranged by the subcontractor without any extra cost to MDL.

In case of the performance of the contractor is not satisfactory MDL reserves the right to cancel the order and lift the material from contractor.

9. Performance Security (Performance Bank Guarantee & Security Deposit):

Successful bidders need to submit Performance Bank Guarantee (PBG) cum Security Deposit (SD) for an amount of 5% of the value of the contract (excluding taxes & duties). Performance security may be furnished in the form of NEFT/ Demand Draft / Pay order / Bank Guarantee / Insurance Security Bond / e-Bank Guarantee in favour of Mazagon Dock Shipbuilders Limited, Mumbai from the list of Banks approved by SBI / Canara Bank published on MDL website. Performance Security is to be furnished within 25 days after notification of the award of contract and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations.

10. Non submission of Performance Security:

- i. In case of failure to submit performance security by the supplier within 15 days of transmission / notification of order by any mode, EMD (if available) will be forfeited and MDL reserves the right to cancel the order and invoke the risk purchase clause. If it is established that the contractor has failed to comply with the Guarantee/warranty obligations, the PSBG will be encashed by MDL. MDL's decision in this regard shall be final and binding on the supplier / contractor.
- ii. In cases where the supplier / contractor has not submitted the PS and already commenced supply / services, Performance security will be retained from the bills, if any. In such case, interest will be recovered for the period starting from 16th day of transmission / notification of order/contract by any mode and amount involved at the relevant rate of interest for that quarter. For Indian suppliers, it will be SBI BPLR plus 2%.

11. Forfeiture of Performance Security:

Forfeiture of Performance Security shall be done in case of non-performance of agreed terms and or default/breach by bidder / supplier with application of risk purchase provisions or tender holiday where applicable.

12. Free issue materials:

- i) In cases where the materials such as MS / AL sheets, Steel, Components etc. are required to be issued free of cost to the Supplier for Galvanizing, Heat treatment, Fabrication, Fitment etc. on returnable basis, the Supplier shall furnish Bank Guarantee equivalent to the value of materials supplied by MDL free of cost for works undertaken outside MDL premises.
- ii) ~~Undertaking needs to be submitted on the Letterhead in case of Foreign Firm from their Authorised Signatory.~~ In case of Indigenous firm, Indemnity Bond on INR 500 Non-Judicial Stamp Paper to be submitted.
- iii) In cases such as low value contracts involving high value materials etc., the submission of Indemnity Bond and provision of insurance cover with MDL as the beneficiary may be acceptable. For any items that are being taken out for repairs during warranty period then a separate BG equivalent to the value of item need not be submitted if valid PBG is available to cover the cost of item. Such Bank Guarantee / Indemnity Bond / Insurance Cover shall be valid up to the execution of the contract / delivery of material, inspected /accepted and receipt at MDL.
- iv) The Free Issue Material can be issued against holding of equivalent amount from the payment due to the firm.
- v) On completion / execution of the Order / Contract as per approved drawings and plans such as nesting plan, this should be returned within a period of 15 days from the date of receipt of finished product and leftover material in MDL OR any other location specified in the order along with the certified statement of reconciliation of MDL's property showing following details;
 - a. Quantity of material issued.
 - b. Quantity of materials consumed / vis-a vis percentage of job completed.
 - c. Quantity of material returned to respective stores / held in stock by Contractor at his end.
 - d. Actual quantity wasted / scrapped as a by-product of process as against stipulated amount.
- vi) Supplier / Contractor shall also furnish undertaking regarding protection of intellectual property rights and that issued design drawing will be returned without reproducing and retaining any copies at their end.

13. Pricing:

- i) Bidder shall quote the prices in the Rate Sheet Format provided in e-tender.
- ii) The quoted prices shall remain firm and fixed during the currency of the order / contract unless agreed otherwise by MDL.
- iii) The reference price, if any, indicated anywhere in the tender document against each line item is only notional and has no commercial relevance. Therefore, such reference price should not be considered as guidance price and the bidders shall quote their price based on their costing and pricing policies.

14. Firm Price / Price Variation:

Prices quoted by bidder shall remain firm and fixed during the period of the contract and not subject to variation on any account.

15. Payment Terms:

No Advance in any manner will be paid to the Supplier / Bidder / Vendor / Contractor.

100% payment of line items will be made against complete (100%) supply of the line items of the order and as reduced by any deductibles and/or the amount leavable towards liquidated damages, if any and after including statutory taxes, duties and levies as applicable may be payable through

RTGS/NEFT within 15 days for actual quantities of work executed and on submission of relevant documents as mentioned below: -

- i) Set of Original + 2 Copies of signed Tax Invoice showing item / activity wise prices as per the Contract / Order to be submitted to Commercial Department, East Yard. Liquidated
- ii) Set of Original+2 copies of Warranty Certificate as per Enclosure.
- iii) Set of Original+2 copies of PSBG as per the Enclosure.
- iv) Signed copy of Material acceptance report by MDL-User not below the rank of chief manager.

Note:

Wherever GST is applicable, payment will be released against e-Invoice, or Invoice accompanied with vendor's self-declaration that

"We do not fall under the category of registered persons notified under Rule 48(4) of the Central GST Rules, 2017 and we are not required to comply with e-Invoicing provisions under GST Act, as our aggregate turnover in any preceding financial year from 2017-18 onwards has not exceeded Rs. 5 Cr. as per GST Act."

16. Trade Receivable Discounting System (TReDS) for MSEs:

- a) TReDS is a digital platform to help MSMEs to address their financial needs for facilitating the financing of trade receivables from buyers, through multiple financiers. TReDS is governed by the Reserve Bank of India under the Payment and Settlement Systems Act, 2017 and the Factoring Regulations Act, 2011. Under the TReDS initiative, at present, RBI has given licenses to three participants (A. TReDS Ltd, RXIL, M1 Xchange). MDL is registered for TReDS online platform with A. TReDS Ltd, and M1Xchange to facilitate payments to MSMEs through TReDS. At TReDS, auctioning of invoices at competitive and transparent environment is done by financiers based on Buyer's credit profile.
- b) MSE bidders desirous to receive payments through TReDS platform may avail the facility if they are already registered on TReDS platform or by registering on any one of the service provider. Contact details of TReDS platform service providers are to be indicated. MSE bidders upon successful delivery shall submit their invoices along with the mandated enclosures at MDL, central receipt section. MSE vendors, desirous to receive payments through a particular TReDS platform must submit their TReDS details along with the invoice at MDL, central receipt section. Upon receipt and acceptance of the supplied material and receipt of invoices with the mandated enclosures, MDL shall process the invoice for payment on that particular TReDS platform. Any unfinanced invoices / invoices of MSE bidders seeking payment from MDL directly shall be processed as per the standard payment terms agreed in PO / contract.

17. Taxes and Duties:

- i) Bidders must quote the amounts of Taxes and Duties as applicable, separately, duly indicating the base amount(s) and the applicable rate(s), under each of the heads indicated above. Wherever Exemption Certificates are issued, no liability for payment of taxes and duties arises and hence taxes and duties shall not be reimbursed / allowed.
- ii) Supplier / contractor will not be entitled to any increase in rate of taxes occurring during the period of extended delivery completion schedule if there is delay in supplies / completion attributed to him.
- iii) However, if there is a decrease in taxes, the same must be passed on to MDL.
- iv) Wherever all-inclusive prices are quoted by the Tenderer(s) without bifurcation of tax elements, no escalation can be considered in respect of any variations in statutory levies arising subsequently because of the absence of the required base figures in the purchase order / contract.

Note:

- a) GST shall be payable extra as quoted and agreed as per GST Laws.

- b) In case of purchases of goods/services from unregistered dealers under GST Laws, GST will be paid by MDL under reverse charge mechanism.
- c) Benefits from reduction in rate of tax/ITC is required to be passed on to consumer. Where "applicable GST" has been quoted as extra, Goods and service providers (except unregistered dealers under GST Law) have to submit declaration that they have complied with 'Anti profiteering clause' under GST Law. Such declaration be given in technical bid.
- d) If the vendor is registered under GST, vendor shall mention the HSN code for goods and/or services in their tax invoice, etc. These codes must be in accordance with GST Laws and responsibility of specifying correct HSN codes for goods and/or services is that of the vendor. MDL shall not be responsible for any error in HSN code for goods and/or services specified by supplier / contractor. Supplier /Contractor shall pay penalty and/ or interest imposed on MDL or any loss due to delay in availing ITC by MDL or any loss of ITC to MDL due to errors by vendors at any stage. MDL reserves right to recover any such interest, penalty or loss from any amount due to supplier /contractor or otherwise.
- e) In case, MDL is unable to avail ITC, supplier/contractor at their own cost shall rectify the shortcoming in the returns to be filed immediately thereafter. Further, if the ITC is delayed / denied to MDL / reversed subsequently as per GST Laws due to non / delayed receipt of goods and / or services and / or tax invoice or expiry of timelines prescribed in GST Laws for availing ITC, non-payment of taxes or non-filing of returns or any other reason not attributable to MDL, supplier /contractor shall pay any loss of amount along with interest and penalty on MDL under GST Laws for the number of days the ITC was delayed. If the short coming is not rectified by supplier/contractor and MDL ends up in reversal of credits and / or payments, supplier /contractor is fully liable for making good all the loss incurred by MDL. MDL reserves right to recover any interest, penalty or loss from any amount due to supplier /contractor or otherwise.
- f) If the vendor is registered under GST, the GST registration number (15 digit GSTIN) issued by GoI shall be mandatorily provided by the vendor. Vendor having multiple business verticals within state / at multiple states with separate GST registration numbers shall forward GSTIN of only that vertical which is involved in supply of goods and/or services. MDL GSTIN is 27AAACM8029J1ZA and vendor shall mention the same while invoicing and avoid any data entry error on GST portal.
- g) If the vendor is registered under GST; Vendor shall ensure timely submission of invoice as per the provisions / requirement / timeline promulgated by GOI in relation to GST Law with all required supporting documents to enable MDL to avail input tax credit promptly. The vendors invoice inter alia should contain GSTIN of vendor, GSTIN of MDL (i.e.27AAACM8029J1ZA), GST tax rate separately, HSN code wise goods or services, place of supply, signature of vendor, etc. Original invoice needs to be submitted to Bill Receipt Centre at MDL gate, and a copy of the invoice should be given to the goods receiving section (GRS).
- h) If the vendor is registered under GST, vendor shall file all applicable returns under GST Laws in the stipulated time and any losses of tax credit to MDL arising due to delay in filing will be recovered from their invoice wherever MDL is eligible to avail tax credit. Any default towards payment of tax and / or uploading of monthly returns by supplier/contractor, MDL retains right to withhold payments towards tax portion until the same is corrected and complied by the supplier/contractor with the requirement of GST along with satisfactory evidence.
- i) The rate sheet enclosed with the tender will indicate the rates to be entered under each head wherever applicable. Bidders must clearly mention the applicable taxes and duties. The item-wise rates (Inclusive of packing forwarding, freight & insurance) quoted in the rate sheet should exclude taxes and duties. Bidder should indicate GST rates as applicable separately under each of the head in the same Rate sheet, which will be paid extra based on tax invoice to the extent applicable. The GST will be applicable on total basic rate of each item (Inclusive of packing forwarding, freight & insurance).

18. E-invoice:

The vendors, whose aggregate turnover in any preceding financial year from FY 2017-18 onwards, exceeds INR 5 crore as per GST Act or as applicable from time to time, will have to issue an e-Invoice with a Quick Response (QR) code and Invoice Registration No.(IRN), It is important to note that MDL will not be entitled for Input Tax Credit (ITC)/GST on a vendor Invoice which is not compliant with the above e-Invoice notification. Wherever GST is applicable, payment will be released against e- Invoice, or Invoice accompanied with vendor's self-declaration that "we do not fall under the category of registered persons notified under Rule 48(4) of the Central GST Rules, 2017 and we are not required to comply with e-Invoicing provisions under GST Act, as our aggregate turnover in any preceding financial year from 2017-18 onwards has not exceeded INR 5 crore as per GST Act".

19. Ranking of Bids:

All line items are separable. Evaluation of L1 bidder will be done line item wise.

The comparison of the responsive tenders shall be on total outgo on Least Cost Net of Credit Basis (LCNC), for the procurement to be paid to the supplier or service provider, including all elements of costs, duties, levies, freight, insurance etc. excluding GST (where ITC is available). Therefore, it should normally be on the basis of CIF/ FOR destination basis, duly delivered, commissioned, as the case may be.

20. Loading Criteria:

- a) Varied payment terms quoted by indigenous bidders as compared to the terms stated in the tender document shall be normalized by adopting the Prime Lending Rate of State Bank of India plus 2% thereon on the amount (s) at variation and / or for the period (in no. of days) at variation and LIBOR / EURIBOR rates plus 2 % or 6% whichever is higher in case of foreign bidders.
- b) Contingency charges, if technically accepted (Guarantee extension charges, delivery extension charges, re-preservation charges, extra man-days charges etc.) as applicable should be added to decide L-1. For the additional delivery period sought by the bidder over the stipulated date of delivery/completion of tender, 0.50% per completed week will be loaded to the quoted price.
- c) Deviations in respect of the period of Warranty / Guaranty shall be loaded to the quoted price @ 0.25% per month or part thereof. This does not arise if the bidder quotes additional price for the differential period.

21. Purchase Preference to Micro and Small Enterprises(MSEs):

Micro and Small Enterprises (MSEs) registered under Udyam Registration or as directed by government are eligible to avail the benefits under the policy. This Policy is meant for procurement of only goods produced and services rendered by MSEs. Traders/Distributors/Sole Agents/Works Contract are excluded from the purview of the policy. MDL has right to place order on MSE Manufacturer and MSE Service Provider meeting following criteria:

- a) In tender, participating Micro and Small Enterprises (MSE) quoting price within price band of L1+15 (fifteen) per cent shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE and such MSE shall be allowed to supply up to 25(twenty-five) per cent of total tendered value. The 25(twenty-five) per cent quantity is to be distributed proportionately among these bidders, in case there are more than one MSEs within such price band.
- b) Within this 25% (Twenty Five Percent) quantity, a purchase preference of four (4) per cent is reserved for MSEs owned by Scheduled Caste (SC)/ Scheduled Tribe (ST) entrepreneurs and three (3) percent is reserved for MSEs owned by women entrepreneur (if they participate in the tender process and match the L1 price).However, in event of failure of such MSEs to participate in tender process or meet tender requirements and L1 price, four percent sub-target for procurement earmarked for MSEs owned by SC/ST entrepreneurs and three (3) percent earmarked to women entrepreneur will be met from other MSEs. . MSEs would be treated as owned by SC/ ST entrepreneurs:
 - i) In case of proprietary MSE, proprietor(s) shall be SC /ST;

- ii) In case of partnership MSE, the SC/ ST partners shall be holding at least 51% (fifty-one percent) shares in the unit;
 - iii) In case of Private Limited Companies, at least 51% (fifty-one percent) share shall be held by SC/ ST promoters.
- c) If subcontract is given to MSEs, it will be considered as procurement from MSEs.
- d) In case of tender item cannot be split or divided, etc. the MSE quoting a price within the band L1+15% may be awarded for full/ complete supply of total tendered value to MSE, considering the spirit of the Policy for enhancing Govt. Procurement from MSEs.
- e) In respect of items reserved for MSE-Manufacturers, extant guidelines shall be followed. Presently Circular No. S.O. 581(E) dated 23.03.2012 is applicable. The latest list may be seen from the website of the MSME Ministry.

22. Purchase Preference to Make in India 2017:

The Government of India has issued revised Public Procurement (Preference to Make in India) order 2017 on 16th Sep 2020 as part of its policy to encourage "Make in India" and promote manufacturing and production of goods and services in India with a view to enhancing income and employment. Subject to the provisions of this order and to any specific instructions issued by Nodal Ministry or in pursuance of this order, Purchase Preference shall be given to local suppliers in all the procurements undertaken by MDL in the manner specified below.

Aspects of 'Preference to Make in India':

- a) "Local content" means the amount of value added in India which shall be the total value of item (goods, services or works or their combination) under procurement (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. Different definition of Local Content may be specified by the Nodal Ministry for items assigned to them, which will prevail over above.

Note: The local content can be increased by vendors 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.

- b) "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.
- c) "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.
- d) "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.
- e) "L1" means the lowest tender or lowest bid or 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.
- f) "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. The margin of purchase preference shall be 20% which is to be indicated in tender.

Note: Price/s of all Class I local supplier/s in a tender is more than 20% of L1's price no purchase preference shall be applicable.

- g) "Nodal Ministry" means the Ministry or Department identified pursuant to the said Order in respect of a particular item of goods or services or works.
- h) "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.

Note: Mazagon Dock Shipbuilders Limited (MDL) shall be a procuring entity.

- i) "Works" means all works as per Rule 130 of GFR-2017 and will also include "turnkey works", Engineering, Procurement and Construction (EPC) contracts.
- j) "Services" includes System Integrator (SI) contracts among other services.

k) Eligibility of Suppliers to bid in a tender

i) 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.

ii) Both 'Class-I local supplier' and 'Class-II local supplier' shall be eligible to bid in procurements not covered above para (i) and undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries (GTE), '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 above para (i), and with estimated value of purchases less than INR 200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry (GTE) shall not be issued except with the approval of competent authority as designated by Department of Expenditure. For the cases pertaining to MoD, Defence Secretary will be the competent authority to approve issue of GTE up to INR 200 Crore based on adequate justification as per MoF DoE PP Division ID Note No F.20/36/2020-PPD dtd 28.10.2020.

l) Special Conditions in GTE Procurements: Agency Commission:

The amount of Agency Commission, (normally not exceeding five percent) payable to the Indian Agent should not be more than what is specified in the Agency agreement (a certified copy should be submitted along with the bid) between the bidder and the Indian Agent. The Indian Agent will be required to submit a certificate along with their Agency Commission bill, confirming that the amount claimed as Agency Commission in the bill has been spent/will be spent, strictly to render services to the foreign Principal, in terms of the Agency Agreement. The Purchaser or their authorized agencies and/or any other authority of the Government of India shall have rights to examine the books of the Indian Agent and defects or misrepresentations in respect of the afore indicated confirmation coming to light during such examinations will make the foreign Principal (i.e. the Contractor) and their Indian Agent liable to be banned/suspended from having business dealings with the Purchaser, following laid down procedures for such banning/suspension of business dealings.

m) DPIIT vide OM No. P-45021/102/2019-BE-II Part (1) (E-50310) dated 04 Mar 2021 has clarified that bidders offering imported products will fall under the category on Non-local suppliers and they cannot claim themselves as Class-I local suppliers / Class-II local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC / CMC, etc. as local value addition. Hence, bidders offering imported products will be treated as Non-local suppliers.

23. Purchase preference:

- a) Purchase preference shall be given to only "Class-I Local Supplier" (Class II Local Supplier are not eligible for purchase preference) in procurements undertaken in the manner specified in the succeeding sub-paras:

- b) 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:

Category	Terminology
Supplier is both MSE & Class- I local supplier	MSE Class-I local supplier
Supplier is MSE but not Class- I local supplier	MSE but non-Class-I local supplier
Supplier is not MSE but is Class-I local supplier	Non-MSE but Class-I local supplier
Supplier is neither MSE nor Class-I local	Non-MSE non-Class-I local supplier

- c) In the procurement covered by para 23 (K) (i) above (Para 3(a) of PPP-MII Order, 2017) for which Nodal Ministry has notified sufficient local capacity and competition, 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. Purchase preference shall be accorded as under:
- i) L-1 is "MSE Class-I local supplier": 100% of the tendered quantity shall be awarded to L-1.
 - ii) L-1 is "Non-MSE but Class-I local supplier"(Divisible in nature): Purchase preference shall be given to MSEs as per PPP-MSE Order. Balance quantity be awarded to the L-1 bidder.
 - iii) L-1 is "Non-MSE but Class-I local supplier" (Non- Divisible in nature): Purchase preference shall be given to lowest quoting MSE Class-I local supplier as per PPPMSE Order. If lowest quoting MSE Class-I local supplier does not accept the L-1 rates, the next higher eligible MSE Class-I local supplier is to be given purchase preference and so on. 100% of the tendered quantity shall be awarded to MSE Class-I local supplier accepting L-1 rates. If MSE Class-I local suppliers do not accept L- 1 rates, then contract shall be awarded to L-1
- d) In the procurement of goods and services reserved exclusively for procurement from MSEs as per PPP-MSE Order, non- MSEs are not eligible to bid for these items and Purchase preference shall be accorded as under:
- i) L-1 is "MSE Class-I local supplier": 100% of the tendered quantity shall be awarded to L-1
 - ii) L-1 is "MSE non-Class-I local supplier"(Divisible in nature): Purchase preference shall be given to MSE Class-I local supplier as per PPP-MII Order. Balance quantity be awarded to L-1 bidder.
 - iii) L-1 is "MSE non-Class-I local supplier" (Non-Divisible in nature): First opportunity shall be given to lowest quoting "MSE Class-I local supplier" for matching L-1 bidder as per PPP-MII Order for 100% of the tendered quantity and if lowest quoting "MSE Class-I local supplier" does not accept the L-1 rates, the next higher eligible "MSE Class- I local supplier" is to be given purchase preference and so on. If all "MSE Class-I local suppliers" decline to accept the L-1 rates, then contract shall be awarded to L-1 for 100% of the tendered quantity.
- e) In the procurement of goods or service which are covered in para 23 (K) (ii) above which are divisible in nature (Para 3A(b) of PPP-MII Order), both MSEs as well as Class-I local suppliers are eligible for purchase preference and the Purchase preference shall be accorded as under:
- i) L-1 is "MSE Class-I local supplier": 100% of the tendered quantity shall be awarded to L-1.
 - ii) L-1 is "Non-MSE but Class-I local supplier": Purchase preference shall be given to MSEs, if eligible, as per PPP-MSE Order. Balance quantity be awarded to L-1 bidder.

- iii) L-1 is "MSE but non-Class-I local supplier": Purchase preference shall be given to Class-I local suppliers, if eligible, as per PPP-MII Order. Balance quantity be awarded to L-1 bidder.
- iv) L-1 is "Non-MSE non-Class-I local supplier": Firstly, Purchase preference shall be given to MSEs as per PPPMSE 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 be awarded to L-1 bidder. (Kindly refer to the illustrative example in the MoF, DoE OM at Enclosure-II).
- f) In the procurement of goods, services which are covered in para 23 (K) (ii) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone (Items covered under Para 3A(c) of PPP-MII Order, 2017) and both MSEs as well as Class-I local suppliers are eligible for purchase preference Purchase preference shall be accorded as under:
 - i) L-1 is "MSE Class-I local supplier": Contract shall be awarded to L-1.
 - 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 shall 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. If all "MSE Class-I local supplier" do not accept L-1 rates, then (f)(iii) shall be followed.
 - iii) If conditions mentioned in sub paras (f)(i) and (f)(ii) above are not met i.e. L1 is not "MSE Class-I local supplier" and "MSE Class-I local supplier" is not eligible to take benefit of purchase preference as per PPP-MSE Order or all "MSE Class-I local supplier" do not accept L-1 rates, the contract is to be awarded / purchase preference to be given in different possible scenarios as under:
 - a) L-1 is "MSE but non-Class-I local supplier" or "Non- MSE but Class-I local supplier": Contract be awarded to L-1.
 - b) L-1 is "Non-MSE non-Class-I local supplier": Firstly, purchase preference shall be given to eligible MSE as per PPP-MSE Order. If MSEs not eligible or does not accept then purchase preference to be given to eligible Class- I Local supplier as per PPPMII Order. If Class-I Local supplier is also not eligible or does not accept then contract be awarded to L-1.
- g) 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 supplier" 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.
- h) Non-local suppliers, including MSEs falling in the category of Non-local suppliers, shall be eligible to bid only against Global Tender Enquiry.

24. Minimum Local Content:

- i) 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%. However, 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' and 'Class-II local supplier' respectively.
- ii) The Nodal Ministry may 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.

25. Reciprocity Clause:

- i) 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.
- ii) The term 'entity' of a country shall have the same meaning as under the FDI Policy of DPIIT as amended from time to time.

26. Debarment of bidders / suppliers:

- i) False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of GFR 2017 for which a bidder or its successors can be debarred for up to 2 years as per Rule 151(iii) of GFR 2017 along with such other actions as may be permissible under law.
- ii) A supplier who has been debarred by any procuring entity for violation of said Order shall not be eligible for preference under said Order for procurement by any other procuring entity for the duration of 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 such a manner that ongoing procurements are not disrupted.

27. Export License:

The Export licence that may be required for delivery of various items / equipment to MDL shall be arranged by the respective Bidders / Suppliers / Contractors from the concerned authorities in their respective countries. The Bidders / Suppliers / Contractors shall take in to account the period required for obtaining such license while indicating delivery / completion periods for the items / equipment and delays in supplies for non-availability of such licenses are to be accounted for by the Supplier / Contractor. The 'End User' certificate if required by the supplier for obtaining the license is to be forwarded by MDL. However, the format and details of the end user certificate required should be forwarded by the supplier to MDL along with the order acceptance. The dealing commercial executive shall arrange the end user certificate and dispatch the same to the supplier most expeditiously.

28. Provisions of Official Secrets Act, 1923:

Extract of provisions of the Official Secret Act as per the enclosure should be signed stamped and enclosed in the offer.

29. Public Grievance Cell:

A Public Grievance Cell headed by Shree R R Kumar (ED-Production), President, has been set up in the Company. Members of public having complaints or grievances are advised to contact him on Wednesday between 10.00 hours and 12.30 hours in his office on 3rd floor, west Block, MAZAGON DOCK SHIPBUILDERS LTD, Dock Yard Road, Mumbai 400010, INDIA or send their complaints / grievances to him in writing for redressal. His Telephone No. is 022 2378 2338, 2376 2106.

30. Book Examination Clause (BEC):

In case it is found to the satisfaction of MDL that the Supplier has engaged an Agent or paid commission or influenced any person to obtain the contract as described in clauses relating to Agents/Agency Commission and penalty for use of undue influence, the supplier, on a specific request of MDL shall provide necessary information/inspection of the relevant financial documents/information.

31. Liquidated Damages:

If the Seller/Service Provider fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract, the Buyer will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 0.5% of the contract value of delayed quantity per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value of delayed quantity without any controversy/dispute of any sort whatsoever.

32. Integrity Pact:

- i) The bidder has to submit Integrity Pact as per the attached format in the enclosure.
- ii) Each page of Integrity pact shall be duly signed by the bidder. Non-submission of Integrity pact by the bidders duly signed on each page along with Part-I bid shall be liable for rejection.
- iii) In case of issues related to Integrity Pact (IP) please contact Independent External Monitor (IEM) whose details are as below:

a) Mr. P V Rao

Email id: pasupuletirao@yahoo.co.in

33. Option Clause:

MDL retains the right to increase/decrease the ordered quantity by up to 50 % at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period).

34. Common / Deemed DPSU registration and Green Channel Status clause:

- i) Suppliers / Contractors registered in other Defence PSUs for the tendered item / service shall be considered by MDL as Deemed Registered.
- ii) Green Channel Policy is formulated by DDP, MoD and promulgated vide O.M. No. 43(5)/2015/D(QA) dated 24.03.2017. Suppliers holding Green Channel Certificate for the tendered item shall be considered by MDL as Deemed Registered.

35. Land Border Clause:

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

- i) MoF DoE vide OMs No 6/18/2019-PPD dated 23 Jul 2020 & 24 Jul 2020 and OM No F.7/10/2021/-PPD (1) dated 23.02.2023 has promulgated restrictions and procedure for buying from a bidder from a country which shares a land border with India under GFR Rule 144 (xi) on the grounds of Defence of India and National Security for information and compliance.
- ii) The Orders stipulate mandatory registration with competent authority and seeking certificate of compliance with this Order from the bidder from a country which shares a land border with India in the tender process. Exclusions from these restrictions have also been enlisted in the Order. The Competent authority for the purpose of registration under this Order shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).
- iii) A bidder is permitted to procure raw material, components etc. from the vendors from countries which shares a land border with India. Such vendors will not be required to be registered with Competent Authority, as it is not regarded as "sub-contracting". However, if bidder has proposed to supply finished goods procured directly/ indirectly from the vendors from the countries sharing land border with India, such vendor will be required to be registered with the Competent Authority.
- iv) The bidder has to enclose filled signed and stamped certificate for "Declaration of Compliance on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017" as per the enclosure.

36. Consignee details:

Firm shall arrange dispatch of good by appropriate transport mode as per the order and consign the same to Onsite at M/s JSL Coating plant, Mundra.

37. Inspection and Testing:

- i) Pre-despatch Third Party Inspection by any TPI who is the member of International Association for Classification Society (IACS). Vendor will arrange the inspection with intimation to MDL.
- ii) Charges for TPI shall be borne by the bidder.
- iii) Inspection of the materials will be carried out as mentioned in the Scope of Work.

- iv) Documentation: COC from supplier and Material inspection certificate (Chemical and Physical) from NABL laboratory or 3.1 Mill test certificate / dimensional reports/ warranty certificate, etc.
- v) Receipt Inspection- MDL User
- vi) Warranty certificate as per the enclosure.

38. ~~Work Done Certificate (WDC) (for Works):~~

~~Work Completion certificate (WCC) shall be issued on Satisfactory completion of respective work with inspection and acceptance reports. Additional Project team executive of rank Chief manager and above will issue WCC.~~

39. Breach of Obligation Clause with respect to Bid Submitted:

In case of breach of any obligation mentioned under, the bidder shall be disqualified / debarred from the bidding process for a period of one year from the date of notification,

- i) Bidder has withdrawn / modified / amended / impaired / derogated from the tender during the period of bid validity.
- ii) Bidder fails or refuses to execute the contract upon notification of acceptance of bid by MDL during the period of bid validity.

40. Right to reject any or all bids:

MDL reserves its right to accept or reject any or all bids, abandon / cancel the tender process, and issue another tender for the same or similar Goods/Services at any time before the award of the contract. It would have no liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for such action(s).

41. Contacting MDL during the evaluation:

From the time of bid submission to awarding the contract, no bidder shall contact MDL on any matter relating to the submitted bid. If a Bidder needs to contact MDL for any reason relating to this tender and/ or its bid, it should do so only in writing or electronically. Any effort by a Bidder to influence MDL during the processing of bids, evaluation, bid comparison or award decisions shall be construed as a violation of the Code of Integrity, and bid shall be liable to be rejected as nonresponsive in addition to other punitive actions for violation of Code of Integrity as per the Tender Document.

42. Claims by firms:

No claims by the firms will be entertained after 03 years from date of execution/completion of order.

43. Cancellation / Foreclosure / Termination of order:

Action for cancellation / foreclosure / termination of order shall be taken in any of the following conditions / circumstances.

- i) On the basis of Government Order.
- ii) Defaults / Breach on part of the contractor / Supplier / supplier in complying with agreed terms of order / contract.
- iii) Liquidation / Dissolution of the Firm or entity on whom the original order is placed.
- iv) Unreasonable delays in supply of ordered articles or services or documentation.
- v) Supplies made not meeting the ordered specifications.
- vi) Activities of any of the Proprietor / Partner being found to be Antisocial / Anti -National liable for penal action under Indian Penal Code or imposed with penalty of black listing / debarred by MDL, Owners, Govt. of India or any such authorities at any time during validity of the contract / order.
- vii) The Purchase Order not accepted by the vendor within the stipulated period.

When the contractor / Supplier is found to be liable for action under any of the above provisions, MDL may terminate or cancel the contract / order in part or full by written notice of default sent to

the contractor / Supplier without prejudice to any other remedy invoking risk purchase clause and execution of work / order through other agencies.

44. Cartel Formation/Pool Rates:

- i) Pool/cartel formation is against the basic principle of competitive bidding and defeats the very purpose of an open and competitive tendering system. Such and similar tactics to avoid/control true competition in a tender leading to "Appreciable Adverse Effect on Competition" (AAEC) have been declared as an offence under the Competition Act, 2002, as amended by the Competition (Amendment) Act, 2007.
- ii) If this is found, suitable administrative actions can be resorted to, such as rejecting the offers, reporting the matter to trade associations, the Competition Commission or NSIC, etc., and requesting them, inter-alia, to take suitable strong actions against such firms. The purchaser may also debar the tenderers indulging in cartel formation/collusive bidding/bid rigging for a period of two years from participation in the tenders of the Purchaser.

45. Conflict of Interest Among Bidders/ Agents:

~~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 MDL'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:~~

~~(i) they have controlling partner (s) in common; or~~

~~(ii) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or~~

~~(iii) they have the same legal representative/agent for purposes of this bid; or~~

~~(iv) 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~~

~~(v) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid.~~

~~(vi) In cases of agents quoting in offshore procurements, 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:~~

~~(a) The principal manufacturer directly or through one Indian agent on his behalf; and~~

~~(b) Indian/foreign agent on behalf of only one principal.~~

~~(vii) 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;~~

~~(viii) 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.~~

Note: ~~The undertaking by the bidders for above para (Conflict of Interest among Bidders/ Agents) to be submitted along with the bid.~~

46. Order Acceptance:

Successful bidder shall acknowledge the receipt and communicate in writing their unconditional acceptance of order within 03 working days from the date of placement of the order. If nothing to the contrary is received within 03 working days from the date of placement of order, it shall be understood that the order has been accepted.

Any other terms and conditions not mentioned above but mentioned in Scope of work at the enclosure will be applicable.

We look forward to receive your most competitive and reasonable offer against this tender.

