

### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

#### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |  |                    | Pre-bid meeting held on 29.05.2024  |   |   |
|---------|--|--------------------|---|---|---|
|         |  |                    |   |   | Date: 13.06.2024  |
| SI. No. | CI No.   | Page No.           | Description   | Bidder's Query/Clarification  | IGL/VCS Reply   |
|         |  |                    | Commercial  |   |   |
| 1       | Clause No. 7.6 of IFB  Commercial Vol. I of II   | Page No. 12 of 105 | Bid Submission date and time  | We request you to extend the bid submission date  | Refer Corrigendum-2, Dated 07.06.2024   |
| 2       |  |                    | DMI SP Affidavit  | We understand that Affidavit of Self Certification regarding Domestic Value Addition in Iron & Steel Products is not applicable in this tender.  Kindly confirm.  | Not applicable  |
| 3       |  |                    | PPP MII certificate Certificate by Statutory Auditor / Cost Auditor of bidder   | We understand that PPP MII certificate for minimum local content is not applicable in this tender.  Kindly confirm.  If applicable kindly provide format of certificate.  | Not applicable  |
| 4       |  |                    | Legal and statutory requirement   | Please provide Legal and statutory requirement (if any)   | Tender Condition shall Prevail  |
| 5       | Clause No. 7.0 of IFB Commercial Vol. I of II    | Page No. 12 of 105 | Clause No. 7.2 of 7.0: DETAILS OF BID DOCUMENTS  Annual registration charges on e-tender portal (Non-refundable, to M/s. ITI Limited)   | We understand Annual registration Charges on e –tender portal is not applicable for the existing vendor. Please confirm   | Refer Clause No. 1.6 of ITB (A: INSTRUCTIONS FOR ONLINE BID SUBMISSION)                                 |
| 6       | Clause No. 4.0 of IFB<br>Commercial Vol. I of II | Page 10-11 of 105  | Clause No. 4.1: Delivery:  Delivery of CS line pipe shall be completed in 4 lots and the details are as follows;  -Delivery of 1st lot shall be completed within 20 weeks from placement date of LOA/PO.  -Delivery of 2nd lot shall be completed within 26-30 weeks from placement date of LOA/PO.  -Delivery of 3rd lot shall be completed within 36-40 weeks from placement date of LOA/PO.  -Delivery of 4th lot shall be completed within 46-50 weeks from placement date of LOA/PO. | 1. Since the subject procurement is in 4 lots in view of this we request you to please share the lot wise quantity distribution for each lot at the time of bidding stage before submission of bid.  2. Furthermore, we sincerely request you to maintain minimum lot qty should be 750 MT considering constraints in steel procurement & manufacturing of Pipes.  3. Since it is intended to have two (02) suppliers in 70:30 ratio on L1/L1 negotiated rates. Given this considering the quantity ratio (30%) awarded to L2 (L3) bidder we propose to consider maximum 2 Lots delivery for 30% Qty. Please confirm. | Refer Annexure-2, Corrigendum-3     Tender Conditions shall prevail     Tender Conditions shall prevail |
| 7       | Clause No. 3.0 of IFB Commercial Vol. I of II    | Page No. 10 of 105 | Clause No. 3.2 of 3.0: BRIEF SCOPE  The above quantities are indicative and for evaluation purpose only. Purchaser reserves the right to increase or decrease at the time of award.   | We request you to clarify quantity variation at bid stage only so that any cost impact can considered at bid stage.   | Tender condition shall prevail  |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

# TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

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|---------|--|----------------------------|---|--|--|
|         |  |                            |   |  | Date: 13.06.2024   |
| SI. No. | CI No.   | Page No.                   | Description   | Bidder's Query/Clarification   | IGL/VCS Reply  |
| 8       | Form and Formats<br>Commercial Vol. I of II            | Page No. 29 of 105         | Preparation and Submission of Documents Form 3 , Form 4 & Form 8  | Bidder wish to put forth that we have recently prepared and authenticated required formats from Chartered Engineer for qualification of same Pipe Mill and Coating Plants in a recently concluded IGL Project Bid Ref No. IGL/ET2/CP/CP17294, Dated 30.12.2022 & IGL/ET2/CP/CP17510, Dated 24.05.2023 qualified through these documents. In light of this we sincerely request you to please accept the same for this RFQ also to reduce Bid Preparation time. | Acceptable with Bid Ref No. and details of this tender, wherever applicable.  Tender condition shall prevail |
| 9       | Clause No. 23.0 of SCC<br>Commercial Vol. I of II      | Page No. 75 of 105         | 23.0 CONTRACT-CUM-EQUIPMNET PERFORMANCE BANK GUARANTEE Performance Bank Guarantee : 10% of the annualized Order Value   | The requirement of the CPBG for bidders for Goods & Services has been reduced from 10% to 5%, in accordance with the Ministry of Finance, Government of India Notification via OM No. F.1/2/2023-PPD dated 1st January 2024, issued by GOI. In view of the above please take a look on the above circular and reduce it upto 5%.   | Tender condition shall prevail   |
| 10      | General Query  |                            | Legal and Statutory Requirement   | Please provide Legal and Statutory requirement (if any).   | Tender Condition shall Prevail   |
| 11      | Clause No. 4.0 of IFB<br>Commercial Vol. I of II       | Page No. 10-11 of 105      | Clause No. 4.1: Delivery:  Delivery of CS line pipe shall be completed in 4 lots and the details are as follows;  -Delivery of 1st lot shall be completed within 20 weeks from placement date of LOA/PO.  -Delivery of 2nd lot shall be completed within 26-30 weeks from placement date of LOA/PO.  -Delivery of 3rd lot shall be completed within 36-40 weeks from placement date of LOA/PO.  -Delivery of 4th lot shall be completed within 46-50 weeks from placement date of LOA/PO. | Kindly Provide the Lot-wise quantities along with size, Site/Store or quantity distribution chart.   | Refer Annexure-2, Corrigendum-3  |
| 12      | Clause No. 5.0 & 6.0 of SCC<br>Commercial Vol. I of II | Page No. 67 & 68 of<br>105 | 5.0 TERMS OF PAYMENTS 100% of the invoice value along with taxes and duties shall be paid progressively within Thirty (30) days after receipt of material and final acceptance of Goods by Purchaser at designated IGL Site.  6.0 MODE OF PAYMENT Payment shall be released to bidders within a period of forty five (45) days, as per clause 5.0 above, of receipt of invoice with all relevant / supporting documents, by IGL through cheque/ RTGS.                                     | Bidder seeking the exact payment period to be specified as this is the essential information for Bidder.   | Refer Corrigendum-3  |
| 13      | Clause No. 23.0 of SCC<br>Commercial Vol. I of II      | Page No. 75 of 105         | 23.0 CONTRACT-CUM-EQUIPMNET PERFORMANCE BANK GUARANTEE  The successful bidder shall furnish to the purchaser the Contract-cum-Equipment Performance Bank Guarantee (CPBG) equivalent to 10% of the annualized order value (Total order value i.e. supply plus services, will be inclusive of all taxes, duties and charges towards transportation, unloading etc. up to IGL site/store) within a period of twenty one (21) Days from the date of issue of LOI/ Purchase Order.            | As per the latest government notification issued on Jan-2024, all PSUs accept the CPBG/CPS/SD of a maximum 5%. Hence, the bidder proposes to revise the CPBG amount from 10% to 5% in tender documents   | Tender condition shall prevail   |



# TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

# TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |   | P                  |  |  |  |  |
|---------|---|--------------------|--|--|--|--|
|         |   |                    |  |  | Date: 13.06.2024   |  |
| SI. No. | CI No.  | Page No.           | Description  | Bidder's Query/Clarification   | IGL/VCS Reply  |  |
| 14      | Clause No. 4.0 of IFB<br>Commercial Vol. I of II  | Page No. 10 of 105 | Clause No. 4.1: Delivery:  Delivery of 1st lot shall be completed within 20 weeks from placement date of LOA/PO Delivery of 2nd lot shall be completed within 26-30 weeks from placement date of LOA/PO Delivery of 3rd lot shall be completed within 36-40 weeks from placement date of LOA/PO. Delivery of 4th lot shall be completed within 46-50 weeks from placement date of LOA/PO   | Please note that Lot wise delivery qty in meters is not mentioned in the Tender Doc, kindly specify.  And also, Bidder proposes that in every lot there should be minimum 20 kms Qty to be mentioned since it will not be feasible to source steel in small quantity. Furthermore, we cannot keep Steel coils in stock for long time as it is a high value product and will block large capital of bidder.   | Refer Annexure-2, Corrigendum-3  Tender condition shall prevail  |  |
| 15      | Clause No. 4.0 of IFB Commercial Vol. I of II     | Page No. 10 of 105 | Lot Wise Delivery  Not defined the "LOT WISE" Delivery   | Bidder would like to ask you kindly provide the delivery schedule of Quantity in "LOT WISE".  Please confirm.  | Refer Annexure-2, Corrigendum-3  |  |
| 16      | Clause No. 4.0 of IFB Commercial Vol. I of II     | Page No. 10 of 105 | Clause No. 4.1: Delivery:  Delivery of CS Line Pipe shall be completed in 4 lots and the details are as follows; 1st lot - Shall be completed within 20 weeks from the date of LOA/PO. 2nd lot - Shall be completed within 26-30 weeks from the date of LOA/PO. 3rd lot - Shall be completed within 36-40 weeks from the date of LOA/PO. 4th lot - Shall be completed within 46-50 weeks from the date of LOA/PO.  | As per the present market conditions, its will be difficult to hold the material for despatch for such a long duration. Considering above, we would humbly request to kindly reduce the delivery schedule from 50 weeks to 25 weeks.      As per delivery schedule mentioned in the tender documents, lot wise quantity is also not defined. Request to kindly share lot wise quantity required to deliver against give despatch location. Also if possible, kindly clarify detailed location address for delivery location. | Tender condition shall prevail     Refer Annexure-2, Corrigendum-3   |  |
| 17      | Clause No. 8.3 of IFB Commercial Vol. I of II     | Page No. 15 of 105 | Documents required (BEC)  The documents required to be submitted by the bidder to substantiate their qualification under Bidder Evaluation Criteria (BEC)  | To save time for getting signed doc. from external agency, we request to kindly allow us to submit the BEC documents which we had submitted for IGL previous tender and qualified for the same.  | Acceptable with Bid Ref No. and details of this tender, wherever applicable.  (Tender condition shall prevail) |  |
| 18      | Clause No. 8.2 of IFB<br>Commercial Vol. I of II  | Page No. 14 of 105 | 8.2.3: Working Capital  If the bidder's working capital is inadequate for the item/(s) quoted for, the bidder should supplement this with a letter from the bidder's bank, having net worth not less than Rs.100 Crore, confirming the availability of the line of credit to cover the inadequacy of working capital required as above. Line of credit must contain Tender No., Tender Description and Client Name. Letter for line of credit must be issued by a scheduled bank. Format of line of credit letter from bank has been enclosed at Annexure-2. | As the Working Capital requirement mentioned in the Tender Doc. No. VCS/C&P/17028/PC/,CSPIPE/17) is INR 11,45,73,000/ Incase the Working Capital is inadiquite or negative, our understanding is that we have to provide Line of Credit from our Bank confirming specific working capital requirement of INR 11,45,73,000/- only for meeting minimum working capital requirement for the above mentioend tender. Please clarify incase different interpretation.   | Bidder's interpretation is correct<br>(Tender Conditions shall prevail)  |  |
| 19      | Clause No. 23.0 of SCC<br>Commercial Vol. I of II | Page No. 75 of 105 | 23.0 CONTRACT-CUM-EQUIPMNET PERFORMANCE BANK GUARANTEE  The successful bidder shall furnish to the purchaser the Contract-cum-Equipment Performance Bank Guarantee (CPBG) equivalent to 10% of the annualized order value  | As per existing Govg. Of India Noticiation, the existing cpbg to be consider from 10% to 5%.  Considering above changes, would request to kindly revised CPBG value from 10% to 5%.  | Tender condition shall prevail   |  |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |  |   |  |  | Date: 13.06.2024  |
|---------|--|---|--|--|---|
| SI. No. | CI No.   | Page No./Section                            | Description  | Bidder's Query/Clarification   | IGL/VCS Reply   |
|         |  |   | Technical  |  |   |
| 1       | 9.3, VCS-SS-PP-2008<br>Rev.02+10:1603310:1210:2010:2303<br>310:1210:2610:2310:2610:2310:26   | 20  | TENSILE PROPERTIES  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 125MPa. i.e 360°485MPa  | Tensile properties may be allowed as per API SL Table 7 requirements limit 360~530MPa.   | Tender conditions shall prevail   |
| 2       | 9.8, VCS-SS-PP-2008 Rev.02   | 21,7  | Impact Test 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/ Material Requisition/Data sheets. However as per MR (C241131-00-PP-MR-2001) Notes Sr. 6, test temp. shall be -29°C. | We understand the test temperature shall be -29°C.   | Bidder's understanding is correct   |
| 3       |  | 190   | Reply to Bidder's Pre-Bid Quaries for Tender Document No IGL/ET2/CP/CP17292 DTD 30.12.2022   | We understands that; "Reply to Bidder's Pre-Bid Quaries for Tender Document No IGL/ET2/CP/CP17292 DTD 30.12.2022" is the part of TENDER NO. : GL/ET2/CP/CP17996 DTD 20.05.2024 and can be used for reference and query confirmation.  Kindly Confirm.  | Pre-Bid Quaries for Tender Document No IGL/ET2/CP/CP17294 DTD 30.12.2022" are the part of TENDER NO. : GL/ET2/CP/CP17996 DTD 20.05.2024 and can be used for reference and query confirmation. |
| 4       | 3.4, VCS-SS-PP-2003 REV. 04<br>Date: 05.08.2022  | 78  | Plant scale and installation Conveying of epoxy powder from storage room to fluidized bed shall be thru a suitably designed conveying system. Manual powder feeding shall not be permitted.  | We proposed that; manual feeding of epoxy powder to fluidized bed shall also be acceptable. Kindly Confirm.  | Tender conditions shall prevail   |
| 5       | 7.2, VCS-SS-PP-2003 REV. 04<br>Date: 05.08.2022<br>7.3, VCS-SS-PP-2003 REV. 04<br>Date: 05.08.2022<br>7.1.12, VCS-SS-PP-2003 REV. 04<br>Date: 05.08.2022 | 90, 92                                      | Chemical Pre-treatment with phosphoric acid solution (If specified)  Chemical Pre-treatment with Chromate Solution (If specified)  (If specified)  In case, salt level is still greater than 2 µg/cm², chemical pre-treatment of steel pipes after abrasive blasting using phosphoric acid wash, followed by high pressure water wash shall be carried out as per clause 7.2   | We understands that phosphoric acid wash and chromate application are not mandatory requirements.  Hence We will not apply phosphoric acid wash and chromate application.  However We proposes that if salt level exceeds than 2 µg/cm³, phosphoric acid wash may carried out to reduce the salt level as per clause 7.2.  Kindly Confirm. | Tender conditions shall prevail   |
| 6       | 13, 17996-CGD-PL-MR-001 REV. 00 Date: 08.05.2024 7.1.10, VCS-SS-PP-2003 REV. 04 Date: 05.08.2022 ISO 21809-1, 11.2.2 & Table 8                           | 8, 89                                       | Pipe roughness shall be 40 Micron.  75 to 100 microns  50 μm to 100 μm   | We understands that the average Roughness of blasted surface shall be 50 μm to 100 μm.<br>Kindly confirm.  | Bidder's understanding is correct.<br>Average Roughness of blasted surface shall be 50 μm to 100 μm.  |
| 7       | 8.2.4, VCS-SS-PP-2003 REV. 04<br>Date: 05.08.2022  | 98  | Re-cycling of PQT Pipes 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.  | We proposes that, if these pipes are technically complied the requirements of specification, then we request to accept these pipes without removal of 3LPE Coating as a part of PQT accepted pipes.  Kindly Consider.  | Tender conditions shall prevail   |
| 8       | 8.5.1.9, VCS-SS-PP-2003 REV. 04<br>Date: 05.08.2022  | 102   | Impact Test 1.5 Impact test at 0 °C shall be conducted on ring specimen obtained from epoxy coated pipe section of two pipes as per clause A.14 of ISO 21809-2. There shall be no holiday on impact area   | We proposes that the impact test shall be reviewed in Raw Material Test Certificate. Kindly Consider.  | Tender conditions shall prevail   |
| 9       | Table 12, Sl. No.2.7, VCS-SS-PP-2003<br>REV. 04<br>Date: 05.08.2022  | 112, Minimum Epoxy Layer<br>Thickness (DFT) | Frequency: During Production:  | We Purposes that Epoxy & Adhesive Layer Thickness shall be checked once in the beginning of shift every shift and whenever plant restart after any stoppage more   | Tender conditions shall prevail   |
| 10      | Table 12, Sl. No.3.1, VCS-SS-PP-2003<br>REV. 04<br>Date: 05.08.2022  | 113, Minimum Adhesive Layer<br>Thickness    | Start of shift & at breakdown / restart (partly coated)  | than 6 hrs.<br>Kindly Confirm.   | Tender conditions shall prevail   |



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VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |  |  |  |  | Date: 13.06.2024                  |
|---------|--|--|--|--|-----------------------------------|
| SI. No. | Cl No.   | Page No./Section                             | Description  | Bidder's Query/Clarification   | IGL/VCS Reply                     |
| 11      | Table 12, Sl. No.2.11, VCS-SS-PP-2003<br>REV. 04<br>Date: 05.08.2022   | 113, Hot Water Adhesion<br>24 h at 75°C+/3°C | Frequency: During Production: 1/shift (1 sample)   | We clarify that these tests are destructive tests. Hence, We proposes that the   |                                   |
| 12      | Table 12, Sl. No.2.12, VCS-SS-PP-2003<br>REV. 04<br>Date: 05.08.2022   | 113, Cross-Section Porosity                  | Frequency: - During Production: 1/shift  | requency of these tests shall be 1/day instead of 1/shift.  Kindly Confirm.  | Tender conditions shall prevail   |
| 13      | Table 12, Sl. No.2.13, VCS-SS-PP-2003<br>REV. 04<br>Date: 05.08.2022   | 113, Interface Porosity                      | (2 sample)   |  |                                   |
|         | 14.1.5, VCS-SS-PP-2003 REV. 04<br>Date: 05.08.2022   |  | If required  | We clarifies that a colour code band shall be marked on inside & outside surface of finished pipe for identification of pipes of same diameter but different wall  |                                   |
| 14      | 22, 17996-CGD-PL-MR-001<br>REV.00 Date: 09.05.2024   | 8, Colour band                               | Color bands of 50 mm width to be placed at both the ends, inside of Bare Pipes at a distance of 150 mm from the pipe ends and outside of 3LPE Coated Pipes at a distance of 450 mm from the pipe ends.   | thickness.  Hence, We understands that the colour code shall not be applicable, as there is only one size in this tender i.e. 8" OD x 6.4 mm WT.   | Bidder's understanding is correct |
|         | 23, 17996-CGD-PL-MR-001<br>REV.00 Date: 09.05.2024   |  | White Band marking inside for all the items.   | Kindly confirm.  |                                   |
| 15      | Clause 6.0 of Doc.No17996-CGD-PL-<br>MR-001, Rev.00 Dated-09.05.2024   | 7  | Notes; 12.0 Pipe Internal Diameter inspection by Pull through (95% of ID) shall be carried out by bidder during handling over pipes to owner.  | Bidder confirms that Internal diameter inspection by pull through method shall be carried out during final inspection at pipe mill in presence of TPIA for at least 10% nos. of pipes of total order quantity. Please Confirm. | Tender conditions shall prevail   |
| 16      | Clause 6.0 of Doc.No17996-CGD-PL-<br>MR-001, Rev.00 Dated-09.05.2024   | 8  | Notes; 14.0 For butt weld end, bevel shall be in accordance with API specification SL.   | Bidder understands that pipe ends shall be bevelled as per API SL i.e. bevel angle 30° 35° and root face 1.6 mm ± 0.8 mm. Please confirm.  | Bidder's understanding is correct |
| 17      | Clause 6.0 of Doc.No17996-CGD-PL-<br>MR-001, Rev.00 Dated-09.05.2024   | 8  | 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.                    | Confirmed                         |
| 18      | Clause 7.0 of Doc.No17996-CGD-PL-<br>MR-001, Rev.00 Dated-09.05.2024<br>Clause 15 of HFW Spec VCS-SS-PP-<br>2008,Rev.02 Dated-24.02.2022 | 9  | 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.  The documents required at the inquiry stage and to be included in the bid are listed under column A.  The formal required after award of the AGRECHENT and subject to the written approval of the PMC are listed under column B.  The final and certified documents are listed under column C.  Any document, even when preliminary, shall be binding and therefore duly identified and signed by the Manufacturer. It shall bear the PMC Project reference, the Material  Requisition number and the identification number.  The documents are fully part of the supply which shall be complete only if and when the documents complying fully with the material requisition requirements are received by the engineer.  Number of copies: 4  15 PRODUCTION REPORT  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. International system of units (S) shall be adopted.  Pipe number  Heat number from which pipe is produced  Pipe length and weight  Pipe grade  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:  All test certificates as per clause 10.1.3 of API Spec S1 and as modified herein.  Records of qualification of welders and procedures for repair welding.  C certified reports of dimensional inspection, surface imperfections & defects.  Data on test falliures, rejected the startylots, etc.  All other reports and results required as per this specification.  The certificates as all be valid only when signed by the Purchaser's Representative. Only those pipes, which have been certified by the Purchaser's Representative, shall be diapatched from the pipe imil.  In the e | 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   |



