
	<b>AAVANTIKA GAS LIMITED</b> <b>CITY GAS DISTRIBUTION PROJECT IN GWALIOR AND UJJAIN</b> <b>TENDER FOR COATED LINE PIPE</b>	
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**Tender No - 110310/WGI/AGL/02-R0**  
**DATE: 23.12.2010**

Sr. No.	Section / Clause No.	Tender Doc. Page No.	Clause Description	Bidders Queries	WGI / GGL Reply to Bidders Queries
1.	Section I / IFB / 4.0 (c)	2 of 82	Delivery Period	The date of LR shall be considered as date of dispatch. Kindly accept.	Tender condition prevail
2.	Section I / IFB / 10.0	3 of 82	Validity of Offer	The Bid validity period should be 2 months instead of 4 months as steel prices are very volatile these days and no steel suppliers are ready to give the prices valid for longer period. This will facilitate us to submit competitive quote without keeping unnecessary cushion of future increase in raw material prices for a longer period.	Tender Condition Prevail
3.	Section II / ITB / 8.5  1 of MR	14 of 82  10 of 94	Bid Price  Scope of Supply	As per said clause, unloading and stacking is bidder's scope. Kindly specify that the sand bags required for stacking of coated pipes shall be in bidder's scope or purchaser will provide the required sand bags.  Further please note that the warehouse maintenance is in purchaser's scope. Hence we request you to include unloading & stacking in purchaser's scope.	Tender Condition Prevail, However, Sand bags will be provided by Owner.  Tender Condition Prevail
4.	22.3 of ITB and SOR	20 of 82	Octroi / Entry Tax	Instead of including in the prices, we request that octroi / entry tax, if applicable, be reimbursed by AGL against documentary evidence. This would ensure that the actual expenses incurred are paid by AGL instead of price being loaded on the basis of assumption of entry tax/octroi.  Please confirm that applicable road permits required for entry into MP shall be provided by AGL.	Tender Condition Prevail  Road permit to be provided by AGL.
5.	Section III / GCC / 26.0	38 of 82	Price Reduction Schedule	Please amend the same clause as "½% per week of undelivered portion of the pipes and upto maximum 5% of the basic order value.	Tender Condition Prevail
6.	Section III / GCC / 40	44 of 82	Repeat Order	We wish to inform you that steel prices are fluctuating every month. Hence it is not viable to accept the repeat order upto 6 months. We request you to please delete the same OR freeze the quantity at the	Tender Condition Prevail



				time of placement of award.	
7.	Section IV / SCC / 6.1	50 of 82	Payment Terms	Please amend the same clause as 100% within 15 days against submission of documents and receipt of material at Site	Tender Condition Prevail
8.			General	Please note that sufficient number of road permits shall be issued by the purchaser at no extra financial implication to the bidder. In case any delay in issue of road permits, the delivery schedule shall be extended accordingly, kindly accept the same.	Owner will issue the road permits to the bidder without any financial implication. However, bidder has to intimate the Owner the desired number of road permits 30 days before dispatch of material.
9.	Vol-II 8.1	19 of 94	TPI inspection shall be carried out at steel mill	Please confirm whether AGL would depute the TPI agency at steel mill or the bidder has to get TPI inspection at its own cost.	No TPI agency shall be deputed by AGL. The Bidder has to get TPI inspection at its own cost at steel mill; however AGL/WGI will review the RMTTC (Raw Material test certificate) of the steel.
10.	Vol-II 9.2	21 of 94	Carbon Equivalent	We understand CE (IIW) will be determined if carbon content is greater than 0.12% and CE (Pcm) will be determined if carbon content is less than or equal to 0.12%. Please confirm.	Bidder to follow as per the Technical Specification.
11.	Vol-II 9.3	21 of 94	Actual yield strength ..... 131 MPa	We propose the actual yield strength shall be as close as possible to the specified minimum yield strength (SMYS) but in no case it shall exceed 150 Mpa.	No deviation is accepted, it is to be followed as per Technical Specification.
12.	Vol-II 9.16.2	26 of 94	Bevel angle shall be 30° with tolerance of (+) 5°, (+) 0°	It seems there is a typographic error. Bevel angle should be 30° with tolerance of (+) 5°, (-) 0°. Please confirm.	Bidder's understanding is correct.
13.	Vol-II 9.18	27 of 94	Weldability Test	We understand that weldability test shall be conducted by the EPC contractor at site and will not be a part of first day production test. Please confirm.	No deviation is accepted, it is to be done at the time of first day production test. First day procedure is attached for your reference.
14.	Vol-II 13.9.1 and Appendix-1	73 and 78 of 94	Impact test on FBE coated pipe	As per Appendix-1, impact test energy requirement of 7.0 J min. is applicable on 3LPE coated pipes. We understand that for FBE coated pipes, impact test energy requirement should be 1.5 J as per CAN.CSA.Z245.20-06. Please confirm.	Noted
15.	Vol-II 13.7.2 and Appendix 2	74 and 80 of 94	Adhesion on FBE coated pipe	As per Appendix 2, Adhesion on FBE coated pipe test frequency given is 1 per 100 pipes. Please note that in 3LPE coating it is not	No deviation is accepted, it is to be followed as per Technical