For MAZAGON DOCK SHIPBUILDERS LIMITED

Ranjeet Kumar, DM (C-EY) (Purchase Executive)

Email: ranjeetkumar100261@mazdock.com

Phone: 022 2376 2615

List of enclosures:

1. Enclosure 1: TEF acceptance Format.
2. Enclosure 2: Rate sheet
3. Enclosure 3: General Conditions of Contract (GCCs)
4. Enclosure 4: Acceptance format for General Conditions of Contract (GCCs)
5. Enclosure 5: Declaration of Compliance on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017
6. Enclosure 6: Declaration certificate for local content
7. Enclosure 7: Extract of provisions of the official secrets act, 1923
8. Enclosure 8: Performa Performance Bank Guarantee cum Security Deposit
9. Enclosure 9: Format for Integrity Pact
10. Enclosure 10: Format for warranty certificate
11. Enclosure 11: Deed of guarantee
12. ~~Enclosure 12: Undertaking for Conflict of Interest among Bidders/ Agents~~
13. Enclosure 13: NEFT/RTGS format
14. Enclosure 14: Scope of Work

Note: Bidders have to upload filled and signed enclosures along with the offers on their letterhead except for the bonds and the bank guarantees.

TEF ACCEPTANCE FORMAT

TEF CLAUSE No.	BIDDER'S REMARK	TEF CLAUSE No.	BIDDER'S REMARK	TEF CLAUSE No.	BIDDER'S REMARK
1.	ACC / DEV	2.	ACC / DEV	3.	ACC / DEV
4.	ACC / DEV	5.	ACC / DEV	6.	ACC / DEV
7.	ACC / DEV	8.	ACC / DEV	9.	ACC / DEV
10.	ACC / DEV	11.	ACC / DEV	12.	ACC / DEV
13.	ACC / DEV	14.	ACC / DEV	15.	ACC / DEV
16.	ACC / DEV	17.	ACC / DEV	18.	ACC / DEV
19.	ACC / DEV	20.	ACC / DEV	21.	ACC / DEV
22.	ACC / DEV	23.	ACC / DEV	24.	ACC / DEV
25.	ACC / DEV	26.	ACC / DEV	27.	ACC / DEV
28.	ACC / DEV	29.	ACC / DEV	30.	ACC / DEV
31.	ACC / DEV	32.	ACC / DEV	33.	ACC / DEV
34.	ACC / DEV	35.	ACC / DEV	36.	ACC / DEV
37.	ACC / DEV	38.	ACC / DEV	39.	ACC / DEV
40.	ACC / DEV	41.	ACC / DEV	42.	ACC / DEV
43.	ACC / DEV	44.	ACC / DEV	45.	ACC / DEV
46.	ACC / DEV				

COMPANY'S NAME & ADDRESS:

SIGNATURE:**DATE:****NAME:****DESIGNATION:****BIDDER'S COMPANY SEAL:****Note:**

- Bidder confirms to have carefully read the Terms & Conditions enclosed only with this Tender Enquiry Form (TEF) prior to filling up this acceptance format.
- Bidder confirms that this format has been **properly filled, signed and returned** along with our technical offer (Part-I) for considering the Bid.
- Bidder confirms to have indicated **"ACC" for Accepted, "DEV" for Deviation** taken for each clause number in the above table.
- In case of any deviations taken the bidder confirms to have attached **Separate Sheet** indicating all relevant details such as Number & Title / brief description of the Clause, **Reasons for Deviation and suggested alternative(s)**.
- Clause numbers shown in the above format also includes the sub-clauses under these clauses. For example, Clause no. 8 means - Clause nos. 8-a (i) to (iv), b (i) to (xiii)& c

RATE SHEET PRESCRIBED FORMAT*(Please quote on your letter head only)***Note: Do not mention prices.**

Sr.No	Material/Service description	Qty	Unit	Quoted/Not quoted
310	Material Number: -350000000000080559 Material Details: - CS Seamless Pipe Outer Dia 12.75 inch (323.9mm) x Wall Thickness 14.3mm Material Specification API 5L X 60 (CS NACE)	1728	M	
320	Material Number: -350000000000080565 Material Details: - CS Seamless Pipe Outer Dia 10.75 inch (273.1mm) x Wall Thickness 14.3mm Material Specification API 5L X 60 (CS NACE)	432	M	
340	Material Number: -350000000000080570 Material Details: - CS Seamless Pipe Outer Dia 8.625 inch (219.1mm) x Wall Thickness 14.3mm Material Specification API 5L X 52 CS	216	M	
350	Material Number: -350000000000080575 Material Details: - CS Seamless Pipe Outer Dia 6.625 inch (168.3mm) x Wall Thickness 12.7mm Material Specification API 5L X 52 (CS)	216	M	
360	Material Number: -350000000000080539 Material Details: - CS Seamless Pipe Outer Dia 14.00 Inch (355.6mm) x Wall Thickness 17.5mm Material Specification API 5L GR. X -60 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	120	M	
370	Material Number: -350000000000080540 Material Details: - CS Seamless Pipe Outer Dia 12.75 Inch (323.85mm) x Wall Thickness 15.9mm Material Specification API 5L GR. X -60 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	384	M	
380	Material Number: -350000000000080551 Material Details: - CS Seamless Pipe Outer Dia 12.75 Inch (323.85mm) x Wall Thickness 19.05mm Material Specification API 5L GR. X -52 Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	48	M	
390	Material Number: -350000000000080547 Material Details: - CS Seamless Pipe Outer Dia 10.75 Inch (273.05mm) x	96	M	

	Wall Thickness 15.9mm Material Specification API 5L GR. X -60 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)			
400	Material Number: -350000000000080549 Material Details: - CS Seamless Pipe Outer Dia 8.625 Inch (219.075mm) x Wall Thickness 15.9mm Material Specification API 5L GR. X -52 Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	48	M	
410	Material Number: -350000000000080555 Material Details: - CS Seamless Pipe Outer Dia 6.625 Inch (168.275mm) x Wall Thickness 13.9mm Material Specification API 5L GR. X -52 (NACE) Each pipe should be of length 7.5 mtrs to 8.5 mtrs (Average 8.0 mtrs)	48	M	
420	Material Number: -350000000000080486 Material group: - 1000000 - MISC ITEMS (On charge off basis) Material Details: - CS Seamless Pipe Outer Dia 14.00 Inch x Wall Thickness 15.90mm Material Specification API 5L X 60 (CS NACE) Design pressure 141 kg/cm ² Design temperature 93.0 Degree	432	M	
430	Material Number: -350000000000080490 Material group: - 1000000 - MISC ITEMS (On charge off basis) Material Details: - CS Seamless Pipe Outer Dia 12.75 Inch x Wall Thickness 17.50 mm Material Specification API 5L X 52 (CS) Design pressure 151.6 kg/cm ² Design temperature 55.0 Degree	216	M	

**a. The seller has read, understood and accept the complete Scope of work.
(Yes/No)**

Taxes and duties

Tax head	Rate applicable	Percentage of total Amount on which the tax is applicable
GST		
Any other Taxes/Duties (Bidder to specify)		

Note:

i) The Prices indicated in the Price Bid shall be as per rate sheet only. (Please check

carefully for taxes before bidding).

ii) The bidder shall provide the quoted price breakup of all the items after price bid opening.

Name:

Designation:

Date:

Bidders Company Seal

GENERAL CONDITIONS OF CONTRACT (GCC)

The word 'Purchaser' refers to MAZAGON DOCK SHIPBUILDERS LIMITED, (MDL), a Company within the meaning of Companies Act, 2013 and it includes its successors or assignees.

The word 'Bidder' (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) means any legal entity such as firm(s) of Proprietorship / Partnership Firm / Limited Liability Partnership / Private Limited / Limited company / Society registered under Society's Act / Statutory Bodies/ Consortium/ Joint Venture etc. participating in a procurement process.

The word 'Owner' means the person or authority with whom Mazagon Dock Shipbuilders Limited (Purchaser) has contracted to carry out work in relation to which orders are placed by the Purchaser on the Bidder/Supplier/Contractor under this contract for supply or manufacture of certain items and would include Department of Defence Production, Ministry of Defence, Government of India, the Indian Navy, the Coast Guard and any other specified authority. Unless otherwise indicated specifically by the bidder / contractor in his bid, it shall be construed as his acceptance of all the conditions mentioned in this GCC.

1. TENETS OF INTERPRETATION

Unless where the context requires otherwise, throughout the contract:

- (a) The heading of these conditions shall not affect the interpretation or construction thereof.
- (b) Writing or written includes matter either whole or in part, in digital communications, manuscript, typewritten, lithographed, cyclostyled, photographed, or printed under or over signature or seal or digitally acceptable authentication, as the case may be.
- (c) Words in the singular include the plural and vice-versa.
- (d) Words importing the masculine gender shall be taken to include other genders, and words importing persons shall include any company or association or body of individuals, whether incorporated or not.
- (e) Terms and expression not herein defined shall have the meanings assigned to them in the Contract Act, 1872 (as amended) or the Sale of Goods Act, 1930 (as amended) or the General Clauses Act, 1897 (as amended) or of INCOTERMS, (current edition published by the International Chamber of Commerce, Paris) as the case may be.
- (f) Any reference to 'Goods' shall be deemed to include the incidental Works/ Services also.
- (g) Any generic reference to GCC shall also imply a reference to TEF as well.
- (h) In case of conflict, provisions of TEF shall prevail over those in GCC.
- (i) Any reference to 'Contract' shall be deemed to include all other documents (inter-alia GCC, TEF).
- (j) Any reference to any legal Act, Government Policies or orders shall be deemed to include all amendments to such instruments, from time to time, till date.
- (k) Fall Clause shall be expressly applicable in the case of Rate Contract.

2. LANGUAGE OF CONTRACT

Unless otherwise stipulated in TEF, the contract shall be written in the Official Language or English. All correspondence and other contract documents, which the parties exchange, shall also be written/ translated accordingly in that language. For purposes of interpretation of the contract, the English documents/ translation shall prevail.

3. GOVERNING LAWS AND JURISDICTION**3.1 Governing Laws and Jurisdiction**

- (a) This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Laws of India for the time being in force.
- (b) Irrespective of the place of delivery, or the place of performance or the place of payments under the contract, the contract shall be deemed to have been made at the place from which the Purchase Order/Contract/Letter of Intent has been issued. The courts of such a place shall alone have jurisdiction to decide any dispute arising out or in respect of the contract.

3.2 Changes in Laws and Regulations

Unless otherwise stipulated in the contract, if after the last deadline for the bid submission (Techno-commercial), any law, regulation, ordinance, order or bye-law having the force of law is enacted, promulgated, abrogated, or changed in India (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/ or the contract Price, then such Delivery Date and/ or Contract Price shall be correspondingly increased or decreased, to the extent that the contractor has thereby been affected in the performance of any of its obligations under the contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable.

4. CONFIDENTIALITY, SECRECY AND IPR RIGHTS

(a) IPR Rights

All deliverables, outputs, plans, drawings, specifications, designs, reports, and other documents and software submitted by the contractor under this Contract shall become and remain the property of MDL and subject to laws of copyright and must not be shared with third parties or reproduced, whether in whole or part, without MDL's prior written consent. The contractor shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to MDL, together with a detailed inventory thereof. The contractor may retain a copy of such documents and software but shall not use it for any commercial purpose.

(b) Confidentiality

All documents, drawings, samples, data, associated correspondence or other information furnished by or on behalf of MDL to the contractor, in connection with the contract, whether such information has been furnished before, during or following completion or termination of the contract, are confidential and shall remain the property of MDL and shall not, without the prior written consent of MDL neither be divulged by the contractor to any third party, nor be used by him for any purpose other than the design, procurement, or other services and work required for the performance of this Contract. If advised by MDL, all copies of all such information in original shall be returned on completion of the contractor's performance and obligations under this contract.

(c) Secrecy

If the Contract declares the subject matter of this Contract as coming under the Official Secrets Act, 1923 or if the contract is marked as "Secret", the contractor shall take all reasonable steps necessary to ensure that all persons employed in any connection with the contract, have acknowledged their responsibilities and penalties for violations under the Official Secrets Act and any regulations framed thereunder.

(d) Obligations of the contractor

(i) Without MDL's prior written consent, the contractor shall not use the information mentioned above except for the sole purpose of performing this contract.

(ii) The contractor shall treat and mark all information as confidential (or Secret – as the case may) and shall not, without the written consent of MDL, divulge to any person other than the person(s) employed by the contractor in the performance of the contract. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for such performance for this contract.

(iii) Notwithstanding the above, the contractor may furnish to its holding company or its Subcontractor(s) such documents, data, and other information it receives from MDL to the extent required for performing the contract. In this event, the contractor shall obtain from such holding company/ Subcontractor(s) an undertaking of confidentiality (or secrecy – as the case may be) similar to that imposed on the contractor under the above clauses.

(iv) The obligation of the contractor under sub-clauses above, however, shall not apply to information that:

(aa) The contractor needs to share with the institution(s) participating in the financing of the contract;

(ab) now or hereafter is or enters the public domain through no fault of Contractor;

(ac) can be proven to have been possessed by the contractor at the time of disclosure and which was not previously obtained, directly or indirectly, from MDL; or

(ad) otherwise lawfully becomes available to the contractor from a third party that has no obligation of confidentiality.

(v) The above provisions shall not in any way modify any undertaking of confidentiality (or Secrecy – as the case may be) given by the contractor before the date of the contract in respect of the contract/ the Tender Document or any part thereof.

(vi) The provisions of this clause shall survive completion or termination for whatever reason of the contract.

5. PERMITS, APPROVALS AND LICENSES

Whenever the supply of Goods and incidental Services requires that the contractor obtain permits, approvals, and licenses from local public authorities, it shall be the contractor's sole responsibility to obtain these and keep these current and valid. Such requirements may include but not be restricted to export licence or environmental clearance if required. If requested by the contractor, MDL shall make its best effort to assist the contractor in complying with such requirements in a timely and expeditious manner, without any dilution of the Contractor's responsibility in this regard.

6. TRANSFER OF TITLE OF GOODS

(a) Unless otherwise stated in the contract, notwithstanding any inspection and approval by the Inspecting Officer on the contractor's premises, or any payments made to the contractor, property in the Goods (and resultant rights and liabilities) shall not pass on to MDL until the Goods have been received, inspected, and accepted by the consignee. The Goods and every constituent part thereof, whether in the possession or control of the contractor, his agents or servants or a carrier, or the joint possession of the contractor, his agents or servants and MDL, his agents, or servants, shall remain in every respect at the risk of the contractor, until their actual delivery to a person stipulated in the contract, as the interim consignee for despatch to the consignee. The Contractor shall be responsible for all loss, destruction, damage, or deterioration of or to the Goods from any cause whatsoever while the Goods after approval by the Inspecting Officer are awaiting despatch or delivery or are in the course of transit from the contractor to the consignee or interim consignee, as the case may be. The Contractor shall alone be entitled and responsible for making claims against any carrier in respect of non-delivery, short delivery, mis-delivery, loss, destruction, damage, or deterioration of the Goods entrusted to such carrier by the contractor for transmission to the consignee or the interim consignee as the case may be.

(b) Provided that where, under the terms of the contract, the Goods are required to be delivered to an interim consignee for despatch to the consignee, the Goods shall be at MDL's risk after their delivery to the interim consignee.

7. EXTENSION OF DELIVERY PERIOD

(a) If at any time during the currency of the contract, the contractor encounters conditions hindering timely delivery of the Goods and performance of incidental Works/ Services, he shall promptly inform MDL in writing about the same and its likely duration. He must make a request to MDL for an extension of the delivery schedule. On receiving the contractor's communication, MDL shall examine the situation and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages and with and without denial clause by issuing an amendment to the contract.

(b) Conditions for Extension of Delivery Period

When the period of delivery is extended due to unexcused delay (Note: please ensure that unexcused delay is defined. Otherwise replace "unexcused delay" with the "delays attributable") by the contractor, the amendment extending the delivery period shall, inter alia, be subject to the following conditions:

(i) Liquidated Damages

MDL shall recover from the contractor, under the provisions of this clause, liquidated damages on the Goods and incidental Works/ Services, which the contractor has failed to deliver within the delivery period stipulated in the contract.

(ii) Denial Clause

(aa) No increases in price on account of any statutory increase in or fresh Imposition of GST, customs duty or on account of any other taxes/ duty/ cess/ levy), leviable in respect of the Goods and incidental Works/ Services stipulated in the said contract which takes place after the original delivery date, shall be admissible on such of the said Goods, as are delivered after the said date; and

(ab) Notwithstanding any stipulation in the contract for an increase in price on any other ground, including price variation clause or foreign exchange rate variation, or any other variation clause, no such increase after the original delivery date shall be admissible on such goods delivered after the said date.

(ac) Nevertheless, MDL shall be entitled to the benefit of any decrease in price on account of reduction in or remission of GST, customs duty or on account of any other Tax or duty or any other ground as

stipulated in the price variation clause or foreign exchange rate variation or any other variation clause which takes place after the expiry of the original delivery date.

(c) Liquidated damages

If the contractor fails to deliver any or all of the Goods or fails to perform the incidental Works/ Services (e.g. installation, commissioning or operator training) within the time frame(s) incorporated in the contract, MDL shall, without prejudice to other rights and remedies available to MDL under the contract, deduct from the contract price, as agreed liquidated damages, but not as a penalty, a sum equivalent to the 1 % percent (excluding taxes) of the delivered price of the delayed Goods and/ or incidental Works/ Services for each week of delay or part thereof until actual delivery or performance, subject to a maximum deduction of the 10% of the delayed Goods' or incidental Works/ Services' contract price(s). Besides liquidated damages during such a delay, the denial clause shall also apply. Any failure or delay by any subcontractor, though their employment may have been sanctioned shall not be admitted as a ground for any extension of time or for exempting the contractor from liability for any such loss or damage as aforesaid.

8. DEFAULTS, BREACHES & TERMINATION OF CONTRACT

Termination due to Breach, Default, and Insolvency

(a) Defaults and Breach of Contract

In case the contractor undergoes insolvency or receivership; neglects or defaults, or expresses inability or disinclination to honour his obligations relating to the performance of the contract or ethical standards or any other obligation that substantively affects MDL's rights and benefits under the contract, it shall be treated as a breach of Contract. Such defaults shall include inter-alia:

(i) Default in Performance and Obligations

If the contractor fails to deliver any or all of the Goods or fails to perform any other contractual obligations (including Code of Integrity or obligation to maintain eligibility and Qualifications based on which contract was awarded) within the period stipulated in the contract or within any extension thereof granted by MDL.

(ii) Insolvency

If the contractor is wound up or ceases to otherwise trade or is unable to pay its debts as and when they fall due or is otherwise subject to any insolvency procedure.

(iii) If a receiver or similar official is appointed overall or any of the assets of the contractor or a petition is presented for its winding up or it entered into a composition with its creditors;

(b) Notice for Default

As soon as a breach of contract is noticed, a show-cause 'Notice of Default' shall be issued to the contractor, giving two weeks' notice, reserving the right to invoke contractual remedies. After such a show-cause notice, all payments to the contractor would be temporarily withheld to safeguard needed recoveries that may become due on invoking contractual remedies.

(c) Terminations for Default

(i) Notice for Termination for Default: In the event of unsatisfactory resolution of 'Notice of Default' within two weeks of its issue as per sub-clause above, MDL if so decided, shall by written Notice of Termination for Default sent to the contractor, terminate the contract in whole or in part, without compensation to the contractor.

(ii) Such termination shall not prejudice or affect the rights and remedies, including under sub-clause below, which have accrued and/ or shall accrue to MDL after that.

(iii) Unless otherwise instructed by MDL, the contractor shall continue to perform the contract to the extent not terminated. All warranty obligations, if any, shall continue to survive despite the termination.

(d) Contractual Remedies for Breaches/Defaults or Termination for Default

If there is an unsatisfactory resolution within this period, MDL shall take one; or more of the following contractual remedies.

(i) Temporary withhold payments due to the contractor till recoveries due to invocation of other contractual remedies are complete.

(ii) Call back any loaned property or advances of payment, if any, with the levy of interest at the prevailing rate (MIBID - Mumbai Interbank Bid Rate).

(iii) Recover liquidated damages and invoke denial clause for delays.

(iv) Encash and/ or Forfeit performance or other contractual securities.

(v) Prefer claims against insurances, if any.

(vi) Terminate contract for default, fully or partially including its right for Risk and- Cost Procurement as per following sub-clause.

(vii) Risk and Cost Procurement

In addition to termination for default, MDL shall be entitled, and it shall be lawful on his part, to procure Goods same to those terminated, with such terms and conditions and in such manner as it deems fit at the "Risk and Cost" of the contractor. Such 'Risk and Cost Procurement' must be initiated (viz. AIP/PR/Tender) within six months from the termination of Contract. The Contractor shall be liable for any loss which MDL may sustain on that account provided the procurement, or, if there is an agreement to procure, such agreement is made. The Contractor shall not be entitled to any gain on such procurement, and the manner and method of such procurement shall be in the entire discretion of MDL. (Note: deleted being contrary to law). (Note: No contractor would give security after the termination of the contract)

Note: Regarding the Goods which are not readily available in the market and where procurement difficulties are experienced, the period for making risk procurement shall be nine months instead of six months provided above.

(viii) Initiate legal proceedings in a for the recovery of the losses and damages, not addressable by the above means.

9. CLOSURE OF CONTRACT

The contract shall stand closed upon successful performance of all obligations by the firm, including completion of warrantee obligations and final payment. If no claim is received within 03 years from last supplies/services, then no claim shall be entertained thereafter.

10. COMMUNICATION AND LANGUAGE FOR DOCUMENTATION

Any letter, facsimile message, e-mail intimation or notice sent to the Bidder/Supplier/ Contractor at the last known address mentioned in the offer / order shall be deemed to be valid communication for the purpose of the order/contract. Unless stated otherwise by the purchaser, Language for communication and all documentation shall be same, which the Purchaser has used, in the tender enquiry.

11. PRESERVATION AND MAINTENANCE

Should any material require any preservation till its final installation/fitment, the detailed procedure (Long term and short term) for the same as also the time of interval after which the state of preservation needs to be reviewed is to be stated by the Bidder/Supplier/Contractor.

Further the de-preservation prior to the material/equipment being commissioned and the maintenance procedure together with its periodicity is also to be indicated by the Bidder/ Supplier / Contractor.

12. FREIGHT AND INSURANCE.**(a) For Indigenous Bidders**

Bidder shall quote for 'Door Delivery to Purchaser,' all charges towards door delivery viz. transport, Insurance charges etc. shall be borne by the Bidder /Supplier / Contractor.

~~(b) For Foreign Bidders~~

~~For overseas bidders, bidder shall agree for supplying the goods on CIF/CIP, Incoterm basis. The Bidder / Supplier / Contractor shall immediately on despatch of the items, inform all relevant details of despatch such as Order Number, Bill of Lading/AWB Number marked as Freight Paid, Insurance policy/document, number of packages, value of consignment, invoice number etc. as per contractual terms.~~

13. DEMURRAGE

Storage, and Demurrage, fines etc. charges will be payable by the Bidder / Supplier / Contractor for all shipments in case of improper documentation, wrong declarations, error in weight measurements, packing list, invoice, late receipt of documents etc. i.e. for reasons which are not attributable to the purchaser.

14. CANCELLATION OF TENDER

The Purchaser reserves the right to cancel/withdraw the tender in toto or part and or award the contract / order in full or part without assigning any reason whatsoever and without thereby incurring any liability to the affected Bidder or Bidders or any obligations to inform the affected Bidder or Bidders of the grounds for MDL action.

15. PURCHASER'S PROPERTY.

All property (such as materials, drawings, documents etc.) issued by the Purchaser or any other individual or firm on behalf of the Purchaser in connection with the contract shall remain confidential, being the property of the Purchaser and the Bidder/Supplier/Contractor shall undertake to return all such property so issued and will be responsible for any or all loss thereof and damage thereto resulting from whatever causes and shall reimburse the Purchaser the full amount of loss and damage.

On completion of work in any compartment / location of the purchaser's premises, the Bidder/Supplier/Contractor must ensure that the place is left in a reasonably clean state and all scrap is transferred to nearby scrap-bins.

16. REJECTION OF MATERIALS

If the Goods, or any portion thereof of the equipment found defective / rejected, the Supplier / Contractor shall collect the same from MDL's Stores, all incidental charges being borne by him (inclusive of Custom duty, if payable), within 30 days from the date of intimation to the Supplier / Contractor of such rejection. If not collected within 30 days, MDL shall recover storage charges @ 1 % per month maximum up to 5% of cost of rejected items. MDL reserves the right to dispose-off the rejected items at the end of a total period of six months in any manner to the best advantage to MDL and recover consequential damages maximum up to order value.

17. RECOVERY-ADJUSTMENT PROVISIONS

Payment made under one order shall not be assigned or adjusted to any other order except to the extent agreed upon in writing by the Purchaser. During the currency of the contract, if any sum of money is payable by the Bidder / Supplier / Contractor the same shall be deducted from any sum then due or thereafter may become due to the Bidder / Supplier / Contractor under the contract or any other contract with the Purchaser.

18. INDEMNIFICATION

The Bidder / Supplier / Contractor, his employees, licences, agents or Sub-Supplier / Sub-contractor, while on site of the Purchaser for the purpose of this contract, indemnifies the Purchaser against direct damage and/or injury to the property and/or the person of the Purchaser or that of Purchaser's employees, agents, Sub- Contractors / Suppliers occurring and to the extent caused by the negligence of the Bidder / Supplier / Contractor, his employees, licensees, agents or Sub-contractor by making good such damages to the property, or compensating personal injury and the total liability for such damages or injury shall be as mutually discussed and agreed to.

19. TRANSFER OF SUPPLIERS / CONTRACTOR'S RIGHTS

The Bidder / Supplier / Contractor shall not either wholly or partly sell, transfer, assign or otherwise dispose of the rights, liabilities and obligations under the contract between him and the Purchaser without prior consent of the Purchaser in writing.

20. SUBCONTRACT AND RIGHT OF PURCHASER

The Bidder / Supplier / Contractor under no circumstances undertake or subcontract any work / contract from or to any other Sub-contractor without prior written approval of the Competent Authority of Purchaser. In the event it is found that such practice has been indulged in, the contract is liable to be terminated without notice and the Bidder / Supplier / Contractor is debarred all from future tender enquiries / work orders. However, in no circumstances a contractor is permitted to subcontract any part of the contract to the bidders who had quoted for the concerned tender.

21. PATENT RIGHTS

The Bidder / Supplier / Contractor shall hold harmless and keep the Purchaser indemnified against all claims arising as a result of infringement of any patent / copy rights on account of manufacture, sale or use of articles covered by the order.

22. AGENTS/AGENCY COMMISSION

The seller confirms and declares to the buyer that the seller is the original manufacturer or authorized distributor/stockiest of original manufacturer of the goods referred to in this contract and has not engaged any individual or firm, whether Indian or foreign whatsoever, to intercede, facilitate or in any way to recommended to the Buyer or any of its functionaries, whether officially or unofficially , to the award of the Contract / Purchase order to the Seller; nor has any amount been paid, promised or

intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation. The Seller agrees that if it is established at any time to the satisfaction of the Buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that the Seller has engaged any such individual/firm, and paid or intended to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this Contract / Purchase order, the Seller will be liable to refund that amount to the Buyer. The seller will also be debarred from participation in any RFQ/Tender for new projects/program with Buyer for a minimum period of five years. The buyer will also have a right to consider cancellation of the Contract either wholly or in part, without any entitlement or compensation to the Seller who shall in such event be liable to refund all payments made by the buyer in terms of the Contract along with interest at the rate of 2% per annum or 6% whichever is higher above LIBOR (London Inter Bank Offer Rate) (for foreign vendors) and base rate of SBI plus 2% (for Indian Vendors). The Buyer will also have the right to recover any such amount from any contracts concluded earlier with Buyer.

23. USE OF UNDUE INFLUENCE / CORRUPT PRACTICES

The Bidder / Supplier / Contractor undertakes that he has not used corrupt practices or used any undue influence which is not admissible as per Indian law to obtain contract/order or in doing any business with the purchaser. If found that Bidder / Supplier / Contractor is involved in such wrong practices, then Purchaser is entitled to cancel the contract/s and all or any other contracts and then to recover from the Bidder / Supplier / Contractor the amounts of any loss arising from such contracts' cancellation, including but not limited to imposition of penal damages, forfeiture of Performance security, encashment of the Bank Guarantee and refund of the amounts paid by the Purchaser.

24. IMMUNITY OF GOVERNMENT OF INDIA CLAUSE

It is expressly understood and agreed by and between M/s. (Bidder / Supplier / Contractor) and Mazagon Dock Shipbuilders Limited, Dockyard Road, Mumbai – 400 010 (MDL) is entering into this Agreement solely on its own behalf and not on the behalf of any person or entity. In particular, it is expressly understood and agreed that the Government of India is not a party to this Agreement and has no liabilities, obligations or rights hereunder. It is expressly understood and agreed that MDL is an independent legal entity with power and authority to enter into contracts solely in its own behalf under the applicable of Laws of India and general principles of Contract Law. The (Bidder / Supplier / Contractor) expressly agrees, acknowledges and understands that MDL is not an agent, representative or delegate of the Government of India. It is further understood and agreed that the Government of India is not and shall not be liable for any acts, omissions and commissions, breaches or other wrongs arising out of the contract. Accordingly, (Bidder / Supplier / Contractor) hereby expressly waives, releases and foregoes any and all actions or claims, including cross claims, impleader claims or counter claims against the Government of India arising out of this contract and covenants not to sue Government of India in any manner, claim, cause of action or thing whatsoever arising of or under this Agreement.

25. EXPORT LICENCE

The export licenses that may be required for delivery of the various items/equipment to MDL shall be arranged by the Bidder / Supplier / Contractor from the concerned authorities in their country without any time and cost implications on the Purchaser.

26. BANNED OR DE-LISTED CONTRACTORS / SUPPLIERS

The Bidder / Supplier / Contractor declares that they being Proprietors / Directors / Partners have not been any time individually or collectively blacklisted or banned or de-listed by any Government or quasi Government agencies or PSUs. If a bidder's entities as stated above have been blacklisted or banned or de-listed by any Government or quasi Government agencies or PSUs, this fact must be clearly stated and it may not necessarily be a cause for disqualifying him.

27. DUTY OF PERSONNEL OF SUPPLIER/CONTRACTOR

MDL being a Defence Public Sector Undertaking, Bidder / Supplier / Contractor undertakes that their personnel deployed in connection with the entrusted work will not indulge in any activities other than the duties assigned to them.

28. DISPUTE RESOLUTION MECHANISM AND ARBITRATION**(a) Dispute resolution mechanism(DRM)**

(i) Any dispute/differences between the parties arising out of and in connection with the contract shall be settled amicably by mutual negotiations at HoS/HoD level.

(ii) In case of non-settlement by (i) above, if at any time, before, during or after the contract period any unsettled claim, dispute or difference arose between the parties, upon or in relation to or in connection with or in any way touching or concerning this tender/agreement/order/contract, the same shall be referred to the concerned Functional Director. The Functional Director shall then nominate an Executive of the rank of General Manager whom he thinks fit and competent or a Committee of Executives who/which shall then scrutinise the claims/disputes that have been referred to the concerned functional Director and make efforts for amicable settlements by mutual discussions/negotiations.

(iii) In case no amicable settlement is arrived by (ii) above within a period of three months, then the contractor shall approach Public Grievance Cell and address the disputes as per the provisions made under the relevant clause of the contract.

(iv) In case the issues/disputes do not get settled within a period of six months from the date of submission of the dispute to the Grievance Cell, then the contractor may invoke Arbitration Clause of the contract.

(b) Arbitration

Unresolved disputes/differences, if any, shall then be settled by Arbitration. The Arbitration proceedings shall be conducted at Mumbai, India, in English Language, under the Arbitration and Conciliation Act, 1996 as amended from time to time and the rules thereunder. MDL prefers to have arbitration through Institutes such as Indian Council of Arbitration (ICA)/ICA-DR, Mumbai Centre for International Arbitration, International Chamber of Commerce (ICC), Singapore International Arbitration Centre (SIAC) with the mutual consent of the parties. In case of unresolved difference/dispute between the Purchaser and Supplier, being Central Public Sector Enterprises/Central Govt. departments, the disputes shall be resolved firstly through mutual discussion or through the empowered agencies of the Govt. or through arbitration by reference by either party to the department of Public Enterprises, as per extant guidelines. If disputes/differences remain unresolved/unexecuted, the same shall be referred first to the Cabinet Secretariat and then, if necessary to the PMO. Any changes to arbitration clause must be vetted by HOD (Legal) before incorporation in contract/PO.

29. JURISDICTION OF COURTS

All contracts shall be deemed to have been wholly made in Mumbai and all claims there under are payable in Mumbai City and it is the distinct condition of the order that no suit or action for the purpose of enforcing any claim in respect of the order shall be instituted in any Court other than that situated in Mumbai City, Maharashtra State, India i.e. courts in Mumbai shall alone have jurisdiction to decide upon any dispute arising out of or in respect of the contract.

30. SAFETY

The Contractor / Bidder must observe all safety precautions in connection with the work to be performed by him, his agents or labourers. In the event of any accident happening in our yard resulting in loss of lives or otherwise damaging any part of the property, the contractor shall be required to make good the loss to the Company and shall be responsible for all consequences that follow from the loss and / or injuries to the persons involved in such accidents. The standard of safety to be observed in the Company shall be decided by the Executive-in-Charge Safety, or any Executive appointed for the purpose before the commencement of work in the yard. It will be essential for contractor to ascertain the standard precautions which contractor is required to observe in discharging his work as per the standards prevalent in MDL. The decision of MDL in matters concerning Safety shall be final and binding on the contractor. The Contractor / Bidder shall be required to provide his workmen with Boiler Suits of any suitable colour other than blue or white, with the Name of the Contractor in prominent letters on the boiler suits along with personal protection gears like safety shoes, hand gloves etc. workmen of the Contractor / Bidder must wear throughout their working while in the premises of MDL. Contractor's workmen working without safety gears are to be disallowed for work.

