



REPLY TO BIDDER'S PRE-BID QUERIES-1

TENDER FOR SUPPLY OF 172.5 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR STRETCHES OF GR.NOIDA & HAPUR AND BANDA GA EXPANSION

TENDER DOCUMENT NO. IGL/ET2/CP/CP17510, Dated 24.05.2023

VCS REFERENCE NO. VCS/C&P/17028/PC/CS PIPE/10

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

Pre-bid meeting held on 30.05.2023

Date: 05.07.2023

Sl. No.	Cl No.	Page No.	Description	Bidder's Query/Clarification	IGL/VCS Reply
1	7.6 of IFB Commercial Tender	10 of 106	Bid Submission date and time	We humbly request an extension of the tender due date by at least one week. This extension will grant us ample time to prepare and submit our bid with the utmost competitiveness	Refer Corrigendum-6, Dated-03.07.2023
2	4.1 of IFB	9 of 106	Delivery of CS Line Pipe shall be completed in 4 lots and the details are as follows; Delivery of 1st lot (16" for 25km.) shall be completed within 12 weeks from placement date of LOA/PO/ first intimation from IGL. Delivery of 2nd lot (16" for 25km.) shall be completed within 16 weeks from placement date of LOA/PO/ first intimation from IGL. Delivery of 3rd lot shall be completed within 20 weeks from placement date of LOA/PO/ first intimation from IGL. Delivery of 4th lot shall be completed within 26-30 weeks from placement date of LOA/PO/ first intimation from IGL.	1. As per the delivery Schedule mentioned in Tender Lot 3 & 4 quantity is not mentioned, please clarify lot wise quantity. 2. 1st Lot Delivery schedule to be revised from 12 Weeks to 20 Weeks considering minimum Lead Time for RM indent and other tooling related activities.	1. Lot-wise quantity distribution will be given during award of LOA/PO, However the state wise quantities are already mentioned in Cl. No. 4.2 of IFB. The final destination for deliveries shall be shared during issuance of dispatch clearance as per tender. 2. Tender conditions shall prevail.
3		-	Cut to Length (CTL)/Centre slitting Plates.	Bidder intent to clarify that being small diameter pipes (SAWL) of 16" OD, HR coils might be procured in lieu of steel plates. Coils shall be sheared for producing cut to length plates or by centre slitting of length as per client specification. The traceability of heat number and coil number shall be maintained. Please confirm.	Tender conditions shall prevail
4	MR, Doc. No. 17028-CGD-PL-MR-001, Rev. 00, Date: 12/05/2023	6 of 201	6.0 DESIGN DATA NOTES: 14.0 For butt weld end, bevel shall be in accordance with API specification 5L.	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's understanding is correct Tender conditions shall prevail
5	MR, Doc. No. 17028-CGD-PL-MR-001, Rev. 00, Date: 12/05/2023	8 of 201	6.0 DESIGN DATA NOTES: 15.0 Both pipe ends of each pipe shall be provided with metallic or high impact plastic bevel protectors/end cap as per Manufacturer's standard. Bevel protectors/end shall be of a design such that they can be re-used by coating applicator for providing on externally anticorrosion coated pipes subsequent to coating of line pipe. The details of the bevel protector/end caps shall be furnished for approval prior to start of the production. 16.0 Plastic push fit types end caps shall be installed on all small diameter pipe ends.	Bidder would like to use metallic bevel protectors of our standard design fixed with HDPE sheet/woven sacks to close the pipe ends in order to prevent ingress of moisture, dust & other foreign materials.	Acceptable
6	MR, Doc. No. 17028-CGD-PL-MR-001, Rev. 00, Date: 12/05/2023	8 of 201	6.0 DESIGN DATA NOTES: 20.0 Indicative ITP for line pipe & Coating is enclosed with MR/Tender. Minimum inspection and testing requirement of the line pipes shall be governed by attached ITP with Tender. Vendor shall submit their ITP after award for approval covering the requirement specified in tender ITP.	Bidder request to arrange LSAW ITP for our review if any.	Bidder may submit the ITP during document approval stage, in line with the minimum Inspection requirements given in the Standard Specifications.



