INDRADHANUSH GAS GRID LIMITED (IGGL)
(Joint Venture of IOCL, ONGC, GAIL, OIL and NRL)
GUWAHATI, ASSAM

NORTH -EAST GAS GRID PIPELINE PROJECT (PIPELINE SECTION 1 & 12)

REPLT TO PRE BDI QUERIES FOR PROCUREMENT

OF

COATED LINE PIPES

OPEN DOMESTIC COMPETITIVE BIDDING

Tender No.: 05/51/23UU/IGGL/012C

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PREPARED AND ISSUED BY

MECON LIMITED
(A Govt. of India Undertaking)
Delhi, India

REPLY TO BIDDERS QUERIES
FOR COATED LINE PIPES FOR NORTH -EAST GAS GRID PIPELINE
PROJECT (PIPELINE SECTION 1 & 12) OF M/S INDRADHANUSH GAS GRID LIMITED
Tender no. : 05/51/23UU/IGGL/012C

DATED : 11.05.2022

S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
1				Please be informed that as per 2(d) of IFB of tender, the delivery of Coated Pipe at Assam in 16 week, is practically not possible, considering the lead time of steel and further additional time for delivery of Coated Pipes to Assam, we thereby request you to kindly extend the delivery period by additional 4 weeks i.e upto 20 weeks.	Since this is balance procurement for Guwahati Numaligarh and Tulamura Spurline and the pipes are required immediately , hence Tender condition prevail
2				We understand that there is no requirement for submission of Integrity Pact. Kindly confirm.	Bidder understanding is correct
3				We further understand that considering very small quantity requirement for 24" OD Pipes there is no requirement for submission of Capacity Documents for both Bare Pipe and Coating. Kindly confirm.	Bidder's understanding is correct. Tender conditions prevail.
4				Please be inform that our Kosi Kalan HSAW Mill has recently successfully qualified by M/s IOCL through demonstration route. We thereby request you to kindly approve our Kosi Kalan HSAW mill on the basis of Demonstration certificate issued by M/s IOCL considering IGGL is a joint venture of IOCL, ONGC, GAIL, OIL & NRL. We hope you will consider our request.	Tender conditions prevail. However, Client may take a call.
5				We also request you to kindly keep the Bid Validity as 2 Months instead of 4 months considering Volatility in present steel Market and Ongoing Russia-Ukraine War. As you are aware in present time there is no commitment on Price and delivery from Domestic and Overseas Steel Mills.	Tender Condtion Prevails
6				In payment terms, we request you to kindly keep the Final Technical Documents requirement in last 10% payment instead of 90% payment	Tender Condtion Prevails
7			Tender Processing Fee Rs.1770.00 Ref: Tender notification page no.02	We could not find any reference in the tender docs how to pay and whom to pay tender processing fee of Rs.1770.00. Kindly clarify.	Tender Condtion Prevails
8			Delivery Period for Group-B: Within 24thweeks progressively from beginning of 12th weeks. Ref: IFB Clause no.2	Delivery within 24th weeks and beginning from 12th week would be difficult, most of the HR coils supplier takes 2-3 months delivery time and beginning of supply from 12th week would not be possible, so we request you to keep delivery within26th weeks and beginning from the 20th week.	Since this is balance procurement for Guwahati Numaligarh and Tulamura Spurline and the pipes are required immediately , hence Tender condition prevail
9			Undertaking regarding verification and certification of documents pertaining to Technical bid evaluation Criteria (BEC) Ref: annexure-IV to Section-II, Vol-I of II	In January-2022 we got verified Technical BEC documents by BV (TPIA) for EIL-GAIL Tender for MNJPL Pipes Line Project. Tender Item details: ITEM: ERW Line Pipes with 3LPE External & Epoxy internal Coating. Size: 18" X 8.20 mm , X-70, PSL-2, Qty: 516 KM Size: 18" X 9.70 mm , X-70, PSL-2, Qty: 181 KM Verified documents match technical BEC mentioned in Mecon-IGGL tender no.05/51/23UU/IGGL/012C. We want to use same documents in this bid. Format is little different and name of GAIL India Ltd is mentioned in the format. Kindly let us know, whether it would be acceptable for this tender or not?	Tender conditions prevail.
10			Per days Dumpsite Maintenance Charges (Rs.10500 + GST) beyond Free period of 03 months. Ref: Instructions to bidders Clause No. 12.11.1	This is not sufficient amount to maintain monthly expenses for Dumpsite Management, Request to revise monthly maintenance charges of dumpsite as Rs.15000 + GST	Tender condition prevail
11			TPIA for Inspection and documents verification SCC clause no.24& BEC Evaluation Methodology Clause no.6	We want to inform you that M/s. EDLIPSE ENGINEERINGGLOBAL PVT LTD, Noida is reputed & well know TPIA, we recently executed 5nos projects of IOCL & HPCL with this agency. We request you to add this TPIA in your approved list.	Tender Condtion Prevails

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12		Delivery Schedule	Delivery Schedule: Item A1: Delivery Within 16 weeks. Progressively from beginning of 12th week and up to end of 16 week. Item B1: Delivery Within 24 weeks. Progressively from beginning of 12th week and up to end of 24 week.	Considering the small quantity and lead time for steel procurement we request to amend the delivery schedule as follows; Item A1: Delivery Within 24 weeks. Progressively from beginning of 16th week and up to end of 24th week. Item B1: Delivery Within 30 weeks. Progressively from beginning of 16th week and up to end of 30th week.	Since this is balance procurement for Guwahati Numaligarh and Tulamura Spurline and the pipes are required immediately , hence Tender condition prevail
13		BEC	The Mill Qualification : The bidder shall furnish a certificate for proposed pipe mills along with their bid, which have not been audited by IGGL /GAIL/ONGC/IOCL/OIL/NRL / or its authorized representatives or, have not supplied pipes to IGGL /GAIL/ONGC/IOCL/OIL/NRL of same or higher size and material Grade as quoted for or higher grade during last seven years reckoned from the due date of submission of bid, as per Format provided in the bid document, from a reputed International inspection agency (i.e. CEIL/ LLOYDS/ BV/DNV/ TUV/ ABS/ MOODY/AIB-Vincotte), certifying that the mill has capability to produce line pipes complying with technical requirements specified in the bid documents. Noncompliance to the above requirement will make the mill liable for rejection.	If the vendor has supplied pipes to IGGL /GAIL/ONGC/IOCL/OIL/NRL of same or higher size and material Grade as quoted for or higher grade during last seven years reckoned from the due date of submission of bid, what documents needs to be produced as a proof? Please clarify whether only mentioning the Purchase Order/FOA/LOA number is enough or not.	Bidder has to submit P.O./W.O. and coreesponding supply records, duly authenticated as per tender requirements. Tender Condtion Prevails
14	MEC/TS/05/21/012C 11.2.3 & MEC/TS/05/21/012 11.2.3	Pipe markings	The pipe number shall be placed by cold rolling or low stress dot marking on the outside surface of the pipe at an approximate distance of 50 mm from both ends.	Stamping on pipe is technically not advisable. Also stamping is not a safe practice. Hence we propose to waive off the requirement of stamping.	Tender Condtion Prevails
15	Cl no. C, Note 3 of scope of work, MR No. : MEC/23UU/05/21/M/ 001/S012B	Document and data requirement	Final technical file shall be supplied in hard copy-2 set as indicated, and in electronic format (.pdf Acrobat files) on four (4) Pen drive.	We will provide all data in soft copy through cloud storage application. This will save time and storage space for hard copy also reduce handling. Please confirm.	Tender Condtion Prevails
16	Cl no. 7.8 of MEC/S/05/21/014 Rev. 0 Edition 02, Issue dated. June 2020	Coating material	The coating system and materials shall be pre-qualified and approval COMPANY in accordance with provision Annexure-I of this specification	Please arrange Annexure-I of coating system and materials for further compliance.	Annexure-I is already attached with the tender on last two pages of Tech. Spec. MEC/S/05/21/014. Tender Condtions Prevail.

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17	Cl no. 7.8 of MEC/S/05/21/014 Rev. 0 Edition 02, Issue dated. June 2020	Recycling of PQT pipes	On successful completion of PQT, coating of all five (5) test pipes shall be removed and Completely recycled as per the approved coating procedure specification, at Applicator's expense. Remaining pipes will be accepted by Company provided they meet the requirements of this specification and need not be stripped and re-cycled.	We proposed that all 4 3LPE coated pipes including PQT pipes shall be considered acceptable provided they meet the requirements of this specification and need not be stripped and re-cycled. Please confirm	Tender Condtions Prevail.
18	Cl no. 8.6.5 of MEC/S/05/21/014 Rev. 0 Edition 02, Issue dated. June 2020	Test frequency of salt contaminati on test	One test shall be carried out at one end of each pipe. The acceptance criteria shall be 2µg/cm2.	Mention frequency is more stringent and difficult to maintain in regular production. We proposed that in case result will consistently achieved within acceptance limit, then the frequency of testing may be relaxed to at least once / hour at the sole discretion of the Owner Representative.	Tender Condtions Prevail.
19	Cl no. 8.7 of MEC/S/05/21/014 Rev. 0 Edition 02, Issue dated. June 2020	Test frequency of roughness		This shall be measured for each pipe by a suitable instrument such as surface profile depth gauge as per ISO 8503-4.	Test method is already described in cl. no. 8.7 of Tech. Spec. MEC/S/05/21/014. Tender Condtions Prevail.
20	Cl no. 8.8 of MEC/S/05/21/014 Rev. 0 Edition 02, Issue dated. June 2020	Test frequency of roughness		In addition the pipe surface after blast cleaning shall be checked for the degree ofcleanliness and degree of dust and shall comply with the requirements of ISO:8502 –3.	Test method is already described in cl. no. 8.8 of Tech. Spec. MEC/S/05/21/014. Tender Condtions Prevail.
21	Sr. No. 23 of Table 5 of MEC/S/05/21/01 Rev.0 Edition 02, Issue dated. June 2020	Bond Strength (Peel Test) middle of peel.	Bond Strength (Peel Test) test temperature - @ 23±2°C - @ 80±2°C	It is not possible to maintain the specified test temperature at the middle of the pipe due to size constraint and safety issue. Hence we will perform the test at maximum feasible distance from pipe end. However, location will be decided by customer or customer's representative during PQT. Same is agreed in previous projects of Mecon. Please confirm	The most feasible distance for Bond Strength test for small diameter pipes (12" OD in present case) for test to be conducted in the middle of pipes can be decided by client or its representative at the time of MPQT. Tender Conditions Prevail.