31. FORCE MAJEURE

If at any time during the execution of the goods / service order, the performance in whole or in part by either Purchaser or and by the Bidder(s) / Supplier(s) / Contractor(s) is / are delayed by any reason

of force majeure situations such as acts of civil war, civil commotion, sabotage, hostilities, war, fires, explosions, epidemics, natural calamities like floods, earthquakes, volcanoes, storms, acts of God and laws of respective governments or any other causes beyond the control of either parties, hereinafter referred to as "events", provided notice of the occurrence of such event/s is / are communicated by either party, to the other party within 21 days from the date of occurrence thereof, neither party shall by reason such events be entitled to terminate the contract nor shall either party have any claim for damages against the other in respect of such non-performance and or delay in performance of the contract / order. Executions on either side shall be resumed as soon as practicable after such event has come to an end or ceased to exist and the decision of Purchaser as to whether activities can resume or not, shall be conclusive and final. Occurrence of the events to be certified by Chamber of Commerce / Indian High Commission or Embassies / Government in that Country. The performance in whole or in part under the captioned tender / contract is prevented or delayed by reason of any such event for a period exceeding sixty days either party may at its option terminate the contract / further processing of the tender. The relative obligations of both the parties remain suspended during the actual period of force majeure. The Purchaser may extend the delivery schedule as mutually agreed, on receipt of written communication from the Bidder / Supplier / Contractor regarding occurrence of 'Force Majeure' conditions, but not exceeding six months from the scheduled delivery date. If the 'Force Majeure' conditions extend beyond this period, the Purchaser shall have the right to cancel the order without any financial implication to the Purchaser or on terms mutually agreed to.

ACCEPTANCE FORM FOR GENERAL CONDITIONS OF CONTRACT (GCC)

GCC CLAUSE No.	BIDDER'S REMARK	GCC CLAUSE No.	BIDDER'S REMARK	GCC CLAUSE No.	BIDDER'S REMARK
	ACC/DEV		ACC./ DEV		ACC/ DEV
1	ACC/DEV	2	ACC/DEV	3	ACC/DEV
4	ACC/DEV	5	ACC/DEV	6	ACC/DEV
7	ACC/DEV	8	ACC/DEV	9	ACC/DEV
10	ACC/DEV	11	ACC/DEV	12	ACC/DEV
13	ACC/DEV	14	ACC/DEV	15	ACC/DEV
16	ACC/DEV	17	ACC/DEV	18	ACC/DEV
19	ACC/DEV	20	ACC/DEV	21	ACC/DEV
22	ACC/DEV	23	ACC/DEV	24	ACC/DEV
25	ACC/DEV	26	ACC/DEV	27	ACC/DEV
28	ACC/DEV	29	ACC/DEV	30	ACC/DEV
31	ACC/DEV		ACC/DEV		ACC/DEV

COMPANY'S NAME & ADDRESS:

SIGNATURE:

DATE:

NAME:

DESIGNATION:

BIDDER'S COMPANY SEAL:

NOTES:

- Bidders should carefully read the General Terms & Conditions (GCC) of the Tender Enquiry prior to filling up this acceptance format.
- This format should be properly filled, signed and returned by the bidder(s) along with their technical offer for considering their Bid.
- Bidder(s) should indicate "ACC" for Accepted, "DEV" for Deviation Taken for each clause number in the above table.
- Bidder(s) to attach Separate Sheet indicating all relevant details such as Number & description of the Clause, Reasons for Deviation and Alternative suggested for any deviations taken by them.
- Clause numbers shown in the above format also includes the sub-clauses under these clauses. For example, Clause no. '8' means – Clause nos.-8.1, 8.2, 8.3.**

Declaration of Compliance on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

Restriction under rule 144(xi) of GFR

- 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 shareholder's 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. 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 I placement of order, registration shall not be a relevant consideration during contract execution.

Note: Model certificate for the same is attached at the following page.

Model Certificate:

DECLARATION BY AUTHORISED SIGNATORY OF THE FIRM

"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.]"

AUTHORISED SIGNATURE: _____

DATE: _____

Seal / Stamp of Bidder

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

DECLARATION BY AUTHORISED SIGNATORY OF THE FIRM

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.

AUTHORISED SIGNATURE: _____

DATE: _____

Seal / Stamp of Bidder

DECLARATION CERTIFICATE FOR LOCAL CONTENT
(Tender value Less than Rs 10 Crores)

This declaration must form part of all tenders & it contains general information and serves as a declaration form for all bidders. (Before completing this declaration, bidders must study the General Conditions, Definitions, Govt Directives applicable in respect of Local Content & prescribed tender conditions).

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID / TENDER No.
ISSUED BY: (Name of Firm):.....

NB: The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

I, the undersigned, (full names),
do hereby declare, in my capacity as
of(name of bidder
entity), the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have read and understood the requirement of local content (LC) and same is specified as percentage calculated in accordance with the definition provided at clause 2 of revised Public Procurement (preference to Make in India) Order 2017.

"Local content" as per above order means the amount of value added in India which shall be the total value of items 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."

(c) I have satisfied myself that the goods/services/works to be delivered in terms of the above-specified bid comply with the local content requirements as specified in the tender for 'Class-I Local Supplier' / 'Class-II Local Supplier', and as above.

(d) I understand that a bidder can seek benefit of either Public Procurement Policy for MSEs –Order 2012 or Public Procurement (preference to Make in India) Order 2017 and not both and once the option is declared / selected it is not permitted to be modified subsequently. Accordingly, I seek the benefit from the below declared purchase preference policy only.

i) I seek benefits against the following policy only (Select only one Option):

1) PPP MSE Order 2012 (applicable for MSE manufacturers)

2) PPP MII 2017 (applicable for Class I suppliers as well as MSE manufacturers)

(Note: If not declared / selected it shall be deemed that purchase preference benefit is sought under PPP MII 2017 policy. However, selection of both the options will be treated as ambiguous and will result in rejection of bid)

(e) The local content calculated using the definition given above are as under:

Tender Item Sr No	Local content calculated as above %	Location of local value addition (Location shall be the specified as name of city or district, etc. Location as name of country will be considered as ambiguous and such bids shall be rejected.)

Attach separate sheet duly signed if space is not sufficient

NB: Local content percentage shall be declared item wise or tender wise strictly as per the terms of the tender.

(f) I accept that the Procurement Authority / Institution / MDL / Nodal Ministry has the right to request that the local content be verified in terms of the requirements of revised Public Procurement (preference to Make in India) Order 2017 dtd 16.09.2020 and I shall furnish the document / information on demand. Failure on my part to furnish the data will be treated as false declaration as per PPP MII Order 2017. In case of contract being awarded, I undertake to retain the relevant documents for 7 years from date of execution.

(g) I understand that the submission of incorrect data, or data that are not verifiable as described in revised Public Procurement (preference to Make in India) Order 2017, may result in the Procurement Authority / Nodal Ministry / MDL imposing any or all of the remedies as provided for in Clause 9 of the Revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020

SIGNATURE: _____

DATE: _____

Seal / Stamp of Bidder

DECLARATION CERTIFICATE FOR LOCAL CONTENT
(Tender value More than Rs 10 Crores)

This declaration must form part of all tenders & it contains general information and serves as a declaration form for all bidders. (Before completing this declaration, bidders must study the General Conditions, Definitions, Govt Directives applicable in respect of Local Content & prescribed tender conditions).

THE BIDDERS SHALL PROVIDE THIS CERTIFICATE FROM STATUTORY AUDITOR OR COST AUDITOR OF THE COMPANY (IN CASE OF COMPANIES) OR FROM A PRACTICING COST ACCOUNTANT OR PRACTICING CHARTED ACCOUNTANT (IN RESPECT OF SUPPLIER OTHER THAN COMPANIES) GIVING THE PERCENTAGE OF LOCAL CONTENT.

IN RESPECT OF BID / TENDER No.
ISSUED BY: (Name of Firm):.....

I, the undersigned, (full names),
do hereby declare, in my capacity as
of(name of bidder
entity), the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have read and understood the requirement of local content (LC) and same is specified as percentage calculated in accordance with the definition provided at clause 2 of revised Public Procurement (preference to Make in India) Order 2017.

“Local content” as per above order means the amount of value added in India which shall be the total value of items 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.”

(c) I have satisfied myself that the goods/services/works to be delivered in terms of the above-specified bid comply with the local content requirements as specified in the tender for 'Class-I Local Supplier' / 'Class-II Local Supplier', and as above.

(d) I understand that a bidder can seek benefit of either Public Procurement Policy for MSEs –Order 2012 or Public Procurement (preference to Make in India) Order 2017 and not both and once the option is declared / selected it is not permitted to be modified subsequently. Accordingly, I seek the benefit from the below declared purchase preference policy only.

i) I seek benefits against the following policy only (Select only one Option):

1) PPP MSE Order 2012 (applicable for MSE manufacturers)

2) PPP MII 2017 (applicable for Class I suppliers as well as MSE manufacturers)

(Note: If not declared / selected it shall be deemed that purchase preference benefit is sought under PPP MII 2017 policy. However, selection of both the options will be treated as ambiguous and will result in rejection of bid)

(e) The local content calculated using the definition given above are as under:

Tender Item Sr No	Local content calculated as above %	Location of local value addition (Location shall be the specified as name of city or district, etc. Location as name of country will be considered as ambiguous and such bids shall be rejected.)

Attach separate sheet duly signed if space is not sufficient

NB: Local content percentage shall be declared item wise or tender wise strictly as per the terms of the tender.

(f) I accept that the Procurement Authority / Institution / MDL / Nodal Ministry has the right to request that the local content be verified in terms of the requirements of revised Public Procurement (preference to Make in India) Order 2017 dtd 16.09.2020 and I shall furnish the document / information on demand. Failure on my part to furnish the data will be treated as false declaration as per PPP MII Order 2017. In case of contract being awarded, I undertake to retain the relevant documents for 7 years from date of execution.

(g) I understand that the submission of incorrect data, or data that are not verifiable as described in revised Public Procurement (preference to Make in India) Order 2017, may result in the Procurement Authority / Nodal Ministry / MDL imposing any or all of the remedies as provided for in Clause 9 of the Revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020

SIGNATURE: _____

DATE: _____

Seal / Stamp of Bidder

ACTUAL LOCAL CONTENT CERTIFICATE
(Tender value Less than Rs 10 Crores)

Note 1: This certificate shall be submitted by the successful bidder post execution of the contract.

LOCAL CONTENT DECLARATION (post execution of contract / PO) BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF CONTRACT No./ PO No.....
ISSUED BY: (Name of Firm):.....

NB: The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

I, the undersigned, (full names),
do hereby declare, in my capacity as
of(name of bidder entity),
that:

- (a) The facts contained herein are within my own personal knowledge.
- (b) My/our company had declared the local content at the time of tender as under

Tender Item Sr No	Local content calculated as above %	Location of local value addition

- (c) My / our company has completed the above referred contract and the actual local content of the delivered item/s calculated using the definition in the declaration given at the time of Bid is as under:

Tender Item Sr No	Declared minimum Local content at the time of bidding (%)	Achieved Local content of delivered items (%)

NB: Local content percentage shall strictly be declared item wise or tender wise as was declared at the time of bid / tender.

- (d) I accept that the Procurement Authority / Institution / MDL / Nodal Ministry has the right to request that the local content be verified in terms of the requirements of revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020 and I shall furnish the document / information on demand. Failure on my part to furnish the data will be treated as false declaration as per PPP MII Order 2017. I undertake to retain the relevant documents for 7 years from date of execution.

- (e) I understand that the submission of incorrect data, or data that are not verifiable as described in revised Public Procurement (preference to Make in India) Order 2017, may result in the Procurement Authority / Nodal Ministry / MDL imposing any or all of the remedies as provided for in Clause 9 of the Revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020.

SIGNATURE: _____ **DATE:** _____

Stamp / Seal of the company

ACTUAL LOCAL CONTENT CERTIFICATE
(Tender value More than Rs 10 Crores)

Note 1: This certificate shall be submitted by the successful bidder post execution of the contract.

LOCAL CONTENT DECLARATION (post execution of contract / PO). THE SUPPLIER SHALL PROVIDE THIS CERTIFICATE FROM STATUTORY AUDITOR OR COST AUDITOR OF THE COMPANY (IN CASE OF COMPANIES) OR FROM A PRACTICING COST ACCOUNTANT OR PRACTICING CHARTED ACCOUNTANT (IN RESPECT OF SUPPLIER OTHER THAN COMPANIES) GIVING THE PERCENTAGE OF LOCAL CONTENT.

IN RESPECT OF CONTRACT No./ PO No.....
ISSUED BY: (Name of Firm):.....

I, the undersigned, (full names),
do hereby declare, in my capacity as
of(name of bidder entity),
that:

- (a) The facts contained herein are within my own personal knowledge.
(b) My/our company had declared the local content at the time of tender as under

Tender Item Sr No	Local content calculated as above %	Location of local value addition

- (c) My / our company has completed the above referred contract and the actual local content of the delivered item/s calculated using the definition in the declaration given at the time of Bid is as under:

Tender Item Sr No	Declared minimum Local content at the time of bidding (%)	Achieved Local content of delivered items (%)

NB: Local content percentage shall strictly be declared item wise or tender wise as was declared at the time of bid / tender.

(d) I accept that the Procurement Authority / Institution / MDL / Nodal Ministry has the right to request that the local content be verified in terms of the requirements of revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020 and I shall furnish the document / information on demand. Failure on my part to furnish the data will be treated as false declaration as per PPP MII Order 2017. I undertake to retain the relevant documents for 7 years from date of execution.

(e) I understand that the submission of incorrect data, or data that are not verifiable as described in revised Public Procurement (preference to Make in India) Order 2017, may result in the Procurement Authority / Nodal Ministry / MDL imposing any or all of the remedies as provided for in Clause 9 of the Revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020.

SIGNATURE: _____

DATE: _____

Stamp / Seal of the company

EXTRACT OF PROVISIONS OF THE OFFICIAL SECRETS ACT, 1923**SECTION 2(B): "PROHIBITED PLACE"**

It is defined as the place of any work of Defence Dockyard and other so belonging or occupied and used for the purpose of building, repairing, making or storing any ammunitions of war.

For the purpose of the above definition, sketch includes any photograph or other mode of representing any place or thing.

SECTION 3: "PENALTIES FOR SPYING"

If any person unlawfully - approaches, inspects, passes over or is in the vicinity of any clear place; or make any sketches intended to be directly or indirectly useful to an enemy ; or c) Obtains collects records or communicates to any other person any secret official code.

Shall be liable for imprisonment of 14 years in case of Defence Installation.

SECTION 4: "COMMUNICATION WITH FOREIGN AGENTS"

If any person has been in communication with or attempted to communicate with foreign agents regarding the vital information of any "PROHIBITED PLACE" would be guilty of violating the provisions of this Act.

SECTION 5: "WRONGFUL COMMUNICATION OF INFORMATION"

If any person having in his possession or control any official document;

- a) Willfully communicates to any person, other than a person, who is authorised to communicate it.
- b) Used the information in his possession for the benefit of any foreign power.
- c) Retain in his possession when he has no power to retain it
- d) Fails to take reasonable care of it.

Shall be guilty of an offence under this Act.

SECTION 6: "UNAUTHORISED USE OF UNIFORMS"

If any person for the purpose of gaining admission or of assisting any other person to gain admission to a "PROHIBITED PLACE" wears uniforms without lawful authority shall be guilty of offence under this Section.

SECTION 7: "INTERFERING WITH OFFICERS OF POLICE"

No person in the vicinity of any "PROHIBITED PLACE" shall abstract any Police Officer engaged on guard, sentry or similar duty. If any people move in the provisions of this section, shall be punishable with imprisonment, which may extend up to 3 years.

SECTION 8: "DUTY OF GIVING INFORMATION"

It shall be duty of every person to give on demand to a superintendent of Police or any other Police Officer not below the rank of Inspector, any information in his power relating to an offence under this Act. If any person fails to give such information, shall be punishable with imprisonment to 3 years or fine or with both.

SECTION 9: "INCITEMENT"

Any person who attempts to commit or debate the commission of an offence under this Act shall be punishable with the same punishment and be liable to be proceeded against in the same manner as if he had committed such offence.

SECTION 10: "PENALTY FOR HARBOURING SPIES"

If any person whom he knows or has reasonable grounds for supposing to be person who is about to commit or who has committed offence under this Act shall be guilty of offence under this Section.

SECTION 11: "SEARCH WARRANTS"

If a presidency Magistrate, Magistrate First Class or Sub-Divisional magistrate is satisfied with the information that there is reasonable ground for suspecting that an offence under this Act has been or is about to be committed, he may grant search warrant to any Police Officer to enter at any time any premises to force to search premises or the places.

We accept and comply by the above clauses of EXTRACT OF PROVISIONS OF THE OFFICIAL SECRETS ACT, 1923.

Bidder's Signature.....

Bidder's Name.....

Company Seal.....

PROFORMA BANK GUARANTEE FOR PERFORMANCE SECURITY

(On Non-Judicial stamp paper of value Rs. 500/- . However, the value of stamp paper to be confirmed from Legal Department, MDL.)

IN CONSIDERATION OF MAZAGON DOCK SHIPBUILDERS LIMITED, a company incorporated under the Companies Act 1956 and having its registered office at Dockyard Road, Mumbai 400010 (hereinafter referred to as the "the Purchaser" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) having placed an order on Messers a partnership firm/sole proprietor business/a company registered under the Companies Act, 1956 having its office at(hereinafter called " the Contractor/ Supplier" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) vide order No..... dated..... (hereinafter called "the order" which expression shall include any amendments/alterations to "the order" issued by "the Purchaser") for the supply , delivery at site, installation and commissioning of certain equipment, item/services/civil works etc. as stated in the said Order and the Purchaser having agreed with the Contractor/Supplier to accept a Bank Guarantee in lieu of Performance Security payable under the said order for the fulfillment and performance of the said order, We, Bank having office at (hereinafter referred to as "the Bank" which expression shall include its successors and assigns) hereby agree to pay to the Purchaser without any demur on first demand an amount not exceeding Rs..... (Rupees.....only) being 5% (10% in case of Capital Procurement) of the order value against any loss or damage, costs, charges and expenses caused to or suffered by the Purchaser by reason of non performance and non-fulfillment or for any breach on the part of the Contractor / Supplier of any of the terms and conditions of the said order.

2. We, Bank further agree that the Purchaser shall be sole judge whether the said Contractor/Supplier has failed to perform or fulfil the said order in terms thereof or committed breach of any terms and conditions of the order and the extent of loss, damage, cost, charges and expenses suffered or incurred or would be suffered or incurred by the Purchaser on account thereof and we waive in the favour of the Purchaser all the rights and defences to which we as guarantors may be entitled to.

3. We, Bank further agree that the amount demanded by the Purchaser as such shall be final and binding on the Bank as to the Bank 's liability to pay and the amount demanded and the Bank undertake to pay the Purchaser the amount so demanded on first demand and without any demur notwithstanding any dispute raised by the Contractor/Supplier or any suit or other legal proceedings including arbitration pending before any court, tribunal or arbitrator relating thereto, our liability under this guarantee being absolute and unconditional.

4. We, Bank further agree with the Purchaser that the Purchaser shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said order/or to extend time of performance by the Supplier from time to time or to postpone for any time to time any of the powers exercisable by the Purchaser against the Contractor/ Supplier and to forbear to enforce any of the terms and conditions relating to the order and we shall not be relieved from our liability by reason of any such variation or extension being granted to the Contractor/ Supplier or for any forbearance, act or omission on the part of the Purchaser or any indulgence by the Purchaser to the Contractor/Supplier or by any such matter or things whatsoever which under the law relating to sureties would have the effect of relieving us.

5. We, Bank further undertake not to revoke this guarantee during its currency except with the previous consent of the Purchaser in writing.

6. We, Bank also agree that the Bank's liability under this guarantee shall not be affected by any change in the constitution of the Contractor / Supplier or dissolution or winding up of the business of the contractor/ supplier.

7. Notwithstanding anything contained herein above:

- i) Our liability under this guarantee shall not exceed Rs.....
- ii) This Bank Guarantee shall be valid upto and including; and
- iii) We are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before(validity + 4 weeks from the date of expiry of this guarantee).

8. This Guarantee shall be governed by Indian laws and the Courts at Mumbai, India shall have the exclusive jurisdiction.

IN WITNESS WHEREOF the Bank has executed this document on this.....day of.....

For Bank

(by its constituted attorney)

(Signature of a person authorised to sign on behalf of "the Bank")

INTEGRITY PACT

Mazagon Dock Shipbuilders Limited (MDL) hereinafter referred to as "**The Principal/Buyer**"

And

.....hereinafter referred to as "**The Bidder/ Contractor**"

Preamble

The Principal/Buyer intends to award, under laid down organizational procedures, contract/s forThe Principal/Buyer 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/Buyer will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal/Buyer:

(1) The Principal/Buyer commits itself to take all measures necessary to prevent corruption and to observe the following principles:

a) No employee of the Principal/Buyer, 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/Buyer will during the tender process treat all Bidder(s) with equity and reason. The Principal/Buyer 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 Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

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

d) The Principal/Buyer undertakes to scrupulously follow the Purchase Manual containing Standard Terms & Conditions (STAC) and General Terms & Conditions (GT&C) in respect of procurement contracts for goods, services and civil works.

(1) If the Principal/Buyer obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or it there be a substantive suspicion in this regard, the Principal/Buyer will inform the Chief Vigilance Officer, MDL and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/Contractor(s):

(1) The Bidder(s)/Contractor(s) commit himself 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.

Bidder's Sign.....

Bidder's Stamp.....

a) The Bidder(s)/Contractor(s) will not, directly or through any other persons or firm, offer promise or give to any of the Principal/Buyer'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 advantage or 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 Laws of India; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to other, any information or document provided by the Principal/Buyer 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) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. All payments made to the Indian Agent/representative have to be in Indian Rupees only. Further details as mentioned in the "Guidelines of Indian Agents of Foreign suppliers" shall be disclosed by the Bidders(s)/Contractor(s). Copy of the "Guidelines on Indian Agents of Foreign Suppliers" as annexed and marked as Annexure-A.

e) 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.

f) The Bidder (s)/Contractor(s), their agents, representatives shall not do such things so as to interfere with the procedures laid down in the Principal/Buyer's Purchase Manual containing the Standard Terms and Conditions (STAC) and General Terms and Conditions (GT&C) in respect of procurement contracts for goods, services and civil works.

g) The Bidder commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

(2) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlines above or be an accessory to such offences.

Section 3 - Disqualification from tender process and exclusion from future contracts:

If the Bidder(s)/Contractor(s) before contract award has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility as Bidder(s) in question, the Principal/Buyer is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or to terminate the contract, if already signed for such reason, as per the procedure mentioned in the "Guidelines on Banning of business dealings" Copy of the "Guidelines on Banning of business dealings" is annexed and marked as Annexure-B.

Bidder's Sign.....

Bidder's Stamp.....

1) If the Bidder(s)/Contractor(s) has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal/Buyer is entitled also to exclude the Bidder(s)/Contractor(s) from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder(s) and the amount of the damage. The exclusion will be imposed for a minimum of six months and maximum of five years, which may be further extended at the discretion of the Principal/Buyer.

2) A transgression is considered to have occurred, if the Principal/Buyer after due consideration of the available evidence, concludes that no reasonable doubt is possible.

3) The Bidder (s) accepts and undertakes to respect and uphold the Principal/Buyer’s absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining legal advice.

4) If the Bidder(s)/Contractor(s) can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Buyer may revoke the exclusion prematurely.

Section 4 – Sanctions for Violation:

(1) Any breach of the aforesaid provisions by the Bidder or any one employed by him or acting on his behalf (whether with our without the knowledge of the Bidder) or the commission of any offence by the Bidder or any one employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act 1988 or any other Act enacted for the prevention of corruption shall entitle the Principal/Buyer to take all or any one of the following actions, wherever required –

a) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the Bidder. However, the proceedings with the other Bidder (s) would continue.

b) The Earnest Money Deposit/Security Deposit/Performance Bond shall stand forfeited either fully or partially, as decided by the Principal/Buyer, and the Principal/Buyer shall not be required to assign any reason there for.

c) To immediately cancel the contract, if already signed, without giving any compensation to the Bidder.

d) To recover all sums already paid by the Principal/Buyer, in case of an Indian Bidder with interest thereon at 2% higher than the prevailing Base Rate of SBI, and in case of a Bidder from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the Bidder from the Buyer in connection with any other contract for any other Defence stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

e) To encash the advance Bank Guarantee and Performance Bond/Warranty bond, if furnished by the Bidder, in order to recover the payments, already made by the Principal/Buyer, along with interest.

f) To cancel all or any other contracts with the Bidder.

g) To debar the Bidder from entering into any bid from Principal/Buyer for a minimum period of five years, which may be further extended at the discretion of the Principal/Buyer.

Bidder’s Sign.....

Bidder’s Stamp.....

h) To recover all sums paid in violation of this Pact by Bidder(s) to any middleman or agent or broker with a view to securing the contract.

i) If the Bidder or any employee of the Bidder or any person acting on behalf of the Bidder, either directly or indirectly, is closely related to any of the officers of the Buyer, or alternatively, if any close relative of an officer of the Buyer has financial interest/stake in the Bidder’s firm, the same shall be disclosed by the Bidder at the time of filing of tender. Any failure to disclose the interest involved shall entitle the Buyer to rescind the contract without payment of any compensation to the Bidder.

The term ‘close relative’ for this purpose would mean spouse whether residing with the Principal/Buyer’s employee/employees or not, but not include a spouse separated from the Principal/Buyer’s employee/employees by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Principal/Buyer’s employee/employees, but does not include a child or step child who is no longer in any way dependent upon the Principal/Buyer’s employee/employees or of whose custody the Principal/Buyer’s employee/employees has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Principal/Buyer’s employee/employees or to the Principal/Buyer’s employee/employees wife or husband and wholly dependent upon Principal/Buyer’s employee/employees.

j) The Bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Principal/Buyer, and if he does so, the Principal/Buyer shall be entitled forthwith to rescind the contract and all other contracts with the Bidder. The Bidder shall be liable to pay compensation for any loss or damage to the Principal/Buyer resulting from such rescission and the Principal/Buyer shall be entitled to deduct the amount so payable from the money(s) due to the Bidder.

k) In cases where Irrevocable Letters of Credit have been received in respect of any contract signed by the Principal/Buyer with the Bidder, the same shall not be opened.

(2) The decision of the Principal/Buyer to the effect that a breach of the provisions of this Integrity Pact has been committed by the Bidder shall be final and binding on the Bidder, however, the same Bidder can approach the Monitor(s) appointed for the purposes of this Pact.

Section 5 - Integrity Pact:

1) The provisions regarding Sanctions for violation of Integrity Pact include forfeiture of Performance Bond in case of a decision by the Principal/Buyer to forfeit the same without assigning any reason for imposing sanction for violation of Integrity Pact.

2) No interest shall be payable by the Principal/Buyer to the Bidder(s) on Earnest Money/Security Deposit for the period of its currency.

Section 6 - Previous Transgression:

(1) The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti-corruption approach or with any other public section enterprise in India that could justify his exclusion from the tender process.

(2) If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process or further action can be taken.

Bidder’s Sign.....

Bidder’s Stamp.....

Section 7 - Equal treatment of all Bidders/Contractor(s)/Subcontractors:

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this integrity Pact, and to submit it to the Principal before contract signing.
- (2) The Principal/Buyer will enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.
- (3) The Principal/Buyer will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 8 - Criminal charges against violation Bidder(s)/Contractor(s)/ Subcontractor(s):

- (1) If the Principal/Buyer obtains knowledge of conduct of a Bidder, Contractor or 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/Buyer will inform the same to the Chief Vigilance Officer, MDL.

Section 9 - Independent External Monitor/Monitors:

- (1) The Principal/Buyer 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. He reports to the Chairman & Managing Director of the Principal/Buyer.
- (3) The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of the Principal/Buyer 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. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.
- (4) The Principal/Buyer 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/Buyer and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- (5) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal/Buyer 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. However, the Monitor shall give an opportunity to the Bidder(s)/Contractor(s) to present its case before making its recommendation to the Principal/Buyer.
- (6) The Monitor will submit a written report to the Chairman & Managing Director of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the Principal/Buyer and, should the occasion arise, submit proposals for correcting problematic situations.
- (7) Monitor shall be entitled to compensation on the same terms as being extended to / provided to Independent Directors on the Board of Principal/Buyer.

Bidder's Sign.....

Bidder's Stamp.....

(8) If the Monitor has reported to the Chairman & Managing Director of the Principal, a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India and the Chairman & Managing Director of the Principal/Buyer 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, Government of India.

(9) The word 'Monitor' would include both singular and plural.

Section 10 - 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 06 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 Chairman & Managing Director of the Principal/Buyer.

Section 11 - Other provisions:

(1) This agreement is subject to Indian Law, place of performance and jurisdiction is the Registered Office of the Principal/Buyer, i.e. Mumbai. The Arbitration clauses provided in the main tender document/ contract shall not be applicable for any issue/dispute arising under this Integrity pact.

(2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

(3) If the 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.

Section 12 – Fall Clause: #

“The Bidder undertakes that it has not supplied/is not supplying similar products/ systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the Bidder to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance of elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the Bidder to the Principal/Buyer, if the contract has already been concluded.”

For & on behalf of

MAZAGON DOCK Shipbuilders LIMITED for & on behalf of Bidder/Contractor

(Office Seal) (Office Seal)

Place _____

Date _____

Witness 1:

(Name & Address)

Witness 2:

(Name & Address)

GUIDELINES FOR INDIAN AGENTS OF FOREIGN SUPPLIERS

1.0 There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with MDL shall apply for registration.

1.1 An agent shall represent only one Foreign Supplier and not represent two suppliers or quote on their behalf in the same tender. However, either the Indian Agent on behalf of the Foreign Suppliers (also includes foreign manufacturers) or the Foreign Suppliers (also includes foreign manufacturers) directly could bid in a tender, but not both. In cases where an agent participates in a tender on behalf of one manufacturer, shall not quote on behalf of another manufacturer along with the first Manufacturer in a subsequent/parallel tender for the same item.

1.2 Registered agents will file an authenticated Photostat copy duly attested by a Notary Public/Original certificate of the principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/remuneration/salary/ retainer ship being paid by the principal to the agent before the placement of order by MDL.

1.3 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.

2.0 DISCLOSURE OF PARTICULARS OF AGENTS/ REPRESENTATIVES IN INDIA, IF ANY.

2.1 Tenderers of Foreign nationality shall furnish the following details in their offer:

2.1.1 The name and address of the agents/representatives in India, if any and the extent of authorization and authority given to commit the Principals. In case the agent/representative be a foreign Company, it shall be confirmed whether it is real substantial Company and details of the same shall be furnished.

2.1.2 The amount of commission/remuneration included in the quoted price(s) for such agents/representatives in India.

2.1.3 Confirmation of the Tenderer that the commission/ remuneration if any, payable to his agents/representatives in India, may be paid by MDL in Indian Rupees only.

2.2 Tenderers of Indian Nationality shall furnish the following details in their offers:

2.2.1 The name and address of the foreign principals indicating their nationality as well as their status, i.e, whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal

specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/representatives.

2.2.2 The amount of commission/remuneration included in the price (s) quoted by the Tenderer for himself.

2.2.3 Confirmation of the foreign principals of the Tenderer that the commission/remuneration, if any, reserved for the Tenderer in the quoted price (s), may be paid by MDL in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items

2.3 In either case, in the event of contract materializing, the terms of payment will provide for payment of the commission /remuneration, if any payable to the agents/representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.

2.4 Failure to furnish correct and detailed information as called for in paragraph-2.0 above will render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by MDL. Besides this there would be a penalty of banning business dealings with MDL or damage or payment of a named sum. _____

GUIDELINES ON BANNING OF BUSINESS DEALINGS**CONTENTS**

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1. Introduction

1.1 Mazagon Dock Shipbuilders Limited (MDL), being a Public Sector Enterprise and 'State', within the meaning of Article 12 of Constitution of India, has to ensure preservation of rights enshrined in Chapter III of the Constitution. MDL as also to safeguard its commercial interests. MDL deals with Agencies, who have a very high degree of integrity, commitments and sincerity towards the work undertaken. It is not in the interest of MDL to deal with Agencies who commit deception, fraud or other misconduct in the execution of contracts awarded / orders issued to them. In order to ensure compliance with the constitutional mandate, it is incumbent on MDL to observe principles of natural justice before banning the business dealings with any Agency.

1.2 Since banning of business dealings involves civil consequences for an Agency concerned, it is incumbent that adequate opportunity of hearing is provided and the explanation, if tendered, is considered before passing any order in this regard keeping in view the facts and circumstances of the case.

2. Scope

2.1 MDL reserves its rights to remove from list of approved suppliers / contractors or to ban business dealings if any Agency has been found to have committed misconduct and also to suspend business dealings pending investigation.

2.2 Similarly, in case of sale of material there is a clause to deal with the Agencies / customers / buyers, who indulge in lifting of material in unauthorized manner.

2.3 However, absence of such a clause does not in any way restrict the right of MDL to take action / decision under these guidelines in appropriate cases.

2.4 The procedure of (i) Removal of Agency from the List of approved suppliers / contractors; (ii) Suspension and (iii) Banning of Business Dealing with Agencies, has been laid down in these guidelines.

2.5 These guidelines apply to all the Divisions/Yards of MDL.

2.6 It is clarified that these guidelines do not deal with the decision of the Management not to entertain any particular Agency due to its poor / inadequate performance or for any other reason.