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7	MR, Doc. No. 17028-CGD-PL-MR-001, Rev. 00, Date: 12/05/2023  Clause 15 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	9 of 201	7.0 DOCUMENTS & DATA REQUIREMENTS The table hereunder specifies the quantities and the nature of the documents to be submitted by the Manufacturer to the PMC.  Number of copies: 4 / 6  15 PRODUCTION REPORT The Manufacturer shall provide one electronic copy and six hard copies of acceptance certificates which shall include the results of all tests required as per this specification and performed on delivered material giving details of, but not limited to, the following:	Due to environmental concern bidder request to permit one hard copy (Xerox copy) and 3 electronic copy of the MRB dossier.	Tender conditions shall prevail						
8	Clause 8.9.3 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	5 of 36	8.9.3 The sizing ratio, Sr shall be calculated as per the following formula: sr = (Da - Db)/Db	Bidder clarifies that there is typo error in formula: As per API Spec. 5L 46th edition clause 8.9.3 $s_r = \frac{ D_a - D_b }{D_b}$ 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).	Bidder's understanding is correct Tender conditions shall prevail						
9	Table 5 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	5 of 36	Table 5 — Chemical composition for pipe <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Element</th> <th>% max</th> </tr> </thead> <tbody> <tr> <td>C</td> <td>0.16</td> </tr> <tr> <td>Mn</td> <td>1.4</td> </tr> </tbody> </table>	Element	% max	C	0.16	Mn	1.4	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 1.75 %.	Tender conditions shall prevail
Element	% max										
C	0.16										
Mn	1.4										
10	Clause 9.2.3 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	6 of 36	9.2.3 For heat analysis and product analysis, all the elements listed in Table 5 of this specification shall be analysed and reported, even if those are not purposely added but are present as residuals 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).	Tender conditions shall prevail						



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11	Clause 9.3.2 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	7 of 36	<p>9.3 Tensile Properties 9.3.2 The finished pipe (after cold expansion or sizing operation) shall conform to the requirements of Table 7 of API Specification 5L and as modified herein. The actual yield strength shall be as close as possible to the specified minimum yield strength (SMYS) but in no case it shall exceed the limits specified here under:</p> <table border="1"> <tr> <td>API Specification 5L Grade</td> <td>Permissible in excess of SMYS, MPa (psi)</td> </tr> <tr> <td>X52M to X60M</td> <td>125 (18,000)</td> </tr> </table> <p>API Specification 5L Grade Permissible in excess of SMYS, MPa (psi) X52M to X60M 125 (18,000)</p> <p>The ratio of body yield strength and body tensile strength of each test pipe on which yield strength and tensile strength are determined, shall not exceed 0.90 when tested using flattened test specimen.</p>	API Specification 5L Grade	Permissible in excess of SMYS, MPa (psi)	X52M to X60M	125 (18,000)	<p>Bidder request to confirm that these clauses is applicable only on finished Pipe and not at HR Coil stage. Further, bidder clarifies that opted steel mill does not accept the YS range and YS/UTS ratio, based on opted steel mill response, get the approval from client which resulted delays in execution/ supply of Order. Hence, we propose that both Permissible YS in excess of SMYS and YS/TS ratio shall be applicable for Finished pipe only. However, bidder confirm the Steel properties as per API 5L Table 7, i.e. YS = 415 – 565 MPa UTS = 520 – 760 MPa YS/UST = 0.93 Max.</p>	Tender conditions shall prevail
API Specification 5L Grade	Permissible in excess of SMYS, MPa (psi)								
X52M to X60M	125 (18,000)								
12	Clause 9.2.3 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	8 of 36	<p>9.9 DWT Test for PSL 2 Welded Pipe 9.9.1 For each test (set of two test pieces), the average shear fracture area shall be &gt; 85 % based on a test temperature of 0 °C (32 °F) or at a lower test temperature as specified in the Purchase Order.</p>	<p>As per clause 9.8.2.2 of SAWL Spec, bidder understands that DWTT is applicable to pipe with D &gt; 508 mm (20 inch), hence the DWTT is not applicable for this project.</p>	Bidder's understanding is correct Tender conditions shall prevail				
13	Clause 9.10.4 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	9 of 36	<p>9.10.4 Laminations Any lamination or inclusion either extending into the face or bevel of the pipe or present within 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 and shall be treated in accordance with clause C.3 b) or c) of API Spec 5L.</p>	<p>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.</p>	Tender conditions shall prevail				
14	Table 10 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	10 of 36	<p>Table 10 — Tolerances for diameter and out-of-roundness Out-of-roundness Tolerance at Pipe end: 0.005D</p>	<p>Since the less diameter and low wall thickness, it's difficult to maintain end out of roundness 2.03 mm max., bidder request to allow end out of roundness 5.0 mm max.</p>	Tender conditions shall prevail				
15	Table 10 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	10 of 36	<p>Table 10, Footnote c c. The diameter tolerance and out-of-roundness tolerance shall apply on inside diameter. The inside diameter, based on circumferential measurement, shall be calculated as ID = (D – 2t).</p>	<p>Bidder clarifies that there is typo error in formula to determine inside diameter, "D" is to be read as "OD" i.e. ID = (OD - 2t). Please confirm.</p>	D-Specified Outside Diameter Tender conditions shall prevail				