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22	Sr. No. 23 of Table 5 of MEC/S/05/21/014 Rev. 0 Edition 02, Issue dated. June 2020	Test frequency in regular production	Frequency Regular production: Every 15 for pipe ends (cutback Portion) & 60 for middle of pipe. [for both temperatures]	We proposed that frequency is more stringent and difficult to maintain in regular production. We proposed that in case result will consistently achieved within acceptance limit, then the frequency of testing may be relaxed for cut back portions shall be every 2 hrs and for middle of pipe shall be 4 hrs. On each selected pipe for both temperature. Please confirm	Tender Condtions Prevail.
23	Sr. No. 24 of Table 5 of MEC/S/05/21/ 014 Rev. 0 Edition 02, Issue dated. June 2020	Specific electrical coating resistance Test on All three layer	Properties : Specific electrical coating resistance @ 23 °C ± 2 °C	We intent to clarify that note J of Table 5 is applicable for specific electrical coating resistance. "Test carried out in an independent laboratory of national/international recognition on PE topcoat is also acceptable." Hence we shall follow the same & test certificate shall furnish for review and acceptance. Same is agreed in previous projects of Mecon. Please confirm.	Bidder's understanding is correct. Tender conditions prevail.
24	Inspection and Test Plan for Internal Liquid Epoxy Coating; Serial No. 1b of ITP.: 05/21/14B/005	Raw Material Inspection of Coating Paint & Hardener for qualification of coating	In addition to MTC review, contractor shall test sample as per specification as minimum but not limited to following: a) Non-volatile matter (by mass) b) Non-volatile matter (by volume) c) Viscosity; d) Density; e) Ash residue on ignition; f) Pot life	We don't have facility to perform these tests and shall be performed by coating material supplier and result shall be provided in MTC. Same is agreed in previous projects of Mecon. Please confirm.	Kindly follow relevant clauses of Tech. Spec. Tender Condtions Prevail.
25	Inspection and Test Plan for Internal Liquid Epoxy Coating; Serial No. 6 of ITP.: 05/21/14B/005	Cured paint film on steel panel 5 Nos. of sample , procedure qualification test and repair procedure qualification test	Quantum of check : On start of production/ each change of manufacturer/ each change of plant (5 No. pipes to be selected from coated 25 pipes). Cured paint film on steel panels, 5 no. sample, Procedure qualification test and repair PQT:- 1) Adhesion test; 2) Buchholz hardness; 3) Resistance to neutral salt spray; 4) Resistance to artificial ageing; 5) Bend test (conical Mandrel); 6) Resistance to gas pressure variation; 7) Resistance to water immersion; 8) Resistance to chemicals 9) Resistance to hydraulic blistering; 10) Porosity (glass panel dry+ wet); 11) WFT; 12) DFT (on all 25 pipes).	We don't have facility to perform below tests and shall be performed by coating material supplier and result shall be provided in MTC; 3) Resistance to neutral salt spray; 4) Resistance to artificial ageing; 6)Resistance to gas pressure variation; 7) Resistance to water immersion; 8) Resistance to chemicals 9) Resistance to hydraulic blistering; Same is agreed in previous projects of Mecon. Please confirm.	Kindly follow relevant clauses of Tech. Spec. Tender Condtions Prevail.
26	Cl no. 8 Amendment to technical specification (MEC/TS/05/21/012, MEC/TS/05/21/012A , MEC/TS/05/21/012B AND MEC/TS/05/21/012C	Bar Coding (New)	We propose bar coding at 4 equal spaced points on the pipe at 3, 6, 9, 12 O'clock position for easy identification. Alternatively, bar-coding can be done at both ends at 4, 8 & 12 O'clock position	We would like to bring in your notice that it is contradictory with cl. no. 3.1.3 of amendment to technical specification; "For each pipe two (2) labels shall be fixed, one for each end at outside (fixed approx. 200 mm from the cutback / bevel area at an angle of 180° on each end). Refer Figure –I." We understand we have to apply 2 nos. of label as per figure-1 of amendment to technical specification. Same is agreed in previous projects of Mecon. Please confirm.	Bidder's understanding is correct. Tender conditions prevail.

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27	Cl no. 3.1.1 of amendment to technical specification (MEC/TS/05/21/012, MEC/TS/05/21/012A , MEC/TS/05/21/012B AND MEC/TS/05/21/012C	On bare / external 3lpe and 3lpp coated pipes	Pipe marking (stencil) shall be made from both end of the pipe opposite to the weld line.	We would like to bring in your notice that it is contradictory with clause no. 13 (marking) of 3LPE specification. We understand that marking will be applied as per designated marking clause no. 13 (marking) of 3LPE specification: "Applicator shall place marking on the outside surface of the coating at one end of the coated pipe." Same is agreed in previous projects of Mecon. Please confirm.	Bidder's understanding is correct. Tender conditions prevail.
28		Cl. 5.2 of Spec. No.: MEC/TS/05 /21/014	The coating materials Manufacturer shall carry out tests for all properties specified in Table 2, Table 3 & Table 4 for each batch of epoxy, adhesive and polyethylene compound respectively.	All mentioned tests in Table 3 & 4 of 3LPE coating specification shall be performed by raw material manufacturer. They will supply test certificate for each batch with tested value and typical values. Please confirm. The same to be reviewed to TPI. Epoxy powder material: Epoxy material manufacturer shall carry out test for all properties specified in table 2 as tested value.	Tender conditions prevail.
29		Table 5 (Sr. No. 24 of of Spec. No.: MEC/TS/05 /21/014	Properties : Specific electrical coating resistance Acceptance Criteria: ≥ 108 Ω-m2. Test Method: Annex J of DIN 30670 Frequency (PQT): One Pipe Note j: Test carried out in an independent laboratory of national/international recognition on PE topcoat is also acceptable.	Bidder understands that as per Table 5 (Note-j), (Test carried out in an independent laboratory of national/international recognition on PE topcoat is also acceptable). Hence, we shall follow the same & Test certificates shall be furnished for review and acceptance. Please confirm.	Tender conditions prevail.
30		Cl. No. 5.1 of Spec. No.: MEC/TS/05 /21/014B	The coating material shall typically be two-pack epoxy paint. It shall not contain any substances which will be released from the paint film after it has cured and are proven to be detrimental to the operation of the pipeline and the quality of the gas. The typical operating-temperature range for this type of coating is between -20 °C and 110°C.	Please provide approved vendor list; if any. However, We propose following listed materials for internal coating confirming to ISO 15741 SCOTCHKOTE EP 2326HF / EP 2306 HF (3M) Pipeclad Flowliner 930R HS / UHS (Valspar) Hempel HS GAS PIPE COATING 87830 (Hempel) Intergard 272/2272 (Akzonobel)	Please refer cl. no. 1.1 of MR for Internal Epoxy Coating. Tender conditions prevail.
31			Delivery Schedule	Bidder hereby put forth that project location being in one of the extreme locations of the country the transportation of Pipes itself takes 3-4 weeks. Hence, proposes Lot wise delivery to start from 16th week and to end by 20th week for Group A and to end by 24th week for Group B.	Since this is balance procurement for Guwahati Numaligarh and Tulamura Spurline and the pipes are required immediately , hence Tender condition prevail
32			Variation on custom duty (on Built-in Import content) is not applicable/ payable	Bidder understands that CIF (Built In Import Content) is not applicable for subject tender. Please confirm.	Bidder understanding is correct. Tender conditions prevail.
33		Steel AVL	List of acceptable Steel Plate/Coil/Billet Manufacturer: Welspun PCMD, India	Bidder hereby would like to put forth that JSW Steel Limited (JSW) has completed the acquisition of Welspun Plate and Coil MillsDivision (PCMD) as per shared Declaration Letter. Hence, we request to update your records (List OfApproved Steel Plate & Coil Manufacturers) in the name of "JSW Steel Limited –Anjar Works" inplace of WELSPUN Plate & Coil Mills Division.	Proper documntation is required for change of name of supplier. However, the same can also be done at the document approval stage subject to submission of proper document submission as per tender conditions. Tender conditions prevail.

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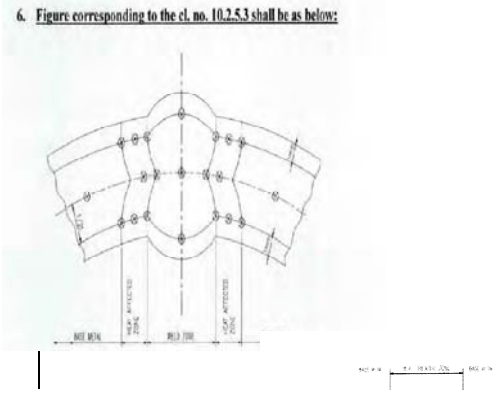
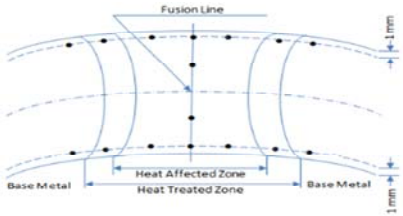
34		BID EVALUATION CRITERIA (BEC):	Bidders who do not meet the qualification requirement under clauses 3.1.1 (03) & 3.1.1(04) above, intend to quote for line pipes, such Bidders shall be considered for Supply ofLine Pipes covered under scope of supply subject to the bidder demonstrating manufacturing capability of proposed mill(s) of 24"/12" outside diameter or higher linepipe sizes to IGGL and/or MECON as given at Annexure-1 to Section-II, Vol I of II.	Bidder hereby would like to put forth that, GAIL being one of the stake holders in IGGL, the plant Capability & CapacityDemonstration Certificate issued by M/s EIL, one of the authorized representatives of GAIL, shall be considered for Pipe Mill Qualification. Further, in recent past large tenders of IOCL/GAIL also the Capability & CapacityDemonstration Certificate issued by M/s EIL / MECON were accepted. Hence, bidder propose to accept the Capability & CapacityDemonstration Certificate issued by M/s EIL also.	Tender conditions prevail.
35		BID EVALUATION CRITERIA (BEC):	Bidders who do not meet the qualification under clause 3.1.2.1 above, such bidder shall also be considered for coating of line pipes covered under this enquirysubject to submission of coating plant capability & capacity demonstrationcertificate issued by IGGL / its authorized agency based on satisfactorydemonstration of the coating plant(s) capability for 3 LPE coating of line pipe that areof equal or higher in terms of diameter as quoted, in the last 24 months reckoned frombid due date along with their bid.	Bidder hereby would like to put forth that, GAIL being one of the stake holders in IGGL, the Coating plant Capability & CapacityDemonstration Certificate issued by M/s EIL, one of the authorized representatives of GAIL, shall be considered for Coating Mill Qualification. Further, in recent past large tenders of IOCL/GAIL also the Capability & CapacityDemonstration Certificate issued by M/s EIL / MECON were accepted. Hence, bidder propose to accept the Capability & CapacityDemonstration Certificate issued by M/s EIL also.	Tender conditions prevail.
36		BID SECURITY /EARNEST MONEY DEPOSIT (EMD)	BID SECURITY /EARNEST MONEY DEPOSIT (EMD)	Bidder observed that under Section I Bid security is mentioned as applicable. However, under clause 16A of Section III it is mentioned Earnest Money Deposit/Bid Security is not applicable. Bidder request to please confirm upon applicability of Earnest Money Deposit/Bid Security.	All bidders (except MSEs/ Startups/Government Departments/PSUs) have to submit Bid Security as stated at sl. no. 2(E) of Section-I , Vol I of II.
37	General		6. Figure corresponding to the cl. no. 10.2.5.3 shall be as below: 	Bidder understands that this Fig. is not applicable for HFW pipes. However, we have considered the hardness indentation figure 10.2.5.3 of HFW technical spec. & regenerated the fig. as below:-  	Bidder understanding is correct. Tender conditions prevail.