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VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

Pre-bid meeting held on 29.05.2024

Date: 13.06.2024

|         |   |                  |  |  | Date: 13.06.2024  |
|---------|---|------------------|--|--|---|
| SI. No. | CI No.  | Page No./Section | Description  | Bidder's Query/Clarification   | IGL/VCS Reply   |
| 19      | Clause Notable 5 of HFW Spec VCS-<br>SS-PP-2008,Rev.02 Dated-24.02.2022 | 20               | Table 5 — Chemical   | Bidder requests that Table 5 footnote b) of API SL 46 <sup>th</sup> 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   |
| 20      | Clause 9.2.3 of HFW Spec VCS-SS-PP-<br>2008,Rev.02 Dated-24.02.2022     | 20               | 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 SL Table 18 i.e. Two analyses per heat of steel (taken from separate product items).  | Tender conditions shall prevail   |
| 21      | Clause 9.8 of HFW Spec VCS-S5-PP-<br>2008, Rev.02 Dated-24.02.2022      | 21               | 9.8 CVN IMPACT TEST FOR PSL 2 PIPE   | Bidder understand that CVN impact test shall be performed at temperature 0°C and observed energy value to be considered as per table 8 of HFW Specification. Please Confirm our understanding.   | Impact test shall be carried out at -29°C   |
| 22      | Clause 9.8.3 of HFW Spec VCS-SS-PP-<br>2008, Rev.02 Dated-24.02.2022    | 22               | Pipe weld and HAZ tests  The average (set of three test pieces) absorbed energy value (Kv1) 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/Material Requisition/Data sheets                      | Bidder clarifies that in HFW there is only Weld seam is formed and in accordance with API 5L Table 20, the CVN test to be performed in Base and Weld. Hence, Bidder confirms the CVN test to be performed on Base and Weld.  | Bidder's understanding is correct. The CVN to be performed for the Weld and Base. For Base the test has to be for the HAZ only. |
| 23      | Clause 9.10.4 of HFW Spec VCS-SS-<br>PP-2008, Rev.02 Dated-24.02.2022   | 22               | 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 SL. | Bidder understand that Lamination or inclusion acceptance criteria shall be in accordance with the API SL 46 <sup>th</sup> 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.   | Bidder's understanding is correct   |
| 24      | Table 10 of HFW Spec VCS-SS-PP-<br>2008, Rev.02 Dated-24.02.2022        | 23               | Table 10 — Tolerances for diameter and out-of-roundness Out-of-roundness Tolerance at Pipe end: 0.005D   | 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.   | Tender conditions shall prevail   |
| 25      | Table 10 of HFW Spec VCS-SS-PP-<br>2008, Rev.02 Dated-24.02.2022        | 23               | 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 $ID = (D - 2t)$ .  | Bidder clarifies that there is typo error in formula to determine inside diameter, "D" is to be read as "OD" i.e. $ID = (OD - 2t)$ .   | Bidder's understanding is correct   |
| 26      | Table 18 of HFW Spec VCS-SS-PP-<br>2008, Rev.02 Dated-24.02.2022        | 25               | TYPE OF INSPECTION AT PIPEMILL  Two pipes per lot (maximum 100 pipes) per heat  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 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. | Tender conditions shall prevail   |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |   |                  |   |   | Date: 13.06.2024   |
|---------|---|------------------|---|---|--|
| SI. No. | CI No.  | Page No./Section | Description   | Bidder's Query/Clarification  | IGL/VCS Reply  |
| 27      | Clause 10.2.8.7 of HFW Spec VCS-SS-<br>PP-2008, Rev.02 Dated-24.02.2022 | 30               | 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 clarifies that calibrated measuring equipment (calibration done by NABL approved Laboratory) shall be used for dimensional measurement, calibration certificates can be reviewed. Only NDT machines & Hydro test pressure gauge which require calibration as per API5L & client specification shall be calibrated.   | Tender conditions shall prevail                                    |
| 28      | Clause E3.2.3 of HFW Spec VCS-SS-<br>PP-2008, Rev.02 Dated-24.02.2022   | 37               | E.3.2.3 Ultrasonic inspection in accordance with the method described in ISO 10893-8 shall be used to verify that the SO mm (2.0 in) wide zone at each pipe end is free of any laminar imperfections in the circumferential direction.  | Bidder clarifies that there is typo error for wide zone width in this clause so wide zone width to be consider as 50 mm. Please Confirm.  | Bidder's understanding is correct                                  |
| 29      | HFW ITP, Doc. No. VCS-ITP-PP-2016.<br>Rev.04 Dated -19.12.2021          | 131              | INSPECTION AND TEST PLAN FOR HFW LINE PIPES<br>QUANTUM OF CHECK: 100%<br>SCOPE OF INSPECTION  | Bidder clarifies that the received ITP (HFW) shall be retained for information, however the project specific ITP shall be submitted after award of contract. The inspection innervation of TPI/Client shall be discussed and mutually agreed after award of contract.   | Confirmed  |
| 30      | HFW ITP, Doc. No. VCS-ITP-PP-2016.<br>Rev.04 Dated -19.12.2021          | 135              | Sr. No. 3.2 Raw material inspection 1) Mechanical 2) Chemical 3) Impact QUANTUM OF CHECK: One/Heat  | Bidder confirms to perform only tensile test (transverse) & Chemical analysis of received coil as incoming material inspection test with frequency of one/heat. No CVN test to be carried out at pipe mill on coils as incoming material inspection. However, The coil MTC received from steel mill shall be reviewed for the referenced tests. Also clarifies that CVN will be carried out on pipes as per frequency specified in HFW specification for pipes. | Confirmed  |
| 31      | HFW ITP, Doc. No. VCS-ITP-PP-2016.<br>Rev.04 Dated -19.12.2021          | 137              | Lot Testing 1. Chemical Analysis 2. Tensile Tests 3. Flattening 4. Reverse Bend Test 5. Macro & Hardness Tests 6. Impact Tests 7. Drop Weight Tear Test, etc. as applicable   | Since pipe shall be made by HFW process, Bidder understand that Macro test is not applicable to this tender however bidder will perform the metallography test in lieu of Macro test.  Please Confirm.  | Tender conditions shall prevail                                    |
| 32      | Cl. No. 13.0 of 17996-CGD-PL-MR-001                                     | 7                | Pipe roughness shall be 40 Micron.  | Bidder request to confirm Pipe roughness shall be 40 Micron is for internal bare pipe surface or external pipe surface before application of 3LPE.  | This shall be applicable for the portion of the pipe that is bare. |
| 33      | Cl. No. 22.0 & 23.0 of 17996-CGD-PL-<br>MR-001                          | 8                | Color bands of 50 mm width to be placed at both the ends, inside of Bare Pipes at a distance of 150 mm from the pipe ends and outside of 3LPE Coated Pipes at a distance of 450 mm from the pipe ends distance of 450 mm from the pipe ends White Band marking inside for all the items.  | Bidder request to provide which colour will be consider for external.   | Tender conditions shall prevail                                    |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |   |                  |  |  | Date: 13.06.2024  |
|---------|---|------------------|--|--|---|
| SI. No. | CI No.  | Page No./Section | Description  | Bidder's Query/Clarification   | IGL/VCS Reply   |
| 34      | Table 7, 12 & Cl. No.8.5.2.15, 8.5.2.16 of VCS-SS-PP-2003 | 106              | Following tests to be done in system testing stage  1. Specific Electrical Coating Resistance (23°C±2 °C)  2. UV Ageing test  3. Thermal ageing test   | 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.  1. Specific electrical coating resistance  2. UV Ageing test  3. Thermal ageing test | Tender conditions shall prevail   |
| 35      | Cl. No. 7.1.12 of VCS-SS-PP-2003                          | 89               | 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/m2 or 2 $\mu$ g/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 which is more in regular production with approval of inspection authority. Please confirm   | Tender conditions shall prevail   |
| 36      | Cl. No. 7.1.12 of VCS-SS-PP-2003                          | 89               | In case, salt level is still greater than 2 µg/cm³, chemical pre-treatment of steel pipes after abrasive blasting using phosphoric acid wash, followed by high pressure water wash (>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 (TP and APS.   | Bidder understood that if salt level is greater than $2\mu g/cm^2$ then only chemical pretreatment of steel pipes after abrasive blasting will be perform otherwise no need of chemical pre-treatment. Please confirm  | Bidder's understanding is correct   |
| 37      | Cl. No. 7.3 of VCS-SS-PP-2003                             | 92               | Chemical Pre-treatment with Chromate Solution (if specified)   | Bidder indent to clarify that Chemical pre-treatment with chromate solution is<br>Banned in many country's due to their toxicity & carcinogenic effects, so please<br>confirm that chromate solution will be used in this project or not.  | Tender conditions shall prevail Phosphoric acid wash followed by de-ionized water wash shall be carried out, only if, salt contamination level is observed more than 2µg/cm2 after blast cleaning.                |
| 38      | Cl. No. 8.2.4 of VCS-SS-PP-2003                           | 98               | 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   |
| 39      | Table 4 of VCS-SS-PP-2003                                 | 83               | Oxidation Induction Time (Intercept in the tangent method) : $\geq$ 30 at 2100C  | Bidder indent to clarify that It is typo error, as per material manufacturer Oxidation Induction $\label{eq:manufacturer} Time is \geq 30 \ at \ 210 ^{\circ}C.$ Please confirm  | Bidder's understanding is correct   |
| 40      | Table 7 of VCS-SS-PP-2003                                 | 85               | 1) Indentation of PE top coat<br>@ 230C+/-20C<br>@800C+/-20C<br>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   |
| 41      | Cl. No. 8.5.2.4 of VCS-SS-PP-2003                         | 103              | 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   |
| 42      |   |                  | 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.  | Bidder to ensure the number of coats is sufficient enough for rust prevention   |
| 43      | Clause no 4 – Technical Volume<br>(Material Requisite)    | 7                | Steel shall be procured from approved steel mill only.   | The approved Steel mill is not mentioned in the Tender document. Bidder requests to kindly provide the approved vendor list to adhere the clause no 4 of the technical documents.  | Bidder can procure material from the manufacturer who has PTR of at least 50 Metric ton of specified material grade and thickness or above and meeting the technical requirement of specified codes and standards |
| 44      | 4.0 Delivery Schedule of IFB                              |                  | Delivery of CS line pipe shall be completed in 4 lots and the details are as follows;  -Delivery of 1st lot shall be completed within 20 weeks from placement date of LOA/PO.  -Delivery of 2nd lot shall be completed within 26-30 weeks from placement date of LOA/PO.  -Delivery of 3rd lot shall be completed within 36-40 weeks from placement date of LOA/PO.  -Delivery of 4th lot shall be completed within 46-50 weeks from placement date of LOA/PO. | Kindly Provide the Lot-wise quantities along with size, Site/Store or quantity distribution chart.   | Lot 1   |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