				possible to check the adhesion test on FBE coated pipe. Hence, we propose to perform this test on one pipe per day which was partly coated for epoxy thickness checking. Please confirm.	Specification.
16.	Vol-II 13.10 and Appendix 2	75 and 80 of 94	Cathodic Disbondment Test	As per Cl. 13.10, CD test for 28 days duration is required only for PQT. However, as per Appendix 2, CD test is mentioned for both 28 days and 48 hours duration during regular production. We understand / propose that during regular production, CD test shall be carried out only for 48 hours duration. Please confirm.	No deviation is accepted, it is to be followed as per Technical Specification.
17.	Vol-II Appendix 2 and note 2	80 of 94	Salt test frequency	As per established quality control procedure, pipes are taken for coating only if chlorides found within specified limits. Hence, we propose salt testing frequency of 1 in 100 pipes after second blasting. Please confirm.	No deviation is accepted, it is to be followed as per Technical Specification.
18.	Fig. 10	53 of 94	Specification For Bare (ERW) & Seamless Line Pipes / Hardness point location.	Can we replace as 6 points in base, 6 points in HAZ & 3 points in weld (total 15 points)	No deviation is accepted, it is to be followed as per Technical Specification.
19.	Vol – II 9.3 Specification for Bare Pipe (ERW)	21 of 94	Tensile Properties	We request you to accept the tensile properties as per API 5L 44 <sup>th</sup> edition.	No deviation is accepted, it is to be followed as per Technical Specification
20.	Vol II 9.4.3 Specification for Bare Pipe (ERW)	22 of 94	Test Pressure (Hydrostatic Test)	We request you to accept the straightness as per API 5L or 1.5 mm per Meter.	It is not related to this clause no-9.4.3, whatever MSL asked for clarification. However, deviation is not accepted. And it is to be followed as per technical. Specs.
21.	Specification for Bare Pipe (ERW)			First day Production test is not given. Please clarify that it will be carried or not.	First day Production test is to be carried out. However, first day production procedure is not attached originally. It is now attached herewith as <b>Annexure – 1</b> for reference and the same shall be treated as a part of tender document.
22.	Vol II 9.1 Specification for Bare Pipe (Seamless)	20 of 94	Chemical Composition S = 0.01%	We request you to accept the said value as per API 5 L specifications	No deviation is accepted, it is to be followed as per Technical Specification




23.	Vol II 9.3 Specification for Bare Pipe (Seamless)	21 of 94	Tensile Properties	We request you accept the value of 145 MPa from minimum YST	No deviation is accepted, it is to be followed as per Technical Specification
24.	Vol II 9.4 Specification for Bare Pipe (Seamless)	22 of 94	Hydrostatic Test	Hydro Test Pressure shall be held minimum 5 second as per clause 10.2.6.1 of 5L, we request you to accept the same, as 15 sec holding time is very time consuming activity. However 5% pipes may be witnessed at 15 second holding time.	No deviation is accepted, it is to be followed as per Technical Specification
25.	Vol II 9.4.3 Specification for Bare Pipe (Seamless)	22 of 94	Burst Test	As per API 5L burst pressure is not mandatory. Since we are conducting hydro test, we request you to waive off the burst test requirement.	No deviation is accepted, it is to be followed as per Technical Specification
26.	Vol II 9.5 Specification for Bare Pipe (Seamless)	22 of 94	Flattening Test	Flattening test is not applicable for seamless pipes. Kindly confirm.	Noted
27.	Vol II 9.6 Specification for Bare Pipe (Seamless)	23 of 94	CVN Impact Test	As per table 22 and Page no 55 (refer note) of API 5 L latest 44 <sup>th</sup> edition CVN impact test is not applicable for wall thickness $\leq$ 7.6mm. However if desired. We can conduct longitudinal impact test (1set of 3 pcs) per heat. Kindly accept the same.	No deviation is accepted, it is to be followed as per Technical Specification
28.	Vol II 9.14 Specification for Bare Pipe (Seamless)	25 of 94	Dimension, Mass and Tolerance)	As per said clause tolerance on negative side is not clear (it is mentioned as (-) 5, but units are not clear). As per table 11 of API 5 L wall thickness tolerance +15%, -12.5%. We request you to accept the tolerance of -10%, +15% or total tolerance of 20% instead.	No deviation is accepted. However, the tolerance on specified wall thickness shall be (+) 10° and (-) 5°
29.	Vol II 9.15.1 Specification for Bare Pipe (Seamless)	26 of 94	The tolerance for straightness	As per API 5L straightness shall be $\leq$ 0.2% of total length i.e. 2mm / Mtr of the pipe length. Kindly accept the same.	No deviation is accepted, it is to be followed as per Technical Specification.
30.	Vol II 9.18 Specification for Bare Pipe (Seamless)	27 of 94	Weldability	As per API 5 L 9.15 weldability test is not mandatory. However, we will verify the documented procedure for weldability test carried out by qualified welder. The same has also witnessed by TPIA for earlier supplies to wood group. We request you to waive of the weldability test.	No deviation is accepted, it is to be followed as per Technical Specification.
31.	Vol II 10.2.1.1 Specification for Bare Pipe (Seamless)	28 of 94	Inspection Frequency	We shall carry out product analysis two sample per heat and tensile test one sample per heat of pipe body as per Table 18 of API 5L latest 44 <sup>th</sup> edition. Kindly accept the same.	No deviation is accepted, it is to be followed as per Technical Specification.