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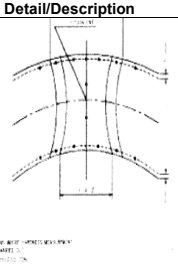
38			 FIGURE: 10.2.5.3 METALLOGRAPHIC SPECIMEN AND LOCATIONS FOR HARDNESS MEASUREMENT		
39			Normative References ASTM E112 — 12: Standard Test Methods for Determining Average Grain size BS 5996: Specification for Acceptance Level for internal perfection in steel plate, stripe and wide flats based on Ultrasonic testing.	Bidder confirms to use the latest edition of ASTM E112 i.e of year 2013. Bidder understands, BS 5996 is no more referenced in API 5L, 46th Edition. Accordingly We shall follow ISO 10893 respective parts for different NDT methods as per API 5L	Bidder understanding is correct. Tender conditions prevail.
40			C: 0.12% max (for X70) Mn: 1.6% max (for X70) Note b: Deleted	Bidder request to permit the Carbon-Manganese relationship as defined in API 5L Table 5 footnote b i.e: "For each reduction of 0.01 % below the specified maximum for C, an increase of 0.05 % above the specified maximum for Mn is Permissible, up to a maximum of 1.75% for X56 & 2.00 % for X70."	Tender conditions prevail.
41			CVN Pipe Body, Weld & HAZ: …based upon full sized test pieces at a test temperature of 0°C (32°F) or at a lower test temperature as specified in the Purchase Order. Pipe weld and HAZ tests The minimum average (set of three test pieces) absorbed energy value (KIT) for each pipe weld and HAZ test shall be as specified in Table 8 of this specification, based upon full-size test pieces at a test temperature of 0°C (32°F) or at a lower test temperature as specified in the Purchase Order.	Bidder has considered the test temperature for CVN impact test (pipe body, weld & HAZ) as 0°C.	Bidder understanding is correct, test temperature is 0 deg C. Tender conditions prevail.
42			Bevel Protectors Both Pipe ends of each pipe shall be provided with metallic or high impact plastic bevel protectors as per manufacturer's standard	Bidder confirms to provide pipes with metallic bevel end protector on both ends of the pipes.	Provision for the same is already there in the referred clause. Tender conditions prevail.
43			b Pipes selected shall be such that one at the beginning of the heat and one at the end of the heat are also represented. 2 | Product analysis [b] | Two pipes per lot (maximum 100 pipes) per heat	Bidder confirms for product analysis in pipes with 2 samples / 100 pipes / heat shall be selected randomly from the heat used at pipe mill for pipe production with lot of 100 pipes.	Tender conditions prevail.

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44			The measuring equipment requiring calibration or verification under the provisions of API Spec 5L shall be calibrated with manual instruments at least once per operating shift (12 hours maximum). Such calibration records shall be furnished to Purchaser's Representative on request	Bidder confirms that repeatability of measuring instruments Verification of all measuring instruments shall be done in each shift of 12 hours at final station. Record of same shall be furnished to the appointed representative. However, Bidder clarifies that calibration of dimension measuring equipment shall be done on yearly basis from an external NABL lab.	Tender conditions prevail.
45			The pipe number shall be placed by cold rolling or low stress dot marking or vibro-etching on the outside surface of the pipe at an approximate distance of 50 mm from both ends. In case of non-availability of either cold rolling or low stress dot marking facility in pipe mill, an alternative marking scheme of a permanent nature may be proposed by the Manufacturer.	As permitted in Technical specification, as an alternate marking scheme, Bidder proposes that the use of Laser Marking machine shall also be permitted (permanent in nature) for placing the pipe number on OD surface	Tender conditions prevail.
46			General	Bidder has retained Inspection & Test Plan of Electric Welded Line Pipes for information only, however project specific ITP shall be submitted upon receipt of award of Contract.	Bidder understanding is correct. Tender conditions prevail.
47			Destructive Testing : Quantum of check : Material Specification, 6-71-0005, PR	Bidder considers only Technical Specification for Line Pipe (Onshore) MEC/TS/05/21/012 Rev. 1 Edition 3 Date 13.04.2016. Provide 6-71-0005 (if applicable).	This is a typographical error. Tender conditions prevail.
48			As per Specification for 3LPE coating of line pipes: First page of Specification No.: MEC/TS/05/21/014 Page No. 1 to 40: Document No.: MEC/S/05/21/014	Bidder understands that there is typographical error. The document number mentioned in Cover page (MEC/TS/05/21/014) is different from the document number mentioned in Page No. 1 to 40 of client specification (MEC/S/05/21/014) for 3LPE coating. We have considered the Spec. No.: MEC/TS/05/21/014, Rev.: 1, Edition: 2, Dated: June 2020 for external 3LPE coating. Please confirm.	This is a typographical error. Tender conditions prevail.
49			Cl. A, 1.1 (ii) of MR The minimum thickness of finished 3LPE coating shall be Top coat – HDPE – 3.0 mm (For 24") Top coat – HDPE -2.8 mm (For 18"/12") Cl. 4.2 (Table 1) of 3LPE Spec. No. MEC/TS/05/21/014: Coating thickness Minimum overall thickness of finished coating shall be as per Table 1 below: Table 1— Minimum thickness of finished coating • Pipe size: ≥12 ¾" (323.9 mm) to ≤18" (457 mm): Minimum coating thickness: 2.8 mm • Pipe size: ≥20" (508.0 mm) to ≤30" (762 mm): Minimum coating thickness: 3.0 mm	Bidder proposes that 10% relaxation of minimum specified coating thickness over weld seam for LSAW / HSAW pipe (i.e. Min. 3.0 mm on pipe body and Min. 2.7 mm on weld seam) is allowed as per table 2 of ISO 21809-1. "A 10 % total coating thickness reduction is allowed on welds seam for SAW welded pipes". Kindly confirm.	Tender conditions prevail.
50			The coating materials Manufacturer shall carry out tests for all properties specified in Table 2, Table 3 & Table 4 for each batch of epoxy, adhesive and polyethylene compound respectively. In addition, the Manufacturer shall also furnish Infra-red Scan for each batch of epoxy powder. The coating materials manufacturer shall issue test certificates as per DIN EN 10204, 3.1 for each batch of materials supplied to Applicator and the same shall be submitted to COMPANY for approval prior to their use.	As confirm by FBE, adhesive & HDPE Material manufacturer will provide test certificate for all properties specified in Table 2, Table 3 and Table 4 of specification for each batch of epoxy, adhesive and polyethylene compound respectively. However all the properties will not be tested for each batch. Epoxy, Adhesive and Polyethylene manufacturer will provide batch test certificate for the measured value and typical. Please refer attached sample batch test certificates issued by FBE, Adhesive and Topcoat HDPE material manufacturer's for ready reference. Bidder will submit similar certificates issued by material manufacturer for the batches to be used for 3LPE coating of this order. Attachment 2 - Adhesive Sample Batc Attachment 3 - HDPE Topcoat Sample Batcl Attachment 1 - FBE Sample Batch Test Ce	All the details are mandatory to be included as per requirements of Tables 2, 3 & 4 of TS. Same shall be reviewed at the time of inspection. Tender Conditions Prevail.

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Tender no. : 05/51/23UU/IGGL/012C

DATED : 11.05.2022

S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
51			Epoxy properties (As – Applied): Hot water adhesion 28 days @ 65°C (*) (*) In case the raw material manufacturer produces batch report for Hot water adhesion test of epoxy as under testing, in that case coating applicator shall produce to the company the final results just after completion of 28 days of the test start date	Bidder understands that 28 days Hot water adhesion shall be each grade of Epoxy powder. We submit same for review purpose	Bidder understanding is correct. Tender Conditions Prevail.
52			In house testing Polyethylene Thermal stabilization test (as per ASTM D3895)	Bidder would like to clarify that as per ASTM D3895: Oxidative Induction Time shall be performed to determine qualitative assessment for the stabilization of the material. Bidder understands that OIT shall be carried out at 220°C as per Table 4 of MEC/TS/05/21/014, Rev.: 1, Edition: 2, Dated: June 2020.	Bidder understanding is correct. Tender Conditions Prevail.
53			I (2): Air pressure in epoxy spray guns – Continuous monitoring & recording I (4): Pipe surface temperature: Continuous monitoring & recording II (14): Extrusion temperature of adhesive: Continuous monitoring & recording III (15): PE extrusion temperature: Continuous monitoring & recording IV (20): Water quenching – Continuous monitoring & recording	Bidder propose and consider that the following application parameters shall be monitored continuously & recorded at once per hour during the regular production. • Air pressure in epoxy spray guns; • Pipe temperature prior to epoxy application; • Temperature of adhesive film; • Temperature of PE film. • Water quenching temperature Bidder understands that "Water quenching temperature" refers to the coated pipe temperature after quenching / cooling. Kindly confirm.	Bidder understanding is correct, however, this does not absolve manufacturer of its responsibility to fulfil other tender erquirements in this respect. Tender Conditions Prevail.
54			Properties-Holiday detection (Test voltage set to exceed 5V per µm of epoxy thickness) Inspection frequency during PQT-Each pipeNo holiday	Bidder would like to state that it is practically difficult to achieve no holiday at 200 microns to 400 microns dry film thickness. Hence holiday acceptance criteria shall be one holiday per meter length for 12.75" OD & 0.7 holiday per square meter for 24" OD as per clause 10.3.2.2 of ISO 21809-2 for FBE coated portion of partly coated pipe.	Tender Conditions Prevail.
55			Properties-Bond Strength (Peel Test) - @ 23±2°C - @ 80±2°C Test method -ISO 21809-1 Annex C, (clause C.2 or C.5 hanging mass) and clause 10.5 (a) & 7.6.2 (a) of this spec.	Bidder proposes to bond strength test shall be carried out by manual peel test machine (Spring loaded type test assembly) for 12.75 inch diameter pipes due to size constraint. Please confirm. We request to kindly consider the practical difficulty.	Tender Conditions Prevail.
56			Properties-Specific electrical coating resistance @ 23 °C ± 2 °C Inspection frequency During PQT- One pipe (Test carried out in an independent laboratory of national/ International recognition on PE topcoat is also acceptable).	Bidder understands that the Coating resistivity is the long term tests and shall be performed by PE topcoat raw material supplier / manufacturer. Test certificates shall be furnished by raw material supplier / manufacturer shall be submitted for review and acceptance.	Bidder understanding is correct. Tender Conditions Prevail.
57			The salt tests shall be carried out after de-ionized water rinse. One test shall be carried out at one end of each pipe. The acceptance criteria shall be 2µg/cm2. An approved salt meter (SCM 400 or equivalent) shall be used to carry out salt tests and shall be calibrated in accordance with the equipment manufacturer's recommendation. Test shall be performed on each pipe during production and on each end of every pipe at the time of PQT	Bidder will perform surface preparation inspection and salt contamination test after 2nd abrasive blast cleaning and prior to phosphoric acid wash and high pressure DI water wash as per Clause 8.5 of Specification. If salt contamination exceeds 2µg/cm² then pipe shall be re-blasted and again rechecked for salt contamination. At Bidder's plant the surface pre-treatment (Acid wash followed by deionized water wash and chromate application) and application of coating is a continuous process to avoid any contamination after surface pre-treatment prior to application of coating.	Tender Conditions Prevail.