Pre-bid meeting held on 29.05.2024

Date: 13.06.2024

|         |  |                  |  |  | Date: 13.06.2024                  |
|---------|--|------------------|--|--|-----------------------------------|
| SI. No. | CI No.   | Page No./Section | Description  | Bidder's Query/Clarification   | IGL/VCS Reply                     |
| 45      | Table-7 (11), 8.5.2.15, Table- 12 (4.17 & 4.18), 8.6.2.0 and 8.6.2. p & 8.5.2.16 | 85               | The long duration Tests Specific Electrical Coating Resistance (Coating Resistivity), Heat Ageing & Light Ageing Test carried out in an independent laboratory of national /international recognition on PE topcoat.  2) Specific Electrical Coating Resistance (23 °C ± 2°C): Review of Independent test certificate not older than 3 years as per clause 8.6.2.o.  3) UV Resistance and Thermal Ageing:  Review of Independent test certificate not older than 3 years as per clause 8.6.2. p. | As per table-12 Sr. No. 4.17 & 4.18, The long duration Tests Specific Electrical Coating Resistance (Coating Resistivity), Heat Ageing & Light Ageing, We will submit manufacturer test data for review the certificate conducted within 3 years.                  | Tender conditions shall prevail   |
| 46      | Table-12<br>(5r. No. 2.11,2.12,2.13)   | 113              | Testing frequency during production: 1) Hot water Adhesion 24 h at 75°C ±3°C: 1/ shift (1 sample) 2) Cross section porosity: 1/ shift (2 samples) 3) Interface porosity: 1/ shift (2 samples)  | Noted to conduct these tests, however for information these tests are required to conduct on FBE coating & destructive type test so we need to cut one pipe every shift for testing purpose.  We propose to accept these testing during PQT only.  Kindly Consider | Tender conditions shall prevail   |
| 47      | Table-7 (4)&(5)  | 85               | 1) Indentation of PE top coat<br>@ 230C+/-20C<br>@ 800C+/-20C<br>2) Strain at Break of PE Top Coat at 230C +/-30C  | 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.  We consider the same. Kindly Confirm  | Confirmed                         |
| 48      | 5.4.4,Table- 5, 6 & 7  | 84,85            | 2) Adhesive layer:<br>Strain at Break at 23°C ± 3°C ≥ 600%<br>Stress at Yield at 23°C ± 3°C: ≥ 8 Mpa   | Adhesive sample for testing shall be taken from extruded film.   | Tender conditions shall prevail   |
| 49      | 5.4.3  | 83               | Oxidation Induction Time (Intercept in the tangent method) : ≥ 30 at 2100C   | It is typo error, as per material manufacturer Oxidation Induction Time is ≥ 30 at 210°C. We consider the same. Kindly Confirm.  | Bidder's understanding is correct |
| 50      | 7.1.4  | 88               | All pipes shall be preheated to a temperature of 65°C to 85°C prior to abrasive blast cleaning using induction heating or radiant heating.   | We will use diesel fired oven for heating of pipes before blast cleaning to ensure<br>pipe temperature 65°C to 85°C as per project requirement.  | Tender conditions shall prevail   |
| 51      |  |                  | Barcode/QR code labels, End Seal Tape Application and any other Stickers.  | We are not considering the Barcode/QR code labels, End Seal Tape Application and any other Stickers.  If required Please confirm as It has an impact on costs.   | Tender conditions shall prevail   |
| 52      | 8.5.2.4  | 103              | Peel strength tests one at each end and one in the middle of the pipe.   | Middle Peel test shall be conducted apart from cut back area at feasible distance approx. 500 mm from pipe end.  | Tender conditions shall prevail   |
| 53      | Table-10 & 7.1.10  | 110              | 1) Surface roughness of blasted surface: 75 to 100 microns (Rz scale). 2) Degree of Dust: max. class 2 (for both size and quantity)  | In our practice, we will measuring the anchor pattern Pipe Surfaces by using Digital Roughness Gauge ( SJ 210), Make - Mitutoyo.   | Tender conditions shall prevail   |
| 54      | 8.4  | 100              | Cosmetic Repair, Repair with Melt Stick, Patch Repair & Heat-shrinkable Sleeve (HSS) Repair  | We will submit the repair qualification report provided by repair material manufacturer. During production we will perform the repair as per manufacturer recommendation and Approved Repair procedure.  | Tender conditions shall prevail   |
| 55      | 7.1.7  | 89               | Abrasives used for blast cleaning shall comply ISO 11124. Hardness, size and ratio of shot and grit to be used in abrasive Blaster #1 & #2 shall be specified in the Inspection and Testing Plan (ITP) test plan to meet the required surface profile and other surface preparation criteria.  | 11124 – Part-3 as per project specification Table-6 requirement, which is specific to steel shot and grit material. Other part of ISO 11124 is not applicable for steel shot grit material.  | Tender conditions shall prevail   |
| 56      | MR NOTE-22   | 8                | Color bands of 50 mm width to be placed at both the ends, inside of Bare Pipes at a distance of 150 mm from the pipe ends and outside of 3LPE Coated Pipes at a distance of 450 mm from the pipe ends.   | In our practice, We will apply color band on Coated pipes at one end at a minimum distance of 450mm from pipe bevel end. Kindly Consider.  | Confirmed                         |
| 57      | 13   |                  | Repair of External 3LPE Coated pipes   | As per our regular Practice, we will use the Repair materials i.e. Heat Shrinkable Patch, Heat Shrinkable Sleeve, Filler material, Epoxy primer (Part-A & B) - 3M & SFL both mfg. etc., Make: Seal for Life for repairing of External 3LPE coating.                | Tender conditions shall prevail   |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |   |                  |  |  | Date: 13.06.2024   |
|---------|---|------------------|--|--|--|
| SI. No. | CI No.                                    | Page No./Section | Description  | Bidder's Query/Clarification   | IGL/VCS Reply  |
| 58      |   | 164              | FORM - A CHECK LIST - TECHNICAL  A certificate from reputed international inspection agency (i.e. CEIL/ Lloyds/BV/ DNV/TUV/ ABS/ Moody/ AIBVincotte) is enclosed in 'Format-A' for proposed pipe mill, certifying that the proposed mill has the capability to produce linepipes complying technical requirements specified in the bid document. | Bidder is not able to find any specific format for certificate of mill capability in tender documents .  Hence bidder would like to request for mill capability certificate format to IGL/VCS. Or  Bidder request to submit a certificate from reputed international inspection agency (i.e. CEIL/ Lloyds/BV/ DNV/ TUV/ ABS/ Moody/ AIBVincotte) for proposed pipe mill along with their bid, issued in the last 12 months, reckoned from final bid due date for any PSU projects (GAIL, IOCL, NRL, BPCL, BGRL, IGGL, etc) shall be considered acceptable for this project.  Kindly confirm. | Refer Annexure-1, Corrigendum-3  |
| 59      | Cl.4.0                                    | 7                | 6.0 DESIGN DATA Steel shall be procured from approved steel mill only.   | As approved steel coil supplier list is not provided in tender documents, bidder would like to request to IGL/VCS to provide the list of approved steel coil suppliers.  | Bidder can procure material from the manufacturer who has PTR of at least 50 Metric<br>ton of specified material grade and thickness or above and meeting the technical<br>requirement of specified codes and standards  |
| 60      | VCS -SS-PP-2008<br>Cl. No. 9.11.3.4       | 24               | Straightness: The local deviation from straight line, as depicted in Figure 2 of API Spec SL, in 1.0 m (3.0 ft) portion at each pipe end shall be ≤ 3.0 mm (0.120 in),   | This requirement is as per 45th edition of API 5L. It is modified in 46th edition of API 5L. "The local deviation from straight line in 1.5 meter portion at each pipe end shall be $\leq$ 3.2 mm."  | Confirmed  |
| 61      | VCS -SS-PP-2008<br>Cl. No. 11.2.4         | 31               | Pipe markings: 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.   | 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 conditions shall prevail  |
| 62      | VCS-SS-PP-2003<br>CL. No. 4.3.1           | 80               | Raw material test: In addition to Manufacturer's certificate, the Applicator/ Contractor shall draw two samples per batch of epoxy for test: Density Gel time Particle size Moisture Content Thermal characteristics   | Noted. We shall perform all tests as mentioned in technical specification except particle size. In general particle size test is performed by raw material manufacturer at their end. We will provide test report of the same for your review.   | Tender conditions shall prevail  |
| 63      | VCS-SS-PP-2003<br>CL. No. 5.4.3           | 83               | Test certificate:<br>230 at 2100C  | We consider that it was a typo-error in temperature and it shall be read as $\geq$ 30 at 210°C as per table 5 of ISO 21809-1:2018  | Bidder's understanding is correct  |
| 64      | VCS-SS-PP-2003<br>Table 7 (Sr. no. 4 & 5) | 85               | Unit    Indentation of PE top coat   | We consider that it is a typo error in temperature unit at various places like cl. no. 8.5.1.8, 8.5.1.9 & table 11 so it shall be read as a $^{\circ}$ C.  | Bidder's understanding is correct  |
| 65      | VCS-SS-PP-2003<br>CL. No. 7.2             | 91               | Phosphoric Acid Wash & Chromate Treatment: Chemical pre-treatment with phosphoric acid solution (if specified):  |  |  |
| 66      | VCS-SS-PP-2003<br>CL. No. 8.3.4.1         | 99               | Phosphoric Acid Wash & Chromate Treatment: Phosphoric Acid Wash followed by De-ionized Water Wash (If specified):  |  | Phosphoric acid wash followed by de-ionized water wash shall be carried out, only if, salt contamination level is observed more than 2µg/cm2 after blast deaning.  |
| 67      | VCS-SS-PP-2003<br>CL. No. 7.3             | 92               | Phosphoric Acid Wash & Chromate Treatment: Chemical Pre-treatment with Chromate Solution (if specified):   |  | and the state of t |