32.	Vol II 10.2.5 Specification for Bare Pipe (Seamless)	31 of 94	Hydrostatic Test / Hydro test Pressure	We request you to accept the hydro test pressure as 75% of min YST as per table 26 of API or 85% of min YST, instead of 95% of min. YST	To be followed as per Tender specification.
33.	Vol II 10.2.9 Specification for Bare Pipe (Seamless)	32 of 94	Non Destructive Testing) & Annexure – E	As per our understanding, pipes shall be tested by either ultrasonic test or by electromagnetic inspection system. Kindly confirm.	Bidder to follow as per tender specifications Clause E.2 of Annexure – E
34.				We understand that you are asking for raw material inspection at raw material manufacturer's Works. Kindly provide scope of inspection and confirm who will bear the inspection charges of TPIA.	No TPI agency shall be deputed by AGL. The Bidder has to get TPI inspection at its own cost, however AGL/WGI will review the RMTC (Raw Material test certificate) of the steel.
35.	Vol II 9.3	21 of 94	Tensile Properties	Upper limit of yield strength for size 4" shall be 495 MPa due to sample shall be taken from longitudinal to the pipe axis as per foot note 'e' of API 5L table -7. Hence it may please be amended accordingly.	No deviation is accepted, it is to be followed as per Technical Specification.
36.	Vol II 9.4 Specification for Bare Pipe (Seamless)	22 of 94	Hydrostatic Test	We understand above is given for Clause 9.4.2 (New) under 'Verification of Hydrostatic Test' pressure for each pipe length and Burst test which is mentioned against Clause 9.4.3 is not applicable in this technical spec.	No deviation is accepted, it is to be followed as per Technical Specification
37.	Vol II 9.6.3	23 of 94	Pipe Weld and Haz Test	The extraction of samples in transverse orientation for weld, HAZ and Body is neither applicable nor feasible for sizes 4" and 8" as per API 5L Table 22 (Page 56) due to size and thickness constraint. Hence, please may be waived off.	In case of 4" pipe size , the said test may not required, but for 8" pipe size , the said test to be done.
38.	Vol II 9.7	23 of 94	DWT Test for PSL 2 welded pipes	We understand that above test is not applicable for this tender due to size constraint. This test is applicable for size > =20" as per API 5L, Table 18. Kindly confirm the same.	No deviation is accepted, it is to be followed as per tender specification.
39.	Vol II 9.14	25 of 94	Wall thickness is mentioned as +10%, -5.	We understand -5 means -5% of specified wall thickness. Kindly confirm the same.	Noted.
40.	Vol II 9.15	26 of 94	Mass per Unit length	Please provide MASS tolerances	It is to be followed as per tender specification.
41.	Vol II 9.15.1	26 of 94	Straightness	In smaller dia pipes, like 4" of double random length, during manufacturing, pipes are bending more hence please amend the tolerances of straightness as per	It is to be followed as per tender specification.