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S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
58			The Applicator shall check that the concentration for the chemical pre-treatment solution remains within the range recommended by the chemical manufacturer for the pipe coating process. The concentration shall be checked at the make up of each fresh solution and once per hour, using a method approved by the chemical manufacturer. The Applicator shall also ensure that the chemical pre-treatment solution remains free from contamination at all times. Recycling of chemical pretreatment solution is not permitted	Bidder proposes test frequency for checking concentration of pre-treatment solution once per shift.	Tender Conditions Prevail.
59			The extrusion temperatures of the adhesive and polyethylene shall be continuously recorded. The monitoring instruments shall be independent of the temperature control equipment. The instruments shall be calibrated prior to start of each shift	Bidder clarifies that pyrometers that are used for PE & adhesive temperature monitoring, are specialized equipment and are calibrated in specialized equip outside laboratory, so we propose to review the outside lab calibration certificate. However the pyrometer shall be checked for errors every shift against a calibrated temperature-measuring instrument.	Kindly refer cl. no. 9.1.5 of Tech. Spec. MEC/TS/05/21/014, wherein this aspect has already been taken care of. Tender conditions prevail.
60			ITP No. 05/21/14/004, Rev.: 0, Dated: May 2020: Inspection & test plan for 3-layer polyethylene coating of line pipes	Bidder understands that inspection and testing frequency for regular production shall be as per Spec. No. MEC/TS/05/21/014, Rev.: 1, Edition: 2, Dated: June 2020: Standard technical specification for 3-layer Polyethylene coating of line pipes except the proposal for test frequency mentioned in this comment sheet. Bidder understands ITP No. 05/21/14/004, Rev.: 0, Dated: May 2020: Inspection & test plan for 3-layer polyethylene coating of line pipes is considered for reference only. Please confirm	Bidder understanding is correct. Tender Conditions Prevail.
61			Page No. 2 of 304 of Volume – II of II Document title / Description: Inspection & test plan for internal liquid epoxy Coating of line pipes Document /Drawing No.: ITP NO. 05/21/14/005	Bidder intent to clarify that the document number mentioned in the list (05/21/14/005) is different from the document number mentioned on the ITP (05/21/14B/005) for internal liquid epoxy Coating. For evaluation of this enquiry, We have considered the Inspection & test plan for internal liquid epoxy Coating, ITP No. 05/21/14B/005 Rev.01, dated: Apr-2016. Please confirm.	This is a typographical error. Tender conditions prevail.
62			The pipes shall be furnished with liquid epoxy internal painting conforming to ISO 15741, "Friction reduction coatings for the interior of on and offshore steel pipe lines for non-corrosive gases"/ API RP 5L 2. The coating material shall typically be two pack epoxy paint.	Bidder has considered ISO 15741-2016 to be followed for internal flow coating. Please confirm.	Bidder understanding is correct. Tender Conditions Prevail.
63			Cl. A, 1.1 (x) of MR Bidder shall submit its methods and material proposed to be used for executing the internal coating to Company and shall receive approval from Company prior to start of production. The material being proposed shall have been applied successfully in at least one project in last five years. The coating material shall be qualified as per ISO 15741/ API RP 5L 2 Latest Edition and all qualification testing should be performed by an independent laboratory. If testing is undertaken at the coating manufacturer's premises, the test shall be witnessed by the Company or by third party. The coating manufacturer shall obtain the results in the form of a full qualification report showing test method and results. As per Cl. 6.0 of ITP No. 05/21/14B/005- ITP for Internal liquid epoxy coating & As per CL. 5.3, Table – 2 of MEC/TS/05 /21/014B Cured paint film on steel panel, 5 no. sample Procedure qualification test and repair procedure qualification test: 1) Adhestion test 2) Buchholz hardness 3) Resistance to neutral salt spray 4) Resistance to artificial ageing 5) Bend test (conical Mandrel) 6) Resistance to gas pressure variation 7) Resistance to water immersion 8) Resistance to chemicals 9) Resistance to hydraulic blistering 10) Porosity (glass panel dry +wet) 11) WFT (on all 25 pipes) 12) DFT (on all 25 pipes)	Bidder understands that the qualification test certificate furnished by paint raw material manufacturer (the tests shall be conducted any third party lab) in accordance ISO 15741 shall be submitted for client review and approval at the time of PQT. Please confirm.	Bidder understanding is correct. Tender Conditions Prevail.

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S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
64			Pipe surfaces shall be cleaned to SA 2½ (in accordance with ISO 8502-3) using suitable grit/ shot, free of any deleterious contamination or moisture.	Bidder intent to clarify that the surface cleanliness checking shall be carried out in accordance with ISO 8501-1. Please confirm	Kindly refer cl. no. 8.7 of Tech. Spec. MEC/TS/05/21/014. Tender Conditions Prevail.
65			Cl. A, 1.1 (xi) of MR The surface roughness shall be checked at random and shall be of the range of 30-60 microns in accordance with ISO 4287-1. Cl. 6.2 of Doc. No. MEC/TS/05/21/014B Check the surface profile. Unless otherwise agreed, it shall be such that R γ5 (see ISO 8503-1) is between 25 µm and 60 µm.	Bidder intent to clarify that the surface roughness checking shall be carried out in accordance with ISO 8503-4. Using stylist roughness gauge. Please confirm	Bidder understanding is correct. Tender Conditions Prevail.
66			The typical operating-temperature range for this type of coating is between -20 °C and 110°C.	Bidder has considered the operating-temperature as -20°C to 80°C for internal flow coating. Please confirm.	Tender Conditions Prevail.
67			STAGE/ACTIVITY: Raw Material Inspection of Coating Paint & Hardener for qualification of coating material Characteristics: In addition to MTC review, contractor shall test sample as per specification as minimum but not limited to following: a) Non-volatile matter (by mass) b) Non-volatile matter (by volume) c) Viscosity d) Density e) Ash residue on ignition f) Pot life QUANTUM OF CHECK: Each Batch	Bidder proposes to submit the raw material manufacturer batch test certificate for following tests of internal flow coating: • Non-volatile matter (by volume) • Ash residue on ignition • Pot life	Bidder understanding is correct. Tender Conditions Prevail.
68			CL. 5.3, Table – 2 of spec. & Cl. 6.0 of ITP Particular requirements of qualification of the cure paint film: 1. Resistance to neutral salt spray 2. Resistance to artificial aging 3. Resistance to gas pressure variation 4. Resistance to water immersion 5. Resistance to chemicals 6. Resistance to hydraulic blistering	Bidder intent to clarify that the following tests are long term tests and shall be performed by coating material supplier. The test certificates shall be furnished to client for review. 1. Resistance to neutral salt spray 2. Resistance to artificial aging 3. Resistance to gas pressure variation 4. Resistance to water immersion 5. Resistance to chemicals 6. Resistance to hydraulic blistering	Bidder understanding is correct. Tender Conditions Prevail.
69			Table - 4 of MEC/TS/05 /21/014B Minimum items to be checked and recorded during the coating process Items: Wet paint (mixed) Viscosity and temperature Frequency: Every time paint is mixed and every time painting is interrupted Cl. 4 of ITP No. 05/21/14B/005	Bidder uses plural feed airless equipment (with automatic dosage) for paint spray. Hence bidder proposes Viscosity & Temperature checking frequency at start of production and once per shift. This is in accordance with Table 4 of ISO 15741:2016	Tender Conditions Prevail.
70			Table 4 – Minimum items to be checked and recorded during the coating process Flash point: At every change of shift	Bidder requests more clarity for Flash point measurement requirement during coating application. Bidder understands that flash point is paint material property and the paint material manufacturer declares the same in PDS and / or MSDS. Bidder intent to clarify that the flash point tests shall be reported in PDS / MSDS.	Tender Conditions Prevail.

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71			ITP No. 05/21/14B/005 Rev.01, dated: Apr-2016:- Inspection & test plan for Internal liquid epoxy coating	Bidder understands that inspection and testing frequency for regular production shall be as per Spec. No.: MEC/TS/05/21/014B, Rev. 0, Edition: 1, Dated: Aug 2008: Specification for Internal Epoxy Coating for Line Pipes except the proposal for test frequency mentioned in this comment sheet. Bidder understands ITP No. 05/21/14B/005 Rev.01, dated: Apr-2016:- Inspection & test plan for Internal liquid epoxy coating is considered for reference only. Please confirm.	Bidder understanding is correct. Tender Conditions Prevail.

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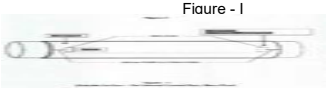
S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
72			Cl. No. 8.0: Bar Coding / QR coding (New) Bar-coding of line pipes as a requirement so that the pipe can be traced using bar coding scanner in the field. We propose bar coding at 4 equal spaced points on the pipe at 3, 6, 9, 12 O'clock position for easy identification. Alternatively, bar-coding can be done at both ends at 4, 8 & 12 O'clock position. Barcode directly printed on the pipe with permanent ink may be preferred. 3.1.3 FIXING OF LABELS ON PIPES Ensure that the surface area in which labels are pasted should be clean, dry and free from dust. For each pipe two (2) labels shall be fixed, one for each end at outside (fixed approx. 200 mm from the cutback / bevel area at an angle of 180° on each end). Refer Figure -I, all bar code shall be oriented perpendicular to the weld seam. The barcode label shall be put on completely finished pipe. Barcode label should not be overlapped with stenciling or any other marking outside coated pipe. (i.e. external coated pipe surface). Figure - I 	Bidder intent to clarify there is a conflict regarding the requirement for fixing of number of bar code labels on pipes, mentioned in Clause 8.0 of Amendment to Line Pipe TS & Coating TS. As of now bidder has considered the fixing of bar code labels on pipes shall be as per Clause 8.0 (3.1.3) of Amendment to Line Pipe TS & Coating TS (i.e. For each pipe two (2) labels shall be fixed, one for each end at outside (fixed approx. 200 mm from the cutback / bevel area at an angle of 180° on each end). Refer Figure -I. Please confirm	Bidder understanding is correct. Tender Conditions Prevail.
73			Cl. No. 8.0: Bar Coding / QR coding (New) Bar-coding of line pipes as a requirement so that the pipe can be traced using bar coding scanner in the field. We propose bar coding at 4 equal spaced points on the pipe at 3, 6, 9, 12 O'clock position for easy identification. Alternatively, bar-coding can be done at both ends at 4, 8 & 12 O'clock position. Barcode directly printed on the pipe with permanent ink may be preferred.	Bidder understands that QR code is required. As per Bidder's understanding the sample barcode sticker with QR code is given below:	Bidder understanding is correct. Tender Conditions Prevail.
74			Cl. No. 8.0: Bar Coding / QR coding (New) Bar-coding of line pipes as a requirement so that the pipe can be traced using bar coding scanner in the field. We propose bar coding at 4 equal spaced points on the pipe at 3, 6, 9, 12 O'clock position for easy identification. Alternatively, bar-coding can be done at both ends at 4, 8 & 12 O'clock position. Barcode directly printed on the pipe with permanent ink may be preferred. 2. Scope This procedure defines to identify the pipes through barcode label scanning. This procedure covers the application of 3D type bar code and pipe marking on Bare Pipe, 3LPE coated pipes and 3LPP coated pipes after the final coating of bare pipes.	Bidder understands that QR code is required. As per Bidder's understanding the sample barcode sticker with QR code is given below: Kindly confirm Bidder's understanding for 3D type barcodes. 	Bidder understanding is correct. Tender Conditions Prevail.
75			Cl. 8.0, 3.1.1 of Amendment to Line Pipe TS & Coating TS Pipe marking (stencil) shall be made from both end of the pipe opposite to the weld line. Figure - I of Amendment to Line Pipe TS & Coating TS Cl. 13.0 of 3LPE Spec. No. MEC/TS/05/21/014 MARKING Applicator shall place marking on the outside surface of the coating at one end of the coated pipe, and marking shall indicate, but not limited to the following information: 	It is contradictory with clause No. 13 (marking) of 3LPE specification and Cl. 8.0 (3.1.1) and figure 1 of Amendment to Line Pipe TS & Coating TS We apply marking will be applied as per designated marking clause no. 13 (marking) of 3LPE specification "Applicator shall place marking on the outside surface of the coating at one end of the coated pipe." Same is agreed in previous projects of Mecon. Please confirm.	Bidder understanding is correct. Tender Conditions Prevail.