| 68      | VCS-SS-PP-2003<br>CL. No. 8.3.4.2         | 99               | Phosphoric Acid Wash & Chromate Treatment:<br>Chromate Treatment (if specified):   |  |  |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |                                   |                  |  |   | Date: 13.06.2024                |
|---------|-----------------------------------|------------------|--|---|---------------------------------|
| SI. No. | CI No.                            | Page No./Section | Description  | Bidder's Query/Clarification  | IGL/VCS Reply                   |
| 69      | VCS-SS-PP-2003<br>CL. No. 8.5.2.9 | 105              | C.D. test: The following CD tests shall be carried out on samples selected from 1 PQT test pipe in accordance with Annex H of ISO 21809-1:  • 65±3°C/24h/-3.38V;  • 23±3°C/28d/-1.38V;  • 80±3°C/28d/-1.38 V.  | We propose that we will perform CD test on 3 sample for 65±3°C/24h/-3.38V, 1 sample for 23±3°C/28d/-1.38V; and 1 sample 80 ±3°C/28d/-1.38 V in PQT.   | Tender conditions shall prevail |
| 70      | VCS-SS-PP-2003, Table 12          | 115              | Mod  |   | Tender conditions shall prevail |
| 71      | VCS-SS-PP-2003, Table 12          | 115              | UV resistance and thermal ageing.  St. Properties Test Hethold Requirements Users Us | These are long duration test and generally performed by raw material manufacturer at their end. We will provide test report of the same for your review.  | Tender conditions shall prevail |
| 72      | VCS-SS-PP-2003, CL. No. 15        | 122              | Tolerance for verification of digital thermometer and optical pyrometer:    Device Name   Reference   Frequency of infoluse   Tolerance   Verification   | Mention tolerance for verification is to stringent for comply. Temperature measurement is continuous in coating so we propose that the tolerance shall be within ±3%.   | Tender conditions shall prevail |
| 73      | VCS-SS-PP-2003, CL. No. 15        | 122              | Tolerance for verification of Holiday test voltage    Device Name   Reference   Proposes of the Device Name   Colore Name   Colore Name   Colore Name   Verification   Veri | This requirement is stringent for compliance. Practically it is not possible to set voltage within tolerance of 2% of 25KV (24.95 KV to 25.05 KV) in plant condition. We can comply voltage as per annex 8 of ISO 21809-1:2018 i.e. 25 kV ± 2.5 kV or minimum 25 as per sl no. 4.5 of table 12.  Please confirm.  | Tender conditions shall prevail |
| 74      | VCS-SS-PP-2003, Annexure-I        | 123              | Tolerance for verification of Holiday test voltage PE Compound (Manufacturer) HE 3450H (BOREALIS / BOROUGE)  | We propose to use HE 3450 instead of HE 3450H as the technical requirement of both the grade is almost identical and also we assure you that it will not affect the applied coating properties, we will meet the coating properties and all required testing as per VCS technical specification.  | Tender conditions shall prevail |
| 75      | Notes 12 of MR                    |                  | 12.0 Pipe Internal Diameter inspection by Pull through (95% of ID) shall be carried out by bidder during handling over pipes to owner.   | We will maintain diameter and out of roundness as per API SL 46th Edition and client specification hence this is not applicable. Please confirm.  | Tender conditions shall prevail |
| 76      | Clause No. 9.3.2 of Client spec.  | 52               | 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:   | Putting additional restrictions over the API Spec. makes it difficult to source the steel. So the Tensile properties requirements may be accepted as per API St. 46th latest Edition, i.e. For Grade: X52M Pipe Body - Yield Strength: 360 MPa – 530 MPa Tensile Strength: 460 Mpa – 760 Mpa Weld Seam of HFW – Tensile Strength: Min. 460Mpa. Please confirm | Tender conditions shall prevail |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         | r  |                  |  |   | Date: 13.06.2024                  |
|---------|--|------------------|--|---|-----------------------------------|
| SI. No. | CI No.   | Page No./Section | Description  | Bidder's Query/Clarification  | IGL/VCS Reply                     |
| 77      | Clause No. 9.11.3.4 of Client spec.                | 24               | b) The local deviation from straight line, as depicted in Figure 2 of API Spec SL, in 1.0 m (3.0 ft) portion at each pipe end shall be \$ 3.0 mm (0.120 in),   | This requirement is as per 45th edition of API 5L. It is modified in 46th edition of API 5L. The local deviation from straight line in 1.5 meter portion at each pipe end shall be \$3.2 mm." Please confirm.   | Bidder's understanding is correct |
| 78      | Clause No. 15 of Client spec.                      | 60               | 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. International system of units (SI) shall be adopted.  | Due to environmental concern bidder request to permit one hard copy and 6 electronic copy of the MRB. Please confirm.   | Tender conditions shall prevail   |
| 79      | ITP for VCS-ITP-PP-2016 & VPC-ITP-PP-<br>2026      | 131, 140         | ITP for HFW LINE PIPES- VCS-ITP-PP-2016 REV. 04 Date. 19.12.2021<br>ITP for Raw Material- VPC-ITP-PP-2026 REV.00 Date. 19.12.2021  | Bidder has retained Inspection & Test Plan of Electric Welded Line Pipes and steel for information only, however project specific ITP shall be submitted upon receipt of award of Contract. Please confirm.   | Confirmed                         |
| 80      | Cl. No. 10.2.8.7 of Tech. Spec. VCS-<br>SS-PP-2008 | 30               | The measuring equipment requiring calibration or verification under the provisions of API Spec SL 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 clarifies that calibrated measuring equipment as per API 5L shall be used for dimensional measurement, calibration certificates can be reviewed. Only NDT machines & Hydro test pressure gauge which require calibration as per API 5L & client specification shall be calibrated. Kindly confirm.   | Tender conditions shall prevail   |
| 81      | Cl. No. 9.8.2 & 9.8.3 of Client spec.              | 21,22            | Pipe body tests — The minimum average (set of three test pieces) shear fracture area shall be at least 85 % with one minimum value of 75%, based at a test temperature of 0 °C (32 0°) or at a lower test temperature as specified in the Purchase Order / Material Requisition (MR). Pipe weld and HAZ tests The average (set of three test pieces) absorbed energy value (Kv1) 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 / Material Requisition (MR). | Bidder Clarifies that CVN absorbed energy value for Pipe body, Weld and HAZ of PSL2 Pipe is considered as per Table 8 of Client Spec.  However, CVN requirements specified in Annex G of Client specification is not considered.  Please confirm.   | Confirmed                         |
| 82      | Sr. No. 3.2 of VPC-ITP-PP-2016                     | 135              | in process inspection Raw material Inspection 1) Mechanical 2) Chemical 3) Impact QUANTUM OF CHECK: One/Heat   | Bidder confirms to perform only tensile test (transverse) & Chemical analysis of received coil as incoming material inspection test with frequency of one/heat. No CVN test to be carried out at pipe mill on coils as incoming material inspection. However, The coil MTC received from steel mill shall be reviewed for the referenced tests. Carlifest hat CVN will be carried out on pipes as per frequency specified in tender specification for pipes.  Please confirm. | Confirmed                         |
| 83      | Sr. No. 1.2 of VPC-ITP-PP-2016                     | 134              | WPS, PQR & WPQ.  | MPS (Manufacturing Procedure Specification) & Welding Parameter Sheet shall be provided instead of WPS, PQR & WPQ as WPS/PQR is not applicable for HFW process. Kindly Confirm.   | Confirmed                         |
| 84      | CS. Cl. no. 4.3.1 of Doc. no.: VCS-SS-<br>PP-2003  | 80               | In addition to Manufacturer's certificate, the Applicator/ Contractor shall draw two samples per batch of epoxy, adhesive and polyethylene in the presence of Owner Representative and test for the following properties at the coating laboratory prior to its use in order to establish compliance with the manufacturer's test certificates.  Epoxy Powder:  • Density  • Gel Time  • Particle size  • Moisture content  • Thermal characteristics (Tg1, Tg2 & ΔH)  | We would like to clarify that all specified test shall be carried out except of Particle size. The epoxy raw material manufacturer perform the Particle size test and provide test certificates, the same certificates will submitted to the client/ client's representative for review. Please confirm.  | Tender conditions shall prevail   |
| 85      | CS. Cl. no. 4.4 of Doc. no.: VCS-SS-PP-<br>2003    | 81               | All materials to be used shall be supplied in sealed, damage free containers and shall be suitably marked with the following minimum information:  Name of the Manufacturer  Grade or Trade name  Health, safety and environmental Instructions  Type of Material  Batch Number  Place of Manufacture  Manufacturing Date / Shelf Life/Expiry Date (if applicable)  Quantity.  | Bidder clarifies that all required mark are printed on each batch of polyethylene and adhesive material except manufacturing date, shelf life/expiry date and storage condition are mentioned on product data sheet and test certificate.  Epoxy powder complies all specified required printed on each batch of bag.   | Confirmed                         |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |  |                  |  |  | Date: 13.06.2024  |
|---------|--|------------------|--|--|---|
| SI. No. | Cl No.   | Page No./Section | Description  | Bidder's Query/Clarification   | IGL/VCS Reply   |
| 86      | Cl. no. 22.0 of Doc. no.: 17028-CGD-<br>PL-MR-001<br>&<br>Cl. no. 14 of Doc. no.: VCS-SS-PP-2003 | 8                | Color bands of 50 mm width to be placed at both the ends, inside of Bare Pipes at a distance of 150 mm from the pipe ends and outside of 3LPE Coated Pipes at a distance of 450 mm from the pipe ends.  14.1.5 Colour band (if required)   | Please provide the color code for color band at outside of 3LPE Coated Pipes; if any   | A Colour code band shall be marked on inside surface of finished pipe for identification of pipes of same diameter but different wall thickness, as indicated in the Purchase Order |