2.7 The banning shall be with prospective effect, i.e., future business dealings.

3. Definitions

In these Guidelines, unless the context otherwise requires:

- i) 'Bidder / Contractor / Supplier / Purchaser / Customer' shall mean and include a public limited company or a private limited company, a firm whether registered or not, an individual, a cooperative society or an association or a group of persons engaged in any commerce, trade, industry, etc. 'Bidder / Contractor / Supplier / Purchaser / Customer' in the context of these guidelines is indicated as 'Agency'.
- ii) 'Inter-connected Agency' shall mean two or more companies having any of the following features:
 - a) If one is a subsidiary of the other.
 - b) If the Director(s), Partner(s), Manager(s) or Representative(s) are common;
 - c) If management is common;
 - d) If one owns or controls the other in any manner;
- iii) 'Competent Authority' and 'Appellate Authority' shall mean the following:
 - a) Functional Director shall be the 'Competent Authority' for the purpose of these guidelines. CMD, MDL shall be the 'Appellate Authority'.
 - b) CMD, MDL shall have overall power to take suo-moto action on any information available or received by him and pass such order(s) as he may think appropriate, including modifying the order(s) passed by any authority under these guidelines. Page No. 8.56 Amdt. No : 0 Date : 01/01/2015
- iv) 'Investigating Department' shall mean any Department or Unit investigating into the conduct of the Agency and shall include the Vigilance Department, Central Bureau of Investigation, the State Police or any other department set up by the Central or State Government having powers to investigate.
- v) 'List of approved Agencies – Bidder / Contractors / Suppliers / Purchasers / Customers shall mean and include list of approved / registered Agencies - Bidder / Contractors / Suppliers / Purchasers / Customers, etc

4. Initiation of Banning / Suspension

Action for banning / suspension business dealings with any Agency should be initiated by the department having business dealings with them after noticing the irregularities or misconduct on their part. Besides the concerned department, Vigilance Department may also be competent to initiate such action.

5. Suspension of Business Dealings

5.1 If the conduct of any Agency dealing with MDL is under investigation by any department, the Competent Authority may consider whether the allegations under investigation are of a serious nature and whether pending investigation, it would be advisable to continue business dealing with the Agency. If the Competent Authority, after consideration of the matter including the recommendation of the Investigating Department, if any, decides that it would not be in the interest to continue business dealings pending investigation, it may suspend business dealings with the Agency. The order to this

effect may indicate a brief of the charges under investigation. If it is decided that inter-connected Agencies would also come within the ambit of the order of suspension, the same should be specifically stated in the order. The order of suspension would operate for a period not more than six months and may be communicated to the Agency as also to the Investigating Department. The Investigating Department may ensure that their investigation is completed and whole process of final order is over within such period.

5.2 The order of suspension shall be communicated to all Commercial Departmental Heads. During the period of suspension, no business dealing may be held with the Agency.

5.3 As far as possible, the existing contract(s) with the Agency may continue unless the Competent Authority, having regard to the circumstances of the case, decides otherwise.

5.4 If the gravity of the misconduct under investigation is very serious and it would not be in the interest of MDL, as a whole, to deal with such an Agency pending investigation, the Competent Authority may order suspension of business dealing with Agency and send his recommendation to Chief Vigilance Officer (CVO), MDL alongwith the material available, copy of which may be issued to the Agency concerned with intimation to CVO MDL. Such an order would operate for a period of six months from the date of issue.

5.5 If the Agency concerned asks for detailed reasons of suspension, the Agency may be informed that its conduct is under investigation. It is not necessary to enter into correspondence or argument with the Agency at this stage.

5.6 It is not necessary to give any show-cause notice or personal hearing to the Agency before issuing the order of suspension. However, if investigations are not complete in six months' time, the Competent Authority may extend the period of suspension by another three months, during which period the investigations must be completed.

6. Ground on which Banning of Business Dealings can be initiated

6.1 If the security consideration, including questions of loyalty of the Agency to the State, so warrants;
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6.2 If the Director / Owner of the Agency, proprietor or partner of the firm, is convicted by a Court of Law for offences involving moral turpitude in relation to its business dealings with the Government or any other public sector enterprises or MDL, during the last five years;

6.3 If there is strong justification for believing that the Directors, Proprietors, Partners, owner of the Agency have been guilty of malpractices such as bribery, corruption, fraud, substitution of tenders, interpolations, etc;

6.4 If the Agency continuously refuses to return / refund the dues of MDL without showing adequate reason and this is not due to any reasonable dispute which would attract proceedings in arbitration or Court of Law;

6.5 If the Agency employs a public servant dismissed / removed or employs a person convicted for an offence involving corruption or abetment of such offence;

6.6 If business dealings with the Agency have been banned/blacklisted by Government Agencies/ Statutory bodies, DGQA, Defence Shipyards, DPSUs or with whom commercial transactions have been suspended for sufficient and justifiable reasons. If the Agency having same promoters/Directors /Partners as the barred/blacklisted Company as at 6.6 above for the duration for which the barring/blacklisting of sister concern persists.

6.7 If the Agency has resorted to Corrupt, fraudulent practices including misrepresentation of facts; If the agency who had fraudulently dealt with the Company for pecuniary gains or had connived with dealing officers for mutual benefit.

6.8 If the Agency uses intimidation / threatening or brings undue outside pressure on the MDL or its official in acceptance / performances of the job under the contract;

6.9 If the Agency indulges in repeated and / or deliberate use of delay tactics in complying with contractual stipulations;

6.10 Wilful indulgence by the Agency in supplying sub-standard material irrespective of whether pre-despatch inspection was carried out by MDL or not;

6.11 Based on the findings of the investigation report of CBI / Police against the Agency for malafide / unlawful acts or improper conduct on his part in matters relating to the MDL or even otherwise;

6.12 Established litigant nature of the Agency to derive undue benefit;

6.13 Continued poor performance of the Agency in several contracts;

6.14 If the Agency misuses the premises or facilities of the MDL, forcefully occupies, tampers or damages the Company's properties including land, water resources, forests / trees, etc.

If the Agency who knowingly collude to defeat competition with the aim of deriving undeserved profit or gain from doing business with MDL.

(Note: The examples given above are only illustrative and not exhaustive. The Competent Authority may decide to ban business dealing for any good and sufficient reason).

7. Banning of Business Dealings

7.1 Decision to ban business dealings with any Agency would apply throughout the Company.

7.2 There will be a Standing Committee to be appointed by the CMD which may include HOD of respective Commercial Section/Capital Works/OTS, HOD (M), rep of Legal Deptt. and OIC (SR&R) for processing the cases of "Banning of Business Dealings". The functions of the committee shall, inter-alia include:

i) To study the report of the Investigating Agency and decide if a prima-facie case for banning exists, if not, send back the case to the Competent Authority.

ii) To recommend for issue of show-cause notice to the Agency by the concerned department.

iii) To examine the reply to show-cause notice and call the Agency for personal hearing, if required.

iv) To submit final recommendation to the Competent Authority for banning or otherwise.

7.3 If the Competent Authority is prima-facie of view that action for banning business dealings with the Agency is called for, a show-cause notice may be issued to the Agency as per paragraph 9.1 and an enquiry held accordingly.

8 Removal from List of Approved Agencies - Suppliers / Contractors, etc.

8.1 If the Competent Authority decides that the charge against the Agency is of a minor nature, it may issue a show-cause notice as to why the name of the Agency should not be removed from the list of approved Agencies - Suppliers / Contractors, etc.

8.2 The effect of such an order would be that the Agency would not be disqualified from competing in Open Tender Enquiries but LTE may not be given to the Agency concerned.

8.3 Past performance of the Agency may be taken into account while processing for approval of the Competent Authority for awarding the contract.

9. Show-cause Notice

9.1 In case where the Competent Authority decides that action against an Agency is called for, a show-cause notice has to be issued to the Agency. Statement containing the imputation of misconduct or mis-behaviour may be appended to the show-cause notice and the Agency should be asked to submit within 15 days a written statement in its defence.

9.2 If the Agency requests for inspection of any relevant document in possession of MDL, necessary facility for inspection of documents may be provided.

9.3 The Competent Authority may consider and pass an appropriate speaking order:

- a) For exonerating the Agency if the charges are not established;
- b) For removing the Agency from the list of approved Suppliers / Contactors, etc.
- c) For banning the business dealing with the Agency.

9.4 If it decides to ban business dealings, the period for which the ban would be operative may be mentioned. The order may also mention that the ban would extend to the interconnected Agencies of the Agency.

10. Appeal against the Decision of the Competent Authority

10.1 The Agency may file an appeal against the order of the Competent Authority banning business dealing, etc. The appeal shall lie to Appellate Authority. Such an appeal shall be preferred within one month from the date of receipt of the order banning business dealing, etc.

10.2 Appellate Authority would consider the appeal and pass appropriate order which shall be communicated to the Agency as well as the Competent Authority.

11. Review of the Decision by the Competent Authority

Any petition / application filed by the Agency concerning the review of the banning order passed originally by Competent Authority under the existing guidelines either before or after filing of appeal before the Appellate Authority or after disposal of appeal by the Appellate Authority, the review petition can be decided by the Appellate Authority upon disclosure of new facts / circumstances or subsequent development necessitating such review. The Competent Authority may refer the same petition to the separate Standing Committee which may be constituted by Appellate Authority for examination and recommendation.

12. Circulation of the names of Agencies with whom Business Dealings have been banned

12.1 Depending upon the gravity of misconduct established, the Competent Authority may direct HOD (Materials)/OIC (SR&R) to circulate the names of Agency with whom business dealings have been banned, to the Government Departments, other Public Sector Enterprises, etc. for such action as they deem appropriate.

12.2 If Government Departments or a Public Sector Enterprise request for more information about the Agency with whom business dealings have been banned, a copy of the report of Inquiring Authority together with a copy of the order of the Competent Authority / Appellate Authority may be supplied.

12.3 If business dealings with any Agency have been banned by the Central or State Government or any other Public Sector Enterprise, MDL may, without any further enquiry or investigation, issue an order banning business dealing with the Agency and its interconnected Agencies.

FORM OF WARRANTY CERTIFICATE

In accordance with the Order N°..... Dated placed by MAZAGON DOCK SHIPBUILDERS LIMITED on _____ (Name of firm)

_____ (Name of firm) certify that the following Items identified by the following references related to Submarine No:

Description of Item(s).....

Manufacturer's Serial Number (OR any other such ID No) of the Equipment / Item.....

Delivery Challan No. / ~~Bill of Lading~~ No & Date / Air Way Bill No & Date

Covered by _____ (Name of firm) Invoice No & Date..... are warranted according to the terms and conditions as specified in the order.

The Date of issue of the certificate: DD/MM/YYYY

The Date of the end of validity of the guarantee: DD/MM/YYYY

For and on behalf of

Order reference Number	
Description of Material	
Corresponding to Invoice No & Date	

(to be executed on non-judicial stamp paper of requisite value as per place of execution in India)

DEED OF GUARANTEE

THIS DEED OF GUARANTEE ("Deed") made and executed at (*) on this the _____ day of _____ 20 by: (*), a (*) existing under the laws of (*) and having its registered at (*) (hereinafter referred to as "**the Principal Manufacturer"/ "Original Equipment Manufacturer(OEM)"**", which expression shall unless it be repugnant to the subject or context thereof be deemed to include their respective heirs, executors, administrators and legal representatives) being the Party of the FIRST PART;

IN FAVOUR OF MAZAGON DOCK SHIPBUILDERS LIMITED, a company existing under the laws of India, having its registered office at Dockyard Road, Mazagon, Mumbai 400010, India (hereinafter referred to as the **(MDL)**, which expression, unless excluded by or in contradiction to the subject or context, shall mean and include its successors and assigns) being the Party of the OTHER PART;

Whereas:

A. MDL has floated a Tender Bearing Tender No. (*) dated (*) ("**Tender**"), wherein quotations were invited for supplying of (*) ("**Goods&/or Services**") as stipulated in the Tender at locations as specified in the Tender.

B. The Principal Manufacturer /OEM has agreed to submit its bid through an authorised representative namely (*) (hereinafter referred to as "**Authorised Representative**"), for the aforesaid Tender.

C. The Principal Manufacturer/OEM has represented that it has authorised the Authorised Representative to act on its behalf herein for submitting the bid and to act as an intermediary for supplying the Goods &/or Services to MDL as per the terms of the Tender, as mentioned herein this Deed.

D. The Tender Condition No. (*) requires that the Principal Manufacturer furnishes a legally enforceable document, i.e. this Deed, for the purpose of ensuring smooth execution of the Contract if awarded to the Authorised Representative (pursuant to the Tender) and for assuring that all obligations as stated in the Contract will be fulfilled therein, including warranty and guarantee obligations contained in the Tender. It is further clarified that MDL shall award the contract and sign the relevant transaction documents ("**Transaction Documents**") with the Authorised Representative (in the event of its bid qualifying as per the criteria stipulated in the Tender).

E. Thus, the Principal Manufacturer/OEM has agreed to execute this Deed in favour of MDL.

NOW THIS INDENTURE WITNESSETH THAT IN CONSIDERATION OF THE ABOVE PREMISES IT IS HEREBY COVENANTED AND AGREED (THE PRINCIPAL MANUFACTURER /OEM COVENANTING AND AGREEING JOINTLY AND SEVERALLY) AS FOLLOWS:

1. As per Tender condition No. (*), the Principal Manufacturer /OEM hereby, absolutely, irrevocably and unconditionally guarantees to MDL, the performance by the Principal Manufacturer /OEM of all of the obligations in/under the said Tender and Transaction Documents whether executed by the Principal Manufacturer /OEM directly or the Authorised Representative or both, to the satisfaction of MDL in the event of failure of the Authorised Representative or otherwise upon the occurrence of an event of default under the said Tender and/or Transaction Documents.

2. Any such demand made by MDL on the Principal Manufacturer /OEM shall be final, conclusive and binding notwithstanding any contractual arrangement, difference or any dispute between Principal Manufacturer /OEM and MDL and/or MDL and the Authorised Representative or any other legal proceedings, pending before any court, tribunal, arbitrator or any other authority. The Principal Manufacturer /OEM shall be bound by the terms and conditions of the Tender and/or Transaction Documents.

3. The Principal Manufacturer /OEM shall indemnify and hold harmless MDL from any claim made against MDL or any third party for injury, damage, loss or expenses attributable to the breach /non-performance of responsibilities by the Authorised Representative.

4. In order to give effect to the Guarantee herein contained MDL shall be entitled to act as if the Principal Manufacturer /OEM was originally liable to MDL for all the obligations of the Authorised Representative as mentioned in the Tender and/or Transaction Documents.

5. Notwithstanding MDL's rights herein or under the Tender and/or Transaction Documents, MDL shall have fullest liberty to call upon the Principal Manufacturer /OEM to perform the obligation of the Authorised Representative under the Tender and/or Transaction Documents and pay together with interest as well as the costs (including reasonable attorney costs) charges and expenses, and/or other money for the time being due to MDL in respect of the aforesaid.

6. The Guarantee herein contained shall not be determined or in any way prejudiced by any absorption of or by any amalgamation thereof of MDL but shall ensure and be available for and by the absorbing or amalgamated entity.

7. The Guarantee shall be irrevocable and enforceable against the Principal Manufacturer /OEMs notwithstanding any dispute between the Principal Manufacturer /OEM and the Authorised Representative.

8. The Principal Manufacturer /OEM hereby agrees that notwithstanding any variation made in the terms of the Transaction Documents, the Principal Manufacturer /OEM shall not be released or discharged of their obligation under this Guarantee provided that in the event of such variation the liability of the Principal Manufacturer /OEM shall notwithstanding anything herein contained be deemed to have accrued and the Principal Manufacturer /OEM shall be deemed to have become liable hereunder on the date or dates on which the Authorised Representative become liable to perform its obligations which became due under the said Transaction Documents.

9. The Guarantee hereby given is independent and distinct from any security that the MDL have taken or may take in any manner whatsoever whether it is by way of a performance guarantee or security Deposit as per provisions of the Tender and Transaction Documents.

10. The Principal Manufacturer /OEM shall pay all stamp duty, other duties, Taxes, fees, penalties or other charges payable on or in connection with the execution, issue, delivery, registration of this Deed, and any document, act and registration performed pursuant hereto, if and when the same has become payable according to the Applicable Law.

11. The Principal Manufacturer /OEM declares that the information and data furnished by it to MDL and the Authorised Representative pursuant to the Tender is true and correct.

12. This Deed shall be governed by and construed in all respects with the Indian laws and the parties hereto agree that any matter or issues arising hereunder or any dispute hereunder shall be subject to the jurisdiction of the competent Courts/Tribunals of the city of Mumbai in India.

13. This Deed may be executed in 2 (two) counterparts, each of which so executed will be deemed to be an original and such counterpart together will constitute one and the same Deed.

IN WITNESS WHEREOF the Principal Manufacturer /OEM (abovementioned) has executed these presents the day and year first hereinabove written.

Signed, Sealed and Delivered on behalf of

By:
Name: (*)

Title: (*)

Witness

1.
2.

Undertaking for Conflict of Interest Among Bidders/ Agents

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 MDL'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:

- (i) they have controlling partner (s) in common; or
- (ii) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or
- (iii) they have the same legal representative/agent for purposes of this bid; or
- (iv) 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
- (v) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid.
- (vi) In cases of agents quoting in offshore procurements, 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:
 - (aa) The principal manufacturer directly or through one Indian agent on his behalf; and
 - (ab) Indian/foreign agent on behalf of only one principal.
- (vii) 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;
- (viii) 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.

DECLARATION BY AUTHORISED SIGNATORY OF THE FIRM

"I..... have read the above clause regarding Conflict of Interest Among Bidders/ Agents. I certify that this bidder fulfils all the requirements in this regard and does not have any conflict of interest"

AUTHORISED SIGNATURE: _____

DATE: _____

Seal / Stamp of Bidder

APPENDIX - 21

RTGS/NEFT – MANDATE AUTHORIZATION FORM

(ILLUSTRATIVE FORMAT)

1. Supplier's / Vendor's Name:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

2. Supplier's / Vendor's Name as per Bank Records:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

3A. Supplier's Code

--	--	--	--

3B. Supplier's PAN Number: #

--	--	--	--	--	--	--	--	--	--

Quoting PAN No. in all the e>Returns has become 100% mandatory w.e.f. 14-02-2008 hence, ensure to fill up this and also send a photocopy of PAN duly self-attested. If there is any difference between the name given in the supplier's name and name given in the PAN card, then a note to explain the reason for the difference and the correlation between both.

4. Supplier's / Vendor's Complete Postal Address:

Door No.						Street:									
Location:						District:									
City:						State				PIN					

5. Supplier's / Vendor's E-mail ID:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

6. Supplier's / Vendor's Telephone Number & Mobile Phone Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

7. Name of the Bank:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

8. Bank (Branch) Postal Address:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

9. RTGS*/NEFT* - Code of the Branch:

RTGS:																		
NEFT:																		

RTGS* - "Real Time Gross Settlement", NEFT* - "National Electronic Fund Transfer".

These "IFSC" Codes are unique numbers of each Branch – "Indian Financial Services Code". For some Branches both the codes are the same and some Banks, may maintain one Code No. for RTGS and another Code No. for NEFT. Hence, please fill-up both the rows, even if it is the same.

10. Nature of the Account: (Tick whichever is applicable & put 'x' mark for the balance two accounts)

Saving Bank Account:		Cash Credit Account:		Current Account:	
----------------------	--	----------------------	--	------------------	--

11. Bank Account Number of the Supplier: ©

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

© Fill up from the 1st column. For the balance left out blank columns, please mention 'x' mark.

We hereby declare that the particulars given above are correct and complete. If the transaction is delayed for reasons of incomplete or incorrect information, we would not hold MDL responsible.

Date: Supplier's Seal: Authorized Signature of the Supplier:

Certified that the particulars as per Serial Numbers 2, 7 to 11 are correct as per our records.

Date: Bank's Stamp Authorized Signature of the Officer of the Bank.

Note: Based on the illustrative Format as above, the concerned Dealing Officer / HOD(C) may formulate / design the required forms / documents / tender enquiries / registers / GCC / proformas to suit to the requirements on case to case basis in line with the corresponding articles in Purchase Manual Volume-I.

PART REPLACEMENT PIPELINE PROJECT (PRPP)

**PROCUREMENT OF SEAMLESS LINEPIPE FOR PART
REPLACEMENT PIPELINES PROJECT (PRPP) FOR ONGC**

PRPP-RFQ-PL-06



PART REPLACEMENT PIPELINE PROJECT (PRPP)

**RFQ FOR SEAMLESS LINEPIPE
PRPP-RFQ-PL-06**



OIL AND NATURAL GAS CORPORATION LIMITED

TENDER NO. MR/ES/MM/PRPP/14/2023/ P851L23011

PART REPLACEMENT PIPELINE PROJECT (PRPP)



00	10 Dec 2023	IFB			
Revision No	Issue Date	Description	Prepared By	Reviewed By	Approved By



PART REPLACEMENT PIPELINE PROJECT (PRPP)

**RFQ FOR SEAMLESS LINEPIPE
PRPP-RFQ-PL-06**



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ANNEXURE I
ANNEXURE II





PART REPLACEMENT PIPELINE PROJECT (PRPP)

RFQ FOR SEAMLESS LINEPIPE
PRPP-RFQ-PL-06



1. INTRODUCTION

PROJECT BACKGROUND

Oil and Natural Gas Corporation Limited is engaged in exploration and exploitation of hydrocarbon in Western Offshore field in the Arabian Sea on the continental shelf of Western India. The field is well developed with an extensive infrastructure of well head platforms, process platforms and pipelines. With the ageing of field, condition of some of its existing pipelines has deteriorated. Company is planning for part replacement of these pipelines.

Mazagon Dock Shipbuilders Limited, Mumbai, an ISO 9001: 2015 Company is one of the leading shipbuilding yard in India. The History of Mazagon Dock dates back to 1774, when a small dry dock was constructed in Mazagon. Over the years, MDL has earned a reputation for quality work and established a tradition of skilled and resourceful service to the shipping world in general and the Indian Navy & Coast Guard. It was incorporated as a Private Limited Company in 1934.

After its takeover by the Government in 1960, Mazagon Dock grew rapidly to become the premier war-shipbuilding yard in India, producing warships for the Navy and offshore structures for the Bombay High. It has grown from a single unit, small ship repair company, into a multi-unit and multi-product company, with significant rise in production, use of modern technology and sophistication of products. The company's current portfolio of designs spans a wide range of products for both domestic and overseas clients. Since 1960, MDL has built total 801 vessels including 27 warships, from advanced destroyers to missile boats and 7 submarines. MDL had also delivered cargo ships, passenger ships, supply vessels, multipurpose support vessel, water tankers, tugs, dredgers, fishing trawlers, barges & border out posts for various customers in India as well as abroad. MDL have also fabricated and delivered jackets, main decks of wellhead platforms, process platforms, jack-up rigs etc.

SCOPE OF DOCUMENT

This RFQ defines the scope of work of Seamless Line pipe Contractor involved in the Part Replacement Pipelines Project (PRPP).

2. PROJECT SCOPE

The scope of this project is to part replacement of submarine pipe lines (some pipelines from riser bottom bend to riser bottom bend) in Mumbai High and Neelam-Heera Asset's fields. Under this Contract about 45.4 km of subsea pipelines comprising of about 19 no. of segments are required to be replaced partially.



PART REPLACEMENT PIPELINE PROJECT (PRPP)

RFQ FOR SEAMLESS LINEPIPE PRPP-RFQ-PL-06



PRPP PROJECT PIPELINE SCOPE SUMMARY

Sr No	Field	Segment	Service	From KP	To KP	Total KP	Water Depth m	Free Span Nos	Crossing Nos	SPRU Nos	SPRU Class
1	MH North	NM-MNP	WF	0.1	2.4	2.3	80-85	2	6	2	#1500
2	MH South	IU-ICG	WF	0.2	2.2	2	80-90	2	2	2	#1500
3	MH South	SV-SHD	WF	0.9	2.9	2	70-75	2	1	2	#1500
4	MH North	N16-MNP	WF	Riser Bottom	3	3	70-75	3	8	2	#900
5	MH North	WI2-N3	WF	Riser Bottom	Riser Bottom	4	60-65	4	2	2	#900
6	MH South	SJ2-SA	WF	2.6	3.8	1.2	78-80	2	4	2	#1500
7	MH South	SQ-BHS	WF	Riser Bottom	2	2	70-80	2	5	2	#900
8	MH South	SF-BHS	WF	Riser Bottom	1	1	70-75	1	2	2	#1500
9	MH South	SB-SA	WF	2.5	3.5	1	74-80	1	4	2	#900
10	MH South	RS 8- ID	WF	Riser Bottom	Riser Bottom	4.3	74-78	4	6	2	#900
11	MH South	ZB-ICD	WF	Riser Bottom	2	2	75-80	2	1	2	#900
12	MH South	SE-MSP	WF	0.4	1.4	1	75-85	1	1	2	#900
13	MH North	MNW-N15	WI	Riser Bottom	Riser Bottom	6.6	64-72	7	35	2	#1500
14	MH North	N12-NS	WI	Riser Bottom	Riser Bottom	3	64-72	3	3	2	#1500
15	Heera	HSD-HRC	WF	0.5	2.5	2	48-52	2	2	2	#900
16	Heera	HSC-HRG	WF	0.6	2.6	2	50-60	2	1	2	#900
17	Heera	HS-HRG	WF	0.3	1.3	1	45-50	1	7	2	#1500
18	Heera	HE-HRG	WF	Riser Bottom	2	2	50-55	2	6	2	#1500
19	Heera	HRG-HX	WI	Riser Bottom	2	2	50-55	2	1	2	#1500



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**RFQ FOR SEAMLESS LINEPIPE
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4. INSPECTION TEST PLAN

Item: CARBON STEEL SEAMLESS LINE PIPES (SOUR SERVICE)					INSPECTION CATEGORY: A
ONGC FUNCTIONAL SPEC: 2020B					
Activity No	1. Inspection by ONGC or ONGC Appointed Certification Agency (CA)				
	2. Inspection by LSTK contractor's inspection agency (TPI)				
	3. Inspection by Vendor/ Sub-vendor				
	4. Certificates/ Data to be submitted by Vendor				
Stages of Inspection					
GENERAL & DOCUMENTS -FOR REVIEW /APPROVAL/INFORMATION					
1	A	R	H	X	QUALITY PLAN
2	A	R	H	X	MANUFACTURING PROCEDURE SPECIFICATION
3	A	R	H	X	INSPECTION TESTING PLAN
4	R	R	H	X	TESTS / INSPECTION REPORTS BY VENDOR
5	R	R	H	X	STARTING MATERIAL TEST CERTIFICATES / COMPLIANCE CERTIFICATES
6	R	R	H	X	CALIBRATION CERTIFICATES / REPORTS OF TESTING EQUIPMENTS/NDT TECHNICIAN QUALIFICATION CERTIFICATES IN LINE WITH API 5L REQUIREMENT
7	R	H	H	X	FINAL DOCUMENTATION , MILL QUALIFICATION TEST REPORTS, FDPT, MILL PRODUCTION REPORTS
8	R	R	H	X	PIPE MANUFACTURING DATA BOOK AS PER CL. 10.1.3.2
INSPECTION AND TESTING- FOR WITNESS/ RANDOM WITNESS					
9	RW	W	H	X	STARTING MATERIAL IDENTIFICATION
10	RW	W	H	X	CALIBRATION OF EQUIPMENTS/ INSTRUMENTS
11	W	W	H	X	MILL QUALIFICATION TEST CERTIFICATION
12	RW	W	H	X	FIRST DAY PRODUCTION SAMPLING AND TESTING FOR MECHANICAL, CHEMICAL & CORROSION TESTS
13	RW	RW	H	X	INPROCESS PARAMETER CHECK, HEAT TREATMENT, STEEL MAKING PROCESS CHECK, BILLET HEAT NUMBER VERIFICATION
14	RW	W	H	X	PRODUCTION TEST SAMPLING AND TESTING FOR MECHANICAL, CHEMICAL, CORROSION & SUPPLEMENTARY TESTS
15	RW	W	H	X	PIPE END/ BEVEL & HYDROTESTING CHECK
16	RW	W	H	X	ALL DESTRUCTIVE AND NDT AS PER STANDARD & SUPPLEMENTARY REQUIREMENTS AS PER THE SPEC WITH ADDENDUM
17	RW	RW	H	X	PIPE END DEMAGNETISING
18	RW	W	H	X	FINAL DIMENSIONAL, VISUAL CHECK, WEIGHT CHECK, MARKING, DIE STAMPING AND BEVEL PROTECTORS ETC.
IRN FOR ISSUE BY CA/TPI/CONTRACTOR IA					
19	Is	R	-	-	ISSUE OF INSPECTION RELEASE NOTE AT VENDOR'S PLACE
** OTHER REQUIREMENT**					
20	RW	RW	H	X	CHECK PREPARATION FOR SHIPMENT

The Activities listed above are not exhaustive. Inspection of other activities shall be carried out as per requirement of the FS.

Legend & Notes : Explained Separately.



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**RFQ FOR SEAMLESS LINEPIPE
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Item: CARBON STEEL SEAMLESS LINE PIPES (NON-SOUR SERVICE)					INSPECTION CATEGORY: A
ONGC FUNCTIONAL SPEC: 2020A					
Activity No	1. Inspection by ONGC or ONGC Appointed Certification Agency (CA)				
	2. Inspection by LSTK contractor's inspection agency (TPI)				
	3. Inspection by Vendor/ Sub-vendor				
	4. Certificates/ Data to be submitted by Vendor				
	Stages of Inspection				
GENERAL & DOCUMENTS -FOR REVIEW /APPROVAL/INFORMATION					
1	A	R	H	X	QUALITY PLAN
2	A	R	H	X	MANUFACTURING PROCEDURE SPECIFICATION
3	A	R	H	X	INSPECTION TESTING PLAN
4	R	R	H	X	TESTS / INSPECTION REPORTS BY VENDOR
5	R	R	H	X	MATERIAL TEST CERTIFICATES / COMPLIANCE CERTIFICATES
6	R	R	H	X	CALIBRATION CERTIFICATES / REPORTS OF TESTING EQUIPMENTS/NDT TECHNICIAN QUALIFICATION CERTIFICATES
7	R	H	H	X	FINAL DOCUMENTATION, FDPT, MILL PRODUCTION REPORTS
8	R	R	H	X	PIPE MANUFACTURING DATA BOOK
INSPECTION AND TESTING- FOR WITNESS/ RANDOM WITNESS					
9	RW	W	H	X	MATERIAL IDENTIFICATION
10	RW	W	H	X	CALIBRATION OF EQUIPMENTS/ INSTRUMENTS
11	RW	W	H	X	FIRST DAY PRODUCTION SAMPLING AND TESTING FOR MECHANICAL & CHEMICAL TESTS
12	RW	RW	H	X	INPROCESS PARAMETER CHECK, HEAT TREATMENT, STEEL MAKING PROCESS CHECK, BILLET HEAT NUMBER VERIFICATION
13	RW	W	H	X	PRODUCTION TEST SAMPLING AND TESTING FOR MECHANICAL, CHEMICAL & SUPPLEMENTARY TESTS
14	RW	W	H	X	PIPE END/ BEVEL & HYDROTESTING CHECK
15	RW	W	H	X	ALL DESTRUCTIVE AND NDT AS PER STANDARD & SUPPLEMENTARY REQUIREMENTS AS PER SPEC.
16	RW	RW	H	X	PIPE END DEMAGNETISING
17	RW	W	H	X	FINAL DIMENSIONAL, VISUAL CHECK, WEIGHT CHECK, MARKING, DIE STAMPING AND BEVEL PROTECTORS ETC.
IRN FOR ISSUE BY CA/TPI/CONTRACTOR IA					
18	Is	R	-	-	ISSUE OF INSPECTION RELEASE NOTE AT VENDOR'S PLACE
** OTHER REQUIREMENT**					
19	RW	RW	H	X	CHECK PREPARATION FOR SHIPMENT

The Activities listed above are not exhaustive. Inspection of other activities shall be carried out as per requirement of the FS.

Legend & Notes : Explained Separately.



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5. APPLICABLE STANDARDS

ONGC SPEC NO: 2020A Rev 5. Functional Specification For Carbon Steel Seamless Line Pipe For Submarine Pipelines

ONGC SPEC NO: 2020B Rev 5. Functional Specification For Carbon Steel Seamless Line Pipe For Submarine Pipelines (Sour Service)

ONGC SPEC NO: 2022 Rev 1. Functional Specification For Hydrostatic Testing Of Submarine Pipeline

6. LIST OF ATTACHMENTS

ANNEXURE I: VENDOR EVALUATION FORM

ANNEXURE II: FUNCTIONAL SPECIFICATION





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TECHNICAL QUESTIONNAIRE - FORM A

The questionnaire shall be completely filled in and submitted along with vendor's bid to avoid further queries for proper evaluation of bid. If this is not complied with, vendor's bid is liable to be rejected. Vendor shall sign/date and affix his seal to the form.