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16	Table 18 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	13 of 36	<table border="1"> <tr> <td>TYPE OF INSPECTION AT PIPEMILL</td> <td>FREQUENCY OF INSPECTION</td> </tr> <tr> <td>Product analysis b</td> <td>Two pipes per lot (maximum 100 pipes) per heat</td> </tr> </table> <p>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.</p>	TYPE OF INSPECTION AT PIPEMILL	FREQUENCY OF INSPECTION	Product analysis b	Two pipes per lot (maximum 100 pipes) per heat	<p>Bidder clarify that it is practically not possible to select pipes from beginning of the heat and at the end of the heat. This also delays testing and release of pipes for dispatches. Hence bidder is maintaining the traceability basis of receiving of heats as first comes heat treat as beginning of the heat, same applicable for last heat. Bidder confirms the Product analysis shall be performed with frequency of Two pipes per lot (maximum 100 pipes) per heat.</p>	Tender conditions shall prevail
TYPE OF INSPECTION AT PIPEMILL	FREQUENCY OF INSPECTION								
Product analysis b	Two pipes per lot (maximum 100 pipes) per heat								
17	Clause B.5.2 d) ii) of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	21 of 36	<p>Cylindrical all weld tensile test shall be carried out to determine the yield strength, tensile strength and elongation during MPQT and whenever there is change in the batch of electrode or wire &amp; flux combination. The results of the test shall meet the minimum requirements of the plate with regard to yield strength and tensile strength. The minimum elongation shall be determined in accordance with the formula given in foot note (f) of Table 7 of API Specification 5L; however, minimum elongation in no case shall be less than 20%.</p>	<p>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.</p>	Confirmed				
18	Clause D.2.3.2.1 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	24 of 36	<p>D.2.3.2.1 In addition to the API Specification 5L requirements, the test piece edge shall be machine cut. Oxygen cut is not allowed.</p>	<p>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.</p>	Tender conditions shall prevail				
19	Clause E.4.5 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	26 of 36	<p>E.4.5 ACCEPTANCE LIMITS FOR IMPERFECTIONS FOUND BY RADIOGRAPHIC INSPECTION In addition to the requirement of API Specification 5L, slag-inclusion-type and/or gas pocket-type imperfections in the weld, up to 200 mm length from each pipe end, are not acceptable and shall be treated as per clause E.4.6 of this specification i.e. 200 mm length from each pipe end shall be defect free zone.</p>	<p>Since the acceptance criteria for slag inclusion type and/or gas pocket type imperfections is not provided in the SAWL specification, bidder shall follow the acceptance criteria as per API 5L Annex E, Table E.5 &amp; E.6. However no imperfection will be accepted within 50 mm (2 inch) from Pipe End and shall be treated as per E.4.6 of SAWL specification. Please confirm.</p>	Tender conditions shall prevail				
20	Clause E.8 & E.9 of SAWL Spec. Doc. No. VCS-SS-PP-2045, Rev. 00	29 of 36	<p>E.8 LAMINAR IMPERFECTIONS IN THE PIPE BODY OF EW, SAW AND COW PIPES E.9 LAMINAR IMPERFECTIONS ALONG THE STRIP/ PLATE EDGES OR PIPE WELD SEAM OF EW, SAW AND COW PIPES</p>	<p>Bidder intent to clarify that if direct plate to be procured for SAWL pipes, plate ultrasonic testing shall be carried out at steel mill as per Client 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.</p>	Tender conditions shall prevail				
21	Table 7, 12 & Cl. No.8.5.2.15, 8.5.2.16 of VCS-SS-PP-2003	85, 106 of 201	<p>Following tests to be done in system testing stage</p> <ol style="list-style-type: none"> <li>Specific Electrical Coating Resistance (23°C±2 °C)</li> <li>UV Ageing test</li> <li>Thermal ageing test</li> </ol>	<p>Bidder intent to clarify that the following tests are long duration test and shall be performed by coating material supplier/manufacturer. The test certificates shall be furnished by raw material supplier/manufacturer and submitted to the client for review and acceptance.</p> <ol style="list-style-type: none"> <li>Specific electrical coating resistance</li> <li>UV Ageing test</li> <li>Thermal ageing test</li> </ol>	Tender conditions shall prevail				