| 87      | Cl. no. 3.7, 7.2.6 & Table 11 (5) of Cl.<br>no. 10.5.1 of Doc. no.: VCS-SS-PP-<br>2003           | 79,91,110        | The conductivity of DI (De-lonized) water (if used) shall be less than 5 micro-Siemens/cm and rinse water pressure shall be minimum 1500 psi. High pressure water insex [>2500 psi) after phosphoric acid wash shall be used to remove any trace of treatment residue. A minimum 1 liter of de-lonized water per square meter of pipe surface area shall be used.  Table 11 — Requirements for Inspection of Chemical Pre-treatment (if specified):  Pressure of water rinse after acid wash Min. 1500psi (*)  ("A minimum of 1 liter of DI water per m2 shall be used to be established during PQT)   | Bidder clarify that as per Epoxy powder manufacturer the required Rinse water pressure after phosphoric acid wash shall be used Minimum 1000 PSI to remove any trace of treatment residue. Therefore we will maintain rinse water pressure Minimum 1000 PSI.  Please confirm the same.   | Tender conditions shall prevail   |
| 88      | CS. Cl. no. 5.4.4 & 8.5.2.4 & 10.5.1 of<br>Doc. no.: VCS-SS-PP-2003                              | 8,51,03,114      | Table 7 - On HDPE Top Coat layer and 3LPE coating:  2. Peel Strength of 3LPE Coating at 23°C+/-3°C; ≥ 18 N/mm at 80°C+/-3°C; ≥ 5 N/mm  Peel (Adhesion) Strength: Five test pipes shall be selected for Peel strength tests as per Annex C (C2) of ISO21809 -1. 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.  Table 12 — Requirements for inspection of Plant Applied Coating (PQT & Production) 4.6. Peel Strength of 3LPE Coating at 23°C+/-3°C; ≥ 5 N/mm at 80°C+/-3°C; ≥ 5 N/mm 5 pipes x 3 tests (@ both ends & middle) | Bidder clarifies that peel test shall be carried out by spring loaded test assembly by manual peel tester machine i.e. Annex C (C1) of ISO 21809-1. Please confirm.  Bidder also clarifies that middle peel test shall be carried out at maximum feasible distance from the pipe end due to constraint pipe size and safety point of view. Please confirm. | Tender conditions shall prevail     Confirmed   |
| 89      | CS. Cl. no. 10.5.1 (Table-12) of Doc.<br>no.: VCS-SS-PP-2003                                     | 113              | Table 12 — Requirements for Inspection of Plant Applied Coating (PQT & Production)  Test: Hot Water Adhesion 24 h at 75°C+/3°C  Frequency in Production: 1/shift (1 sample)  Test: Cross-Section Porosity & Interface Porosity  Frequency in Production: 1/shift (2 samples  | Bidder proposed that test frequency during regular production, Hot Water Adhesion, Cross-Section Porosity & Interface Porosity test shall be carried out 1 (one) pipe per day instead of 1/shift.  | Tender conditions shall prevail   |
| 90      | CS. Cl. no. 8.5.2.14 & 10.5.1 (Table-<br>12) of Doc. no.: VCS-SS-PP-2003                         | 115              | Three test pipes shall be selected for product stability test of PE top layer. The test method shall be as per ISO 1133-1.  Table 12 — Requirements for inspection of Plant Applied Coating (PQT & Production)  Test: Product Stability during Application of PE Top Layer  Frequency in PQT: Each pipe  | Bidder clarifies that the test frequency of product stability is written at Two places.<br>Hence bidder consider that during PQT Product stability test shall be carried out from one pipe (One sample) from selected test pipes for PQT as per Sl. no. 4.16 of Table 12. The test method shall be as per ISO 1133-1.<br>Please confirm the same.          | Tender conditions shall prevail   |
| 91      | CS. Cl. no. 8.4 of Doc. no.: VCS-SS-PP-<br>2003  | 100              | Patch Repair  • Peel Test:  2.2.5 Mmm @23±3*C;  2.0.2 Mmm @80±3*C;  No separation of epoxy layer   | Bidder proposes that due to constrain pipe size, Peel test on patch repair should be waived off.   | Tender conditions shall prevail   |
| 92      | CS. Cl. no. 8.4 of Doc. no.: VCS-SS-PP-<br>2003  | 100              | Heat-shrinkable Sleeve (HSS) Repair (System 14-B) of ISO 21809-3 Peel Test (Table 17 of ISO 21809-3): 25 N/mm @ 29347°C; 2 0.3 N/mm @ 80±3°C; No separation of epoxy layer from the steel surface.   | Bidder proposed that Peel test on Heat-shrinkable Sleeve (HSS) Repair shall be carried out as per Raw material manufacturer's recommendation.  | Tender conditions shall prevail   |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |  |                            |  |  | Date: 13.06.2024                |
|---------|--|----------------------------|--|--|---------------------------------|
| SI. No. | CI No.   | Page No./Section           | Description  | Bidder's Query/Clarification   | IGL/VCS Reply                   |
| 93      | CS. Cl. no. 7.4.2.3 of Doc No.: VCS-SS-<br>PP-2003   | 95                         | Variation of the recorded temperature values versus the set pre-heating temperature shall be within range of 5% along the pipe length with the exception of the cut back lengths.  | Bidder clarifies that Variation of the recorded temperature values versus the set pre-<br>heating temperature shall be within range of £ 12.5% age or as per Raw materials<br>manufacturer recommendation instead of 5% along the pipe length with the<br>exception of the cut back lengths. Please confirm.   | Tender conditions shall prevail |
| 94      | CS. Cl. no. 11.7 of Doc. no.: VCS-SS-<br>PP-2003     | 116                        | The coating pipe mill shall have internal tracking system for pipe traceability during regular coating to reduce manual interference. SAP base syste is preferred.   | We would like to clarify that we have using ERP based internal pipe tracking system.<br>Hence, We shall maintain DATA in ERP system.   | Tender conditions shall prevail |
| 95      | CS. Cl. no. 12.5 of Doc. no.: VCS-SS-<br>PP-2003     | 117                        | Bare/coated pipes at all times shall be stacked completely clear from the ground, at least 500 mm, so that the bottom row of pipes remains free from any surface water.  | Bidder proposed that we shall maintain minimum 300 mm clearance between pipes and ground and the row shall be made as in slope which will drain out & prevent from rain water collection inside the pipes.   | Tender conditions shall prevail |
| 96      | CS. Cl. no. 15 of Doc. no.: VCS-SS-PP-<br>2003       | 1,21,122                   | INSPECTION, MEASURING AND TEST EQUIPMENT:    Device Name   Clause No.   Frequency of in house Verification   | We wish to clarify that the required in house verification of inspection, measuring and test equipment is narrow tolerance. Therefore We shall maintain the within the acceptance Criteria of calibration certificates which have calibrated from independent laboratory (specialized calibration agency) i.e. $\pm$ 3% for digital contact thermometer & optical pyrometer and $\pm$ 5% of holiday detector. Please confirm the same. | Tender conditions shall prevail |
| 97      | CS. Cl. no. 8.5.2.15 of Doc. no.: VCS-<br>SS-PP-2003 | 106                        | Specific Electrical Coating Resistance: The long term Specific Electrical Coating Resistance test of 3LPE coated pipes section shall be conducted for 100 days @ 23°C in accordance with Annex J of DIN 30670. Tested value shall be ≥108 Ωm² (refer Clause 5.4.4 and Table 7). Owner may decide to get the test conducted for 3LPE coating applied during PQT and get tested for the above long-term test at the cost of the coating applicator at an accredited independent laboratory as per above requirement. | We will submit reputed lab test reports of each grade of PE which will be provided by polyethylene material manufacturer for review and acceptance Please confirm.   | Tender conditions shall prevail |
| 98      | CS. Cl. no. 8.5.2.16 of Doc. no.: VCS-<br>SS-PP-2003 | 106                        | UV Resistance and Thermal Ageing:  Owner may decide to get the test conducted for PE top coat material 3LPE coating applied during PQT and get tested for the above long-term tests at the cost of the coating applicator at an accredited independent laboratory as per above requirements.   | We will submit reputed lab test reports of each grade of PE which will be provided by polyethylene material manufacturer for review and acceptance. Please confirm.  | Tender conditions shall prevail |
| 99      | VCS-SS-PP-2008 Rev No : 02, 9.3.2                    | 20,Tensile Properties      | The finished pipe (after all heat treatment an expansion or sizing operations) shall conform to the requirements of Table 3B of API Spec. 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:  API Spec. 5L Grade Permissible in excess of SMYS, Mpa (PSI).  Up to and including X46M 131 (19000)  X52M to X60M 125 (18,000)  X65M to X70M 120 (17400)               | TSL requested kindly allow Tensile Properties as per API 5L 46th edition.  | Tender conditions shall prevail |
| 100     | VCS-SS-PP-2008 Rev No : 02, 9.3.2                    | 20,Tensile Properties      | The ratio of body yield strength and body tensile strength of each test pipe on which yield strength and ultimate tesnsile strength are determined, shall not exceed 0.90  | TSL requested kindly allow ratio of body yield strength and body tensile strength of each test pipe as per API SL 46th edition.  | Tender conditions shall prevail |
| 101     | VCS-SS-PP-2008 Rev No : 02, 9.3.2, 9.10.7 (a)        | 23,Surface<br>Imperfection | Imperfections that have a depth $<$ 0.05t and do not encroach on the minimum specified wall thickness shall be classified as acceptable imperfections and shall be treated in accordance with Clause C.1 of this specification.  | As per API 5L 46th edition clause no. 9.10.7 (a)<br>Imperfections that have a depth s 0.125t and do not encroach on the minimum<br>permissible wall thickness shall be classified as acceptable imperfections and shall<br>be treated in accordance with C.1.<br>So TSL requested kindly allow surface imperfection as per API 5L 46th edition.  | Tender conditions shall prevail |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

