

### **CORRIGENDUM**

This Amendment no. 4 dated 28.01.2016 to tender no. SDG9280P16/09 for Coated Line Pipes & Bends has been issued –

- (i) To extend the Bid Closing/Technical Bid Opening date and last date of sale of tender document as under –

Bid Closing Date & Time : 24.02.2016 at 11.00 Hrs. IST  
Technical Bid Opening Date & Time : 24.02.2016 at 14.00 Hrs. IST  
Last date of sale of Tender Document : 17.02.2016

- (ii) To amend the technical specification against item nos. 20, 40, 50 & 60 and include additional clause no. clause 6.15 (Sub clauses 6.15.1 thru 6.15.10) in Annexure – I of the tender document as under :

<b>Item No</b>	<b>Existing Material Description</b>	<b>Amended Material Description</b>
20	Three Layer Polyethylene Precoated Long Radius Bend, 90 Deg. Fabricated from Line Pipe 10"" (273.1 mm), NB ERW/LSAW/HSAW, Grade X-46, PLS-2, W/T= 7.1 mm as per API 5L latest edition having following specification : 1. Deg of Bend: 90 Deg 2. Pipe Outside diameter: 273.1 mm 3. Thickness : 7.1 mm 4. Length : Double random length 5. Weight per meter : 46.57 kg/m 6. Test Pressure: 140 kg/cm2	Precoated Long Radius Bend, 90 Deg. Fabricated from Line Pipe 10"" (273.1 mm), NB ERW/LSAW/HSAW, Grade X-46, PLS-2, W/T= 7.1 mm as per API 5L latest edition having following specification : 1. Deg of Bend: 90 Deg 2. Pipe Outside diameter: 273.1 mm 3. Thickness : 7.1 mm 4. Length : Double random length 5. Weight per meter : 46.57 kg/m 6. Test Pressure: 140 kg/cm2  The bends shall be precoated with Three Layer polyethylene or heat shrinkable sleeve (Reference Annexure I)
40	Three Layer Polyethylene Precoated Long Radius Bend, 30 Deg. fabricated from Line Pipe 10"" (273.1 mm), NB ERW/LSAW/HSAW, Grade X-46, PLS-2, W/T= 7.1 mm as	Precoated Long Radius Bend, 30 Deg. fabricated from Line Pipe 10"" (273.1 mm), NB ERW/LSAW/HSAW, Grade X-46, PLS-2, W/T= 7.1 mm as per API 5L latest edition having

	<p>per API 5L latest edition having following specification :</p> <ol style="list-style-type: none"> <li>1. Deg of Bend: 30 Deg</li> <li>2. Pipe Outside diameter: 273.1 mm</li> <li>3. Thickness : 7.1 mm</li> <li>4. Length : Double random length</li> <li>5. Weight per meter : 46.57 kg/m</li> <li>6. Test Pressure: 140 kg/cm<sup>2</sup></li> </ol>	<p>following specification :</p> <ol style="list-style-type: none"> <li>1. Deg of Bend: 30 Deg</li> <li>2. Pipe Outside diameter: 273.1 mm</li> <li>3. Thickness : 7.1 mm</li> <li>4. Length : Double random length</li> <li>5. Weight per meter : 46.57 kg/m</li> <li>6. Test Pressure: 140 kg/cm<sup>2</sup></li> </ol> <p>Precoating of the bends shall be done with Three Layer polyethylene or heat shrinkable sleeve (Reference Annexure I)</p>
50	<p>Three Layer Polyethylene Precoated Long Radius Bend, 45 Deg. fabricated from Line Pipe 10" (273.1 mm), NB ERW/LSAW/HSAW, Grade X-46, PLS-2, W/T= 7.1 mm as per API 5L 43rd Edition, March 2004.</p> <ol style="list-style-type: none"> <li>1. Deg of Bend: 45 Deg</li> <li>2. Pipe Outside diameter: 273.1 mm</li> <li>3. Thickness : 7.1 mm</li> <li>4. Length : Double random length</li> <li>5. Weight per meter : 46.57 kg/m</li> <li>6. Test Pressure: 140 kg/cm<sup>2</sup></li> </ol>	<p>Precoated Long Radius Bend, 45 Deg. fabricated from Line Pipe 10" (273.1 mm), NB ERW/LSAW/HSAW, Grade X-46, PLS-2, W/T= 7.1 mm as per API 5L 43rd Edition, March 2004.</p> <ol style="list-style-type: none"> <li>1. Deg of Bend: 45 Deg</li> <li>2. Pipe Outside diameter: 273.1 mm</li> <li>3. Thickness : 7.1 mm</li> <li>4. Length : Double random length</li> <li>5. Weight per meter : 46.57 kg/m</li> <li>6. Test Pressure: 140 kg/cm<sup>2</sup></li> </ol> <p>Precoating of the bends shall be done with Three Layer polyethylene or heat shrinkable sleeve (Reference Annexure I)</p>
60	<p>Three Layer Polyethylene Precoated Long Radius Bend, 60 Deg. fabricated from Line Pipe 10" (273.1 mm), NB ERW/LSAW/HSAW, Grade X-46, PLS-2, W/T= 7.1 mm as per API 5L latest edition having following specification :</p> <ol style="list-style-type: none"> <li>1. Deg of Bend: 60 Deg</li> <li>2. Pipe Outside diameter: 273.1 mm</li> <li>3. Thickness : 7.1 mm</li> <li>4. Length : Double random length</li> <li>5. Weight per meter : 46.57 kg/m</li> <li>6. Test Pressure: 140 kg/cm<sup>2</sup></li> </ol>	<p>Precoated Long Radius Bend, 60 Deg. fabricated from Line Pipe 10" (273.1 mm), NB ERW/LSAW/HSAW, Grade X-46, PLS-2, W/T= 7.1 mm as per API 5L latest edition having following specification :</p> <ol style="list-style-type: none"> <li>1. Deg of Bend: 60 Deg</li> <li>2. Pipe Outside diameter: 273.1 mm</li> <li>3. Thickness : 7.1 mm</li> <li>4. Length : Double random length</li> <li>5. Weight per meter : 46.57 kg/m</li> <li>6. Test Pressure: 140 kg/cm<sup>2</sup></li> </ol> <p>Precoating of the bends shall be done with Three Layer polyethylene or heat shrinkable sleeve (Reference Annexure I)</p>