<p>A) SCOPE OF SUPPLY</p> <p>I. Is the vendor in total agreement with his scope of supply as defined in the Material Requisition?</p> <p>II. If NOT in total agreement, indicate in which of the following deviation is required:</p> <p>a Data Sheets</p> <p>b Specification</p> <p>c Vendor Data Requirement Schedule (VDRS)</p> <p>d QA/QC requirements (Inspection & Testing requirements)</p>	<p>Indicate answers by v in the appropriate <input type="checkbox"/> box.</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p>
<p>If the answer is 'YES' for any of the above in A(II), exact deviation required shall be described in detail indicating the appropriate clause (s) in attached Form-B. If no deviation are indicated, then vendor to specify NIL in Form-B, and it will be assumed that all the requirement of the subject requisition shall be complied with no deviation whatsoever shall be accepted after the placements of order. Vendor shall submit filled in Form-B, duly signed & stamped.</p>	
<p>1 Whether total system supply is in vendor's scope, are there any items vendor wishes to add to achieve total system completion in all respects? (If 'Yes' details to be given)</p>	<p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p>
<p>2 Does bid include</p> <p>a. Commissioning spares</p> <p>b. Maintenance / operational spares (2 years period)</p> <p>c. Special tool & tackles</p> <p>d. Construction spares & consumables</p>	<p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p>
<p>3 Others:</p> <p>a. Are mounting accessories, if any, included in bid?</p> <p>b. Are special installation procedures, if any, included in bid?</p>	<p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p>
<p>c. Is Supervision of installation in Vendor scope?</p> <p>d. In installation in Vendor scope?</p>	<p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA</p>



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	e. Is Supervision of commissioning in Vendor scope?		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
	f. Is Commissioning in Vendor scope?		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
4	Does the bid include:				
	a. Power requirements		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
	b. Special Cable requirements		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
	c. Special Calibration equipment (Extra charges, if any, for the above to be indicated in the bid)		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
B)	INSPECTION/CERTIFICATE				
1	Has vendor indicated in bid detailed inspection procedure being carried out by him?		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
2	Have extra charge, if any for any special inspection to carried out (as specified in Requisition) indicated in bid ?		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
3	Can vendor furnish certificate from competent authorities as indicated below after order placement.		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
SL. NO.	CERTIFICATION FOR	CODE NO.	NAME OF CERT. AUTHORITY		
a)	Explosion proof housing.		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
b)	Intrinsic. Safe		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
c)	Weather proof housing		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
d)	IBR approval		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
e)	Fire safe Valves		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
f)	Flames Retardant Cables		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
g)	Fire Resistant Cables		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
h)	Others (please specify)		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
C) DOCUMENTATION (VENDOR OFFER)					
Referring to Vendor Document Requirement Schedule (VDRS), does offer include the following documents at bid stage:					
1.	Cover sheet of the offer indicating Material Requisition document number, revision number, equipment/package description and Vendor's offer reference number with date & vendor details.		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
2.	Scope of supply sheet with sub-vendor list.		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
3.	List of documents attached with offer		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
4.	Vendor reference list for previous such installation		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
5.	Manufacturing/Delivery schedule		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
6.	Filled in Form-A "Technical Questionnaire", duly signed & stamped by vendor.		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
7.	Filled in Form-B "Deviation List", duly signed & stamped by vendor.		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
13.	Catalogue/Leaflets/Technical literature for the offers product.		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
14.	Filled in data sheet as per section -3		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA



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DEVIATION FORM- B

PART REPLACEMENT PIPELINE PROJECT (PRPP)		
CLARIFICATION / DEVIATION LIST		
Sr No	REFERENCE CLAUSE	QUERY / DEVIATION / CLARIFICATION



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TRACK RECORD FORM – C

PART REPLACEMENT PIPELINE PROJECT (PRPP)				
TRACK RECORD / PAST PROJECT EXPERIENCE				
Sr No	Project Name	Client	Year	Documents including scope and completion certificates



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**ANNEXURE II
FUNCTIONAL SPECIFICATION**





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Engineering Services
ISO – 9001:2008

Functional Specification
for
Carbon Steel Seamless
Line Pipe for Submarine
Pipelines

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**SPECIFICATION
FOR
CARBON STEEL SEAMLESS LINE PIPE
FOR
SUBMARINE PIPELINES**

**OIL AND NATURAL GAS CORPORATION LTD.
INDIA**

R.P. PUROHIT CE(C&M)	ROHIT PANT DGM(M)		S.NARAIN DGM(C&M)
R.K. GUPTA Dy.G.M.(C&M)	N.V.PAI Dy.G.M(C&M)	B.P.MALIK Dy.G.M.(C&M)	K.P.VARGHESE Dy.G.M.(C&M)
PREPARED BY			
A.K.MISHRA Dy.G.M. (C&M)		D.R.KAMBLE GM (C&M)	
REVIEWED BY		APPROVED BY	
33	19.07.2016	5	
TOTAL NO. OF PAGES	DATE	REV.NO.	

FORMAT No. ODS/SOF/004	Ref. PROCEDURE No. ODS/SOP/023	ISSUE No. 01	REV. No. 00	REV. DATE: 21.07.2010
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Engineering Services
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SCOPE

This specification establishes the minimum requirements for the materials, fabrication, inspection, testing and supply of seamless carbon steel line pipe to be used for submarine pipelines and risers transporting non-sour applications. Line pipes furnished in accordance with this specification shall meet the requirements of **API Specification 5L, Forty-Fifth Edition and the supplementary requirements stated herein.**

All carbon steel pipes made according to this specification shall be PSL2.

This specification covers seamless line pipes of pipe diameters up to 406.4 mm OD (16 inches) and grades up to Grade L450 (X65). The Manufacturer shall have the license to use API monogram for manufacturing of pipes in accordance with the requirements of API Spec 5L, **Forty-Fifth Edition.**

“COMPANY” means “Oil and Natural Gas Corporation Ltd.”, wherever used in this specification.

NOTE

The sections, paragraphs contained herein have the same numbering as the sections and paragraphs of API 5L, in order to facilitate reference.

In this Specification, amendments to API 5L fall into the following Categories:

- ADD** Where additions have been made to the API 5L clause or paragraph.
- AMEND** Where the API 5L clause has been modified. Only the modified portions will be detailed in this Specification
- DELETE** Where the complete clause or paragraph is to be disregarded.
- SUBSTITUTE** Where the text has been substituted for the complete clause or paragraph in API 5L.

FORMAT No. ODS/SOF/004	Ref. PROCEDURE No. ODS/SOP/023	ISSUE No. 01	REV. No. 00	REV. DATE: 21.07.2010
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6 PIPE GRADE, STEEL GRADE AND DELIVERY CONDITION

6.1 Pipe Grade and Steel Grade

6.1.2 ADD

Maximum pipe grade shall be up to Grade L450 (X65), where 450 represents the Yield Strength in MPa.

6.2 Delivery Condition

6.2.2 ADD

The pipe shall be “normalized” or “normalized and tempered” or “quenched and tempered”.

7 INFORMATION TO BE SUPPLIED BY THE PURCHASER

7.1 General Information

The purchase order shall include the following information:

SUBSTITUTE

Sl. no	Information to be provided as per API 5L	Information provided by the COMPANY to be incorporated in PO/PS.
a)	quantity(e.g. total mass or total length of pipe)	As per provisions of the Contract.
b)	PSL (1 or 2)	PSL2
c)	type of pipe (see Table 2)	Seamless
d)	reference to API 5L	API Spec 5L, Forty-Fifth Edition
e)	steel grade (see 6.1, H.4.1.1 or J.4.1.1, whichever is applicable)	J.4.1.1 of API 5L shall be applicable.
f)	outside diameter and wall thickness (see 9.11.1.2)	As per provisions of the Purchase Specification
g)	length and type of length random or approximate) (see 9.11.1.3, 9.11.3.3 and Table 12)	Refer J.6.3 of API 5L of Forty-Fifth Edition
h)	confirmation of applicability of individual annexes.	The applicable Annexes as shown in the following supplementary Table:



Applicable Annexures:

Annex.	Service
Annex B (Amended) -Manufacturing procedure qualification for PSL 2 pipe	Offshore Service
Annex C (Amended) - Treatment of surface imperfections and defects	Offshore Service
Annex J (Amended) - PSL 2 pipe ordered for offshore service	Offshore Service
Annex K (Amended) - Non-destructive inspection for pipe ordered offshore service	Offshore Service

Note: In case of any contradiction between different clauses of this Specification, the most stringent clause shall prevail upon.

7.2 ADDITIONAL INFORMATION

SUBSTITUTE

a) Items that are subject to mandatory agreement, if applicable:		
Sl. no.	Information to be provided as per API 5L	Information by the COMPANY to be incorporated in PO/PS.
1	pipe designation for intermediate grades [see Table 1, footnote a)]	Not applicable
2	chemical composition for intermediate grades (see 9.2.1 and 9.2.2)	Not applicable
3	chemical composition for pipe with $t > 25,0$ mm (0.984 in) (see 9.2.3)	J.4.1.1 of API 5L shall be applicable.
4	carbon equivalent limits for PSL 2 pipe in Grade L415N or X60N (see Table 5)	Refer 9.2.4 & 9.2.5 of this specification.
5	carbon equivalent limits for PSL 2 pipe in Grade L555Q or X80Q, L625Q or X90Q, and L690Q or X100Q (see Table 5),	Not applicable
6	carbon equivalent limits for PSL 2 SMLS pipe with $t > 20,0$ mm (0.787 in) [see Table 5, footnote a)],	Refer 9.2.4 & 9.2.5 of this specification.



7	diameter and out-of-roundness tolerances for pipe with $D > 1422$ mm (56.000 in) (see Table 10)	Not applicable
8	diameter and out-of-roundness tolerances for the ends of SMLS pipe with $t > 25,0$ mm (0.984 in) [see Table 10, footnote b)]	Table 10 of API 5L 45 th Edition is not applicable. Refer J.6.1 of API 5L 45 th Edition.
9	standard applicable to jointer welds (see A.1.2)	Not applicable. Jointers are not permitted.

b)	Items that apply as prescribed, unless otherwise agreed:	
Sl. no.	Information to be provided as per API 5L	Information by the COMPANY to be incorporated in PO/PS.
1	range of sizing ratio for cold-expanded pipe (see 8.9.2)	Not applicable.
2	equation for sizing ratio (see 8.9.3)	Not applicable.
3	chemical composition limits for PSL 1 pipe [see Table 4, footnotes c), e) and f)]	Not applicable.
4	chemical composition limits for PSL 2 pipe [see Table 5, footnotes c), e), f), g), h), i), k), and l)],	Footnote g) of Table J.1 of API 5L is not applicable.
5	yield/tensile ratio for grades L625Q or X90Q, L690 or X100 and L830 or X120 [see Table 7, footnotes g and h or Table J.2, footnotes h and i],	Not applicable
6	estimation and reporting of Charpy shear area (see 9.8.2.3)	Not applicable
7	tolerances for random length pipe [see 9.11.3.3 a)]	Refer J.6.3 of API 5L 45 th Edition
8	type of thread compound (see 9.12.2.4)	Not applicable
9	type of end face (see 9.12.5.1 or 9.12.5.2)	Section 9.12.5.2 of API 5L shall be applicable.
10	International Standard applicable to Charpy testing (see 10.2.3.3, 10.2.4.3, D.2.3.4.2 and D.2.3.4.3)	Charpy V- notch testing shall be done in accordance with ASTM A370.
11	product analysis method (see	As per Section 10.2.4.1 of API



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	10.2.4.1),	5L
12	alternate method for diameter measurement for $D \geq 508$ mm (20.000 in) (see 10.2.8.1),	Not Applicable
13	jointer welding type (see A.1.1),	Not applicable
14	offset of longitudinal pipe weld seams at jointer welds (see A.2.4)	Not applicable
15	repairs in cold-expanded pipe (see C.4.2)	Not applicable.
16	alternate IQI type (see E.4.3.1);	Not applicable.

c) Items that apply, if agreed:		
Sl. no.	Information to be provided as per API 5L	Information by ONGC to be incorporated in PO/PS.
1	delivery condition (see 6.2 and Table 1)	PSL 1 shall not be applicable. The pipe shall be “normalized” or “normalized and tempered” or “quenched and tempered”.
2	supply of quenched and tempered PSL 1 Grade L245 or B SMLS pipe (see Table 1),	Not applicable.
3	supply of intermediate grades [see Table 2, footnote a)]	Not applicable.
4	supply of double-seam SAWL pipe [see Table 2, footnote c)]	Not applicable.
5	alternative to specified seam heat treatment for PSL 1 pipe (see 8.8.1)	Not applicable.
6	supply of SAWH pipe with coil/plate end welds at the pipe ends (see 8.10.3),	Not applicable.
7	supply of jointers (see 8.11)	Not applicable .Jointers are not permitted
8	CVN impact test temperature lower than 0°C (32°F) (see 9.8.2.1, 9.8.2.2 and 9.8.3)	CVN impact test temperature lower than 0°C (32°F) is not applicable.
9	CVN impact test of the pipe body of PSL 2 welded pipe with $D < 508$ mm (20.000 in) for shear fracture area (see 9.8.2.2 and Table 18)	Not applicable.
10	CVN impact test of the longitudinal seam weld of PSL 2 HFW pipe (see 9.8.3 and Table 18)	Not applicable.



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11	DWT test of the pipe body of PSL 2 welded pipe with $D \geq 508$ mm (20.000 in) (see 9.9.1 and Table 18)	Not applicable.
12	DWT test temperature lower than 0°C (32°F) (see 9.9.1)	Not applicable.
13	fraction jointers comprising 2 or 3 pieces for 12 m (40 ft) nominal or 24 m (80 ft) nominal, respectively [see 9.11.3.3.c), d), and e)],	Not applicable.
14	power-tight make-up of couplings (see 9.12.2.3 and 10.2.6.1)	Not applicable.
15	special bevel configuration (see 9.12.5.3)	Not applicable.
16	removal of outside weld bead at pipe ends of SAW or COW pipe [see 9.13.2.2 e)]	Not applicable.
17	weldability data or tests for PSL 2 pipe (see 9.15)	For X65 Grade Pipe only (As per 9.15 of this specification)
18	type of inspection document for PSL 1 pipe (see 10.1.2.1)	Not applicable.
19	manufacturing information for PSL 1 pipe (see 10.1.2.2)	Not applicable.
20	alternative type of inspection document for PSL 2 pipe (see 10.1.3.1)	Refer 10.1.3.1 (Amended) of this Specification.
21	use of transverse test pieces for tensile tests of SMLS pipe, not cold-expanded [see Table 20, footnote c)]	<ul style="list-style-type: none"> For pipe OD > 219.1mm both transverse and longitudinal tensile test shall be carried out. Testing frequency shall be as per this specification. For pipe OD \leq 219.1mm the test shall be carried out in longitudinal direction only; however longitudinal tensile testing frequency shall be as per this specification.
22	use of the ring expansion test for transverse yield strength determinations [see 10.2.3.2, Table 19 note c), and Table 20 note d)],	Not Applicable.
23	use of an alternative to macrographic examination (see 10.2.5.2)	Not applicable
24	hardness test during production of EW and LW pipe (see 10.2.5.3)	Not applicable



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25	specific condition to be used for hydrostatic tests for threaded and coupled pipe (see 10.2.6.1)	Not applicable
26	alternate hydro test pressure (see Table 26),	Table 26 of API 5L 45 th Edition is not Applicable. Refer 10.2.6 (Substituted) of this specification.
27	use of minimum permissible wall thickness to determine hydrostatic test pressure (see 10.2.6.7)	Applicable.
28	specific method to be used for determining pipe diameter (see 10.2.8.1)	Clause 10.2.8.1 is Applicable. Further, Caliper / properly sized go-no-go gauges shall be used to verify that diameter and out of roundness at pipe ends for each pipe is within the required tolerances J.6.1 of API 5L.
29	use of inside diameter measurements to determine diameter and out-of-roundness for expanded pipe with $D \geq 219,1$ mm (8.625 in) and for non-expanded pipe [see 10.2.8.3 and Table 10, footnote c)].	Acceptable. Refer Cl. J.6.1 and Cl.10.2.8.3 of API 5L, 45th Edition).
30	specific method to be used for determining other pipe dimensions (see 10.2.8.7)	Proposed methods shall be subject to COMPANY approval.
31	paint-stencilled markings for couplings (see 11.1.2)	Not applicable
32	additional markings specified by the purchaser (see 11.1.4)	For segregation of pipes additional markings/colour bands may be decided by the LSTK contractors.
33	specific surface or location for pipe markings [see 11.2.2 b)and 11.2.6 b)]	Applicable.
34	die-stamping or vibro-etching of pipe (see 11.2.3)	Only low stress die stamping shall be permitted on the pipe bevel face preferably at the opposite end to pipe stencilled markings. The low stress marking shall be the unique pipe number only. Cold die stamping is not permitted on the pipe body.



		In case low stress die-stamping on bevel face is technically not feasible, alternate measures shall be made for providing unique pipe number for ensuring traceability of pipes.
35	alternative location for marking the pipe (see 11.2.4)	Marking shall be carried out at the pipe mill. Further, for pipes intended for subsequent coating, LSTK contractor shall submit the procedure for marking at coating yard ensuring the traceability of pipes.
36	alternative format for pipe length marking locations (see 11.2.6a),	Not applicable.
37	colour identification for pipe (see 11.2.7)	As per 11.2.7 of API 5L.
38	multiple grade marking (see 11.4.1),	Not applicable.
39	temporary external coating (see 12.1.2)	Pipe shall be delivered with mill's standard temporary external coating throughout the external surface of pipe body to provide protection from rusting in storage and transit.
40	special coating (see 12.1.3)	Not applicable
41	lining (see 12.1.4),	Not applicable
42	manufacturing procedure qualification for PSL 2 pipe, in which case, Annex B shall apply (see B.2),	Refer Annex B (Amended) of this specification.
43	radiographic inspection of SAW seam or coil/plate end seam (see Table E.1)	Not applicable
44	non-destructive inspection of PSL 1 SMLS pipe (see E.3.1.2),	Not applicable
45	NDT of EW seam welds after hydrotest [see E.3.1.3 b)],	Not applicable
46	ultrasonic inspection of welded pipe for laminar imperfections at pipe ends (see E.3.2.3)	Not applicable
47	ultrasonic inspection of SMLS pipe for laminar imperfections at pipe ends (see E.3.3.2)	Refer Annex.K (Amended) of this Spec.
48	radiographic inspection in	Not applicable



	accordance with Clause E.4,	
49	use of both holes and notches in ultrasonic reference standard (see Table E.7),	Acceptable
50	alternative re-inspection technique for COW seams (see E.5.5.5)	Not applicable
51	ultrasonic inspection for laminar imperfections in the pipe body of EW, SAW or COW pipe (see Clause E.8)	Not applicable
52	ultrasonic inspection for laminar imperfections along the coil/plate edges or the weld seam of EW, SAW or COW pipe (see Clause E.9)	Not applicable
53	supply of welded couplings on pipe with $D \geq 355,6$ mm (14.000 in) (see F.1.4)	Not applicable
54	application of Annex G to PSL 2 pipe where purchaser shall specify the toughness test temperature, the minimum energy for each test and the minimum average energy value required for the order (see G.2),	Refer 9.8.2.1 (Amended) of this specification
55	PSL 2 pipe for sour service, in which case, Annex H shall apply (see H.2),	Not Applicable
56	TFL pipe, in which case, Annex I shall apply (see I.2),	Not applicable
57	pipe for offshore service, in which case, Annex J shall apply (see J.2),	Refer Annex J (Amended) of this specification
58	any other additional or more stringent requirements.	As included within this document.

8 MANUFACTURING

8.1 Process of Manufacture

ADD

This specification is applicable for seamless pipe only. Other types of pipes specified in Table 2 and pipe for intermediate grades (refer footnote a) of Table 2 are not applicable in this specification. The pipe shall be “normalized” or “normalized and tempered” or “quenched and tempered”.

8.3 Starting Material



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8.3.2 AMEND

Pipes furnished to this specification shall be made from basic-oxygen steel or electric arc furnace steel. Steel shall be vacuum degassed. Steel shall be made by continuous casting only. Pipes shall be seamless construction. Manufacturing procedure as mentioned in Annex B (Amended) of this specification shall be prepared and submitted to Company for approval prior to start of production.

8.3.3 ADD

The steel shall be fully killed and made with fine grain structure with a grain size of ASTM 7 or finer as per ASTM E 112.

8.9 Cold Sizing and cold expansion

SUBSTITUTE

Cold expansion shall not be permitted for seamless pipes.

8.11 Jointers

AMEND

Jointers shall not be permitted.

8.12 Heat Treatment

ADD

The pipes shall be “normalized” or “normalized and tempered” or “quenched and tempered”. Other types of heat treatment shall be agreed upon between the COMPANY and Manufacturer. Temperature of furnace shall be controlled and recorded and such records shall be accessible to Company.

9 ACCEPTANCE CRITERIA

9.2 Chemical Composition

9.2.4 SUBSTITUTE

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For steels with carbon content $\leq 0.12\%$, the PCM value based on product analysis shall be limited to Table J.1 of API 5L but in no case shall exceed 0.21, when calculated using the formula given below:

$$CE_{Pcm} = C + \frac{Ni}{60} + \frac{Si}{30} + \frac{Mn+Cu+Cr}{20} + \frac{Mo}{15} + \frac{V}{10} + 5B$$

9.2.5 SUBSTITUTE

For steel with carbon content $> 0.12\%$, the Carbon Equivalent (CE) based on product analysis shall be limited to Table J.1 of API 5L but in no case shall exceed 0.40, when calculated using the formula given below:

$$CE_{IIW} = C + \frac{Mn}{6} + \frac{Cr+Mo+V}{5} + \frac{Ni+Cu}{15}$$

9.8 CVN Impact Test for PSL 2 Pipe

9.8.1 General

ADD

The Manufacturer shall perform the Charpy V-notch tests in accordance with the latest edition of ASTM A 370 using absorbed energy criteria and the requirements mentioned herein.

Flattening of specimens shall not be permitted. Specimens shall be taken in a transverse direction. When it is not feasible to secure even half-size specimens in transverse direction because of pipe size or wall thickness, test specimens shall be taken in a longitudinal direction to pipe axis. The energy requirements for longitudinal specimens shall be 1.5 times those of transverse specimens as detailed in 9.8.2.1(Amended) of this specification.

In addition, CTOD tests shall be carried out as per the requirement of the first day production tests. Refer Annex B (Amended).

9.8.1.3 AMEND

Tests shall be conducted at 0°C (32°F)

9.8.2 Pipe Body Tests

9.8.2.1 AMEND

The minimum average (of a set of three test pieces) and minimum individual absorbed energy for each pipe body test shall be as given in Table 8



(substituted), based upon full-size test pieces and a test temperature of 0 °C (32 °F). Test temperature lower than 0°C (32°F) is not applicable.

TABLE 8 (SUBSTITUTED)

API 5L Table-8 is substituted as under:

Grade	Min. Average	Min. Individual
X-42	29J	22J
X-46	32J	24J
X-52	36J	27J
X-56	39J	29J
X-60	41J	31J
X-65	43J	33J

Note: The average impact values are determined by finding the mean of the values of each group of three specimens from each sample taken separately. The minimum impact value is determined by considering the values of the individual specimens from the sample.

9.10 Surface Conditions, Imperfections and Defects

9.10.1 General

9.10.1.2 ADD

No cracks shall be permitted. Section of the pipe containing cracks shall be cut off as per the requirement of clause C.3(b) or entire pipe length shall be rejected as per the requirement of clause C.3.(c) of API 5L.

9.10.1.3 AMEND

The acceptance criteria for imperfections found by non-destructive inspection shall be in accordance with Annex K (amended) of this specification.

9.10.2


(c) AMEND

Undercuts that exceed the limits specified in item b) shall be classified as defects and shall be treated in accordance with API 5L para C.3 (b) or (c).

9.10.4 Laminations

ADD

Refer Annex K (Amended).

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9.10.5 Geometric Deviations

9.10.5.2 AMEND

Depth of dent shall not exceed 2 mm and length in any direction shall not exceed half of the pipe diameter, provided this dent does not give rise to a hard spot at the internal surface exceeding 250 HV10. Disposition of dents shall be carried out in accordance with API 5L para C.3.b) or C.3.c) of Annex C.

9.10.6 Hard Spots

SUBSTITUTE

Any hard spot larger than 50 mm (2.0 in) in any direction shall be classified as a defect if its hardness exceeds 250 HV10 based upon individual indentations. Sections of pipes where hardness is greater than the allowable value shall be cut off as per requirements of API 5L para C.3.b) or C.3.c) of Annex C (Amended).

9.10.7 Other Surface Imperfections

SUBSTITUTE

Other surface imperfections found by visual inspection shall be investigated, classified and treated as follows:

- (a) Imperfections that have a depth $\leq 0.05t$ and do not encroach on the minimum permissible wall thickness shall be classified as acceptable imperfections and shall be treated in accordance with Clause C.1.
- (b) Imperfections that have a depth $> 0.05t$ and do not encroach on the minimum permissible wall thickness shall be classified as defects and shall be dressed –out by grinding in accordance with Clause C.2 (Amended) or shall be treated in accordance with Clause C.3.
- (c) Imperfections that encroach on the minimum permissible wall thickness shall be classified as defects and shall be treated in accordance with Clause C.3.


9.11 Dimensions, Mass and Tolerances

9.11.3 Tolerances for Diameter, Wall Thickness, Length and Straightness

AMEND

Tables 10, 11 & 12 of API 5L shall not be applicable.

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9.11.3.1 SUBSTITUTE

Tolerances for diameter and out-of-roundness shall be as per Tabl3 J.3 of API Specification 5L.

9.11.3.2 SUBSTITUTE

Wall thickness tolerance for all sizes shall be +17.5%,-5%.Table 11 shall not be applicable.

9.11.3.3 Refer J.6.3 of API 5L

9.11.3.4 SUBSTITUTE

The tolerances for straightness shall be as per J.6.4 of API Specification 5L

9.15 Weldability Test for PSL2 Pipe


Amend

FOR GRADE X-65 ONLY Manufacturer shall carry out a weldability test to establish that quality girth welding meeting various requirements mentioned in this specification can be achieved under simulated site conditions. This test shall be carried out using pipes from any of the first three heats with highest carbon equivalent for each wall thickness and each grade of steel specified in the purchase order. In case more than one mill is proposed to manufacture pipes, the weldability test shall be carried out for each mill.

Welding procedure shall comply with the requirements of DNV-OS-F101. Procedure for field weldability test shall be submitted by the manufacturer in line with DNV-OS-F101and approved by purchaser prior to commencement of test.

Weldability test shall include all tests listed in DNV-OS-F101 aimed at establishing the weld quality/ properties as per this specification. The acceptance criteria shall be as per the requirements of this specification. In case of failure of any test results to comply the specification requirements, manufacturer shall revise the welding procedure adopted and carry out the tests again to comply the specification requirements. Manufacturer shall submit the test results to purchaser to comply specification requirements prior to shipment of pipes.

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10 INSPECTION

10.1.3. Inspection documents for PSL 2 pipe

10.1.3.1 AMEND


Inspection certificate shall be issued and validated as per “3.1C” in accordance with ISO 10474 : 1991.

10.1.3.2 SUBSTITUTE

The manufacturer shall provide production report including acceptance test certificates as mentioned in 13 of API Specification 5L (as applicable for seamless pipe) in six copies, which shall include the results of all testing required as per this specification and performed on raw material and delivered pipes giving details of, but not limited to the following for each pipe length:

- COMPANY's Name and Order Number;
- SUPPLIER's Identification;
- Name and location of facilities used for pipe manufacturing and steelmaking
- Pipe specified outside diameter, specified wall thickness, pipe grade
- Product Specification Level (PSL) and delivery condition;
- Steelmaking Process;
- Identification of Steel Type and Grade;
- Billet number, as applicable;
- Certificates of Product and Ladle Analysis;
- CE_{IIW} & Pcm for both Product and Ladle Analysis;
- Pipe Identification number, Heat number, Pipe length and Pipe weight
- Certified measurements for Dimensional measurements/ tolerance
- Mechanical Test Certificates, including hardness surveys;
- Yield/Tensile Ratio (based on R_{10.5});
- Pipe Elongation;
- Charpy Impact Results;
- Hardness Tests;
- Heat Treatment Condition
- Hydrostatic Test Certificate, or statement;
- NDT Procedures and Results;
- Surface Inspection;
- Dimensional Control Checks;
- Manufacturing Procedure Specification and Qualification Tests;
- Hardness test and CTOD test records;
- Information on production & shipping

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- All other reports and results as required as per this specification
- NDT Operator Qualification Certificates;
- Inspection certificate issued and validated by Authorized representative of Purchaser, as per “3.1C” of ISO 10474 : 1991, in accordance with this specification.
- COMPANY Authorized representative’s Pipe Inspection and Release Note.

Such documents shall indicate pipe identification number, the origin of each individual test specimen etc. and shall be written in English only. International system of units (SI) shall be adopted. The certificates shall be valid only when signed by Company Representative. Only those pipes which have been certified by Company Representative shall be dispatched from the pipe mill.

Manufacturer shall also provide information on test failure / rejected heats etc.

10.2 Specific Inspection

10.2.1 Inspection frequency

10.2.1.2 AMEND

The inspection frequency shall be as given in Table 18 of API 5L, 45th Edition modified by Table J.6 of API 5L, 45th Edition and Table J.6 (Amended) of this Specification.

10.2.2 Samples and test pieces for product analysis.

ADD

Product analysis shall be carried out from finished pipes.


10.2.3 Samples and test pieces for mechanical tests.

SUBSTITUTE

- 10.2.3.1** For tensile tests, CVN impact tests and CTOD tests, the samples shall be taken and the corresponding test pieces shall be prepared, in accordance with the applicable reference standard.

Samples and test pieces for the various test types shall be taken from locations as shown in Figure 5 a) and as given in J.8 of this specification,

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taking into account the supplementary details in 10.2.3.2 to 10.2.3.3, 10.2.4. and J.8.2.2.

10.2.6 Hydrostatic Test

10.2.6.1 SUBSTITUTE

The test pressure for all sizes and grades of pipes shall not be less than the maximum pressure calculated based on either of the criteria mentioned at 10.2.6.5 (amended) and 10.2.6.6 (amended) .The test pressure shall be held for a minimum period of 10 seconds for all sizes and grades of pipes.

10.2.6.2 AMEND

The Test pressure measuring device used for hydrostatic testing shall be calibrated with a Dead Weight tester and the record shall be maintained. Calibration records shall be furnished to Company Representative. The calibration shall be conducted at start of a run and after a hydrostatic burst/leak failure

10.2.6.5 AMEND

The required test pressure shall produce a hoop stress of at least 90% of the specified minimum yield strength for all the grades and sizes.

10.2.6.6 AMEND

In case, pressure testing involves end sealing ram, the required test pressure shall produce a hoop stress of at least 95% of the specified minimum yield strength for all the grades and size.

10.2.7 Visual Inspection

10.2.7.1 AMEND


Each pipe shall be visually inspected to detect surface defects, with an illuminance of at least 300 lx (28 fc). Such inspection shall be over the entire external surface and shall cover as much of the internal surface as is practical.

10.2.7.2 DELETE

10.2.7.4 AMEND

Maximum hardness in suspected hard spots shall be 250 HV10. Sections of pipes where hardness is greater than the allowable value shall be cut off as per requirements of API 5L para C.3.b) or C.3.c) of Annex C.

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10.2.8 Dimensional testing

10.2.8.1 ADD

Caliper / properly sized go-no-go gauges shall be used to verify that diameter and out of roundness at pipe ends for each pipe is within the required tolerances J.6.1 of API 5L.

10.2.8.5 AMEND

The wall thickness at any location shall be within the tolerances specified in para 9.11.3.2 of this specification.

10.2.10 SUBSTITUTE

Non-destructive inspections shall be in accordance with Annex K (Amended).

10.2.11 SUBSTITUTE

Reprocessing is not permitted.

10.2.12 Retesting (SUBSTITUTE)

10.2.12.1 Recheck Analysis

If any parts of the full product analysis on any one of the fully analyzed pipes fail to meet the requirements of J.4.1 of this specification, either the whole heat shall stand rejected or each individual pipe shall be fully analyzed and all pipes failing to meet the requirements of J.4.1 of this specification shall be rejected.


10.2.12.2, 10.2.12.6 & 10.2.6.7

Tensile retest, Charpy retest and Hardness retest

In case one of the test specimens fails to conform to the specified requirements, a retest on four additional pipes from the same lot shall be made. If all re-tests give positive result, then the pipe, which gave the negative result, shall be rejected and the balance lot shall be accepted.

In case of negative result of one of the re-test specimens, the lot may be rejected or each of the remaining lengths shall be tested individually. The pipes, which give results as per requirement of this specification, shall only be accepted.

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11.2 Pipe markings

11.2.1 ADD

Marking shall be in English using SI units. Markings shall also include API monogram, purchase order number, item number, heat number, wall thickness (mm), pipe number, weight and grade. Weight marked shall be the actual weight of the pipe.

12. Coatings and thread protectors

12.1.2 AMEND

Pipe shall be delivered with mill's standard temporary external coating throughout the external surface of pipe body to provide protection from rusting in storage and transit.

**12.3 Bevel Protectors
(New)**

Both pipe ends of all pipes shall be provided with metallic or high impact plastic bevel protectors as per Manufacturer's standard

13 Retention of Records

ADD

In addition to the records indicated in clause 13, the manufacturer shall retain the records of all additional tests mentioned in this specification including the ultrasonic testing carried out on pipe as well as pipe ends.

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ANNEXUREES OF API 5L(AMENDED)

ANNEXURES	Service
Annex B (Amended) - Manufacturing procedure qualification for PSL 2 pipe	Offshore Service
Annex C (Amended) - Treatment of surface imperfections and defects	Offshore Service
Annex J (Amended) - PSL 2 pipe ordered for offshore service	Offshore Service
Annex K (Amended)- Non-destructive inspection for pipe ordered for sour service and/or offshore service	Offshore Service

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Annex B (AMENDED)

Manufacturing Procedure Qualification for PSL 2 Pipe

B1.3 (Amend)

Verification of manufacturing procedure qualification shall be carried out in accordance with the fulfilment of Clause B.3, B.4 & B.5 of this specification.

B.3 CHARACTERISTICS OF THE MANUFACTURING PROCEDURE SPECIFICATION

SUBSTITUTE

A Manufacturing Procedure Specification (MPS) outlining the successive steps and associated inspection procedures from steelmaking to finished line pipe shall be prepared and submitted to Purchaser for approval prior to start of production. Manufacture of pipes shall start only after the approval of Manufacturing Procedure. The approved Manufacturing Procedure shall be strictly followed in all phases of the production of pipes.