Pre-bid meeting held on 29.05.2024

|         |  |  |   | Date: 13.06.2024   |   |
|---------|--|--|---|--|---|
| SI. No. | CI No.   | Page No./Section   | Description   | Bidder's Query/Clarification   | IGL/VCS Reply   |
| 102     |  | 24,Minimum Avg.<br>Length                                  | All pipes shall be supplied with length between 11.5 m and 12.5 m. However pipe with length between 10.0 m and 11.5 m can also be accepted for a maximum of 5% of the ordered quantity. The minimum average length of the entire ordered quantity in any case shall be 12.0 m   | TSL understanding The definition of average length is applicabel for 95 % of order quantity & 5 % supplies will be from 10.5 mtr to 11.50mtr.  However TSL requesting you that the minimum average length should be 11.5 meter.  | Bidder's understanding is correct     Tender conditions shall prevail |
| 103     | VCS-SS-PP-2008 Rev No : 02,<br>9.12.5.7                  | 24,Bevel Protectors  | Both pipe ends of each pipe shall be provided with metallic or high impact plastic bevel protectors as per Manufacturer's standard. Bevel protectors shall be of a design such that they can be re-used by coating applicator for providing on externally anti-corrosion coated pipes subsequent to coating of line.  | Design of Bevel Protector acceptable.  TSL Understand Bevel protector shall be used after 3LPE Coating, Please confirm.  | Confirmed   |
| 104     |  | Manufacturing<br>Procedure<br>Qualification for PSL2 Pipe  | These manufacturing procedure qualification tests (MPQT) shall be repeated upon any change in the manufacturing procedure as deemed necessary by Purchaser's Representative. The manufacturing procedure qualification tests shall be carried out on pipes for each wall thickness, each diameter and each grade of steel.  | TSL understanding - for first day of production is that any in between stoppage like mechanical & electrical stoppage including tool change breakage will not call for Re-PQT while rolling the coils of different heat on first day of production if the parameter mentioned (WPS) is not getting changed | Tender conditions shall prevail                                       |
| 105     |  | 38,Reference Standards for<br>pipe body UT                 | Reference Standards for pipe body UT:  Reference Standards for the ultrasonic inspection of coil or pipe body (except the coil edges /pipe ends) shall contain continuous machined notch of following dimension: a) width, w:8mm, with a tolerance +0.8/0.0 mm b) depth, d:0.25cdc0.5 t, where 't' is the specified wall thickness  Reference standards for the ultrasonic inspection of coil edges (area adjoining weld seam)/pipe ends shall have 6.4 mm diameter FBH of a depth 0.5t, where 't' is the specified wall thickness. | Body UT will carried out as per API SL 46th Edition Annex E and ISO 10893-8 standards: a) width, w: 6mm, with a tolerance +0.6/0.0 mm b) depth, d: 0.25-cd-0.5 t, where 't' is the specified wall thickness TSL requeste, kindly wave off of FBH for referace standard.                                    | Tender conditions shall prevail                                       |
| 106     | Doc no. VCS-SS-PP-2003 Rev.04<br>Dated.05.08.2022, 4.3.1 | 80, Epoxy Powder   | Particle size   | TSL would like to inform that, mentioned test perform by material manufacturer and provide RMTC for test result, TSL will submit same for Review and acceptance.   | Tender conditions shall prevail                                       |
| 107     |  | 84, Table 5 - On Cured Epoxy<br>(FBE) film of 3LPE Coating | 2.Degree of Cure  ΔTg -3°C ≤ΔTg≤ + 3°C  | TSL would like to inform that Degree of cure requirement i.e. $\Delta Tg = +3/-2^{\circ}C$ specified in old version of CSA 2245.20 but in latest edition of CSA 2245.20-16 requirement is $\leq 5^{\circ}C$ . TSL will be follow latest edition of specification.  | Tender conditions shall prevail                                       |
| 108     |  | 84, Table 5 - On Cured Epoxy<br>(FBE) film of 3LPE Coating | 6.Hot Water Adhesion<br>28 days at 75°C+/-3°C   | TSL would like to inform that , This is long duration test and it is conduct by raw material manufacturer, however it is not possible to provide test result at the time of material shipment. Hence, we request to you test result shall be Once per each grade of epoxy.                                 | Tender conditions shall prevail                                       |
| 109     | Doc no. VCS-SS-PP-2003 Rev.04<br>Dated.05.08.2022, 5.4.4 | 84, Table 5 - On Cured Epoxy<br>(FBE) film of 3LPE Coating | 10. Impact Resistance at 0 °C   | TSL would like to inform that, mentioned test perform by material manufacturer and provide RMTC for test result, TSL will submit same for Review and acceptance.   | Tender conditions shall prevail                                       |
| 110     |  | 84, Table 6 - On Extruded<br>Adhesive film of 3LPE coating | 2. Strain at Break at 23°C ± 3°C  | TSL would like to inform that, mentioned test perform by material manufacturer and provide RMTC for test result, TSL will submit same for Review and acceptance.   | Tender conditions shall prevail                                       |
| 111     |  | 85, Table 6 - On Extruded<br>Adhesive film of 3LPE coating | 3. Stress at Yield at 23°C ± 3°C  | TSL would like to inform that, mentioned test perform by material manufacturer and provide RMTC for test result, TSL will submit same for Review and acceptance.   | Tender conditions shall prevail                                       |
| 112     |  | 85,Table 7 - On HDPE Top<br>Coat layer and 3LPE coating    | 10.Specific Electrical Coating<br>Resistance (23 °C ± 2 °C)   | TSL would like to inform that, This is long duration test and it will be performed by the material manufacturer and report shall be submitted for review and acceptance.   | Tender conditions shall prevail                                       |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |   |   |  |   | Date: 13.06.2024  |
|---------|---|---|--|---|---|
| SI. No. | CI No.  | Page No./Section  | Description  | Bidder's Query/Clarification  | IGL/VCS Reply   |
| 113     |   | 86,Table 7 - On HDPE Top<br>Coat layer and 3LPE coating                         | 12. ΔTg = -3°C ≤ΔTg≤ + 3°C   | TSI would like to inform that Degree of cure requirement i.e. $\Delta Tg = +3/-2^{\circ}C$ specified in old version of CSA 2245.20 but in latest edition of CSA 2245.20-16 requirement is $\leq 5^{\circ}C$ . TSL will be follow latest edition of specification.                                     | Tender conditions shall prevail                                       |
| 114     | Doc no. VCS-SS-PP-2003 Rev.04<br>Dated.05.08.2022, 7.2.9  | 92, Salt test   | The salt tests shall be carried out after de-ionized water rinse at one end of each pipe at the blasting inspection bed.   | TSL would like to inform that, All pipe shall be provided chemical pretreatment with phosphoric acid for removal of salt contamination from the pipe surface. Hence, We propose that test shall be conduct in 1 in 10 pipes.  |   |
| 115     |   | 95, Air pressure in the epoxy spray guns  | Air pressure in the epoxy spray guns shall be controlled, continuously monitored and recorded by using suitable instruments.   | TSL Would propose that continuously monitoring facility is available and recording a temperature in logbook at regular interval.  | Tender conditions shall prevail                                       |
| 116     | Doc no. VCS-SS-PP-2003 Rev.04<br>Dated.05.08.2022, 7.4.1  | 93,Pipe Heating   | Temperature measuring & monitoring equipment shall be calibrated twice every shift and/or as per Owner Representative's instruction.   | Once in year we are doing the calibration of all Temperature measuring instruments by external calibration agency and calibration certificate shall be provided to you for review and acceptance.  Pl confirm.  | Confirmed   |
| 117     | Doc no. VCS-SS-PP-2003 Rev.04<br>Dated.05.08.2022, 7.4.1  | 93  | Suitable arrangement shall be made to protect the bevel ends from getting damaged during the coating operation.  | Putting and removal of coupling is safety hazards. However by during the adequate alignment of the line and speed optimization no bevel getting damaged. If any bevel got damaged we are during buffing on VDI table.   | Tender conditions shall prevail                                       |
| 118     | Doc no. VCS-SS-PP-2003 Rev.04<br>Dated.05.08.2022, 7.4.3  | 96, Extrusion temperature   | The extrusion temperature of polyethylene film 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.   | TSL Would propose that continuously monitoring facility is available and recording a temperature in logbook at regular interval. The instruments use for PE and adhesive shall be calibrate in specialized equipment outside laboratory so we proposed review of outside lab calibration certificate. |   |
| 119     | Doc no. VCS-SS-PP-2003 Rev.04<br>Dated.05.08.2022, 7.1.14 | 93  | Suitable plugs shall be provided at both pipe ends to prevent entry of any shot/grit into the pipe during blast cleaning operations. These plugs shall be removed after blast cleaning.  | Putting and removal of plugs is safety hazards. Hence, TSL have ensure that 1.There No gap between two pipes by maintaining the blasting conveyor line speed for prevent the entry of shot and grits. 2. Additionally air blowing system is already exist for individual pipe on blasting table.      | Tender conditions shall prevail                                       |
| 120     | Doc no. VCS-SS-PP-2003 Rev.04                             | 109,Table 10 —<br>Requirements for inspection<br>of surface preparation of pipe | 4. Size, shape and properties of virgin abrasive   | TSL would like to inform that, mentioned details perform by material manufacturer and provide RMTC for test results, TSL will submit same for Review and acceptance.  | Tender conditions shall prevail                                       |
| 121     |   | 122, INSPECTION,<br>MEASURING AND TEST<br>EQUIPMENT:                            | Optical Pyrometer  | Once in year we are doing the calibration of all Temperature measuring instruments<br>by external calibration agency and calibration certificate shall be provided to you for<br>review and acceptance.<br>Pl confirm.  | Tender conditions shall prevail                                       |
| 122     | Doc no. VCS-SS-PP-2003 Rev.04<br>Dated.05.08.2022         | -   | Chemical-pretreatment with Phosphoric Acid & Chromate Solution   | TSL will understand Phosphoric Acid & Chromate Solution are required when salt level is greater than $2\mu\text{g/cm}^2$ as per Clause no.7.1.12. Please confirm the Understanding.   | Bidder's understanding is correct                                     |
| 123     | 9.8.2.2<br>9.8.3  | 22  | Pipe body tests  The minimum average (set of three test pieces) shear fracture area shall be at least 85 % with one minimum value of 75%, based at a test temperature of 0°C (32 0°F) or at a lower test temperature of 0°C (32 0°F) or at a lower test temperature as specified in the Purchase Order / Material Requisition (MR).  Pipe weld and HAZ tests  The average (set of three test pieces) absorbed energy value (Kv1) 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 / Material Requisition (MR). | Bidder Clarifies that CVN absorbed energy value for Pipe body, Weld and HAZ of PSL2 Pipe is considered as per Table G of Client Spec. Please Confirm.   | Refer Table 8 of DOC NO: VCS-SS-PP-2008 for CVN absorbed energy value |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

|         |  |                  |   |   | Date: 13.06.2024  |
|---------|--|------------------|---|---|---|
| SI. No. | CI No.   | Page No./Section | Description   | Bidder's Query/Clarification  | IGL/VCS Reply   |
| 124     | 10.2.1.2 Table 18  | 25               | 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.    श्रीव्यव्यक्षः   | 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 shall prevail   |
| 125     | 10.2.8.7   | 59               | 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 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. Please Confirm.  However, Bidder clarifies that calibration of dimension measuring equipment shall be done on yearly basis from an external NABL lab.   | Tender conditions shall prevail   |
| 126     |  | 135              | INSPECTION AND TEST REQUIREMENTS:   | Quantum of check of steel / coil at steel mill shall be as agreed with the opted steel mill and can be further agreed with Client in case of order award. Please Confirm.   | Tender conditions shall prevail   |
| 127     | Cl. 11.0 of Doc. No.: 17996-CGD-PL-<br>MR-001  | 7                | Bidder shall inspect of all coated line pipes in presence of Owner representative while handing over of pipes. Holiday inspection for visually damaged, coating damaged pipes etc. shall be carried out by bidder while handing over of pipes. Repair of damaged pipes, beveled end defects and damaged coating (including supply of coating materials for repair) noticed at the time of handing over of coated pipes. All handling, lifting tools etc. required for inspection of coated pipes at Storage Yards shall be carried out by the bidder. | Bidder clarifies based on our standard practice that pipes are finally accepted through the holiday inspection and after satisfaction of the holiday inspection the pipe tagged by the accepted coated pipe number. Further that pipe to be shifted to the coating yard/storage area. Hence, the coating requirement is external 3LPE and the external PE thick surface is generally applicable for the mechanical protection during the handling of the pipes and there is minimum possible chance to observed holiday on 3LPE coating. However, the probability of holiday is only possible to come in case of coating damage. Hence, during the unloading of the pipes will be visually checked for damage, if the damage observed on the coated pipes, then the pipe to be checked for holiday inspection and the subsequent repair to be carried out as per approved repair procedure. Please Confirm. | Tender conditions shall prevail   |
| 128     | Cl. 13.0 of Doc. No.: 17996-CGD-PL-<br>MR-001  | 8                | Pipe roughness shall be 40 Micron.  | Bidder would like to clarify that there is no internal coating requirement in this tender, also pipes are required to be supplied with 3LPE coating. Accordingly, the requirement specified herein of pipe roughness shall not be applicable. Hence not considered. Please Confirm.   | Pipe roughness shall be 40 microns & shall be applicable for bare pipe only |
| 129     | Cl. 21.0 of Doc. No.: 17996-CGD-PL-<br>MR-001  | 8                | All items shall be provided with EN 10204, 3.2 Certification. Inspection of Steel Plate/Coil/Billet required for manufacturing of Line Pipe shall also be 3.2 certified as per EN 10204. To carrying out inspection as per EN 10204, 3.2 certification, Vendor shall appoint TPIA from the attached TPIA list at bidder's own cost.   | Bidder request to provide the list of TPIA. Please Confirm.   | Refer Cl. No. 3.0 of SCC of Commercial Volume                               |
| 130     | Cl. 22.0 & 23.0 of Doc. No.: 17996-<br>CGD-PL-MR-001   | 8                | Color bands of 50 mm width to be placed at both the ends, inside of Bare Pipes at a distance of 150 mm from the pipe ends and outside of 3LPE Coated Pipes at a distance of 450 mm from the pipe ends.  White Band marking inside for all the items.  | Bidder understands colour bend shall not applied being only one wall thickness for the project. Please Confirm.   | Bidder's understanding is correct   |
| 131     | VCS/C&P/17028/PC/CS PIPE/05 Date<br>17.01.2023<br>(REPLY TO BIDDER'S PRE-BID QUERIES<br>IN PREVIOUS TENDERS) | 190              | REPLY TO BIDDER'S PRE-BID QUERIES SUPPLY OF 3LPE COATED CS LINE PIPE IN NCT OF DELHI, UTTAR PRADESH, HARYANA AND RAJASTHAN TENDER DOCUMENT NO. IGI/ET2/CP/CP17294, Dated 30.12.2022   | Bidder has considered "REPLY TO BIDDER'S PRE-BID QUERIES IN PREVIOUS TENDERS" for the evaluation of the enquiry.  Bidder understand that "REPLY TO BIDDER'S PRE-BID QUERIES" stands valid for this tender also.  Hence Bidder hasn't raised the comment which has been already resolved in the same. Please Confirm.  | Confirmed   |
| 132     | Cl. 13 of Doc. No.: VCS-SS-PP-2003 &<br>Doc. No.: VCS-SS-PP-2027, Rev. 02,<br>Date: 29.04.2022               | 119              | Cl. 13 of Doc. No.: VCS-SS-PP-2003 Repair of Coating Doc. No.: VCS-SS-PP-2027, Rev. 02, Date: 29.04.2022: Standard specification for repair of polyethylene coating   | Bidder understands that Doc. No.: VCS-SS-PP-2027, Rev. 02, and Date: 29.04.2022 is applicable for coating repair of damages that occur after dispatch of coated pipes to dump site prior to handing over to Installation Agency.  However, Repair at coating plant shall be carried out as per clause no. 13 of the Doc. No.: VCS-SS-PP-2003. Please Confirm.   | Bidder's understanding is correct   |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