## **ADDITIONAL CLAUSE :**

### **6.15 SCOPE OF WORK AND SPECIFICATIONS FOR HEAT SHRINKABLE COATING of LR BENDS**

6.15.1 Reference code ISO 21809-3 -- Petroleum and Natural Gas Industries – External Coating for Buried or Submerged Pipelines used in Pipeline Transportation Systems – Part 3 Field Joint Coating

6.15.2 The heat shrinkable coating material shall be as follows as per clause 11.2.3 of the reference code ISO 21809-3 :-

Type 2B and 2C

Types 2B and 2C coatings applied with a liquid epoxy or FBE primer with the following characteristics:

2B: cross-linked heat-shrinkable material based on polyethylene, with a design temperature of up to 120 °C;

2C: cross-linked heat-shrinkable material based on polypropylene, with a design temperature of up to 130 °C.

#### **6.15.3 SURFACE PREPARATION**

Surface preparation shall be carried out according to clause 11.3 of the reference code.

#### **6.15.4 Application of the coatings**

Application of the coating shall be carried out in accordance with clause 11.4 of the reference code.

#### **6.15.5 Testing of the applied coatings**

Testing of the applied coatings shall be carried out in accordance with clause 11.4 of the reference code.

#### **Tests to be carried out :-**

- i. Thickness (as per Annex A of the code)
- ii. Holiday detection (As per Annex B of the code)
- iii. Peel strength (As per Annex D of the code and shall meet the requirements of Table 14)
- iv. Cathodic disbondment (As per Annex F of the code and shall meet the requirements of Table 14)

- v. Hot-water immersion test (As per Annex I of the code and shall meet the requirements of Table 14)
- vi. Impact resistance (As per Annex G of the code and shall meet the requirements of Table 14)
- vii. Indentation resistance (As per Annex H of the code and shall meet the requirements of Table 14)
- viii. Lap shear strength (As per Annex L of the code and shall meet the requirements of Table 14)
- ix. Thermal ageing resistance (As per Annex N of the code and shall meet the requirements of Table 14)

**6.15.6** Coating identification shall be as per Table 12 of the reference code which shall be furnished to the Company

**6.15.7** Property of the (type 2B and 2C joint coatings — PE- or PP-backed, with primer) shall be as per Table 14 of the reference code which shall be furnished to the Company

**6.15.8** Data sheet of the primer shall be furnished to the Company as per table 15 of the reference code

**6.15.9** Data sheet of the Heat Shrinkable materials shall be furnished to the Company as per table 16 of the reference code

**6.15.10** Conditions of coating application shall be recorded as per Table 17 of the reference code and shall be furnished to the Company

All other terms and condition of the tender will remain unchanged.

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