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S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
76		General	Applicable References	While evaluating this enquiry, Bidder has considered following documents in below order of precedence: • MATERIAL REQUISITION FOR COATED & BARE LINE PIPES Doc. No. MEC/23UU/05/21/M/001/S012C (Bid No. 05/51/23UU/IGGL/012C) • AMENDMENT TO LINE PIPE TS & COATING TS • STANDARD TECHNICAL SPECIFICATION FOR SAWH LINEPIPE (ONSHORE) (Doc. No. MEC/TS/05/21/012C Ed. 3 Rev. 1 DT. 13.04.2016 • INSPECTION & TEST PLAN FOR HELICAL (SPIRAL) SEAM SAW LINE PIPES (ONSHORE) (DOC. NO. ITP NO.05/21/12C/003 REV. 1 DT. OCT 15) • INSPECTION & TEST PLAN FOR HR COIL/PLATE (Doc. No. ITP NO.05/21/12B/006 Rev. 1 DT. APR-16) • API 5L 46th Edition & Errata 1 dated May 2018	Bidder understanding is correct. However, client/ its representative reserves the right to follow the more stringent requirement. Tender Conditions Prevail.
77			CERTIFICATION The vendor shall be completely responsible for the design, materials, fabrication, coating, testing, inspection, preparation for shipment, loading of the above item strictly in accordance with the Material Requisition and all attachments thereto. All items shall be provided with EN 10204, 3.2 Certification. The steel plate/coil required for pipe manufacturing shall also be certified as per EN 10204, 3.2 Certification	As a pipe manufacturer; Bidder intend to clarify that designing is not a considered under the scope of pipe manufacturer. Pipe shall be manufactured based on project specification & API 5L requirements.	Design in this case shall be Procurement of steel, manufacturing of pipes, coating application, Loading & unloading, transportation etc as per required tender parameter. Tender conditions prevail.
78			The successful Manufacturer/supplier shall submit a prerecorded Training CDs/DVDs and it shall comprise the basic theories and fundamentals, related standards, design parameters, manufacturing & inspection methods, and other relevant details. The CDs/DVDs shall have to be self-contained, user-friendly using animation/videos and other multimedia techniques. DOCUMENTS & DATA REQUIREMENTS: 15. Final technical file: HardCopy-2 Set & Soft copy-4 Set in Pen Drive The Manufacturer shall provide one electronic copy and six hard copies of production report in English language indicating at least the following for each pipe.	Bidder propose to provide 1 set of Hard copy and 4 set of electronic copy of MRB as per approved MRB index of applicable document of SAWL pipe manufacturing.	Tender conditions prevail.

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S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
79			LINE PIPE: Amendment to TS No. MEC/TS/05/21/012C (SAWH): In addition to the API Spec 5L, following requirements shall also be complied with for repair welding: b. No repair of weld seam is permissible at pipe ends up to a length of 300 mm.	Bidder understand that weld repair shall be restricted as 300mm weld length from pipe end.	Tender conditions prevail.
80			Normative references The latest edition (edition enforce at the time of issue of enquiry) of following additional references are included in this specification: - ASTM E 1 12-12: Standard Test Methods for Determining Average Grain size. - BS 5996: Specification for Acceptance level for internal imperfection in steel plate, strip and wide flats Based on ultrasonic testing	Bidder has considered the latest edition of ASTM E112 – 13. Bidder clarifies that Ultrasonic inspection of coil edge & body shall be performed as per ISO 10893-9 as per Cl. E.8 & E.9 of client specification.	Bidder understanding is correct. Tender Conditions Prevail.
81			Pipes furnished to this specification shall be non-expanded.	Bidder propose to that the end correction shall be permitted (if necessary)	Tender conditions prevail.
82			The average (set of three test pieces) absorbed energy value (KvT) for each pipe body test shall be as specified in Table 8 of this specification, based upon full sized test pieces at a test temperature of 0°C (32°F) or at a lower test temperature as specified in the Purchase Order.	Bidder has considered the CVN Impact test temp as 0 deg C, please confirm.	Bidder understanding is correct, test temperature is 0 deg C. Tender conditions prevail.
83			Sl. no. / Type of inspection / Frequency of inspection 1. Heat analysis ª — One analysis per heat of steel 2. Product analysis ᵇ — Two pipes per lot (maximum 100 pipes) per heat 3. Tensile testing of the pipe body — Once per test unit of not more than 100 pipes 4. Tensile testing of the helical seam weld of pipeᶜ — Once per test unit of not more than 100 pipes 5. Tensile testing of all weld test specimen — Once; during manufacturing procedure qualification tests (MPQT) and whenever batch of electrode or wire & flux combination is changed (see Annex B) b Pipes selected shall be such that one at the beginning of the heat and one at the end of the heat are also represented. c Pipe produced by each welding machine shall be tested.	Bidder confirms for product analysis in pipes with 2 samples / 100 pipes / heat shall be selected randomly from the heat used at pipe mill for pipe production with lot of 100 pipes. For foot note c (Weld Tensile test), Bidder understands that Tensile testing of helical seam weld of pipe shall be performed on pipe produced from each welding machine at a frequency of 1 test per welding line per week. Please confirm.	Referred table (table-18) is self explanatory. Tender Conditions Prevail.
84			Product analysis b : b Pipes selected shall be such that one at the beginning of the heat and one at the end of the heat are also represented.	Bidder clarifies that pipe for product analysis shall be selected randomly as it is practically not possible for pipe selected one at the beginning of the heat and one at the end of the heat.	Tender Conditions Prevail.
85			One test piece from one pipe end shall be taken for Residual Stress test.	Bidder understand that one test piece from one pipe end shall be taken for Residual stress test from any one pipe out of selected four pipe during MPQT. Please confirm.	Tender Conditions Prevail.
86			INSPECTION & TEST PLAN FOR HELICAL (SPIRAL) SEAM SAW LINE PIPES (ONSHORE) (DOC. NO. ITP NO.05/21/12C/003 REV. 1 DT. OCT 15) & NSPECTION & TEST PLAN FOR HR COIL/PLATE (Doc. No. ITP NO.05/21/12B/006 Rev. 1 DT. APR-16	Bidder understands that Inspection and Test Plan DOC. NO. ITP NO.05/21/12C/003 & INSPECTION & TEST PLAN FOR HR COIL/PLATE (Doc. No. ITP NO.05/21/12B/006 is indicative only, the project specific ITP shall be submitted. Bidder also understands that for raw material, mill control test is not required to perform at pipe mill as the same shall be witnessed at steel mill.	Part-1: Bidder understanding is correct. Tender Conditions Prevail. Part-2: Mill control test is mandatory. Tender Conditions Prevail.
87			Applicable References	While evaluating this enquiry, Bidder has considered following documents in below order of precedence: • MATERIAL REQUISITION FOR COATED & BARE LINE PIPES Doc. No. MEC/23UU/05/21/M/001/S012C (Bid No. 05/51/23UU/IGGL/012C • AMENDMENT TO LINE PIPE TS & COATING TS • STANDARD SPECIFICATION FOR SAWL LINEPIPE (ONSHORE) (Doc. No. MEC/TS/05/21/012B Ed. 3 Rev. 1 DT. 13.04.2016 • INSPECTION & TEST PLAN FOR SAWL LINE PIPES (ONSHORE) (Doc. No. ITP NO.05/21/12B/002 Rev. 1 DT. APR 16) • RAW MATERIAL (HR COIL/PLATE) Quality Requirements for Line Pipes (Doc. No. ITP NO.05/21/12B/006 Rev. 1 DT. APR-16) • API 5L 46th Edition April 2018 & Errata 1 dated May 2018	Bidder understanding is correct. However, client/ its representative reserves the right to follow the more stringent requirement. Tender Conditions Prevail.

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S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
88			Item: Supply of Coated & Bare Line Pipes Group A	Bidder propose that the pipes shall be manufactured using plates/ CTL (Cut to length) plates from coils / plates procured in double width & sheared/ cut to required width for smaller diameter pipes, manufactured through TMCP route.	Tender Conditions Prevail.
89			CERTIFICATION The vendor shall be completely responsible for the design, materials, fabrication, coating, testing, inspection, preparation for shipment, loading of the above item strictly in accordance with the Material Requisition and all attachments thereto. All items shall be provided with EN 10204, 3.2 Certification. The steel plate/coil required for pipe manufacturing shall also be certified as per EN 10204, 3.2 Certification.	As a pipe manufacturer; Bidder intend to clarify that designing is not a considered under the scope of pipe manufacturer. Pipe shall be manufactured based on project specification & API 5L requirements.	Design in this case shall be Procurement of steel, manufacturing of pipes, coating application, Loading & unloading, transportation etc as per required tender parameter. Tender conditions prevail.
90			The successful Manufacturer/supplier shall submit a prerecorded Training CDs/DVDs and it shall comprise the basic theories and fundamentals, related standards, design parameters, manufacturing & inspection methods, and other relevant details. The CDs/DVDs shall have to be self-contained, user-friendly using animation/videos and other multimedia techniques. DOCUMENTS & DATA REQUIREMENTS: 15. Final technical file: HardCopy-2 Set & Soft copy-4 Set in Pen Drive The Manufacturer shall provide one electronic copy and six hard copies of production report in English language indicating at least the following for each pipe.	Bidder propose to provide 1 set of Hard copy and 4 set of electronic copy of MRB as per approved MRB index of applicable document of SAWL pipe manufacturing.	Tender conditions prevail.
91			Normative references The latest edition (edition enforce at the time of issue of enquiry) of following additional references are included in this specification: - ASTM E 1 12-12: Standard Test Methods for Determining Average Grain size. - BS 5996: Specification for Acceptance level for internal imperfection in steel plate, strip & wide flats based on ultrasonic testing	Bidder has considered the latest edition of ASTM E112 – 13 edition. Bidder also understand that Ultrasonic inspection of plate Body and edges for Laminar imperfection shall be carried out as per ISO 10893-9 as per Cl. E.8 & E.9 of Client spec	Bidder understanding is correct. Tender Conditions Prevail.
92			The sizing ratio, s_r, shall be calculated as per the following formula: $S_r = \|D_a - D_b\| / D_a$ where, D_a is the actual outside diameter after sizing D_b is the actual outside diameter before sizing The actual outside diameter shall be measured with a tape measure (i.e. perimeter as an average of all possible diameters) at both ends and at the centre of the pipe.	It seems be a typo error as it should be: Sr = Da – Db Db Da = Actual outside diameter after sizing Db = Actual outside diameter before sizing Based on API 5L Cl. 8.9.3.	Bidder understanding is correct, this is a typographical error. Tender Conditions Prevail.
93			… test temp of 0degC or a lower test temperature as specified in PO.	Bidder has considered the CVN Impact test temp as 0 deg C, please confirm.	Bidder understanding is correct, test temperature is 0 deg C. Tender conditions prevail.
94			Table 18 – Inspection frequency of pipe Sl. no. / Type of inspection / Frequency of inspection 1. Heat analysis [a] / One analysis per heat of steel 2. Product analysis [b] / Two pipes per lot (maximum 100 pipes) per heat 3. Tensile testing of the pipe body / Once per test unit of not more than 100 pipes 4. Tensile testing of the longitudinal seam weld of pipe[c] / Once per test unit of not more than 100 pipes	Bidder confirms for product analysis in pipes with 2 samples / 100 pipes / heat shall be selected randomly from the heat used at pipe mill for pipe production with lot of 100 pipes. For foot note c (Weld Tensile test), Bidder understands that Tensile testing of SAWL seam weld of pipe shall be performed on pipe produced from each welding machine at a frequency of 1 test per welding line per week. Please confirm.	Referred table (table-18) is self explanatory. Tender Conditions Prevail.
95			Product analysis b : b Pipes selected shall be such that one at the beginning of the heat and one at the end of the heat are also represented.	Bidder clarifies that pipe for product analysis shall be selected randomly as it is practically not possible for pipe selected one at the beginning of the heat and one at the end of the heat	Tender Conditions Prevail.