The Manufacturing Procedure shall as a minimum include the following information:

- Steel maker and plant at which billet is produced.
- Type of Furnace, Equipment and process description including steel making process with details of secondary refining process and continuous casting process, nominal weight of each heat, deoxidation practices and inclusion shape control practices.
- Target chemistry, range of intentionally added elements and those listed in Table J.1 of API 5L, 45th Edition, limits on heat and product analysis to be placed on steel maker.
- Steelmaking and casting process control.
- Hydrogen control practices for billets.
- Product identification and traceability practices;
- Product rework/retest/release controls for non-conformances to manufacturer's documented practices including grade intermixes/transitions and process/chemistry deviations;
- Centerline segregation controls and acceptance criteria, as applicable.
- name/location of pipe manufacturing facility.
- equipment and process description of pipe manufacturing facility;
- Heat treatment procedure document established as per para 8.12.
- Ultrasonic testing of pipes using automatic and manual equipment including details of equipment, techniques, scanning pattern, probe

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frequency, scanning sensitivity, reference standard for calibration, dynamic calibration procedure, method of marking defects and indicating loss of coupling, inspection and recording.

- NDT Procedures and Equipment Calibration
- Pipe making procedure including plate edge preparation, forming and any other special process proposed.
- Testing of chemical, mechanical and corrosion, macrographic and metallographic properties
- Dimensional tolerances, frequency of checking, measurement and record in a tabular form including details of instruments and equipment proposed.
- End cropping practices;
- Hydrostatic testing including details of testing equipment, procedure and the relevant test pressure calculations including calibration/verification of equipment.
- Marking, storage and transit protection coating procedures
- product traceability practices from billet receipt to pipe delivery;
- product rework/retest/release controls for non-conformances to manufacturer's documented
- practices (including process, chemical/ mechanical, and dimensional deviations),
- Handling, storage, loading and shipment procedure.
- Production report formats.
- Complete details of computerized pipe tracking system.
- Project specific quality control plan

B.5 Manufacturing procedure qualification tests (MPQT)


B.5.1 (Amend)

MPQT/ FIRST DAY PRODUCTION TESTS

The MPS shall be qualified for each pipe nominal diameter either as a part of first day production or as a separate MPQT prior to full scale production. Two lengths of completely finished pipes (in case of only one heat on first day) or two lengths from the first two heats i.e. one pipe from each heat (in case of more than one heat on first day) of first day's production shall be selected at random for testing to verify that the manufacturing procedure results in the quality of pipes which are in complete compliance with this specification. The MPQT/ first day production tests shall be carried out on pipes as per requirement of para B.5.1 (Substituted) of this specification.

The MPQT/ first day's production tests shall be repeated upon any change in the manufacturing procedure as deemed necessary by Purchaser Representative

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The Manufacturer shall submit to Purchaser a report giving the results of all tests mentioned below. The report shall be agreed and signed by Purchaser Representative, prior to start of regular production.

The various tests to be conducted on each pipe shall be as follows. The test method and acceptance values shall be as per this specification unless specified differently in this Annexure.

a. Visual Examination

All pipes shall be examined visually for dimensional tolerances and apparent surface defects in accordance with 9, 10 & 11 respectively of this specification.

b. Mechanical Properties

The mechanical properties of all pipes shall be tested and shall meet the requirements of this specification. Purchaser Representative will select the places in pipe from where the test specimen shall be removed.

c. CTOD Test


CTOD testing shall be carried out in accordance with the requirements of BS7448:1991.

Two sets of specimen with each set consisting of three specimens shall be taken from the base metal with one set in longitudinal direction and other set in transverse direction. The test shall be carried out at 0 °C.

Minimum acceptable critical CTOD value shall be 0.2 mm for BM (Base Metal). Average CTOD values of BM shall be reported. In addition, all the data on fatigue pre-cracking front are required. (Crack length at the following positions i.e. both surfaces 25%, 50% and 75% of the specimen thickness, the minimum and the maximum angle between the crack and the plane of the notch).

d. In addition, all the remaining tests and inspections required to be conducted as per this specification shall be conducted on all the pipes selected for testing during first day production test.

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Annex C (AMENDED)

C.2 Treatment of surface imperfections and defects

C.2.3 Complete removal of defects shall be verified by local visual inspection, aided, where necessary, by suitable non-destructive inspection methods. To be acceptable, the diameter, out of roundness and wall thickness in the ground area shall be in accordance with 9.11.3.1 and 9.11.3.2 of this specification; further, the sum of all ground areas for surface defect treatment shall not exceed 10% of total internal and external surface area of each pipe.

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Annex J (AMENDED)

PSL 2 pipe ordered for offshore service

J.2 Additional information to be supplied by the purchaser

Information Requirement

	Information sought by API 5L	COMPANY's Requirement
a)	steel casting method for strip or plate used for the manufacture of welded pipe (see J.3.3.2.1)	Not applicable
b)	ultrasonic inspection of strip or plate for laminar imperfections (see J.3.3.2.4)	Not applicable
c)	supply of helical-seam pipe containing coil/plate end welds (see J.3.3.2.5)	Not applicable
d)	chemical composition for intermediate grades (see J.4.1.1)	Not applicable
e)	chemical composition for pipe with $t > 25,0$ mm (0.984 in) (see J.4.1.2)	Table J.1 of API 5L shall be applicable. However, footnote g) of Table J.1 is not applicable.
f)	carbon equivalent limit for steel Grade L555QO or X80QO, L625QO or X90QO, and L690QO or X100QO (see Table J.1);	Not applicable
g)	Chemical composition limits [see Table J.1, footnote d]	Footnote d of Table J.1 of API 5L shall be applicable.
h)	Acceptance criteria for tensile properties if determined at other than room temperature (see J.4.2.2)	Not applicable
i)	for grades equal to or greater than Grade L555 or X80, a lower maximum tensile strength limit may be agreed [see Table J.2, footnote b)];	Not applicable
j)	Minimum average length other than 12,1 m (39.7 ft) and/or different range (see J.6.3)	Refer J.6.3 of API 5L.
k)	Diameter and out-of-roundness tolerances for SMLS pipe with $t > 25.0$ mm (0.984 in) [see Table J.3, footnote b)]	Tolerances shall be as per J.6.1 of API 5L.
l)	Use of inside diameter to determine diameter and out-of-roundness tolerances for non-expanded pipe with $D \geq 219,1$ mm	Acceptable



	(8.625 in) [see Table J.3, footnote c)]	
m)	hardness test of the pipe body seam weld and HAZ of EW and SAW pipe (see Table J.7);	Not applicable
n)	hardness testing of pipe body for SMLS pipe (see Table J.7);	Required
o)	CTOD testing (see J.8.2.2 and Table J.6);	Refer Annex B (Amended) within this specification.
p)	use of the ring expansion test for transverse yield strength determinations [see Table J.7, footnote c)];	Not applicable
q)	additional longitudinal tensile testing for deep-water pipelay [see Table J.7, footnote d)];	Not applicable
r)	deviation from hardness test [see J.8.3.2.2 c) and J.8.3.2.3];	Not Applicable
s)	deviation from location of hardness test [J.8.3.2.2.c)];	Not applicable
t)	for pipe with $t \geq 5,0$ mm (0.197 in), ultrasonic inspection for laminar imperfections within extended length of 100 mm (4.0 in) at the pipe ends (see K.2.1.3);	Applicable
u)	supplementary end NDT lamination criteria (see K.2.1.3 and K.2.1.4);	Refer K.2.1.3(Amended) and K.2.1.4 (Amended)
v)	magnetic particle inspection for laminar imperfections at each pipe end face/bevel (see K.2.1.4);	Refer K.2.1.4(Amended)
w)	ultrasonic inspection to verify conformance with the applicable requirements given in Table K.1 (see K.3.2.2);	Applicable; Refer K.3.2.2 (Amended).
x)	verification of lamination size/density (see K.3.2.2);	Applicable ; Refer K.3.2.2 (Amended).
y)	increased coverage for ultrasonic thickness measurements for SMLS pipe (see K.3.3);	Applicable; refer K.3.3 (amended).
z)	application of one or more of the supplementary non-destructive inspection operations for SMLS pipe (see K.3.4);	K.3.4(Amended) of this specification is applicable
aa)	ultrasonic inspection of SMLS pipe for the detection of transverse imperfections (see K.3.4.1);	K.3.4.1(Amended) is applicable




bb)	full-body inspection of SMLS pipe the flux leakage method for the detection of longitudinal and transverse imperfections (see K.3.4.2);	Either K.3.4.2 or K.3.4.3 is to be carried out. Refer Annex. K (Amended) of this Spec.
cc)	full-body inspection of SMLS pipe by the eddy current method (see .3.4.3);	Either K.3.4.2 or K.3.4.3 is to be carried out. Refer Annex. K (Amended) of this Spec.
dd)	full-body magnetic particle inspection of pipe (see K.3.4.4);	Not Applicable
ee)	Acceptance Level U2/U2H for non-destructive inspection of the weld seam of HFW pipe (see K.4.1);	Not applicable
ff)	alternate ISO 10893-10 HFW weld seam UT acceptance criteria [see K.4.1 b)];	Not applicable
gg)	ultrasonic inspection of the pipe body of HFW pipe for laminar imperfections (see K.4.2);	Not applicable
hh)	ultrasonic inspection of the strip/plate edges or areas adjacent to the weld for laminar imperfections (see K.4.3);	Not applicable
ii)	non-destructive inspection of the pipe body of HFW pipe using the ultrasonic or flux-leakage method (see K.4.4);	Not applicable
jj)	use of fixed-depth notches for equipment standardization [see K.5.1.1 c)];	Not applicable
kk)	radiographic inspection of the pipe ends (non-inspected pipe ends) and repaired areas [see K.5.3 a)];	Not applicable
ll)	magnetic particle inspection of the weld seam at the pipe ends of SAW pipe (see K.5.4).	Not applicable
m) m)	for grades L625QO or X90QO, and L690QO or X100QO, a lower $Rt_{0,5}/R_m$ (see Table J.2).	Not applicable

J.3 Manufacturing

J.3.1 Manufacturing procedure

SUBSTITUTE

All pipes shall be manufactured in accordance with a manufacturing procedure that has been qualified in accordance with Annex B (Amended).

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J.3.3 Pipe manufacturing

J.3.3.1 SUBSTITUTE

Steel shall be made by continuous casting only. Cold expansion shall not be permitted for seamless pipes.

J.3.3.2 Not applicable

J.3.3.3 Jointers

SUBSTITUTE

Jointers are not permitted

J.4 ACCEPTANCE CRITERIA

J.4.2 Tensile properties

J.4.2.1 (Amend)

The ratio between yield strength and ultimate tensile strength of finished pipes shall not be more than 0.90.

J.4.2.2 DELETE

J.4.3 Hardness test (Amend)

For test pieces subjected to a hardness test the hardness in the pipe body, weld and HAZ shall be ≤ 250 HV10

J.6 Tolerances for diameter, wall thickness, length and straightness

J.6.2 SUBSTITUTE

Wall thickness tolerance for all sizes shall be +17.5%, -5%. Table J.4 shall not be applicable.

J.8 Inspection

J.8.1 Specific inspection

SUBSTITUTE

The frequency of inspection shall be as given in Table 18 of API 5L 45th Edition except as specifically modified in Table J.6 of API 5L 45th Edition and Table J.6 (Amended) of this specification.

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Table J.6- Inspection Frequency (Amended)

Type of Inspection	Frequency of inspection ^e
Product Analysis	Two pipes per heat of steel shall be analyzed for all elements listed in Table J.1 of API 5L, 45 Th Edition. When more than 100 pipes are manufactured from one heat, additional product analysis for one pipe shall be carried out for every 100 pipes or less of the same heat.
Hardness testing of the pipe body of pipe with $D < 508$ mm (20.000 in)	Once per test unit of not more than 100 lengths of pipe with the same cold expansion ratio ^a
Pipe diameter and out-of-roundness	Once per test unit of not more than 20 lengths of pipe
Non-destructive inspection	In accordance with Annex K (Amended)
CTOD test for pipe of all Grades	As per Annex B (Amended) of this specification..
Mill Qualification and First Day Production Test	Manufacturing Procedure Qualification test (MPQT) / First Day Production Test As per Annex B (Amended) of this specification.

J.8.2 Samples and test pieces for mechanical and technological tests.

SUBSTITUTE

J.8.2.1.1 For tensile tests, CVN impact tests, CTOD tests the samples shall be taken and the corresponding test pieces shall be prepared, in accordance with the applicable reference standard.

J.8.2.1.2 Samples and test pieces for the various test types shall be taken from locations as shown in Figure 5 a) and as given in Table J.8 taking into account the supplementary details in 10.2.3.2 to 10.2.3.3, 10.2.4 and J.8.2.2 of this specification.

Both transverse and longitudinal tensile test shall be carried out for each lot of 100 pipes or less, belonging to the same heat and manufactured by the same process. In case of pipe diameters i.e.



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219.1 mm (8-5/8 inches) and smaller, transverse tensile test is not required.

J.8.2.2 Test Pieces for CTOD tests

SUBSTITUTE

Test pieces shall be taken from the parent metal and shall be prepared in accordance with ISO 12135, ASTM E1290, or BS 7448. The sampling procedure and position of test piece notches shall be as agreed.

J.8.3 Test method

J.8.3.1 CTOD Test

SUBSTITUTE


CTOD testing shall be carried out in accordance with the requirements of BS 7448. One set of three specimens shall be taken in transverse direction. However, in case of pipe OD \leq 219.1 mm; specimen may be taken in longitudinal direction. The test shall be carried out at 0°C. Minimum acceptable critical CTOD value shall be 0.2 mm. Average CTOD value shall be reported.

J.8.3.2 Hardness test

J.8.3.2.1 SUBSTITUTE

Vickers hardness tests as per ASTM E-92 shall be carried out on samples of pipes at locations indicated in Figure J.1 a) to establish that the hardness of the pipe material is less than 250 HV10. Testing frequency shall be same as for tensile tests as specified in 10.2.1.2 of this specification. Modalities of retest shall be in accordance with 10.2.12 of this specification.

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Annex K (AMENDED)

Non-destructive inspection for pipe ordered for sour service and / or offshore service.

K2.1.3 (AMEND)

Ultrasonic inspection with automated/semi-automated systems in accordance with ISO 10893-8 or by manual methods, as specified in Annex A of ISO 10893-8 shall be used to verify that 100mm wide zone at each pipe end is free of laminar defects.

K2.1.4 (AMEND)

The end face/bevel at each pipe end shall be magnetic particle inspected for the detection of laminar imperfections in accordance with ISO 10893-5 or ASTM E709. Laminar imperfections > 6.4 mm (0.25 in) in the circumferential direction shall be classified as defects.

Residual magnetism after MPI shall not exceed 20Gauss measured by Hall Effect Gauss Meter.

K.3.2.1 & K.3.2.2 (AMEND)

Acceptance criteria for laminar imperfections shall be as per table K.1 for service condition "Sour, if agreed". The coverage during automatic inspection shall be 100% of the pipe surface.

K.3.3 (AMEND)

The coverage during inspection shall be 100% of the pipe surface.

K.3.4 (AMEND)

K.3.4.1 (Amend): SMLS pipe shall be ultrasonically inspected for the detection of transverse imperfections in accordance with 10893-10 acceptance level U2/C, or ASTM E213.


AND

Either requirement of K3.4.2 (Amend) OR K3.4.3 (Amend)

K.3.4.2 (Amend)

SMLS pipe shall be full body inspected using the flux leakage method in accordance with ISO 10893-3 acceptance level F2, or ASTM E570 for the detection of both longitudinal and transverse imperfections.

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K3.4.3 (Amend)

SMLS pipe shall be full body inspected for the detection of imperfections using the eddy current method in accordance with ISO 10893-2 acceptance level E2H/E2, or ASTM E309.

K3.4.4 (Amend)

Full body magnetic particle inspection of SMLS pipes is NOT required.

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**ADDENDUM TO FUNCTIONAL
SPECIFICATION FOR
CARBON STEEL SEAMLESS
LINEPIPE FOR SUBMARINE
PIPELINES (NON SOUR
SERVICE)**

Spec. No.	ADDENDUM TO SPEC 2020 A, REV 5
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**ADDENDUM TO
FUNCTIONAL SPECIFICATION
FOR
CARBON STEEL SEAMLESS LINEPIPE
FOR
SUBMARINE PIPELINES
(NON SOUR SERVICE)**

Prepared By

CSR	RKP	SBD	TMK	SK	RP	NVP

Reviewed By	Approved By	Total No. of Pages	Date	Rev. No.
BPM	AKM	02	06.01.2021	0



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**ADDENDUM TO FUNCTIONAL
SPECIFICATION FOR
CARBON STEEL SEAMLESS
LINEPIPE FOR SUBMARINE
PIPELINES (NON SOUR
SERVICE)**

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Sl. No.	Clause Reference, page no.	Existing provision in spec.	Modified Clause of Spec.																										
1	8.3.2 Amend Page no. 11 of 33	Pipes furnished to this specification shall be made from basic-oxygen steel or electric arc furnace steel. Steel shall be vacuum degassed. Steel shall be made by continuous casting only. Pipes shall be seamless construction. Manufacturing procedure as mentioned in Annex B (Amended) of this specification shall be prepared and submitted to Company for approval prior to start of production.	<p><i>Pipes furnished to this specification shall be made from basic-oxygen steel or electric arc furnace steel. Steel shall be vacuum degassed. Steel shall be made by continuous casting only.</i></p> <p><i>Steel shall be treated for inclusion shape control.</i></p> <p><i>Steel shall be sampled for inclusion content as per ASTM E-45 and tested for Inclusion Content by JK-type inclusion ratings procedure using automatic image analysis in accordance with microscopic Method -A of ASTM E-45 and reported as per ASTM E-45.</i></p> <p><i>Maximum limit of inclusion severity level in steel, as per ASTM E-45 Standard, method A, shall be as under:</i></p> <table border="1"> <thead> <tr> <th rowspan="2">Inclusion Type</th> <th colspan="2">Type A (Sulphide)</th> <th colspan="2">Type B (Alumina)</th> <th colspan="2">Type C (Silicate)</th> <th colspan="2">Type D (Globular Oxide)</th> </tr> <tr> <th>Thin</th> <th>Heavy</th> <th>Thin</th> <th>Heavy</th> <th>Thin</th> <th>Heavy</th> <th>Thin</th> <th>Heavy</th> </tr> </thead> <tbody> <tr> <td>Severity Level</td> <td>1.5</td> <td>1.0</td> <td>1.5</td> <td>1.0</td> <td>1.5</td> <td>1.0</td> <td>1.5</td> <td>1.0</td> </tr> </tbody> </table> <p><i>Pipes shall be seamless construction. Manufacturing procedure as mentioned in Annex B (Amended) of this specification shall be prepared and submitted to Company for approval prior to start of production.</i></p>	Inclusion Type	Type A (Sulphide)		Type B (Alumina)		Type C (Silicate)		Type D (Globular Oxide)		Thin	Heavy	Thin	Heavy	Thin	Heavy	Thin	Heavy	Severity Level	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0
Inclusion Type	Type A (Sulphide)		Type B (Alumina)		Type C (Silicate)		Type D (Globular Oxide)																						
	Thin	Heavy	Thin	Heavy	Thin	Heavy	Thin	Heavy																					
Severity Level	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0																					



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**SPECIFICATION
FOR
CARBON STEEL SEAMLESS LINE PIPE
FOR
SUBMARINE PIPELINES
(SOUR SERVICE)**

**OIL AND NATURAL GAS CORPORATION LTD.
INDIA**

AVIN ASHOK EE(C)	R.P. PUROHIT SE(C&M)	SUDHIR KUMAR CE(C&M)	ROHIT PANT CE(M)	S.NARAIN Dy.G.M.(C&M)
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39	22.01.2015	5		
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SCOPE

This specification establishes the minimum requirements for the materials, fabrication, inspection, testing and supply of seamless carbon steel line pipe to be used for submarine pipelines and risers transporting sour hydrocarbons. Line pipes furnished in accordance with this specification shall meet the requirements of **API Specification 5L, Forty-Fifth Edition and the supplementary requirements stated herein.**

All carbon steel pipes made according to this specification shall be PSL2. All material shall be suitable for sour service and shall be in accordance with NACE MR-01-75 / ISO 15156.

This specification covers seamless line pipes of pipe diameters up to 406.4 mm OD (16 inches) and grades up to Grade L450 (X65). The Manufacturer shall have the license to use API monogram for manufacturing of pipes in accordance with the requirements of API Spec 5L, **Forty-Fifth Edition.**

“COMPANY” means “Oil and Natural Gas Corporation Ltd.”, wherever used in this specification.

NOTE

The sections, paragraphs contained herein have the same numbering as the sections and paragraphs of API 5L, in order to facilitate reference.

In this Specification, amendments to API 5L fall into the following Categories:

- ADD** Where additions have been made to the API 5L clause or paragraph.
- AMEND** Where the API 5L clause has been modified. Only the modified portions will be detailed in this Specification
- DELETE** Where the complete clause or paragraph is to be disregarded.
- SUBSTITUTE** Where the text has been substituted for the complete clause or paragraph in API 5L.

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6 PIPE GRADE, STEEL GRADE AND DELIVERY CONDITION

6.1 Pipe Grade and Steel Grade

6.1.2 ADD

Maximum pipe grade shall be up to Grade L450 (X65), where 450 represents the Yield Strength in MPa.

6.2 Delivery Condition

6.2.2 ADD

The pipe shall be “normalized” or “normalized and tempered” or “quenched and tempered”.

7 INFORMATION TO BE SUPPLIED BY THE PURCHASER

7.1 General Information

The purchase order shall include the following information:

SUBSTITUTE

Sl. no	Information to be provided as per API 5L	Information provided by the COMPANY to be incorporated in PO/PS.
a)	quantity(e.g. total mass or total length of pipe)	As per provisions of the Contract.
b)	PSL (1 or 2)	PSL2
c)	type of pipe (see Table 2)	Seamless
d)	reference to API 5L	API Spec 5L, Forty-Fifth Edition
e)	steel grade (see 6.1, H.4.1.1 or J.4.1.1, whichever is applicable)	Refer Table 5 (Substituted) of this Specification for all the standard grades up to L450 (X65)
f)	outside diameter and wall thickness (see 9.11.1.2)	As per provisions of the Purchase Specification
g)	length and type of length random or approximate) (see 9.11.1.3, 9.11.3.3 and Table 12)	Refer J.6.3 of API 5L of Forty-Fifth Edition
h)	confirmation of applicability of individual annexes.	The applicable Annexes as shown in the following supplementary Table:

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Applicable Annexures:

Annex.	Service
Annex B (Substituted) -Manufacturing procedure qualification for PSL 2 pipe	Offshore and Sour Service both.
Annex C (Amended) - Treatment of surface imperfections and defects	Offshore and Sour Service both.
Annex H (Amended) - PSL 2 Pipe ordered for Sour Service	Offshore and Sour Service both.
Annex J (Amended) - PSL 2 pipe ordered for offshore service	Offshore and Sour Service both.
Annex K (Amended) - Non-destructive inspection for pipe ordered for sour service and/or offshore service	Offshore and Sour Service both.

7.2 ADDITIONAL INFORMATION

SUBSTITUTE

a) Items that are subject to mandatory agreement, if applicable:		
Sl. no.	Information to be provided as per API 5L	Information by the COMPANY to be incorporated in PO/PS.
1	pipe designation for intermediate grades [see Table 1, footnote a)]	Not applicable
2	chemical composition for intermediate grades (see 9.2.1 and 9.2.2)	Not applicable
3	chemical composition for pipe with $t > 25,0$ mm (0.984 in) (see 9.2.3)	Refer 9.2.3 and Table 5 (substituted) along with its footnotes of this specification.
4	carbon equivalent limits for PSL 2 pipe in Grade L415N or X60N (see Table 5)	Refer 9.2.4 & 9.2.5 of this specification.
5	carbon equivalent limits for PSL 2 pipe in Grade L555Q or X80Q, L625Q or X90Q, and L690Q or X100Q (see Table 5),	Not applicable
6	carbon equivalent limits for PSL 2 SMLS pipe with $t > 20,0$ mm (0.787 in) [see Table 5, footnote a)],	Refer 9.2.4 & 9.2.5 of this specification.



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7	diameter and out-of-roundness tolerances for pipe with $D > 1422$ mm (56.000 in) (see Table 10)	Not applicable
8	diameter and out-of-roundness tolerances for the ends of SMLS pipe with $t > 25,0$ mm (0.984 in) [see Table 10, footnote b)]	Table 10 is not applicable. Refer J.6.1 of this specification.
9	standard applicable to jointer welds (see A.1.2)	Not applicable. Jointers are not permitted.

b) Items that apply as prescribed, unless otherwise agreed:		
Sl. no.	Information to be provided as per API 5L	Information by the COMPANY to be incorporated in PO/PS.
1	range of sizing ratio for cold-expanded pipe (see 8.9.2)	Not applicable.
2	equation for sizing ratio (see 8.9.3)	Not applicable.
3	chemical composition limits for PSL 1 pipe [see Table 4, footnotes c), e) and f)]	Not applicable.
4	chemical composition limits for PSL 2 pipe [see Table 5, footnotes c), e), f), g), h), i), k), and l)],	Refer Table 5 (substituted) along with its footnotes of this specification.
5	yield/tensile ratio for grades L625Q or X90Q, L690 or X100 and L830 or X120 [see Table 7, footnotes g and h or Table J.2, footnotes h and i],	Not applicable
6	estimation and reporting of Charpy shear area (see 9.8.2.3)	Not applicable
7	tolerances for random length pipe [see 9.11.3.3 a)]	Refer 9.11.3.3 of this specification. Table 12 of API 5L shall not be applicable.
8	type of thread compound (see 9.12.2.4)	Not applicable
9	type of end face (see 9.12.5.1 or 9.12.5.2)	Section 9.12.5.2 of API 5L shall be applicable.
10	International Standard applicable to Charpy testing (see 10.2.3.3, 10.2.4.3, D.2.3.4.2 and D.2.3.4.3)	Charpy V- notch testing shall be done in accordance with ASTM A370.



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11	product analysis method (see 10.2.4.1),	As per Section 10.2.4.1 of API 5L
12	alternate method for diameter measurement for $D \geq 508$ mm (20.000 in) (see 10.2.8.1),	Not Applicable
13	jointer welding type (see A.1.1),	Not applicable
14	offset of longitudinal pipe weld seams at jointer welds (see A.2.4)	Not applicable
15	repairs in cold-expanded pipe (see C.4.2)	Not applicable.
16	alternate IQI type (see E.4.3.1);	Not applicable.

c) Items that apply, if agreed:		
Sl. no.	Information to be provided as per API 5L	Information by ONGC to be incorporated in PO/PS.
1	delivery condition (see 6.2 and Table 1)	PSL 1 shall not be applicable. The pipe shall be “normalized” or “normalized and tempered” or “quenched and tempered”.
2	supply of quenched and tempered PSL 1 Grade L245 or B SMLS pipe (see Table 1),	Not applicable.
3	supply of intermediate grades [see Table 2, footnote a)]	Not applicable.
4	supply of double-seam SAWL pipe [see Table 2, footnote c)]	Not applicable.
5	alternative to specified seam heat treatment for PSL 1 pipe (see 8.8.1)	Not applicable.
6	supply of SAWH pipe with coil/plate end welds at the pipe ends (see 8.10.3),	Not applicable.
7	supply of jointers (see 8.11)	Not applicable .Jointers are not permitted
8	CVN impact test temperature lower than 0°C (32°F) (see 9.8.2.1, 9.8.2.2 and 9.8.3)	CVN impact test temperature lower than 0°C (32°F) is not applicable.
9	CVN impact test of the pipe body of PSL 2 welded pipe with $D < 508$ mm (20.000 in) for shear fracture area (see 9.8.2.2 and Table 18)	Not applicable.



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10	CVN impact test of the longitudinal seam weld of PSL 2 HFW pipe (see 9.8.3 and Table 18)	Not applicable.
11	DWT test of the pipe body of PSL 2 welded pipe with $D \geq 508$ mm (20.000 in) (see 9.9.1 and Table 18)	Not applicable.
12	DWT test temperature lower than 0°C (32°F) (see 9.9.1)	Not applicable.
13	fraction jointers comprising 2 or 3 pieces for 12 m (40 ft) nominal or 24 m (80 ft) nominal, respectively [see 9.11.3.3.c), d), and e)],	Not applicable.
14	power-tight make-up of couplings (see 9.12.2.3 and 10.2.6.1)	Not applicable.
15	special bevel configuration (see 9.12.5.3)	Not applicable.
16	removal of outside weld bead at pipe ends of SAW or COW pipe [see 9.13.2.2 e)]	Not applicable.
17	weldability data or tests for PSL 2 pipe (see 9.15)	Weldability data shall be provided. Refer Table 5(Substituted) read with 9.2.4(Substituted) /9.2.5(Substituted) of this Spec. For X65 Grade pipes, in addition to above requirements, weldability tests shall also be carried out.
18	type of inspection document for PSL 1 pipe (see 10.1.2.1)	Not applicable.
19	manufacturing information for PSL 1 pipe (see 10.1.2.2)	Not applicable.
20	alternative type of inspection document for PSL 2 pipe (see 10.1.3.1)	Refer 10.1.3.1 (Amended) of this Specification.
21	use of transverse test pieces for tensile tests of SMLS pipe, not cold-expanded [see Table 20, footnote c)]	<ul style="list-style-type: none"> For pipe OD > 219.1mm both transverse and longitudinal tensile test shall be carried out for each lot of 100 pipes or less, belonging to the same heat and manufactured by the same process.



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		<ul style="list-style-type: none"> For pipe OD \leq 219.1mm the test shall be carried out in longitudinal direction only; however longitudinal tensile testing frequency shall be as per this specification.
22	use of the ring expansion test for transverse yield strength determinations [see 10.2.3.2, Table 19 note c), and Table 20 note d)],	Not Applicable.
23	use of an alternative to macrographic examination (see 10.2.5.2)	Not applicable
24	hardness test during production of EW and LW pipe (see 10.2.5.3)	Not applicable
25	specific condition to be used for hydrostatic tests for threaded and coupled pipe (see 10.2.6.1)	Not applicable
26	alternate hydro test pressure (see Table 26),	Not Applicable. Refer 10.2.6 (Substituted) of this specification.
27	use of minimum permissible wall thickness to determine hydrostatic test pressure (see 10.2.6.7)	Applicable.
28	specific method to be used for determining pipe diameter (see 10.2.8.1)	Clause 10.2.8.1 is Applicable. Further, Caliper / properly sized go-no-go gauges shall be used to verify that diameter and out of roundness at pipe ends for each pipe is within the required tolerances J.6.1 (Substituted) of this specification.
29	use of inside diameter measurements to determine diameter and out-of-roundness for expanded pipe with $D \geq 219,1$ mm (8.625 in) and for non-expanded pipe [see 10.2.8.3 and Table 10, footnote c)].	Acceptable. Refer Cl. J.6.1 (Substituted) of this Specification) and Cl.10.2.8.3 of API 5L, 45th Edition).
30	specific method to be used for determining other pipe dimensions (see 10.2.8.7)	Proposed methods shall be subject to COMPANY approval.
31	paint-stencilled markings for couplings (see 11.1.2)	Not applicable



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32	additional markings specified by the purchaser (see 11.1.4)	For segregation of pipes additional markings/colour bands may be decided by the LSTK contractors.
33	specific surface or location for pipe markings [see 11.2.2 b) and 11.2.6 b)]	Applicable.
34	die-stamping or vibro-etching of pipe (see 11.2.3)	Only low stress die stamping shall be permitted on the pipe bevel face preferably at the opposite end to pipe stencilled markings. The low stress marking shall be the unique pipe number only. Cold die stamping is not permitted on the pipe body. In case low stress die-stamping on bevel face is technically not feasible, alternate measures shall be made for providing unique pipe number for ensuring traceability of pipes.
35	alternative location for marking the pipe (see 11.2.4)	Marking shall be carried out at the pipe mill. Further, for pipes intended for subsequent coating, LSTK contractor shall submit the procedure for marking at coating yard ensuring the traceability of pipes.
36	alternative format for pipe length marking locations (see 11.2.6a),	Not applicable.
37	colour identification for pipe (see 11.2.7)	As per 11.2.7 of API 5L.
38	multiple grade marking (see 11.4.1),	Not applicable.
39	temporary external coating (see 12.1.2)	Pipe shall be delivered with mill's standard temporary external coating throughout the external surface of pipe body to provide protection from rusting in storage and transit.
40	special coating (see 12.1.3)	Not applicable
41	lining (see 12.1.4),	Not applicable



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42	manufacturing procedure qualification for PSL 2 pipe, in which case, Annex B shall apply (see B.2),	Refer Annex B (Substituted) of this specification.
43	radiographic inspection of SAW seam or coil/plate end seam (see Table E.1)	Not applicable
44	non-destructive inspection of PSL 1 SMLS pipe (see E.3.1.2),	Not applicable
45	NDT of EW seam welds after hydrotest [see E.3.1.3 b)],	Not applicable
46	ultrasonic inspection of welded pipe for laminar imperfections at pipe ends (see E.3.2.3)	Not applicable
47	ultrasonic inspection of SMLS pipe for laminar imperfections at pipe ends (see E.3.3.2)	Refer Annex.K (Amended) of this Spec.
48	radiographic inspection in accordance with Clause E.4,	Not applicable
49	use of both holes and notches in ultrasonic reference standard (see Table E.7),	Acceptable
50	alternative re-inspection technique for COW seams (see E.5.5.5)	Not applicable
51	ultrasonic inspection for laminar imperfections in the pipe body of EW, SAW or COW pipe (see Clause E.8)	Not applicable
52	ultrasonic inspection for laminar imperfections along the coil/plate edges or the weld seam of EW, SAW or COW pipe (see Clause E.9)	Not applicable
53	supply of welded couplings on pipe with $D \geq 355,6$ mm (14.000 in) (see F.1.4)	Not applicable
54	application of Annex G to PSL 2 pipe where purchaser shall specify the toughness test temperature, the minimum energy for each test and the minimum average energy value required for the order (see G.2),	Refer 9.8.2.1 (Amended) of this specification
55	PSL 2 pipe for sour service, in which case, Annex H shall apply (see H.2),	Refer Annex H (Amended) of this specification.
56	TFL pipe, in which case, Annex I shall apply (see I.2),	Not applicable



57	pipe for offshore service, in which case, Annex J shall apply (see J.2),	Refer Annex J (Amended) of this specification
58	any other additional or more stringent requirements.	As included within this document.