				API 5L Clause 9.11.3.4, i.e. $\leq$ 0.2% of the pipe length.	
42.	Vol II 9.16.2.2(b)			We understand that this clause is not applicable for ERW pipes.	
43.	Vol II 9.18	27 of 94	Weldability of PSL 2 Pipe	We are manufacturer of ERW Pipes; in this process no filler material is used. Hence, we do not have qualified welders and necessary equipments to carry out this test. However, we shall ensure reasonable level of carbon equivalent in the raw material to ensure good weldability of our pipes. Thus, it may be waived off as the same has to be carried out by the pipe laying contractor.	It is to be followed as per tender specification.
44.	Vol II 13 Appendix I, Annexure E E2 (f)			Guided bend test, radiographic image for pipe inspection, Repair welding procedure, WPS, PQR/WPQT, Method of Weld defect removal, full details of radiographic testing equipments including radiographic film, peaking, radiographic, Welding procedure specification including the details of welding process, brand name, classification, size and grade of filler metal and flux, speed of welding, no. of electrodes and polarity of each electrode, welding current and voltage for each wire, edge preparation, tack welding method and spacing of tack weld, details of seam tracking system for both inside and outside welding, method of checking the set up of the system, limits of external, and internal weld reinforcement etc. The above are not applicable for ERW pipes. Please confirm the same.	Noted.
45.	Vol II Appendix I, Ultrasonic testing of plates / skelp and pipes for lamination			Your spec. main clause does not ask for ultrasonic testing of plates/skelp and pipes for lamination. However, in Appendix I, says ultrasonic testing of plates / skelp and pipes for lamination Please clarify whether it is applicable or not. If it is applicable, then we shall do pipe body UT for lamination (after hydro testing). The reference standard for pipe body UT for lamination shall have circumferential slot of 6 mm width x $\frac{1}{2}$ T depth (T = specified thickness of pipe) with	Noted.

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				minimum coverage area of 25%	
46.				We understand that "first Day Production" is not applicable in this tender. Kindly confirm the same.	<b>First day production is to be followed as per attached procedure. Annexure -1</b>

## ANNEXURE – 1

### FIRST DAY PRODUCTION TESTS

Three lengths each of completely finished pipes of first day's production from three different heats shall be selected at random for testing to verify that the manufacturing procedure results in the quality of pipes which are in complete compliance with this specification. The pipes thus tested shall be considered to be the test pipes required per heat or per lot as per relevant clauses of this specification.

These first day's production tests shall be repeated upon any change in the manufacturing procedure as deemed necessary by Purchaser Representative. The first day production tests shall be carried out on pipes for each wall thickness, each diameter and each grade of steel.

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

Note: In the event of small quantities of pipes ordered against this specification, like those for bends and other similar applications, as specifically called out in the Purchase Order, the first day production test shall not be carried out. Pipes in such case shall be accepted based on regular production tests.

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

**a. Visual Examination**

All pipes shall be examined visually for dimensional tolerances and apparent surface defects.

**b. Ultrasonic Examination**

All pipes shall be examined by automatic Ultrasonic equipment as per Annexure-E of this specification.

**c. Mechanical Properties**

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

The following tests shall be conducted:

- i. Two (2) flattening test specimens shall be removed; one specimen shall be tested with weld at 0° and other at 90°.
- ii. Two (2) transverse base metal specimen and two transverse weld specimen for tensile test shall be tested. In case transverse base metal specimen is not applicable as per Fig. 5 and Table 20 of API Spec 5L, longitudinal specimen may be taken.
- iii. Six (6) weld cross-section specimen, three (3) from each end of the pipe joint, shall be taken for metallographic examination. Two of these specimens shall be tested for hardness at room temperature after etching.
- iv. Fracture toughness testing specimen shall be extracted as specified in clause 9.8 and clause 10.2.3 of this specification:
  - Four sets of three transverse specimens each from base metal
  - One set of 3 transverse specimens with weld in middle
  - One set of 3 transverse specimens with HAZ in middle

The base metal specimen shall be tested at -10, 0, +20°C for shear area and absorbed energy.

- v. At points selected by Purchaser, 12 DWTT specimens shall be removed from base metal in a transverse direction. The sets of 3 base metal specimen shall be tested at -10, 0, +20°C for shear area. The value at the test temperature specified in Clause 9.9 of this specification shall be used to evaluate the test. Full transition curve shall be established for the heat.

(Note: This test is to be carried out only when required as per Clause 9.9 and Clause 10.2 of this specification.)

- d. Weldability test shall be conducted at pipe mill on first day's production. This shall ensure Weldability & strength as per code. Welding shall be done as per WPS approved by OWNER / OWNER's representative.

e. **Impact Test**

Charpy V-notch impact test shall be carried out at 0 °C or at lower temperatures provided requirements for energy absorption and shear fracture area are met at such lower temperatures.

Charpy V- notch test specimen shall be prepared accordance with Clause 10.2.3.3. A set of three specimens shall be taken from following position of pipe body:

- The base material
- Fusion line
- The heat affected zone at 2 mm & 5mm from the fusion line.

The acceptance criteria for absorbed energy values for three full sized specimens shall be as given below:

	Base Metal (Joules)	Weld Metal and HAZ (Joules)
Minimum individual value	22.0 J	22.0 J
Minimum average value	27.0 J	27.0 J

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