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96			The equipment for the automatic inspection shall allow the localization of both longitudinal and transverse defects corresponding to the signals exceeding the acceptance limits of the reference standard. The equipment shall be fitted with a paint spray or automatic marking device and alarm device for areas giving unacceptable ultrasonic indications and probe decoupling	Bidder clarifies that: Automatic plate ultrasonic system is not having paint marking device as the location of indication is located by graph in terms of coordinates & identified location are subjected to manual ultrasonic testing in accordance with approved Manual ultrasonic testing procedure. However, Automatic weld ultrasonic testing machine is equipped with paint marking facility.	Tender Conditions Prevail.
97			General	Bidder understands that the received ITP for SAWL pipe is a generic ITP & has been retained for information purpose. However, Bidder clarifies that the project specific ITP shall submitted for review & approval in case of award.	Bidder understanding is correct. Tender Conditions Prevail.
98	2.0 (D)	Section-I 4 of 232	CONTRACTUAL DELIVERY DATE Delivery Within 16thweeks. Progressively from beginning of 12thweek and up to endof 16thweek.	We propose that deliveryshould be completed within20 weeks. Asit is not possible to deliver the material in such a short time since domestic Raw material procurement time is at least 70 - 80 days and in case of imported steel, it will take an additional one month. Further after procuring the steel, Pipes PQT/manufacturing, coating and dispatches will also take at least 30 - 45 days.	Since this is balance procurement for Guwahati Numaligarh and Tulamura Spurline and the pipes are required immediately , hence Tender condition prevail.
99	19.1 of SCC - Goods	Section – VI 223 of 232	REPEAT ORDER In partial modification to GCC clause no. 40, Repeat Order shall be applicable upto 20% of the ordered quantity within contractual delivery period or03(three) months from the date of Fax of acceptance, whichever is earlier	Repeat Order should be made within a month from the date of FOA as the prices of raw materials are very volatile. Also, the procurement of 20% of the ordered quantity is very small andis not feasible for steel procurement.	Tender condition prevail
100			Cut to Length (CTL)/Centre slitting Plates.	Bidder intent to clarify that being small diameterpipes, HR coils might be procured in lieu of steelplates. Coils shall be sheared for producing cut tolength plates or by centre slitting of length as per client specification. The traceability of heat number and coil numbershall be maintained. Please confirm.	Tender conditions prevail.
101	MR No. :MEC/23UU/05/21/M/001/S012C Clause 10.1.3.1 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		5. Raw Material Inspection will be witnessed by Vendor appointed TPIA & TPIA shallissue MTC as per EN 10204-3.2 certification. vi. Inspection by vendor appointed TPI shall be as per EN 10204, 3.2certification. Inspection of Steel Plate/Coil/Billet required for manufacturing of Line Pipe shall also be 3.2 certified as per EN 10204. Inspection documents for PSL2 pipes: Inspection certificate 3.2 in accordance with EN 10204 shall be issued for each dispatched pipe by Purchaser's authorized representative.	Bidder requests to clarify that appointment of TPIA & associated cost will be in the scope of pipemanufacturer or client	It is clearly mentioned that TPIA shall be appointed by pipe manufacturer. Tender conditions prevail.
102	Clause 3 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		BS 5996 Specification for the Acceptance Level for Internal Imperfection in Steel Plate, Strip and Wide Flats Based on Ultrasonic Testing.	Bidder clarifies that the BS 5996 has been withdrawn and superseded By: BS EN 10160. The latest edition will be used whereas require	ISO 10893 shall be applicable as mentioned in Annexure-E of respective Tech. Specs. Tender conditions prevail.

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S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
103	Clause 8.9.3 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016		8.9.3 The sizing ratio, s_r, shall be calculated as per the following formula: $S_r = \lvert D_a - D_b \rvert / D_b$ where, D_a is the actual outside diameter after sizing; D_b is the actual outside diameter before sizing. The actual outside diameter shall be measured with a tape measure (i.e. perimeter as an average of all possible diameters) at both ends and at the centre of the pipe.	Bidder clarifies that there is typo error in formula: As per API Spec. 5L 46th edition clause 8.9.3 $s_r = \frac{\lvert D_a - D_b \rvert}{D_b}$ where Da is the manufacturer-designated outside diameter after sizing, expressed in millimetres (inches); Db is the manufacturer-designated outside diameter before sizing, expressed in millimetres (inches); |Da – Db| is the absolute value of the outside diameter difference, expressed in millimetres (inches). Please confirm	Bidder understanding is correct, this is a typographical error. Tender Conditions Prevail.
104	Clause 9.2.2 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		Element % max c 0.12 Mn 1.60	Bidder requests that Table 5 footnote b) of API 5L 46th Edition to be permitted for Carbon – Manganese relation i.e. For each reduction of 0.01 % below the specified maximum for C, an increase of 0.05 % above the specified maximum for Mn is permissible, up to a maximum of 2.00 % for X70 Grade	Tender Conditions Prevail.
105	Clause 9.2.3of Doc. No. MEC/TS/0		9.2.3 For heat analysis and product analysis, all the elements listed in Table 5 of this specificationshall be analyzed and reported, even if those are not purposely added but are present asresiduals only.	Bidder clarifies that Heat analysis shall be performed at Steel Mill and same shall be reported in Raw Material Test Certificate, the RMTC shall be submitted to CLIENT/TPIA for review before commencement of production. However Product analysis shall be performed at Pipe mill as per API 5L Table 18 i.e. Two analyses per heat of steel (taken from separate product items). Please re-confirm our understanding	Respective clause of Tech. Spec. is self explanatory. Tender Conditions Prevail.
106	Clause 9.8.2 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		The average (set of three test pieces) absorbed energy value (KvT) for each pipe body test shall be as specified in Table 8 of this specification, based upon full sized test pieces at a test temperature of 0°C (32°F) or at a lower test temperature as specified in the Purchase Order.	Bidder understands that the CVN test temperature for pipe body as 0°C. Please re-confirm	Bidder understanding is correct, test temperature is 0 deg C. Tender conditions prevail.
107	Clause 9.8.3 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C		The average (set of three test pieces) absorbed energy value (KvT) for each pipe weld and HAZ test shall be as specified in Table 8 of this specification, based upon full-size test pieces at a test temperature of 0°C (32°F) or at a lower test temperature as specified in the Purchase Order	Bidder understands that the CVN test temperature for weld & HAZ as 0°C. Please re-confirm.	Bidder understanding is correct, test temperature is 0 deg C. Tender conditions prevail.
108	Clause 9.9 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3,		For each test (set of two test pieces), the average shear fracture area shall be ≥ 85 % based upon a test temperature of 0°C (32°F) or at a lower test temperature as specified in the Purchase Order	Bidder understands that the DWT test temperature as 0°C. Please re-confirm.	Bidder understanding is correct. Tender conditions prevail.
109	Clause 9.10.4 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3,		9.10.4 Laminations Any lamination or inclusion either extending into the face or bevel of the pipe or presentwithin 50 mm from pipe ends shall be classified as defect. Pipes that contain such defects shall be rejected or cut back until no lamination or inclusion is present at the pipe ends andshall be treated in accordance with clause C.3 b) or C.3 c) of API Specification 5L.	Bidder understand that Lamination or inclusion acceptance criteria shall be in accordance with the API 5L 46th Edition. Pipe which exceed the acceptance criteria of lamination or inclusion shall be rejected or cut back until no lamination or inclusion is present at the pipe ends and shall be treated in accordance with clause C.3 b) or C.3 c) of API Specification SL.	Respective clause of Tech. Spec. is self explanatory. Tender Conditions Prevail.

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110	Clause 9.12.5.7 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		Finished pipe ends During removal of inside burrs at the pipe ends, care shall be taken not to remove excess metal and not to form an inside cavity on bevel. Removal of excess metal beyond the minimum wall thickness as indicated in clause 9.11.3.2 of this specification shall be a cause for re-bevelling. In case root face of bevel is less than that specified, the pipe ends shall be re-bevelled and rectification by filing or grinding shall not be done.	Bidder understands that pipe ends shall be bevelled as per API 5L i.e. bevel angle 30°-35° and root face 1.6 mm ± 0.8 mm. Please confirm.	Bidder understanding is correct. Tender conditions prevail.
111	Table 18of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		**Table 18 – Inspection frequency of pipe** Sl. no. | Type of inspection | Frequency of inspection 2. | Product analysis [b] | Two pipes per lot (maximum 100 pipes) per heat	Bidder confirms that product analysis in pipes with 2 samples / 100 pipes / heat shall be selectedrandomly from the heat used at pipe mill for pipe production.	Tender conditions prevail.
112	Table 18of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		Footnote c: Pipe produced by each welding machine shall be tested **Table 18 – Inspection frequency of pipe** Sl. no. | Type of inspection | Frequency of inspection 4. | Tensile testing of the longitudinal seam weld of pipe[c] | Once per test unit of not more than 100 pipes	Bidder understands that as per "Footnote C" Transvers Weld Tensile (TWT) shall be performed on Pipe produced by each welding machine shall be tested at least once per week.	Bidder understanding is correct. Tender conditions prevail.
113	Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		10.2.5 Macrographic and Metallographic Tests 10.2.5.3 Metallographic tests shall be performed on pipes supplied as per this specification. The testpiece shall be visually examined using a minimum 10X magnification to provide evidencethat proper fusion has been obtained for the full thickness, and there is proper interpretationof passes, their alignment and texture of weld zone. In case imperfections or defects areobserved, it will become a cause for re-evaluation of welding parameters as deemednecessary by Purchaser's Representative.	Bidder clarifies that the specified herein requirements shall applicable for Macrographic Test, however Metallographic Tests has to be performed for HFW pipes, hence only Macrographic Test to be applicable for SAWL/SAWH pipes. Please confirm our understanding	Requirements of Macrographic & Metallographic test are detailed in cl. no. 10.2.5 of Tech. Specs. and in API 5L. Tender conditions prevail.
114	Clause 14of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		14 PRODUCTION REPORT (New) The Manufacturer shall provide one electronic copy and six hard copies of production reportin English language indicating at least the following for each pipe. International system ofunits (SI) shall be adopted.	Due to environmental concern bidder request to permit one hard copy and 6 electronic copy of the MRB.	Tender conditions prevail.
115	Clause B.5.2 (d, ii) Annex B of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		Cylindrical all weld tensile test shall be carried out to determine the yieldstrength, tensile strength and elongation during MPQT and whenever there ischange in the batch of electrode or wire & flux combination. The results of the test shall meet the minimum requirements of the platewith regard to yield strength and tensile strength. The minimum elongation shall be determined in accordance with the formulagiven in foot note (f) of Table 7 of API Spec 5L; however, minimumelongation in no case shall be less than 20%.	Bidder understands that minimum elongation for cylindrical all weld tensile test shall be determined in accordance with formula given in foot note (f) of Table 7 of API spec 5L. Please confirm.	Tender conditions prevail.