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22	Cl. No. 7.1.12 of VCS-SS-PP-2003	89 of 201	After final abrasive blast cleaning, all pipes shall be tested for presence of soluble salts. One test shall be carried out on each pipe. The acceptance criteria shall be 20 mg/m <sup>2</sup> or 2 µg/cm <sup>2</sup> (max). An approved salt meter (SCM 400 or equivalent) shall be used to carry out using salt tests and shall be calibrated in accordance with the equipment manufacturer's recommendations.	We proposed that after consistency in salt test frequency will be relax once per hour or (1 in 10) pipes in regular production with approval of inspection authority.	Tender conditions shall prevail
23	Cl. No. 7.1.12 of VCS-SS-PP-2003	89of 201	In case, salt level is still greater than 2 µg/cm <sup>2</sup> , chemical pre-treatment of steel pipes after abrasive blasting using phosphoric acid wash, followed by high pressure waterwash (>1500 psi) shall be carried out as per clause 7.2. The applicator shall specify the method of chemical pre-treatment in coating documentation, namely ITP and APS.	Bidder understood that if salt level is greater than 2 µg/cm <sup>2</sup> then only chemical pre-treatment of steel pipes after abrasive blasting will be perform. Please confirm.	Bidder's understanding is correct Tender conditions shall prevail
24	Cl. No. 8.2.4 of VCS-SS-PP-2003	98 of 201	On successful completion of PQT, coating of all seven pipes shall be removed completely and recoated as per approved coating procedure at Applicator's expense. Remaining 8 (eight) pipes will be accepted by Owner provided they meet 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	Tender conditions shall prevail
25	Table 4 of VCS-SS-PP-2003	83 of 201	Oxidation Induction Time (Intercept in the tangent method) : ≥ 30 at 2100C	Bidder indent to clarify that It is typo error, as per material manufacturer Oxidation Induction Time is ≥ 30 at 210°C. Please confirm	Bidder's understanding is correct Tender conditions shall prevail
26	Table 7 of VCS-SS-PP-2003	85 of 201	1) Indentation of PE top coat @ 230C+/-20C @800C+/-20C 2) Strain at Break of PE Top Coat at 230C +/-30C	Bidder indent to clarify that It is typo error, 1) As per material manufacturer Indentation of PE top coat at 23°C ± 2°C and 80°C ± 2°C. 2) As per material manufacturer Strain at Break of PE Top Coat (% Elongation test at break) at 23°C ± 3°C. Please confirm	Bidder's understanding is correct Tender conditions shall prevail
27	Cl. No. 8.5.2.4 of VCS-SS-PP-2003	103 of 201	On each of the selected pipes, three peel tests shall be performed for each specified temperature (23±3°C& 80±3°C), one at each end and one in the middle of the pipe.	Bidder clarifies that we will 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 pipe size is very small and safety concern. Please confirm.	Confirmed
28		-	Application of varnish on external surface of cut back area for 3LPE Coated pipe.	Bidder intent to clarify that a single coat of varnish may 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.	Acceptable