8 MANUFACTURING

8.1 Process of Manufacture

ADD

This specification is applicable for seamless pipe only. Other types of pipes specified in Table 2 and pipe for intermediate grades (refer footnote a) of Table 2 are not applicable in this specification. The pipe shall be “normalized” or “normalized and tempered” or “quenched and tempered”.

8.3 Starting Material

8.3.2 AMEND

Pipes furnished to this specification shall be made from basic-oxygen steel or electric arc furnace steel. Steel shall be vacuum degassed. The material shall be treated for inclusion shape control to increase resistance to hydrogen-induced (blistering and stepwise) cracking.

Steel shall be made by continuous casting only. Pipes shall be seamless construction. Manufacturing procedure as mentioned in Annex B (Substituted) of this specification shall be prepared and submitted to Company for approval prior to start of production.

8.3.3 ADD

The steel shall be fully killed and made with fine grain structure with a grain size of ASTM 7 or finer as per ASTM E 112.

8.9 Cold Sizing and cold expansion

SUBSTITUTE

Cold expansion shall not be permitted for seamless pipes.



8.11 Jointers

AMEND

Jointers shall not be permitted.

8.12 Heat Treatment

ADD

The pipes shall be “normalized” or “ normalized and tempered” or “quenched and tempered”. Other types of heat treatment shall be agreed upon between the COMPANY and Manufacturer. Temperature of furnace shall be controlled and recorded and such records shall be accessible to Company.

9 ACCEPTANCE CRITERIA

9.2 Chemical Composition

9.2.2 & 9.2.3

AMEND

The chemical composition of each heat of steel on product analysis for all the standard grades up to L450 (X65) shall be in accordance with Table-5 (substituted) given below. Intermediate grades are not permitted.

TABLE 5 (SUBSTITUTED)

API 5L Table-5 including its notes is substituted as under:

C max. %	0.14
Mn max. %	1.55
Si max. %	0.45
P max. %	0.015
S max. %	0.003
Cr max. %	0.3
Ni max %	0.3
Al _{total} max. %	0.06
N max. %	0.01
Cu max %	0.35
Mo max. %	0.10
B max. %	0.0005
Nb max. %	0.05
Ti max. %	0.07
V max. %	0.09



NOTES :

- i) V + Nb + Ti shall not exceed 0.12%
- ii) For steel grade L245 NS & L245 NO, V + Nb shall not exceed 0.06%.
- ii) Cu + Ni shall not exceed 0.50 %.
- iii) Al/N ratio shall be minimum 2.0 (Not applicable to Titanium killed steel)
- iv) Ca concentration shall be ≤ 0.006 %.
- v) For steels with carbon content ≤ 0.12%, the PCM value based on product analysis shall not exceed 0.21, when calculated using the formula given in 9.2.4.
- vi) For steel with carbon content > 0.12%, the CE value based on product analysis shall not exceed 0.40, when calculated using the formula given in 9.2.5.
- vii) If alloying elements other than those specified in Table 5 (Substituted) are added to the steel, limits of the additional components shall be agreed with the Company.

9.2.4 SUBSTITUTE

For steels with carbon content ≤ 0.12%, the PCM value based on product analysis shall not exceed 0.21, when calculated using the formula given below:

$$CE_{Pcm} = C + \frac{Ni}{60} + \frac{Si}{30} + \frac{Mn+Cu+Cr}{20} + \frac{Mo}{15} + \frac{V}{10} + 5B$$

9.2.5 SUBSTITUTE

For steel with carbon content > 0.12%, the Carbon Equivalent (CE) based on product analysis shall be less than or equal to 0.40, when calculated using the formula given below:

$$CE_{IIW} = C + \frac{Mn}{6} + \frac{Cr+Mo+V}{5} + \frac{Ni+Cu}{15}$$

9.3 Tensile Properties

9.3.2 SUBSTITUTE

The minimum Yield strength, minimum Tensile strength and minimum % elongation of finished pipes (after all heat treatment and sizing operations) shall conform to the requirements of Table J.2 of API 5L. However, other requirements of Table J.2 are not applicable.



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The actual yield strength shall be as close as possible to the specified minimum yield strength but in no case it shall be more than 133% of the specified minimum yield strength.

The ratio between yield strength and ultimate tensile strength of finished pipes shall not be more than 0.90.

9.4 Hydrostatic Tests

9.4.1 SUBSTITUTE

The test pressure shall be held for a minimum period of 10 seconds for all sizes and grades of pipes.

9.8 CVN Impact Test for PSL 2 Pipe

9.8.1 General ADD

The Manufacturer shall perform the Charpy V-notch tests in accordance with the latest edition of ASTM A 370 using absorbed energy criteria and the requirements mentioned herein.

Flattening of specimens shall not be permitted. Specimens shall be taken in a transverse direction. When it is not feasible to secure even half-size specimens in transverse direction because of pipe size or wall thickness, test specimens shall be taken in a longitudinal direction to pipe axis. The energy requirements for longitudinal specimens shall be 1.5 times those of transverse specimens as detailed in 9.8.2.1(Amended) of this specification.

In addition, CTOD tests shall be carried out as per the requirement of the first day production tests. Refer Annex B (Substituted).

9.8.1.3 AMEND

Tests shall be conducted at 0°C (32°F)

9.8.2 Pipe Body Tests

9.8.2.1 AMEND

The minimum average absorbed energy and minimum individual absorbed energy for each pipe body test shall be 41 J and 31J respectively in the transverse direction for a set of three test pieces based upon full-size test pieces and a test temperature of 0 °C (32 °F). Test temperature lower than 0°C (32°F) is not applicable.

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9.10 Surface Conditions, Imperfections and Defects

9.10.4 Laminations

ADD

Refer Annex K (Amended).

9.10.5 Geometric Deviations

9.10.5.2 AMEND

Depth of dent shall not exceed 2 mm and length in any direction shall not exceed half of the pipe diameter, provided this dent does not give rise to a hard spot at the internal surface exceeding 250 HV10. Disposition of dents shall be carried out in accordance with API 5L para C.3.b) or C.3.c) of Annex C.

9.10.6 Hard Spots

SUBSTITUTE

Any hard spot larger than 50 mm (2.0 in) in any direction shall be classified as a defect if its hardness exceeds 250 HV10 based upon individual indentations. Sections of pipes where hardness is greater than the allowable value shall be cut off as per requirements of API 5L para C.3.b) or C.3.c) of Annex C(Amended).

9.10.7 Other Surface Imperfections

SUBSTITUTE

Other surface imperfections found by visual inspection shall be investigated, classified and treated as follows:

- Imperfections that have a depth $\leq 0.05t$ and do not encroach on the minimum permissible wall thickness shall be classified as acceptable imperfections and shall be treated in accordance with Clause C.1.
- Imperfections that have a depth $> 0.05t$ and do not encroach on the minimum permissible wall thickness shall be classified as defects and shall be dressed –out by grinding in accordance with Clause C.2 (Amended) or shall be treated in accordance with Clause C.3.
- Imperfections that encroach on the minimum permissible wall thickness shall be classified as defects and shall be treated in accordance with Clause C.3.



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9.11 Dimensions, Mass and Tolerances

9.11.3 Tolerances for Diameter, Wall Thickness, Length and Straightness

AMEND

Tables 10, 11 & 12 of API 5L shall not be applicable.

9.11.3.1 SUBSTITUTE

Tolerances for diameter and out-of-roundness shall be as per J.6.1 (Substituted) of this specification.

9.11.3.2 SUBSTITUTE

Wall thickness tolerance for all sizes shall be +17.5%,-5%.Table 11 shall not be applicable.

9.11.3.3 Refer J.6.3 of API 5L

9.11.3.4 SUBSTITUTE

The tolerances for straightness shall be as per J.6.4 of API Specification 5L

10 INSPECTION

10.1.3. Inspection documents for PSL 2 pipe

10.1.3.1 AMEND

Inspection certificate shall be issued and validated as per “3.1C” in accordance with ISO 10474 : 1991.

10.1.3.2 SUBSTITUTE

The manufacturer shall provide production report including acceptance test certificates as mentioned in 13 of API Specification 5L (as applicable for seamless pipe) in six copies, which shall include the results of all testing required as per this specification and performed on raw material and delivered pipes giving details of, but not limited to the following for each pipe length:

- COMPANY's Name and Order Number;
- SUPPLIER's Identification;

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- Name and location of facilities used for pipe manufacturing and steelmaking
- Pipe specified outside diameter, specified wall thickness, pipe grade
- Product Specification Level (PSL) and delivery condition;
- Steelmaking Process;
- Identification of Steel Type and Grade;
- Billet number, as applicable;
- Certificates of Product and Ladle Analysis;
- CE_{IIW} & Pcm for both Product and Ladle Analysis;
- Pipe Identification number, Heat number, Pipe length and Pipe weight
- Certified measurements for Dimensional measurements/ tolerance
- Mechanical Test Certificates, including hardness surveys;
- Yield/Tensile Ratio (based on R_{10.5});
- Pipe Elongation;
- Charpy Impact Results;
- Hardness Tests;
- Heat Treatment Condition
- Hydrostatic Test Certificate, or statement;
- NDT Procedures and Results;
- Surface Inspection;
- Dimensional Control Checks;
- Manufacturing Procedure Specification and Qualification Tests;
- HIC, including photomicrographs ; Four Point Bend Test , Hardness test and CTOD test records;
- Information on production & shipping
- All other reports and results as required as per this specification
- NDT Operator Qualification Certificates;
- Inspection certificate issued and validated by Authorized representative of Purchaser, as per “3.1C” of ISO 10474 : 1991, in accordance with this specification.
- COMPANY Authorized representative’s Pipe Inspection and Release Note.

Such documents shall indicate pipe identification number, the origin of each individual test specimen etc. and shall be written in English only. International system of units (SI) shall be adopted. The certificates shall be valid only when signed by Company Representative. Only those pipes which have been certified by Company Representative shall be dispatched from the pipe mill.

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Manufacturer shall also provide information on test failure / rejected heats etc.

10.2 Specific Inspection

10.2.1 Inspection frequency

10.2.1.2 AMEND

For PSL 2 pipe, the inspection frequency shall be as given in Table 18 with following amendments:

Table 18 (Amended)

Type of Inspection	Frequency of inspection
Product Analysis	Two pipes per heat of steel shall be analyzed for all elements listed in Table-5 (substituted). When more than 100 pipes are manufactured from one heat, additional product analysis for one pipe shall be carried out for every 100 pipes or less of the same heat.
Tensile testing of the pipe body	A transverse and longitudinal tensile test once per test unit of not more than 100 lengths of the pipe. In case of pipe diameters 219.1 mm (8-5/8 inches) and smaller, only longitudinal tensile test shall be carried out.
CVN impact testing of the pipe body of pipe with specified outside diameter and specified wall thickness as given in Table 22.	Once per test unit of not more than 100 lengths of the pipe.
Pipe diameter and out-of-roundness for pipe with $D \leq 168,3$ mm (6.625 in)	At pipe ends, pipe diameter and out of roundness will be checked 100% by properly sized go-no go gauge/ caliper for verification of dimensions within tolerances as per Company's spec. However measurement frequency shall be once per test unit of not more than 100 lengths of pipe.
Pipe diameter and out-of-roundness for pipe with $D > 168,3$ mm (6.625 in)	At pipe ends, pipe diameter and out of roundness will be checked 100% by properly sized go-no go gauge/ caliper for verification of dimensions within tolerances as per Company's spec. Once per test unit of not more than 20 lengths of pipe
Non-destructive inspection	In accordance with Annex K (Modified)



CTOD test for seamless pipe of all Grades	As per Annex B (substituted).

10.2.3 Samples and test pieces for mechanical tests.

SUBSTITUTE

10.2.3.1 For tensile tests, CVN impact tests and CTOD tests, the samples shall be taken and the corresponding test pieces shall be prepared, in accordance with the applicable reference standard.

Samples and test pieces for the various test types shall be taken from locations as shown in Figure 5 a) and as given in J.8 of this specification, taking into account the supplementary details in 10.2.3.2 to 10.2.3.3, 10.2.4. and J.8.2.2.

10.2.6 Hydrostatic Test

10.2.6.1 SUBSTITUTE

The test pressure for all sizes and grades of pipes shall not be less than the maximum pressure calculated based on either of the criteria mentioned at 10.2.6.5 (amended) and 10.2.6.6 (amended) .The test pressure shall be held for a minimum period of 10 seconds for all sizes and grades of pipes.

10.2.6.5 AMEND

The required test pressure shall produce a hoop stress of at least 90% of the specified minimum yield strength for all the grades and sizes.

10.2.6.6 AMEND

In case, pressure testing involves end sealing ram, the required test pressure shall produce a hoop stress of at least 95% of the specified minimum yield strength for all the grades and size.

10.2.7 Dimensional testing

10.2.8.1 ADD



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Caliper / properly sized go-no-go gauges shall be used to verify that diameter and out of roundness at pipe ends for each pipe is within the required tolerances J.6.1 (Substituted) of this **specification**.

10.2.10 SUBSTITUTE

Non-destructive inspections shall be in accordance with Annex K modified.

10.2.11 SUBSTITUTE

Reprocessing is not permitted.

10.2.12 Retesting (SUBSTITUTE)

10.2.12.1 Recheck Analysis

If any parts of the full product analysis on any one of the fully analyzed pipes fail to meet the requirements of H.4.1 of this specification, either the whole heat shall stand rejected or each individual pipe shall be fully analyzed and all pipes failing to meet the requirements of H.4.1 of this specification shall be rejected.

10.2.12.2 Tensile retest and Charpy retest

In case one of the test specimens fails to conform to the specified requirements, a retest on four additional pipes from the same lot shall be made. If all re-tests give positive result, then the pipe, which gave the negative result, shall be rejected and the balance lot shall be accepted.

In case of negative result of one of the re-test specimens, the lot may be rejected or each of the remaining lengths shall be tested individually. The pipes, which give results as per requirement of this specification, shall only be accepted.

11.2 Pipe markings

11.2.1 ADD

Marking shall be in English using SI units. Markings shall also include API monogram, purchase order number, item number, heat number, wall thickness (mm), pipe number, weight and grade. Weight marked shall be the actual weight of the pipe. All pipes shall be marked with API monogram.

11.2.7 AMEND

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Manufacturer shall apply a daub of approx. 50mm in diameter on inside surface of each length of pipe. The paint colour shall be as given in Table 27.

13 Retention of Records

ADD

In addition to the records indicated in clause 13, the manufacturer shall retain the records of all additional tests mentioned in this specification including the ultrasonic testing carried out on pipe as well as pipe ends.

ANNEXES OF API 5L (Substituted/ Amended)

Annex B - Manufacturing procedure qualification for PSL 2 pipe	Refer Annex B (Substituted) of this Specification.
Annex C - Treatment of surface imperfections and defects	Refer Annex C (Amended) of this Specification.
Annex H-PSL 2 Pipe ordered for Sour Service	Refer Annex H (Amended) of this Specification.
Annex J - PSL 2 pipe ordered for offshore service	Refer Annex J (Amended) of this Specification.
Annex K - Non-destructive inspection for pipe ordered for sour service and/or offshore service	Refer Annex K (Amended) of this Specification.

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Annex B (SUBSTITUTED)

Manufacturing Procedure Qualification for PSL 2 Pipe

Mill Qualification and First Day Production Test

Mill Qualification Tests

Prior to start of regular production, the following tests shall be carried out, in order to qualify the Mill for regular production of pipes.

Sulphide Stress Cracking Test.

Manufacturer shall carry out NACE standard tensile test (Method A) for Sulphide Stress Cracking Test in accordance with NACE standard TM-0177: 2005 using test solution A. The test shall be carried out at 60,72,80,90 and 100% SMYS stress levels to produce a curve. Minimum stress for failure after 720 hours shall be at least 72% of SMYS.

Hydrogen Induced Cracking Test.

The HIC test shall be carried out in accordance with NACE standard TM-0284, "Test Method of Pipeline Steel for Resistance to Stepwise Cracking" and as specified in H.7.3.1.1 of this specification. The acceptance criteria for crack sensitivity ratio (CSR) shall be 0.00%.

Four Point Bend Test

Manufacturer shall carry out Four Point Bend Test using NACE solution as specified in H.7.3.2.1 of this specification. The acceptance criteria shall be that the specimen shall not have any SSC cracks when examined visually as well as with wet magnetic particle method. Mills shall be considered qualified only subsequent to successful completion of all the tests as mentioned above. Requirement of these tests may be waived by mutual agreement between Company and the Manufacturer in case Manufacturer possess records of successful performance of this test on a previous supply of line pipes produced by the same method of manufacture, similar chemical composition and grade of steel and subjected to similar heat treatment provided such tests had been performed not earlier than two years prior to this enquiry. Such test certificates duly witnessed and approved by an internationally reputed independent

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Inspection Agency along with a description of the tests performed shall be furnished by the Manufacturer in case Manufacturer desires a waiver of this test.

FIRST DAY PRODUCTION TESTS

Two lengths of finished pipes (in case of only one heat on first day) or two lengths from the first two heats i.e. one pipe from each heat (in case of more than one heat on first day) of first day's production shall be selected at random for testing to verify that the manufacturing procedure results in the quality of pipes which are in complete compliance with this specification. The first day production tests shall be carried out on pipes of maximum diameter and minimum wall thickness. The pipes thus tested shall be considered to be the test pipes required per heat or per lot as required in the relevant paragraphs of this specification.

These first day's production tests shall be repeated upon any change in the manufacturing procedure or any change in the source of raw materials as deemed necessary by Company's Representative.

The Manufacturer shall submit to Company a report giving the results of all tests mentioned below. The report shall be agreed and signed by Company's Representative, prior to start of regular production.

The various tests to be conducted on each pipe shall be as follows.

a) Visual Examination

All pipes shall be examined visually for dimensional tolerances and apparent surface defects in accordance with 9,10 & 11 respectively of this specification.

b) Mechanical Properties

The mechanical properties of all pipes shall be tested and shall meet the requirements of the relevant sections of this specification.
The following tests shall be conducted:

- i) Tensile tests shall be conducted on two transverse and two longitudinal base material specimens.
- ii) At points selected by Company's Representative, three impact test specimens shall be removed from the base material. Specimens shall be tested at 0°C

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- iii) Hardness tests shall be carried out on selected pipes as per requirement of H.4.4 this specification.
- c) CTOD testing shall be carried out in accordance with the requirements of BS 7448. One set of three specimens shall be taken in transverse direction. The test shall be carried out at 0°C. Minimum acceptable critical CTOD value shall be 0.2 mm. Average CTOD value shall be reported. For Pipe size $\leq 219.1\text{mm}$, longitudinal specimens for CTOD test are acceptable.

In addition all the data on fatigue pre-cracking front are required. (Crack length at the following positions i.e. both surfaces, 25%, 50% and 75% of the specimen thickness, the minimum and the maximum angle between the crack and the plane of the notch).

d) **Corrosion Tests**

- i) HIC test shall be carried out as per H.7.3.1.1 of this specification.
- ii) Four point bend test shall be carried out as per clause H.7.3.2.1 of this specification.
- e) In addition, all the tests and inspection required to be conducted on each pipe as per this specification shall be conducted on all the pipes selected for testing during first day production test.

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Annex C (AMENDED)

C.2 Treatment of surface imperfections and defects

C.2.3 Complete removal of defects shall be verified by local visual inspection, aided, where necessary, by suitable non-destructive inspection methods. To be acceptable, the diameter, out of roundness and wall thickness in the ground area shall be in accordance with 9.11.3.1 and 9.11.3.2 of this specification; further, the sum of all ground areas for surface defect treatment shall not exceed 10% of total internal and external surface area of each pipe.

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Annex H (AMENDED)

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H.2 Additional information to be supplied by the purchaser

Information Requirement

	Information sought as per API 5L	COMPANY's Requirement
a)	steel casting method for strip or plate used for the manufacture of welded pipe (see H.3.3.2.1)	Not applicable
b)	ultrasonic inspection of strip or plate for laminar imperfections (see H.3.3.2.4)	Not applicable
c)	supply of helical-seam pipe containing coil/plate end welds (see H.3.3.2.5)	Not applicable
d)	chemical composition for intermediate grades (see H.4.1.1)	Not applicable
e)	chemical composition for pipe with $t > 25,0$ mm (0.984 in) (see H.4.1.2)	Refer Table 5 (substituted) with foot notes thereof.
f)	chemical composition limits [see Table H.1, footnotes c), d), e), f), i), j) and k)]	Refer Table 5 (substituted) with foot notes thereof.
g)	frequency of hardness testing of the longitudinal seam weld of HFW or SAW pipe (see Table H.3)	Not applicable
h)	SSC test for manufacturing procedure qualification (see Table H.3)	SSC test is required in accordance with Annex B (substituted) of this specification.
i)	alternative HIC/SWC test methods and associated acceptance criteria (see H.7.3.1.3)	Acceptance criteria shall be as per H.4.3 of this specification.
j)	photomicrographs of reportable HIC cracks (see H.7.3.1.4)	Photomicrographs of all the HIC test pieces shall be provided.
k)	alternative SSC test methods and associated acceptance criteria for manufacturing procedure qualification (see H.7.3.2.2)	SSC test is required in accordance with Annex B (substituted) of this specification. Alternate SSC



		test methods are not acceptable.
l)	deviation from hardness test (see H.7.3.3.2 and H.7.3.3.3);	Not applicable
m)	deviation from 4 hardness impressions [see H.7.3.3.2 c)];	Not applicable
n)	for pipe with $t \geq 5,0$ mm (0.197 in), ultrasonic inspection for laminar imperfections within extended length of 100 mm (4.0 in) at the pipe ends (see K.2.1.3)	Required
o)	supplementary end NDT lamination criteria (see K.2.1.3 and K.2.1.4);	Required
p)	magnetic particle inspection for laminar imperfections at each pipe end face/bevel (see K.2.1.4)	Required
q)	verification of lamination size/density (see K.3.2.2);	Required
r)	increased coverage for ultrasonic thickness measurements for SMLS pipe (see K.3.3)	Coverage shall be as per K.3.3 (amended) plus 100mm at each pipe end.
s)	application of one or more of the supplementary non-destructive inspection operations for SMLS pipe (see K.3.4)	UT in accordance with K.3.4.1 (amended).
t)	ultrasonic inspection of SMLS pipe for the detection of transverse imperfections (see K.3.4.1);	UT in accordance with K.3.4.1 (amended).
u)	full-body inspection of SMLS pipe the flux leakage method for the detection of longitudinal and transverse imperfections (see K.3.4.2);	Required
v)	full-body inspection of SMLS pipe by the eddy current method (see K.3.4.3);	Required
w)	full-body magnetic particle inspection of pipe (see K.3.4.4);	Required
x)	limitation of individual lamination size to 100 mm ² (0.16 in ²) (see Table K.1)	Required
y)	acceptance level U2/U2H for nondestructive inspection of the weld seam of HFW pipe (see K.4.1)	Not Applicable
z)	alternate ISO 10893-10 HFW weld seam UT acceptance criteria [see K.4.1 b)];	Not Applicable
aa)	ultrasonic inspection of the pipe body of	Not Applicable



	HFW pipe for laminar imperfections (see K.4.2)	
bb)	ultrasonic inspection of the strip/plate edges or areas adjacent to the weld for laminar imperfections (see K.4.3)	Not Applicable
cc)	non-destructive inspection of the pipe body of HFW pipe using the ultrasonic or flux leakage method (see K.4.4)	Not Applicable
dd)	use of fixed depth notches for equipment standardization [see K.5.1.1 c)]	Not Applicable
ee)	radiographic inspection of pipe ends (non-inspected ends) and repaired areas [see K.5.3 a)]	Not Applicable
ff)	magnetic particle inspection of the weld seam at the pipe ends of SAW pipe (see K.5.4)	Not Applicable

H.3 Manufacturing

H.3.1 Manufacturing procedure

SUBSTITUTE

All pipes shall be manufactured in accordance with a manufacturing procedure that has been qualified in accordance with Annex B (Substituted).

H.3.3 Pipe manufacturing

H.3.3.1 SUBSTITUTE

Steel shall be made by continuous casting only. Seamless pipes shall be non-expanded.

H.3.3.2 Not applicable

H.3.3.3 Jointers

SUBSTITUTE

Jointers are not permitted

H.4 ACCEPTANCE CRITERIA



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H.4.1 Chemical composition

SUBSTITUTE

Refer 9.2 [Table 5 (substituted)] with foot notes thereof.

Table H.1 SUBSTITUTE

Refer Table 5 (substituted) with foot notes thereof.

H.4.2 Tensile properties

H.4.2.1 SUBSTITUTE

The minimum Yield strength, minimum Tensile strength and minimum % elongation of finished pipes (after all heat treatment and sizing operations) shall conform to the requirements of Table J.2 of API 5L. However, other requirements of Table J.2 are not applicable.

The actual yield strength shall be as close as possible to the specified minimum yield strength but in no case it shall be more than 133% of the specified minimum yield strength.

The ratio between yield strength and ultimate tensile strength of finished pipes shall not be more than 0.90.

H.4.3 HIC/SWC TEST

AMENDED

The acceptance criteria for crack sensitivity ratio (CSR) shall be 0.00%.

H.4.4 Hardness test

SUBSTITUTE

Vickers hardness tests as per ASTM E-92 shall be carried out on samples of pipes at locations indicated in Figure H.1 a) to establish that the hardness of the pipe material is less than 250 HV10. Testing frequency shall be same as for tensile tests as specified in 10.2.1.2 of this specification. Modalities of retest shall be in accordance with 10.2.12 of this specification.

H.7 Inspection

H.7.1 Specific inspection

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SUBSTITUTE

The frequency of inspection shall be as given in 10.2.1.2, supplemented with the requirements of Table H.3 with following amendments:

Type of Inspection	Frequency of inspection
Hardness testing	Test shall be carried out for each lot of 100 pipes or less.
SSC test (mill qualification test)	Refer Annex B (Substituted)
Four Point Bend Test	One test for each of the first three heats applied; thereafter, one test for each test unit of not more than ten heats of steel.

H.7.3 Test method

H.7.3.2 SSC test

H.7.3.2.1 SUBSTITUTE


SSC tests shall be performed in accordance with NACE TM0177:2005, using test Solution A.

SSC test for mill qualification of 720 hrs test duration shall be in accordance with Annex B (Substituted).

Four Point Bend Test

Four point bend test specimen preparation and size shall be as per ASTM G 39 except that thickness shall be minimum 5 mm. One set of three specimens shall be machined from the middle of the pipe wall thickness. The specimen shall be machined transverse to pipe axis. However, if the pipe diameter and / or wall thickness is such that the transverse specimen cannot be obtained, the specimen is to be taken in longitudinal direction. The specimens shall be bent using Four point Loading jigs to reach a stress level of 72% SMYS and then immersed in NACE solution as per NACE standard TM-0177 for a period of 96 hours with the inner surface in tension. Testing sequence shall be in accordance with NACE TM 0177. The acceptance criteria shall be that the specimen shall not have any SSC cracks when examined visually as well as with wet magnetic particle technique. Four point bend test shall be carried out on one pipe from each of the first three heats and then on one pipe from every ten subsequent heats. The selection of

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the specific sample heat out of every ten heats shall be as per the decision of Company Representative.

If one specimen fails to meet the criteria, the retest and acceptance procedure shall be as mentioned in H.7.3.1.1 above.

H.7.3.2.2 DELETED

H.7.3.3 Hardness test

H.7.3.3.1 SUBSTITUTE

Hardness testing shall be performed using the Vickers test in accordance with ISO 6507-1 or ASTM E 384.

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Annex J (AMENDED)

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J.2 Additional information to be supplied by the purchaser

Information Requirement

	Information sought by API 5L	COMPANY's Requirement
a)	steel casting method for strip or plate used for the manufacture of welded pipe (see J.3.3.2.1)	Not applicable
b)	ultrasonic inspection of strip or plate for laminar imperfections (see J.3.3.2.4)	Not applicable
c)	supply of helical-seam pipe containing coil/plate end welds (see J.3.3.2.5)	Not applicable
d)	chemical composition for intermediate grades (see J.4.1.1)	Not applicable
e)	chemical composition for pipe with $t > 25,0$ mm (0.984 in) (see J.4.1.2)	Refer Table 5 (substituted) with foot notes thereof.
f)	carbon equivalent limit for steel Grade L555QO or X80QO, L625QO or X90QO, and L690QO or X100QO (see Table J.1);	Not applicable
g)	Chemical composition limits [see Table J.1, footnote d]	Refer Table 5 (substituted) with foot notes thereof.
h)	Acceptance criteria for tensile properties if determined at other than room temperature (see J.4.2.2)	Not applicable
i)	for grades equal to or greater than Grade L555 or X80, a lower maximum tensile strength limit may be agreed [see Table J.2, footnote b)];	Not applicable
j)	Minimum average length other than 12,1 m (39.7 ft) and/or different range (see J.6.3)	Refer J.6.3 of API 5L.
k)	Diameter and out-of-roundness tolerances for SMLS pipe with $t > 25.0$ mm (0.984 in) [see Table J.3, footnote b)]	Tolerances shall be as per J.6.1(Substituted).
l)	Use of inside diameter to determine diameter and out-of-roundness tolerances for non-expanded pipe with $D \geq 219,1$ mm (8.625 in) [see Table J.3, footnote c)]	Acceptable



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m)	hardness test of the pipe body seam weld and HAZ of EW and SAW pipe (see Table J.7);	Not applicable
n)	hardness testing of pipe body for SMLS pipe (see Table J.7);	Required
o)	CTOD testing (see J.8.2.2 and Table J.6);	Refer Annex B (substituted) within this specification.
p)	use of the ring expansion test for transverse yield strength determinations [see Table J.7, footnote c)];	Not applicable
q)	additional longitudinal tensile testing for deep-water pipelay [see Table J.7, footnote d)];	Not applicable
r)	deviation from hardness test [see J.8.3.2.2 c) and J.8.3.2.3];	Not Applicable
s)	deviation from location of hardness test [J.8.3.2.2.c)];	Not applicable
t)	for pipe with $t \geq 5,0$ mm (0.197 in), ultrasonic inspection for laminar imperfections within extended length of 100 mm (4.0 in) at the pipe ends (see K.2.1.3);	Applicable
u)	supplementary end NDT lamination criteria (see K.2.1.3 and K.2.1.4);	Refer K.2.1.3(Amended) and K.2.1.4 (Amended)
v)	magnetic particle inspection for laminar imperfections at each pipe end face/bevel (see K.2.1.4);	Refer K.2.1.4(Amended)
w)	ultrasonic inspection to verify conformance with the applicable requirements given in Table K.1 (see K.3.2.2);	Applicable; Refer K.3.2.2 (Amended).
x)	verification of lamination size/density (see K.3.2.2);	Applicable ; Refer K.3.2.2 (Amended).
y)	increased coverage for ultrasonic thickness measurements for SMLS pipe (see K.3.3);	Applicable; refer K.3.3 (amended).
z)	application of one or more of the supplementary non-destructive inspection operations for SMLS pipe (see K.3.4);	K.3.4.1(Amended) is applicable
aa)	ultrasonic inspection of SMLS pipe for the detection of transverse imperfections (see K.3.4.1);	K.3.4.1(Amended) is applicable




bb)	full-body inspection of SMLS pipe the flux leakage method for the detection of longitudinal and transverse imperfections (see K.3.4.2);	Required
cc)	full-body inspection of SMLS pipe by the eddy current method (see .3.4.3);	Required
dd)	full-body magnetic particle inspection of pipe (see K.3.4.4);	Required
ee)	Acceptance Level U2/U2H for non-destructive inspection of the weld seam of HFW pipe (see K.4.1);	Not applicable
ff)	alternate ISO 10893-10 HFW weld seam UT acceptance criteria [see K.4.1 b)];	Not applicable
gg)	ultrasonic inspection of the pipe body of HFW pipe for laminar imperfections (see K.4.2);	Not applicable
hh)	ultrasonic inspection of the strip/plate edges or areas adjacent to the weld for laminar imperfections (see K.4.3);	Not applicable
ii)	non-destructive inspection of the pipe body of HFW pipe using the ultrasonic or flux-leakage method (see K.4.4);	Not applicable
jj)	use of fixed-depth notches for equipment standardization [see K.5.1.1 c)];	Not applicable
kk)	radiographic inspection of the pipe ends (non-inspected pipe ends) and repaired areas [see K.5.3 a)];	Not applicable
ll)	magnetic particle inspection of the weld seam at the pipe ends of SAW pipe (see K.5.4).	Not applicable
m m)	for grades L625QO or X90QO, and L690QO or X100QO, a lower $Rt_{0,5}/R_m$ (see Table J.2).	Not applicable

J.3 Manufacturing

J.3.1 Manufacturing procedure

SUBSTITUTE

All pipes shall be manufactured in accordance with a manufacturing procedure that has been qualified in accordance with Annex B (Substituted).

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J.3.3 Pipe manufacturing

J.3.3.1 SUBSTITUTE

Steel shall be made by continuous casting only. Cold expansion shall not be permitted for seamless pipes.