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116	Clause D.2.3.2.1 of Annex D of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3,		In addition to the API Spec 5L requirements, the test piece edge shall bemachine cut. Oxygen cut is not allowed.	Bidder intent to clarify that test pieces shall be cut with an additional length for sample preparation when cut from pipe and after that sample shall be prepared by machining. Please confirm.	Tender conditions prevail.
117	Clause E.4.5 & E.4.6 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		Slag-inclusion-type and/or gas-pocket-type imperfections in the weld at pipe ends are not acceptable and shall be treated as per below. Defects found by radiographic inspection: Defects in the weld such as cracks, slag inclusions, porosityand defects in the pipe material shall be removed by cutting off the section of pipe containing these defects. The remaining defect-free section of the pipe will be acceptable provided its length is within the specified minimum length and the weld at the new pipe end contains no defects.	Since the acceptance criteria for slag inclusion type and/or gas pocket type imperfections is not provided in the MECON specification, bidder will follow the acceptance criteria as per API 5L Annexure E, Table E.5 & E.6. Howeverno imperfection will be accepted within50 mm (2 inch) from Pipe End and shall be treated as per E.4.6 of GAIL specification. Please confirm.	Kindly go through the "Scope" of Mecon's Tech. Specs. wherein the applicability of Tech. Spec. and API 5L is clearly outlined. Tender conditions prevail.
118	Clause E.8 & E.9 of Doc. No. MEC/TS/05/21/012B , Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C , Rev.01, Ed-3, Dated: 13.04.2016		Plate UT: E.8:The plate, except the longitudinal edges, shall be ultrasonically tested for laminations using an oscillating or straight running pattern of probes in accordance with ISO 10893-9 E.9:The longitudinal edges of the plate shall be 100% ultrasonically inspected in accordance with ISO 10893-9 amended as follows:	Bidder intent to clarify that plate ultrasonic testing shall be carried out at steel mill as per specification and the same shall not be repeated at pipe mill. The results shall be mentioned in RMTC and shall be provided for review. However UT of full length weld seam shall be carried out at pipe mill. Please confirm.	Referred clauses are self explanatory. Plate ultrasonic test has to be carried out at pipe mill too. Tender conditions prevail.
119	Inspection & Test Plan For SAWL Line pipe (Onshore) ITP No. MEC/TS/05/21/012B , Rev.01, Apr-2016 and Inspection & Test Plan For SAWH Line pipe (Onshore) ITP No. MEC/TS/05/21/012C , Rev.01, Oct-2015		QUANTAM OF CHECK = 100%	Bidder understands that the Frequency of inspection shall be in accordance with Table 18 of Specification MEC/TS/05/21/012B, Rev.01, Ed-3, Dated: 13.04.2016 and MEC/TS/05/21/012C, Rev.01, Ed-3, Dated: 13.04.2016. Please confirm	Bidder understanding is correct. However, more stringent requirement may be applicable, as the case may be, as per tender requirements. Tender conditions prevail.
120	Cl. 8.7 of Spec. No.: MEC/TS/05/21/014		Surface of the pipe after abrasive cleaning shall have an anchor pattern of 70 to 100 microns (Rz). This shall be measured for each pipe by a suitable instrument such a surface profile depth gauge as per ISO 8503-4.	Bidder clarifies that surface roughness criteria range is very stringent. So we propose surface roughness criteria range between 50-100 micron and use of Stylus Roughness Gauge profile in accordance with ISO 8503-4.	Tender conditions prevail.
121	Table 5 (Sr. No. 23 of IV) of Spec. No.: MEC/TS/05/21/014		Properties - Bond strength @23°±2°C @80°±2°C PQT - 3 test on each 4 pipes (at both end & middle) (For both temperature) Production - Every 15 for pipe ends (cut back portion) & 60 for middle of pipe. (For both temperatures)	Bidder proposes to perform the peel test at maximum feasible distance from pipe end instead of middle of the pipe. It is practically not possible to maintain the specified test temperature at the middle of the pipe due to size constraint and safety concern.	The most feasible distance for Bond Strength test for small diameter pipes (12" OD in present case) for test to be conducted in the middle of pipes can be decided by client or its representative at the time of MPQT. Tender Conditions Prevail.
122	CL.no. 8.6.5 of Spec .No.: MEC/TS/05/21/014		The salt tests shall be carried out after de-ionized water rinse. One test shall becarried out at one end of each pipe.The acceptance criteria shall be 2□g/cm²	Bidder Propose to perform the SCM Test after Abrasive Blasting Each Pipe at one End the Acceptance Criteria shall be 2□g/cm². After de-ionized water rinse only one SCM test perform on the pipe before start of each shift End the Acceptance Criteria shall be 2□g/cm²	Tender Conditions Prevail.

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123	Page no. 3 of 5 (Page255 of 304) of tender document.		Scope This procedure covers the application of 3D type bar code and pipe marking on bare pipe, 3LPE coated pipes. Cl. 3.1.1Pipe marking (stencil) shall be made from both end of the pipe opposite to the weld line. Pipe no. shall be printed on barcode at the bottom. VENDOR has to ensurephysical correction of pipe no. as per stencil &barcode, before applying barcode. One 3D type barcode sticker shall be pasted at an angle of 180° from the stencil side at a distance of 200 mm from the cutback area.	Bidder clarifies that there is no any 3D type barcode is available in the market. So we shall use simple 2D type barcode or 2D type QR code instead of 3D type and it shall be comply of requirement mentioned in cl. 3.1.3 & Figure-I. Please confirm.	Tender Conditions Prevail.
124	Page no. 3 of 5 (page 255 of 304) of tender documents.		Bar Coding (New) Bar-coding of line pipes as a requirement so that the pipe can be traced using bar codingscanner in the field. We propose bar coding at 4 equal spaced points on the pipe at 3, 6, 9, 12 O'clock position for easyidentification. Alternatively, bar-coding can be done at both ends at4, 8 & 12 O'clock position 3.1.3 FIXING OF LABELS ON PIPES Ensure that the surface area in which labels are pasted should be clean, dry and free fromdust. For each pipe two (2) labels shall be fixed, one for each end at outside (fixed approx.200 mm from the cutback / bevel area at an angle of 180° on each end). Refer Figure -I, allbar code shall be oriented perpendicular to the weld seam. The barcode label shall be put oncompletely finished pipe. Barcode label should not be overlapped with stencilling or any othermarking outside coated pipe. (i.e. externa coated pipe surface)	Bidder clarifies that there are contradiction in barcode requirement. So we shall apply each pipe two (2) labels shall be fixed, one for each end at outside (fixed approx. 200 mm from the cutback/bevel area at an angle of 180° on each ends as per clause no. 3.1.3 and figure-1. Please confirm.	Bidder understanding is correct. Tender conditions prevail.
125	Spec. No.: MEC/TS/05/21/014: Specification for 3LPE coating of line pipes		Page No. 182 of 304 of tender doc. Rev.:0, Edition: 2 Page No. 113 to 153 of 227 of tender doc. Rev.:1, Edition: 2	There is contradiction in revision of 3LPE coating specification in between second page of spec and thereafter all other pages. As we understands and considered Spec. No.: MEC/TS/05/21/014, Rev.:1, Edition: 2. Please confirm.	Bidder understanding is correct, this is a typographical error. Tender Conditions Prevail.
126	Cl. No. 2.0 of Spec. No.: MEC/TS/05/21/014 REV.00		Reference documents.	Bidder understands that all requirements applicable for 3LPE coating have been specified in Doc. No. MEC/TS/05/21/014, Rev.1, Edition-2. All reference document, specification, standards & codes shall be applicable only when specifically reference given to the requirements inMEC/TS/05/21/014, Rev.1, Edition-2. Please confirm.	Bidder understanding is correct. Tender Conditions Prevail.
127	Spec. No.: MEC/TS/05/21/014 REV.1& ITP. No.: 05/21/14/004, Rev.00, Dated: May-2020		Spec. No.: MEC/TS/05/21/014 REV.00: Specification for 3LPE Coating of line pipes. ITP. No.: 05/21/14/004, Rev.00, Dated: May-2020: ITP - 3LPE Coating of line pipes	Bidder considers 3LPE coating technical specification as the governing document for external 3LPE coating on line pipe. We understands and considered received 3LPE coating QAP for reference purpose only. After award of order, we shall submit our own prepared ITP based on received 3LPE coating technical specification for further approval and acceptance.	Bidder understanding is correct. Tender Conditions Prevail.
128	Cl. No. 5.2 of Spec. No.: MEC/TS/05/21/014		The coating materials Manufacturer shall carry out tests for all properties specified inTable 2, Table 3 & Table 4 for each batch of epoxy, adhesive and polyethylenecompound respectively. In addition, the Manufacturer shall also furnish Infra-red Scan for each batch of epoxy powder. The coating materialsmanufacturer shall issue testcertificates as per DIN EN 10204, 3.1 for each batch of materials supplied to Applicatorand the same shall be submitted to COMPANY for approval prior to their use.	Epoxy powder material: Epoxy material manufacturer shall carry out test for all properties specified in table 2. Adhesive & PE material: All mentioned tests in Table 3 & 4 of coating spec. shall be performed by raw material manufacturer. They will supply test certificate for each batch with measured value and typical values. The same to be reviewed to TPI.	Tender Conditions Prevail.