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|         |   |                  |   |  | Date: 13.06.2024   |
| SI. No. | CI No.  | Page No./Section | Description   | Bidder's Query/Clarification   | IGL/VCS Reply  |
| 133     | Cl. 3.7 of Doc. No.: VCS-SS-PP-2003   | 79               | The conductivity of DI (De-Ionized) water (if used) shall be less than 5 micro Siemens/cm and rinse water pressure shall be minimum 1500 psi.   | Bidder propose that High pressure water rinse shall be carried out at a pressure >1000 psi / 70 bar or as recommended by phosphoric acid material manufacturer. Please Confirm.  | Tender conditions shall prevail  |
| 134     | Cl. 3.10 of Doc. No.: VCS-SS-PP-2003  | 79               | 3.0 PLANT SCALE AND INSTALLATION: 3.10 Material manufacturer shall conduct the tests for each grade of material in Approved external independent laboratory (preferably ISO 17025 certified or equivalent having good track records of pipe coating testing) and provide complete test report (not older than 3 years) prior conducting Procedure Qualification Trail (PQT).  | Bidder clarifies that material manufacturer may be conducted the tests for each grade of material at their in house laboratory or Approved external independent laboratory (preferably ISO 17052 certified or equivalent having good track records of pipe coating testing). Please Confirm.   | Tender conditions shall prevail  |
| 135     | Cl. 4.2 of Doc. No.: VCS-SS-PP-2003   | 79               | The coating material manufacturers shall carry out tests for all properties specified in clause 5.4.1, 5.4.2 & 5.4.3 and Table 2, 3 & 4 respectively for each batch of epoxy, adhesive and polyethylene compound. The coating materials manufacturer shall issue test certificates as per BS EN 10204, 3.1 for each batch of materials supplied to Applicator/ Contractor indicating all contents/ parameters required for batch certification as per clause 9.3, Table 6 of ISO 21809-1:2018 and the same shall be submitted to Owner for approval prior to their use. | Bidder clarifies that 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. Boxy, Adhesive and Polyethylene manufacturer will provide batch test certificate for the measured value and typical value as mentioned below:  Epoxy Powder: All Properties tested for each batch as per Table 2  PE Adhesive: MFR, Density and Water content results shall be reported as measured value for each batch whereas the Strain at break, Stress at yield and Vicat Softening Temperature will be reported as typical values supported by reputed lab reports.  High Density Polyethylene: Density, Melt Flow Rate, Oxidation Induction Time, Carbon Black Content, Water Content results shall be reported as measured value for each batch. The properties—Hardness Shore D, Strain at break, Stress at yield, Vicat Softening Temperature, Hardness Shore D, Strain at break, Stress at yield, Vicat Softening Temperature, Universitance, Thermal Aging, Volume resistivity and Dielectric Withstand shall be reported as typical value supported by independent lab test report valid for one year.  For UV resistance, Thermal ageing and Coating Resistivity test bidder will submit independent laboratory test report furnished by material manufacturer. These test certificates will not be older than three years. Please Confirm. | Tender conditions shall prevail  |
|         | Cl. 7.2.9, 8.3.4.1, 10.3 & Sr. No. 7 of<br>table 10 of Doc. No.: VCS-SS-PP-2003                               | 92               | Cl. 7.2.9 of Doc. No.: VCS-SS-PP-2003 The salt tests shall be carried out after de-ionized water rinse at one end of each pipe at the blasting inspection bed.  Sr. No. 7 of table 10 of Doc. No.: VCS-SS-PP-2003 Soluble salt after blasting (at one end)  Cl. 8.3.4.1 Phosphoric Acid Wash followed by De-ionized Water Wash (If specified):  Cl. 10.3 Chemical Pre-treatment with Phosphoric Acid Solution and / or Chromate Treatment (If specified by the Owner):  | Bidder clarifies that salt contamination test will carry out after second abrasive blasting at blasting inspection station. However, phosphoric acid wash followed by high pressure water wash is only applicable when salt contamination level is observed more than 2 µg/cm2 after blast cleaning according to Sr. No. 1, 51, 52, 66, 67, 68, 69, and 83 of VCS/CRP/17028/PC/CS PIPE/DS Date 17.01.2023 (REPLY TO BIDDER'S PRE-BID QUERIES IN PREVIOUS TENDERS). Please Confirm.   | Confirmed  |
|         | Cl. 7.3, 8.3.4.2, 10.3 of Doc. No.: VCS-<br>SS-PP-2003  | 92               | Cl. 7.3 Chemical Pre-treatment with Chromate Solution (if specified):  Cl. 8.3.4.2 Chromate Treatment (if specified):  Cl. 10.3 Chemical Pre-treatment with Phosphoric Acid Solution and / or Chromate Treatment (if specified by the Owner):  Table 11, B: Chemical-pretreatment with Chromate Solution (Gardobond 4504 PC or Equivalent (if specified):   | Bidder understands that chromate application is not require. Please Confirm.   | Tender conditions shall prevail Phosphoric acid wash followed by de-ionized water wash shall be carried out, only if, salt contamination level is observed more than 2µg/cm2 after blast cleaning. |



### TENDER FOR PROCUREMENT OF 229 KM STEEL LINEPIPE TO MEET PROJECTS REQUIREMENT FOR ALL GAS OF IGL

### TENDER DOCUMENT NO. IGL/ET2/CP/CP17996, Dated 20.05.2024

VCS REFRENCE NO. VCS/C&P/17028/PC/CS PIPE/17

Owner: Indraprastha Gas Ltd.

Consultant: VCS Quality Services Pvt. Ltd.

Pre-bid meeting held on 29.05.2024

Date: 13.06.2024

| SI. No. | CI No.   | Page No./Section | Description  | Bidder's Query/Clarification   | IGL/VCS Reply  |  |
|---------|--|------------------|--|--|--|--|
|         | Cl. 7.4.1 & 15 of Doc. No.: VCS-SS-PP-<br>2003                             |                  | Cl. 7.4.1 of Doc. No.: VCS-SS-PP-2003 Temperature measuring & monitoring equipment shall be calibrated twice every shift and/or as per Owner Representative's instruction  | Bidder clarifies that the pyrometers are used for monitoring of PE & adhesive temperature and the same is specialized equipment and are calibrated in specialized equip outside laboratory, so we propose to review the outside lab calibration certificate.  However, the pyrometer will be checked for errors every shift against a calibrated temperature-measuring instrument.  Please Confirm.                                | Tender conditions shall prevail                            |  |
| 139     | Cl. 7.4.2.3 of Doc. No.: VCS-SS-PP-<br>2003                                | 94               | Only those coating material which are pre-qualified and approved by Owner / Consultant in accordance with provisions of Annexure I of this specification and qualified in accordance with requirements of clause 5.4.1, 5.4.2, 5.4.3, 5.4.4 and Table 2, 3, 4 & 5 of this specification shall be   | Bidder understands that the coating material specified in the Annexure –I have already been pre-qualified by the Owner / Consultant and subsequent listed in the approved vendor list given in Annexure I. Accordingly we understand that the requirement mentioned in clause 7.4.2.3 is applicable in case the coating materials to be used other than approved coating material combination given in Annexure I. Please Confirm. | 7.4.2.3 is applicable even for approved coating materials. |  |
|         | Table 12 (Sr. No. 4.20), Cl. 13.1.7,<br>13.1.8 of Doc. No.: VCS-SS-PP-2003 | 119              |  | Bidder understands that "if the coating cutback exceeds 170 mm (150 mm (+) 20 / (-) 0 mm) instead of 150 mm linear length of pipe, then the coating shall be repaired by the use of heat shrink sleeves thereby making up the coating cut back length of 150 mm (+) 20 / (-) 0 mm. Please Confirm.   | Confirmed  |  |
|         | Annexure-I of Doc. No.: VCS-SS-PP-<br>2003                                 | 123              | (Formerly, CORRO-COAT EPE F 2002HW) / (Formerly, CORRO-COAT EPE F 2002HW) / (Formerly, CORRO-COAT EPE F 2003HW) (FORMERLE) (FORMERLE | Bidder would like to add HDPE topcoat grade "HE 3450" material along with the straight line combination. This material "HE 3450" confirms to meet all the properties of PE material specified in the specification and also meet quality of end product. Please Confirm.   | Tender conditions shall prevail                            |  |
| 142     | 2.0<br>Volume II of II   | 6                |  | We understand that the given quantity tolerance i.e -0/+1 pipe length is "item wise & location wise". Please Confirm.  | Bidder's understanding is correct                          |  |