J.3.3.2 Not applicable

J.3.3.3 Jointers

SUBSTITUTE

Jointers are not permitted

J.4 ACCEPTANCE CRITERIA

J.4.1 Chemical composition

SUBSTITUTE

Refer 9.2 [Table 5 (substituted)] with foot notes thereof.

Table J.1 SUBSTITUTE

Refer Table 5 (substituted) with foot notes thereof.

J.4.2 Tensile properties

J.4.2.1 SUBSTITUTE

The minimum Yield strength, minimum Tensile strength and Elongation of finished pipes (after all heat treatment and sizing operations) shall conform to the requirements of Table-J.2 of API 5L. However, other requirements of Table-J.2 are not applicable.

The actual yield strength shall be as close as possible to the specified minimum yield strength but in no case it shall be more than 133% of the specified minimum yield strength.

The ratio between yield strength and ultimate tensile strength of finished pipes shall not be more than 0.90.

J.4.2.2 DELETE

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J.4.3 Hardness test

SUBSTITUTE

Vickers hardness tests as per ASTM E-92 shall be carried out on samples of pipes at locations indicated in Figure H.1 a) to establish that the hardness of the pipe material is less than 250 HV10. Testing frequency shall be same as for tensile tests as specified in 10.2.1.2 of this specification. Modalities of retest shall be in accordance with 10.2.12

J.6 Tolerances for diameter, wall thickness, length and straightness

J.6.1 SUBSTITUTE

Tolerances for diameter shall be as per Table J.3 of API Specification 5L.

Tolerances on diameter for $D \geq 219.1\text{mm}$ based on measured inside diameter finalized by the manufacturer shall conform to Table J.3 of API 5L 45th Edition.

Tolerances for out-of-roundness shall be as under:

Pipe size	Tolerances for out-of-roundness	
	Pipe except the end	Pipe end
< 60.3 mm OD to 114.3 mm OD	as indicated in Table J.3.	as indicated in Table J.3 of API 5L 45th Edition
≥ 168.3 mm OD to 273.1 mm OD	2 mm	0.01D subject to 2 mm max.
> 273.1 mm OD	3.2 mm	0.01D subject to 3.2 mm max.

J.6.2 SUBSTITUTE

Wall thickness tolerance for all sizes shall be +17.5%,-5%.Table J.4 shall not be applicable.

J.6.3 ADD

In case of LSTK contract, length of pipes shall be mutually agreed between Line pipe manufacturer and Installation Contractor.

J.7 Not applicable



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J.8 Inspection

J.8.1 Specific inspection

SUBSTITUTE

The frequency of inspection shall be as given in 10.2.1.2 of this specification.

J.8.2 Samples and test pieces for mechanical and technological tests.

SUBSTITUTE

J.8.2.1.1 For tensile tests, CVN impact tests, CTOD tests the samples shall be taken and the corresponding test pieces shall be prepared, in accordance with the applicable reference standard.

J.8.2.1.2 Samples and test pieces for the various test types shall be taken from locations as shown in Figure 5 a) and as given in Table J.8 taking into account the supplementary details in 10.2.3.2 to 10.2.3.3, 10.2.4 and J.8.2.2 of this specification.

Both transverse and longitudinal tensile test shall be carried out for each lot of 100 pipes or less, belonging to the same heat and manufactured by the same process. In case of pipe diameters i.e. 219.1 mm (8-5/8 inches) and smaller, transverse tensile test is not required.

J.8.2.2 Test Pieces for CTOD tests

SUBSTITUTE

Test pieces shall be taken from the parent metal and shall be prepared in accordance with ISO 12135, ASTM E1290, or BS 7448. The sampling procedure and position of test piece notches shall be as agreed.

J.8.2.3 Samples for hardness tests

AMEND

Refer H.7.2.8.4 of this specification.

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J.8.3 Test method

J.8.3.1 CTOD Test

SUBSTITUTE

CTOD testing shall be carried out in accordance with the requirements of BS 7448. One set of three specimens shall be taken in transverse direction. However, in case of pipe OD \leq 219.1 mm; specimen may be taken in longitudinal direction. The test shall be carried out at 0°C. Minimum acceptable critical CTOD value shall be 0.2 mm. Average CTOD value shall be reported.


J.8.3.2 Hardness test

J.8.3.2.1 SUBSTITUTE

Vickers hardness tests as per ASTM E-92 shall be carried out on samples of pipes at locations indicated in Figure H.1 a) to establish that the hardness of the pipe material is less than 250 HV10. Testing frequency shall be same as for tensile tests as specified in 10.2.1.2 of this specification. Modalities of retest shall be in accordance with 10.2.12 of this specification.

J.8.3.2.2 Refer H.7.3.3.3

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Annex K (AMENDED)

Non-destructive inspection for pipe ordered for sour service and / or offshore service.

K2.1.3 (AMEND)

Ultrasonic inspection with automated/semi-automated systems in accordance with ISO 10893-8 or by manual methods, as specified in Annex A of ISO 10893-8 shall be used to verify that 100mm wide zone at each pipe end is free of laminar defects.

K2.1.4 (AMEND)

Bevel ends of each pipe shall be inspected by Magnetic Particle technique checking laminar imperfections or inclusions as per ISO 10893-5 or ASTM E709. Residual magnetism after MPI shall not exceed 20 Gauss measured by Hall Effect Gauss Meter. Laminar imperfections > 6.4 mm (0.25 in) in the circumferential direction shall be classified as defects.

K.3.2.1 & K.3.2.2 (AMEND)

Acceptance criteria for laminar imperfections shall be as per table K.1 for service condition "Sour, if agreed". The coverage during automatic inspection shall be 100% of the pipe surface.


K.3.3 (AMEND)

The coverage during inspection shall be 100% of the pipe surface.

K.3.4.1 (AMEND)

The pipe shall be ultrasonically inspected for the detection of transverse imperfections in accordance with ISO 10893-10 acceptance level U2/C ,ASTM E213.


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	Offshore Design Section Engineering Services ISO – 9001:2008	Addendum to Functional Specification for Carbon Steel Seamless Line Pipe for Submarine Pipelines (Sour Service)	Spec. No. 2020B
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**Addendum to
Specification for
Carbon Steel Seamless Line Pipe
For
Submarine Pipelines
(Sour Service)**

**OIL AND NATURAL Gas CORPORATION LTD.
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	Offshore Design Section Engineering Services ISO – 9001:2008	Addendum to Functional Specification for Carbon Steel Seamless Line Pipe for Submarine Pipelines (Sour Service)	Spec. No.	2020B
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			Discipline	Pipeline
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AMENDMENTS / ADDITIONS

Specification No. :2020B Rev.5

Title : Functional Specification for Carbon Steel Seamless Line Pipe for Submarine Pipelines (Sour Service)

Following Amendment s/ additional requirements shall be applicable:

Annexure K (Amend)

K.3.4.1 (Amend) : SMLS pipe shall be ultrasonically inspected for the detection of transverse imperfections in accordance with 10893-10 acceptance level U2/C, or ASTM E213.

AND

Either requirement of K3.4.2 (Amend) OR K3.4.3(Amend)

K.3.4.2 (Amend) : SMLS pipe shall be full body inspected using the flux leakage method in accordance with ISO 10893-3 acceptance level F2, or ASTM E570 for the detection of both longitudinal and transverse imperfections.

K3.4.3(Amend) : SMLS pipe shall be full body inspected for the detection of imperfections using the eddy current method in accordance with ISO 10893-2 acceptance level E2H/E2 , or ASTM E309.

K3.4.4(Amend) : Full body magnetic particle inspection of SMLS pipes is NOT required.

Refer Annex H2. of 2020B Rev.5 Requirements of Supplementary Non-destruction Inspection (given at Sl. No. s, t, u, v&w) are amended as Annex.K (Amend) of this Addendum.

Refer Annex J2 of 2020B Rev.5. Requirements of Supplementary Non-destruction Inspection (given at Sl. No. z, aa, bb,cc &dd) are amended as Annex.K (Amend) of this Addendum.



Offshore Design Section
Engineering Services
ISO – 9001:2000

**ADDENDUM-2 TO FUNCTIONAL
SPECIFICATION FOR
CARBON STEEL SEAMLESS
LINEPIPE FOR SUBMARINE
PIPELINES (SOUR SERVICE)**

Spec. No.	ADDENDUM TO SPEC 2020 B, REV 5
Rev. No.	0
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ADDENDUM-2 TO FUNCTIONAL SPECIFICATION FOR CARBON STEEL SEAMLESS LINEPIPE FOR SUBMARINE PIPELINES (SOUR SERVICE)

Prepared By

CSR	RKP	SBD	TMK	SK	RP	NVP

Reviewed By	Approved By	Total No. of Pages	Date	Rev. No.
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**Offshore Design Section
Engineering Services
ISO – 9001:2000**

**ADDENDUM-2 TO FUNCTIONAL
SPECIFICATION FOR
CARBON STEEL SEAMLESS
LINEPIPE FOR SUBMARINE
PIPELINES (SOUR SERVICE)**

Spec. No.	ADDENDUM TO SPEC 2020 B, REV 5
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Sl. No.	Clause Reference, page no.	Existing provision in spec.	Modified Clause in spec.																										
1	8.3.2 Amend Page no. 11 of 39	<p>Pipes furnished to this specification shall be made from basic-oxygen steel or electric arc furnace steel. Steel shall be vacuum degassed. The material shall be treated for inclusion shape control to increase resistance to hydrogen-induced (blistering and stepwise) cracking.</p> <p>Steel shall be made by continuous casting only. Pipes shall be seamless construction. Manufacturing procedure as mentioned in Annex B (Substituted) of this specification shall be prepared and submitted to Company for approval prior to start of production.</p>	<p>To be read as :</p> <p><i>Pipes furnished to this specification shall be made from basic-oxygen steel or electric arc furnace steel. Steel shall be vacuum degassed. The material shall be treated for inclusion shape control to increase resistance to hydrogen-induced (blistering and stepwise) cracking.</i></p> <p><i>Steel shall be made by continuous casting only.</i></p> <p><i>Steel shall be sampled for inclusion content as per ASTM E-45 and tested for Inclusion Content by JK-type inclusion ratings procedure using automatic image analysis in accordance with microscopic Method -A of ASTM E-45 and reported as per ASTM E-45.</i></p> <p><i>Maximum limit of inclusion severity level in steel, as per ASTM E-45 Standard, method A, shall be as under:</i></p> <table border="1"> <thead> <tr> <th rowspan="2">Inclusion Type</th> <th colspan="2">Type A (Sulphide)</th> <th colspan="2">Type B (Alumina)</th> <th colspan="2">Type C (Silicate)</th> <th colspan="2">Type D (Globular Oxide)</th> </tr> <tr> <th>Thin</th> <th>Heavy</th> <th>Thin</th> <th>Heavy</th> <th>Thin</th> <th>Heavy</th> <th>Thin</th> <th>Heavy</th> </tr> </thead> <tbody> <tr> <td>Severity Level</td> <td>1.5</td> <td>1.0</td> <td>1.5</td> <td>1.0</td> <td>1.5</td> <td>1.0</td> <td>1.5</td> <td>1.0</td> </tr> </tbody> </table> <p><i>Pipes shall be seamless construction.</i></p> <p><i>Manufacturing procedure as mentioned in Annex B (Substituted) of this specification shall be prepared and submitted to Company for approval prior to start of production.</i></p>	Inclusion Type	Type A (Sulphide)		Type B (Alumina)		Type C (Silicate)		Type D (Globular Oxide)		Thin	Heavy	Thin	Heavy	Thin	Heavy	Thin	Heavy	Severity Level	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0
Inclusion Type	Type A (Sulphide)		Type B (Alumina)		Type C (Silicate)		Type D (Globular Oxide)																						
	Thin	Heavy	Thin	Heavy	Thin	Heavy	Thin	Heavy																					
Severity Level	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0																					

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FUNCTIONAL SPECIFICATION

FOR

HYDROSTATIC TESTING OF SUBMARINE PIPELINES

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11.0	TEST REPORTS
12.0	PRECAUTIONS DURING THE TEST

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1.0 SCOPE

- 1.1 This specification covers the minimum requirements for flushing, cleaning, gauging, hydrostatic testing and preservation of submarine pipelines transporting hydrocarbons in liquid or gaseous phase and injection water.
- 1.2 This specification shall be read in conjunction with the requirements of all specifications and documents included in the Contract.

2.0 REFERENCE CODES, STANDARDS AND SPECIFICATIONS

- 2.1 Reference has been made in this specification to the latest edition of the following codes, standards and specifications:


- | | | | |
|----|---------------------|---|----------------------------------------------------------|
| a. | ANSI B 31.8 | : | Gas Transmission and Distribution Piping Systems |
| b. | ANSI B 31.4 | : | Pipeline Transportation Systems for Liquids and Slurries |
| c. | API RP 1110 | : | Pressure Testing of Liquid Petroleum Pipelines |
| d. | ASME Sec VIII Div.2 | : | Rules for construction of pressure vessels |
| e. | DNV 1981 | : | Rules for Submarine Pipeline systems |

- 2.2 In case of conflict between the requirements of this specification and that of the above referred codes, standards and specifications, the requirement of this specification shall govern.

3.0 GENERAL

- 3.1 Hydrostatic testing of submarine pipeline system shall commence only after completion of all installation works of pipelines, risers, crossings, burial/back-filling operations and remedial works, if any.
- 3.2 Hydrostatic testing shall be carried out on the entire pipeline i.e. from pig launcher to pig receiver. For incomplete pipelines, the test shall be done from stub end to the pig barrel on the originating platform.
Where Pig launcher/receiver are not required or specified, the Contractor shall provide and install temporary launcher/receiver at the specified battery limits of the pipeline test section during the testing operations.
- 3.3 Laterals and Pipe Line End Manifolds (PLEMS) which are already pre- tested at the fabrication yard, shall also be tested again along with the submarine pipeline.
- 3.4 Contractor shall perform all works required for hydrostatic testing, only after obtaining prior written approval from Company Representative.

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- 3.5 Contractor shall furnish all the required materials, supervision, labour, equipment, including pigs, testing, inspection, monitoring services necessary for the successful flushing, cleaning, gauging, filling, batching, logging, pressurization and hydrostatic testing of the pipeline system as specified herein in a manner satisfactory to the Company Representative.
- 3.6 Supervisors and personnel deployed by the Contractor for the hydrostatic operations shall have adequate experience of such operations.
- 3.7 In case of submarine pipelines from platform to shore, Contractor shall carry out filling operations from the offshore platform end.
- 3.8 In case any in-line full bore ball/full port check valves are installed in the pipeline, Contractor shall deploy divers and ensure that the ball valves are in open position and the flapper of the check valve is locked in open position prior to carrying out any pigging operations. Valves located on the lateral connections and PLEMS shall be kept in partially open position.
- 3.9 Subsequent to completing hydrostatic testing operations and acceptance by Company, Contractor shall open the flapper lock of the check valves and leave the check valve disc in normal operating position. In addition, the valves installed in lateral connections and PLEMS shall be kept in closed/open position as per the instructions of the Company Representative.

4.0 EQUIPMENT AND INSTRUMENTATION

The Contractor shall furnish all necessary materials, equipment, instruments and consumables for performing the work. Materials and equipment shall be in good working conditions and include, but not be limited to the following:

a) Pigs for filling, cleaning and gauging


- Bi directional cleaning pigs with spring loaded steel wire brushes to cover the entire internal surface of the pipe, along with magnetic flange attachment to pick-up ferrous debris in the line. Pigs shall be mounted with pinger transmitters to enable tracking.
- Bi-directional batching/displacement pigs with at least four discs.
- Bi-directional gauging pig with 12.7 mm thick aluminium gauging plate and polyurethane discs. The aluminium plate shall have radial incision at 45° intervals. Gauging plate diameter shall be determined as per the following formula:

$$d = D - 2t - (0.01 D + 0.4t + 5I)$$

Where;

- d = Gauging plate diameter
- D = Nominal outer diameter of pipe
- t = Nominal wall thickness of pipe

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I = 0.2 t, maximum 5 mm

- Caliper pig capable of recording changes in internal pipe geometry, locating all girth welds and locating suspected faults, dents, wrinkles, buckles, out of roundness and flat spots. Caliper pig shall be capable of completing its survey in a single pass.

The Contractor shall provide sufficient number of pigs, including spares. Unless otherwise specified, all pigs shall be capable of negotiating a minimum bend radius of 5 times pipe diameter. In case any full port check valves are installed in the pipeline, Contractor shall ensure that the distance between the driving cups of the pigs are of sufficient length to prevent bypassing while passing through the full port check valve.

- b) Flooding/ Fill pumps: Filling pumps shall be capable of filling the pipeline at the volume rate required to maintain pig speeds as specified in section here in after. Suction piping and pump construction shall be such that the entry of air is prevented. Pump shall have minimum differential head 20% greater than the maximum head required and shall have a minimum flow rate of 400 m³/hr. If a single pump is used, a standby unit must be available.
- c) Pressure pump: Variable speed positive displacement pumps equipped with a stroke counter to pressurize the line with a known stroke and capable of exceeding the maximum test pressure by at least 20 bar.
- d) Two positive displacement meters to measure the volume of water used for filling the line. These meters shall be provided with a calibration certificate not older than one month.
- e) Portable tanks of sufficient size to provide a continuous supply of water to the pump during pressurizing.
- f) Bourdon pressure gauges of suitable pressure range and accuracy.
- g) Dead weight testers with an accuracy of 0.02 bar measuring in increments of 0.05 bar provided with a calibration certificate not older than one month.
- h) Two 48 hours recording pressure gauges having an accuracy of +/- 1% of the full scale value, with charts and ink gauges tested with dead weight tester prior to use. These shall be installed at the test heads.
- i) Two temperature recorders for the continuous recording of water temperature with a sensitivity of 0.1°C and a range of 0- 40°C.
- j) Thermocouples having an accuracy of + 0.2°C for measuring the temperature of the pipe wall. Thermocouples shall be attached on the external surface of the pipe after removal of external coating and shall be adequately protected.

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- k) Injection facilities to inject hydrotest chemicals into the test water in the required dosages.
- l) Voice radio communication set-up to monitor and control the operations continuously between the beginning and the end of the test section.
- m) Temporary scraper traps/test heads along with piping and valve arrangements to allow launching and receiving of pigs.

The test heads shall be designed in conformity with ASME specification Section VIII, Division 2 with particular reference to Appendices 4 and 5. The test heads shall have a nozzle on the top where a pressure relief valve and pressure gauge can be installed.


- n) Pinger transmitter for mounting on pigs along with pig detecting/tracking equipment.
- o) Nontoxic Fluorescent dye (Rhodamine B or equivalent) along with light source, detector electronics and power supplies. Fluorescent dye is required for locating leaks in the pipeline. The type and concentration of the dye shall be such that it is visible to divers during close visual inspection.

5.0 HYDROSTATIC TEST PROCEDURE MANUAL

Contractor shall prepare and submit for Company approval, copy of hydrostatic test procedure manual complying the requirements of this specification. This procedure manual shall be submitted at least eight weeks prior to start of hydrotesting operations. The procedure manual shall include the details of all materials, equipment and procedures etc. as given below:

- a) A diagram indicating all equipment, instruments, fitting, vents, valves, thermocouples, temporary connections, relevant elevations and ratings. The diagram shall also indicate injection locations and test water intake and discharge lines.
- b) Laboratory test results of the test water, estimated amount of test water including required dosages of oxygen scavenger, bactericide corrosion inhibitor and fluorescent dye; procedure for chemicals and dye injection and control of dosages.
- c) Filling and flushing procedures, including a complete description of all proposed equipment and instruments (including spares) their location and set-up.
- d) Direction of pigging for the filling, cleaning and gauging operation.
- e) The type and sequence of pigs and the pig tracking system for cleaning and removal of air pockets. Pig inspection procedures including procedure to be followed in case the gauging pig indicates damage.
- f) Procedure for thermal stabilization after filling.
- g) Pressure testing procedure including a complete description of all proposed equipment

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and instruments (including spares), their location and set-up and proposed system for observation and recording of data during the pressure test.

- h) Theoretical calculations for temperature corrections and entrapped air volume calculations.
- i) Procedure for hydrotest acceptance
- j) Procedure for detection/location and rectification of leaks.
- k) Formats for logging/recording the test data
- l) Safety precautions proposed during the test.

Upon approval by Company any change in the procedure shall be notified to Company whose approval in writing of all such changes shall be obtained prior to start of the hydrostatic testing operations.


6.0 PROCEDURES

- 6.1 All necessary equipment shall be set up and checked by the Contractor to ensure conformance with the Company approved hydrotest procedure so that the pipeline is ready for hydrotesting operations.
- 6.2 Contractor shall be fully responsible for checking dimensions of the proposed pigs against pig-trap dimensions to ensure that the pig receipt/retrieval sequence in the proposed procedure can be achieved. All pigs shall be inspected by the Company prior to their insertion into the launcher.
- 6.3 Water used for cleaning and hydrotesting of the pipeline shall be clean and free from impurities. Contractor shall conduct tests on samples of water prior to its use. The analysis shall determine oxygen concentration (dissolved oxygen), suspended, solids presence of microorganisms, biological growth etc.
- 6.4 The Contractor shall then start cleaning, filling and gauging operations. While filling the pipeline with water, Contractor shall provide a 0.150 mm screen filter, to prevent pumping mud and other foreign materials into the pipeline.

Air vents at test heads shall be kept closed at the start of filling to allow pressure to build up in front of the pig train. First filtered sea-water of volume equivalent to one percent of the length of the pipeline test section or 250 m whichever is more shall be introduced ahead of the first pig to ensure wetting, washing and rinsing away of foreign materials. This shall be followed by launching of first pig train consisting of four pigs in following sequence:

- a) Cleaning pig
- b) Batching/displacement pig
- c) Cleaning pig
- d) Gauging pig

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These pigs shall be separated by volumes of filtered sea-water equivalent to one percent of the length of the pipeline test section or 250 m whichever is more. The by-pass of the leading cleaning pig in the first pig-train shall be kept open to make up for water ahead of the pig running down to low-spots. The first pig-train shall be propelled forward by introducing filtered sea-water into the pipeline behind it and thereby filling the entire pipeline with filtered sea-water.


Pinger transmitter shall be installed on the leading and/or trailing pigs of each pig train. In addition, tracking equipment for these pinger transmitters shall also be provided by the Contractor.

- 6.5 The pig-train speed shall be maintained between 0.5 m/s and 1 m/s by suitable adjustment of vent valve provided on the receiving test head in order to minimize the amount of air by-passing the filling pig.
- 6.6 The progress of the pig-train shall be monitored continuously and the locations of the pigs in the first pig-train reported to the Company at regular intervals as and when requested to do so by the Company Representative.
- 6.7 Regular samples of sea-water leaving the pipeline system after receipt of pigs shall be analysed. The solid contents shall be measured and the results recorded. Cleaning is considered to be completed when the quantity of debris in the samples directly ahead of the last pig is less than one percent by volume.

In case higher solid contents are noted, additional pig trains consisting of pigs as mentioned in clause 6.4 shall be run until the pipeline is cleaned of debris. However the gauging pig mentioned in clause 6.4 shall be replaced with batching/displacement pig, in case of successful gauging pig run. In case the gauging pig run made previously was not acceptable to the Company, the last pig in this pig-train shall be a gauging pig equipped with a pinger transmitter. Subsequent pig runs shall have the same requirements as those established for the first pig-train run.

- 6.8 Subsequent to arrival of the pigs at the receiver, the pigs shall be removed by the Contractor in the presence of the Company Representative. Recovered pigs shall be carefully examined and details recorded. The gauging pig shall be carefully examined for any damage. A deformed, bent or severely nicked plate or damaged pig shall be evidence of gauging pig run failure and the same is not acceptable to Company. In such cases, the Contractor shall repair and rectify the line and repeat the gauging pig-run to the satisfaction and approval of Company Representative. Any obstructions and/or faults such as dents, buckles, flat spots etc. analysed and noted during the gauging pig-run shall be located and any necessary repair work shall be performed to rectify the same to the satisfaction of the Company.
- 6.9 After the pipeline is cleaned of debris and gauging pig has been run, a Caliper pig run shall be made. A Caliper pig shall be launched using treated water as mentioned in clause 6.11, in order to check possible out-of-roundness, locate suspected faults like dents, wrinkles and flat spots along the pipeline. The pig train in this run shall consist of one batching/displacement pig and one Caliper pig.

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The results of the Caliper pig run and interpretation of the data gathered by it shall be analysed by the Contractor to evaluate the internal status of the pipeline and shall be made available to the Company as soon as possible after that particular run has been completed.

Contractor shall furnish a detailed report to the Company giving results with interpretation/analysis of Caliper pig run to Company for information.

6.10 The quantities of sea-water, oxygen scavenger, bactericide, corrosion inhibitor and dye pumped into the pipeline section shall be measured and recorded at intervals decided in consultation with the Company Representative.

6.11 Treatment of Hydrotest Water

The hydrotest water shall be treated with suggested dosages of hydrotest chemicals as mentioned below:

- Oxygen scavenger (Sodium/ammonium bisulphite) @ 100 mg/l on 100% basis
- Bactericide (Quaternary ammonium compound Quat 2c or equivalent) @ 100 mg/l as such
- Corrosion inhibitor (Polyphosphate) @ min. 15 mg/l as PO₄

However the actual dosages of these chemicals shall be decided by the Contractor taking into account the quality of the test water indicated in clause 6.3 above the Manufacturer's recommendations. Company approval shall be obtained regarding the dosages prior to its injection into the test water. In addition, test water shall be charged with fluorescent dye "Rhodamine B or equivalent" to a concentration of 15 – 20 mg/l, before being put into the pipeline system. The use of other chemicals and dyes shall be subject to Company approval.

6.12 If any of the pigs are blocked at any location in the pipeline, the Contractor shall locate the position of the blocked pig and ascertain the cause of the blockage and report the results of his investigations to the Company. The Contractor shall then carry out remedial and/or repair work acceptable to Company, required to restore the pipeline system to a working condition satisfactory to the Company Representative. On completion of the repair work, the Contractor shall start-up the filling, cleaning and gauging of the pipeline system again with treated test water as described earlier.


6.13 Hydrotesting shall commence only after gauging pig run and Caliper pig run are satisfactory and accepted by Company Representative.

7.0 PRESSURE TEST

7.1 After the pipeline system has been cleaned, gauged and filled with treated sea-water and approval of the Company to commence hydrostatic pressure test has been obtained, the pressurization of the pipeline system may be commenced by the Contractor.

7.2 The Contractor shall observe the temperature of the pipeline till it equalizes to the surrounding sea water (thermal stabilization) regularly at every 4 hours intervals. For this

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purpose, thermocouples shall be installed on the pipeline at suitable locations.

7.3 Test Pressure

The minimum hydrostatic test pressure at any section of the pipeline system shall be 1.25 times the pipeline design pressure, unless a higher test pressure is specified elsewhere in the Contract.

7.4 Pressurization

The pressurization of the pipeline shall be commenced after thermal stabilization, at a constant rate not exceeding 2 bar/minute. One pressure recording gauge shall be installed in parallel with the dead weight tester that shall permit reading of at least 0.05 bar. Volume of Water added to the pipeline section shall be measured through a positive displacement meter and shall be recorded periodically throughout the pressurization as follows:

- Each 5 bar increment up to the 80% of test pressure as recorded by the dead weight tester.
- Each 2 bar increment between 80% to 90% of test pressure as recorded by the dead weight tester.
- Each 0.2 bar increments between 90% and full test pressure as recorded by the dead weight tester.

The pressurizing shall be cycled according to the following sequence:


- a. Pressurize to 50% of test pressure, hold pressure for 1 hour.
- b. Drop pressure to static head of test section at test head.
- c. Pressurize to test pressure.

In case, during the pressure hold period indicated above, a decrease in pressure is observed, the above operations shall not be repeated more than twice, after which the test section shall not be considered capable of test, until the Contractor has isolated and eliminated the cause for the lack of water tightness.

7.5 Air entrapment test

During the pressurization to full test pressure, one test shall be carried out for the calculation of air volume in the pipeline under test when the pressure is at 50% of the test pressure. Contractor shall take pressure and added volume readings and plot the same, on a suitable graph having a plot of theoretical added volume vs pressure [$p = f(v)$] plot. The air content in the test section shall then be established. In case the air content exceeds 0.2% of the volume of the test section, the further pressurization shall be stopped. The pressure shall be released and the air in the test section vented off. If after successive trails of venting, the air content still remains at more than 0.2% of the volume of the test section, the Contractor shall pass additional batching/displacement pigs and refill the entire pipeline with treated sea-water as mentioned above to remove the air pockets. The procedure for establishing the air content

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shall be repeated till the air content in the test section does not exceed the allowable limit of 0.2% of the volume of the test section. In case the air content is within 0.2% of the test section, then the pressurizing can continue.

7.6 Testing

After air entrapment test has given acceptable results and the test section has been pressurized to the specified test pressure, the test pressure shall be held for a minimum period of 24 continuous hours, unless a higher holding period is specified elsewhere in the Contract. The injection pump shall be disconnected and all connections at the test heads shall be checked for leakage. The pressure recorders shall then be started with the charts in a real time orientation for continuous recording throughout the holding period.

During the pressure holding period the following measurements shall be recorded/reported:

- Every one hour pressure measurements from dead weight testers.
- Every two hours the ambient temperature and the pipe temperature at the thermocouples.

All data shall be recorded on appropriate forms attached to the hydrostatic test procedure manual.

8.0 ACCEPTANCE

8.1 The hydrostatic test shall be considered positive if test pressure has kept a constant value throughout the specified hold period, except for change due to temperature difference.


In case of temperature difference, the pressure change due to temperature change shall be calculated and algebraically added to the pressure value as read on the recorders. The pressure value thus adjusted shall be compared with the initial value and the test shall be considered as acceptable if the difference is $\leq + 0.2\%$ of test pressure. In the event the test is unacceptable, the test period shall be extended by 24 hours.

8.2 If test section fails to maintain the specified test pressure after isolation, Contractor shall determine by search the location of leakage/failure and carry out the necessary repair/rectification measures by suitable methods approved by Company. After completion of repairs, the hydrostatic test shall be repeated in full, as per this specification.

8.3 The cost of repairs or replacements, followed by refilling and repressurising the line due to poor workmanship shall be borne by the Contractor. In the event of leaks or failures resulting from faulty Company furnished materials, Contractor shall be reimbursed for furnishing all labour, equipment, materials except those materials furnished by the Company, and transportation necessary to repair and repressurise the section of the pipeline to the pressure at the time of recognition of leak or line failure. Contractor shall be entitled for compensation as per the provisions of the Contract.

8.4 All work of reinstalling line pipe, to replace failures, shall be done in accordance with the

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relevant specifications included in the Contract.

- 8.5 Contractor shall stockpile all damaged and defective pipes to storage locations designated by the Company Representative. All cracks and splits resulting from failures shall be coated with an application of grease to preserve the characteristics of failures from corrosion. Joint of failed pipes shall be marked with paint, with a tag indicating failure details, date and location of failure and pressure at which failure occurred.

9.0 TERMINATION

After the positive results of testing and all the data have been gathered, the test shall be terminated upon written approval given by the Company Representative.

Rigid pipelines shall be slowly depressurized at a moderate and constant rate not exceeding 2 bar/ minute. In case of flexible pipelines, maximum depressurization rate shall be as per manufacturer's guidelines/ recommendations.

10.0 PRESERVATION OF PIPELINE

In case the pipeline is specified in the Contract to be preserved, and the hydrotest water is intended to be kept in the pipeline for more than 2 months (but not exceeding 12 months) as a preservation measure, the test water shall be dosed with the chemicals as mentioned below, instead of the chemicals and dosages mentioned at clause 6.11.

- Oxygen scavenger (Sodium/Ammonium bisulfite) @ 100 mg/1 on 100% basis.
- Bactericide (Alkyl Aryl Trimethyl ammonium chloride Quat 2C or equivalent @ 250 mg/1 as such)
- Corrosion inhibitor (Alkyl pyridinium chloride Quat CPC or equivalent) @ 250 mg/1 as such.

In case of preservation, the pipeline system under such circumstances shall be kept under a positive pressure of 0.5 kg/cm². All valves isolating the pipeline system shall be kept closed.


11.0 TEST REPORT

A complete report signed by Contractor and the Company Representative shall be submitted upon completion of the hydrostatic testing operations for each test section.

The report shall contain as a minimum:

- Cleaning, flushing, filling and testing procedure used
- Schematic layout of cleaning, filling and testing facilities
- Instruments calibration certificates
- A profile of the pipeline that shows the test sites, all instrument and injection connections

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- Pipe filling logs and records
- Hydrotest chemicals specification, dosage, injection records
- Pig specifications
- Pig inspection records including photographs of the damages
- Records of gauging pig survey and photographs
- Records of Caliper pig survey and interpretation of results
- Pressurization and stabilization records
- Pressure and temperature recording charts with appropriate information inscribed thereon
- Dead weight tester logs and recordings
- Air volume calculations
- Pressure – temperature change calculations
- Environmental data
- Depressurization logs and records
- Records and photograph of all leaks/failure

12.0 PRECAUTIONS DURING THE TEST

In addition to all that has been expressly described in the procedures for carrying out the test, the following requirements shall also be complied with

- 12.1 During the hydrotest, no other activities shall be performed on or near the pipeline being tested.
- 12.2 Signs stating “PIPE UNDER TEST – KEEP OFF” shall be placed where the test head/scrapper traps are located. Such areas shall be suitably guarded throughout the duration of the test. In case pressurizing is done from the shore end, the entire operational area shall suitably be fenced to prevent entry of unauthorized personnel.
- 12.3 All personnel working on the hydrotest spread shall be instructed on the possible dangers connected with the high pressure test operations. During the testing, operations, no unauthorized personnel shall be allowed near by the test head location. Test cabin at shore shall be at least 10 m from the pipeline so that it is not affected by the pipeline failure.

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