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S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
129	Table 5 (Sr. No. 24 of IV) of Spec. No.: MEC/TS/05/21/014		Properties :Specific electrical coating resistance Acceptance Criteria: ≥ 108 Ω-m2. Test Method: Annex J of DIN 30670 Frequency (PQT): One Pipe Note j: Test carried out in an independent laboratory of national/international recognition on PE topcoat is also acceptable.	Bidder understands that as per Table 5 (Note-j) i.e "Test carried out in an independent laboratory of national/international recognition on PE topcoat is also acceptable" for Specific electrical coating resistance test. Hence, Bidder will submit the test certificates of material manufacturer for review and acceptance. Please confirm.	Bidder understanding is correct. Tender Conditions Prevail.
130	Cl. No. 7.8 of Spec. No.: - MEC/S/05/21/014		On successful completion of PQT, coating of all five (5) test pipes shall be removedand completely recycled as per the approved coating procedure specification, at Applicator's expense. Remaining pipes will be accepted by COMPANY provided theymeet the requirements of this specification and need not be stripped and re-cycled.	Bidder intent to clarify that, if these pipes are technically complied the requirements of specification then we request to accept those pipes without removal of 3LPE Coating as a part of MPQT accepted pipes. Please confirm	Tender Conditions Prevail.
131	Cl. No. 8.6.4 of Spec. No.: MEC/TS/05/21/014		After the de-ionised water wash, the pipe shall be dried with dry air and preheatedto a temperature of 65°C to 85°C	Bidder understands that after de-ionised water wash, the pipe shall be dried and preheated with dry air of temperature 65°C to 85°C.	Tender Conditions Prevail.
132	Cl. No. 9.2.7 of Spec. No.: MEC/TS/05/21/014		The monitoring instruments shall beindependent of the temperature control equipment. The instruments shall becalibrated prior to start of each shift.	Bidder intent to clarify that the calibration of temperature measuring device shall be carried out by verification method with another temperature measuring device in each shift	Bidder understanding is correct. Tender Conditions Prevail.
133	Cl. No. 9(D) of ITP 05/21/14/004		Phosphoric acid wash followed by de-ionized water wash (as applicable)	Bidder intent to clarify that salt test shall be carried out after blasting and before chemical pre-treatment with phosphoric acid solution and DM water wash.	Tender Conditions Prevail.
134			Application of varnish on external surface of cut back area	Bidder intent to clarify that a single coat of varnish would be applied on external cut back area of both ends in order to prevent rust during storage and transit. Please confirm if the same is acceptable to client.	Tender Conditions Prevail.
135	Spec. No.: MEC/TS/05/21/014B REV.00& ITP No.: 05/21/14B/005, Rev.1, Dated: Apr-2016		Spec. No.: MEC/TS/05/21/014B REV.00: Specification for Internal epoxy coating of line pipes. ITP No.: 05/21/14B/005, Rev.1, Dated: Apr-2016: ITP for Internal liquid epoxy coating.	Bidder considers internal coating technical specification as the governing document for internal liquid epoxy coating on line pipe. We understands and considered received internal coating QAP for reference purpose only. After award of order, we shall submit our own prepared ITP based on received technical specification for further approval and acceptance.	Bidder understanding is correct. Tender Conditions Prevail.
136	Cl. No. 4.0 of Spec. No.: MEC/TS/05/21/014B		Each pipeline shall be provided with an internal liquid epoxy coating by the Vendor. Theinternal coating shall be as per ISO 15741 – 2001 (E).	Bidder has considered the latest version ISO 15741-2016to be followed for internal flow coating. Please confirm.	Bidder understanding is correct. Tender Conditions Prevail.
137	Cl. No. 5.2 of Spec. No.: MEC/TS/05/21/014B & Sl. No. 1b of ITP-No. 05/21/14B/005		Raw Material Inspection of Coating Paint & Hardener for qualification of coating material a) Non-volatile matter (by mass) b) Non-volatile matter (by volume) c) Viscosity d) Density e) Ash residue on ignition f) Pot life	Bidder clarifies that we will submit the raw material manufacturer test certificate for compliance of the testing such as[e.g.Non-volatile matter (by volume), Ash residue onignition& Pot life].	Bidder understanding is correct. Tender Conditions Prevail.
138	Cl. No. 5.3 of Spec. No.: MEC/TS/05/21/014B &Sl. No. 6 of ITP-No. 05/21/14B/005		Particular requirements of qualification of the cure paint film: 1. Resistance to neutral salt spray 2. Resistance to artificial aging 3. Resistance to gas pressure variation 4. Resistance to water immersion 5. Resistance to chemicals 6. Resistance to hydraulic blistering	Bidder intent to clarify that the following tests are long term tests and shall be performed by coating material supplier. The test certificates shall be furnished to client for review. 1. Resistance to neutral salt spray 2. Resistance to artificial aging 3. Resistance to gas pressure variation 4. Resistance to water immersion 5. Resistance to chemicals 6. Resistance to hydraulic blistering	Bidder understanding is correct. Tender Conditions Prevail.

REPLY TO BIDDERS QUERIES
FOR COATED LINE PIPES FOR NORTH -EAST GAS GRID PIPELINE
PROJECT (PIPELINE SECTION 1 & 12) OF M/S INDRADHANUSH GAS GRID LIMITED
Tender no. : 05/51/23UU/IGGL/012C

DATED : 11.05.2022

S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
139	Cl. No. 1.1 (iv) of Doc. No:- MEC/23UU/05/21M/ 001/S012C& ANNEX B & Cl. No.5.3.3 of Spec. No.: MEC/TS/05/21/014B		Cl. No. 1.1 (iv) of MEC/23UU/05/21M/001/S012C The minimum dry film thickness shall be 100 micron & extremities of pipes shall be free of painting over a length of 50±5 mm. ANNEX B of Spec. No.: MEC/TS/05/21/014B The minimum dry film thickness of the coating shall be 80µm above the perks. Cl. No. 7.1.2 of Spec. No.: MEC/TS/05/21/014B Unless otherwise specified or agreed, the minimum dry film thickness of the coating shall be 80 µm above the peaks in the profile of the substrate	Bidder clarifies that there is contradiction in minimum dry film coating thickness requirement between MR and coating spec. hence, we have considered minimum dry film thickness 100 micron as per requirement mentioned in MR. Please confirm	Requirements of MR shall prevail. Tender Conditions Prevail.
140	Cl. No. 5.1 of Spec. No.: MEC/TS/05/21/014B		The coating material shall typically be a two-pack epoxy paint. It shall not contain anysubstances which will be released from the paint film after it has cured and are proven to be detrimental to the operation of the pipeline and the quality of the gas.	Please provide the list of approved paint material for internal flow coating, if any.	Please refer cl. no. 1.1 of MR for Internal Epoxy Coating. Tender conditions prevail.
141	Cl. No. 6.1 (Table 4) of Spec. No.: MEC/TS/05/21/014B		Items Ambient temperature Steel temperature Relative humidity Flash point	We understand that there is typographical error of flash point. It should be dew point instead of flash point. Please confirm.	Tender conditions prevail.
142	Cl. 1.1 (xi) of MR Doc. No:- MEC/23UU/05/21M/ 001/S012C& ANNEX B & Cl. No. 6.2 of Spec. No.: MEC/TS/05/21/014B		Cl. 1.1 (xi) MEC/23UU/05/21M/001/S012C The surface roughness shall be checked at random and shall be of the range of 30-60 microns in accordance with ISO 4287-1. Cl. No. 6.2 of Spec. No.: MEC/TS/05/21/014B Check the surface profile. Unless otherwise agreed, it shall be such that R γ5 (see ISO 8503-1) is between 25 µm and 60 µm.	Bidder clarifies that there is contradiction in surface roughness betweenCl. 1.1 (xi) of Doc. No. MEC/23UU/05/21M/001/S012C & Cl. No. 6.2 of Spec. No.: MEC/TS/05/21/014B. So we have considered 30-60 microns on (Rz) scale as per ISO 8503-4 (Stylus method) in within required criteria.	Requirements of MR shall prevail. Tender Conditions Prevail.
143			Woven sacks to be fixed along with metallic bevel protector for internal coated pipes.	Bidder intent to clarify that for internal coated pipes, woven sacks would be fixed along with metallic bevel protector in order to prevent ingress of foreign material inside the pipe. Please confirm if the same is acceptable to client.	Tender Conditions Prevail.
144	12 of 232	1.2	Delivery Schedule: For Group-A: Within 16 Weeks	Looking to current scenario, the Raw material suppliers are taking minimum 3 month for delivery of Raw Material and after that Bare Pipe Manufacturing , Coating & Transportation of Material will take time. So you are requested to please amend the delivery schedule as " start from 20 Weeks and complete up to 26 Week.	Since this is balance procurement for Guwahati Numaligarh and Tulamura Spurline and the pipes are required immediately , hence Tender condition prevail
145	95 of 232	15	Validity Period: i.e. 4 months	As you well aware that the Raw material Price are increase day by day , so it is very difficult to keep the validity of our offer for 4 month. So please amend the same as 60 days from the bid due date. Please confirm	Tender condition prevail
146	223 of 232	19	SCC: Repeat Order: upto 20% of the Order Qty	Please delete the repeat order clause from tender documents. The Quantity mentioned against Item A1 is very small and no raw material suppliers will agree to supply such small quanity (upto 2300 MTR) against the repeat order of Item A1. So we request you to please delete this clause. or Increase the tendered quantity of Item A1 upto the repeat order quanity.	Tender condition prevail
147			TPIA	We request you to incorparte the name of TPIA i.e, Edlipse Engineering Golbal Pvt Ltd, for raw Material inspection and Pipe inspection. Its already approved by IOCL, COPY ENCLOSED)	Tender Conditions Prevail.
148			The extrusion temperatures of the adhesive and polyethylene shall be continuously recorded. The monitoring instruments shall be independent of the temperature control equipment. The instruments shall be calibrated prior to start of each shift.	Bidder intent to clarify that the calibration of temperature measuring device shall be carried out by verification method with another temperature measuring device in each shift. Please confirm.	Bidder understanding is correct. Tender Conditions Prevail.

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S.N.	CL. No.	Section/	Section Detail/Description	Clarification / Deviation	MECON's Reply
149			After 1st blast cleaning, Oil free, preheating, blast cleaning and free from salt contamination, phosphoric and treatment followed by De-ionized water wash.		Tender Conditions Prevail.
150			The frequency of test for cut back portions shall be one pipe in every fifteen (15) pipes coated and for middle of pipe shall be one pipe in every sixty (60) pipes coated or one pipe per shift whichever is higher.	Bidder intent to clarify that , To perform the peel test at maximum feasible distance from pipe end instead of middle of the pipe. It is not practically possible to maintain the specified test temperature at the middle of the pipe due to size constraint and safety concern. Please confirm.	The most feasible distance for Bond Strength test for small diameter pipes (12" OD in present case) for test to be conducted in the middle of pipes can be decided by client or its representative at the time of MPQT. Tender Conditions Prevail.
151			Cl No. 1.1(iv) The minimum dry film thickness shall be 100 micron & extremities of pipes shall be free of painting over a length of 50±5 mm. Cl No. 5.3.3 Unless otherwise agreed, the dry film thickness of the coating, applied on a glass or steel panel, shall be minimum 80 µm.	Bidder intent to clarify that there is conflict regarding internal coating thickness in this tender. We have considered coating thickness as minimum 80 µm. Further, bidder request that, we have maintained cut back as 50 to 75 mm. Please confirm.	Requirements of MR shall prevail. Tender Conditions Prevail.
152			Raw Material Inspection of Coating Paint & Hardener for qualification of coating material a) Non-volatile matter (by mass) b) Non-volatile matter (by volume) c) Viscosity d) Density e) Ash residue on ignition f) Pot life	Bidder intent to clarify that we shall submit the raw material manufacturer test certificate of compliance for following test, a).Non-volatile matter (by mass) b). Non-volatile matter (by volume) e). Ash residue on ignition f). Pot life. Please confirm.	Kindly refer relevant clause of Tech. Spec. Tender Conditions Prevail.
153			Particular requirements of qualification of the cure paint film: 1. Adhesion test 2. Buchholz hardness 3. Resistance to neutral salt spray 4. Resistance to artificial ageing 5. Bend test (conical Mandrel) 6. Resistance to gas pressure variation 7. Resistance to water immersion 8. Resistance to chemicals 9. Resistance to hydraulic blistering 10. Porosity (glass panel dry wet) 11. WFT (on all 25 pipes) 12. DFT (on all 25 pipes)	Bidder intent to clarify that the following tests are long term tests and shall be performed by coating material supplier. The test certificates shall be furnished to client for review. 1. Resistance to neutral salt spray 2. Resistance to artificial aging 3. Resistance to gas pressure variation 4. Resistance to water immersion 5. Resistance to chemicals 6. Resistance to hydraulic blistering Please confirm.	Kindly refer relevant clause of Tech. Spec. Tender Conditions Prevail.