






|   <p><b>BHEL</b><br/>Maharatna Company<br/>Celebrating 50 Years of Engineering Excellence 1964-2014</p> |  | <b>PLANT PURCHASE SPECIFICATION</b>  |                                   | No.      | BHEL/FP/TS/31 |        |
|---|--|--|-----------------------------------|----------|---------------|--------|
|   |  | <b>FABRICATION PLANT</b>   |                                   | Rev. No. | 0             |        |
|   |  | <b>DEPARTMENT: PRODUCTION</b>  |                                   | Rev. Dt. |               |        |
|   |  |  |                                   |          |               |        |
| <b>CSU &amp; FP, Jagdishpur</b>   |  |  |                                   |          |               |        |
| <b>Technical Specification for Neutural Fused Flux F7P2 - EM 12 K</b>   |  |  |                                   |          |               |        |
| Sr. No.   | Description  | Requirement  | Vednor to Furnish/Confirm         | Offered  | Deviation     | Remark |
| <b>1</b>  | <b>Technical Details:</b>  |  |                                   |          |               |        |
| 1.1   | F7P2 - EM 12 K   | As per SFA 5.17 of ASME Sec IIC Ed 2013  | Vendor to Confirm                 |          |               |        |
| 1.2   | Flux Type  | Neutral Fused Flux   |                                   |          |               |        |
| 1.3   | Particle Size  | 20 to 100 mesh   |                                   |          |               |        |
| 1.4   | Weight of packet   | 25 kgs to 50 kgs   |                                   |          |               |        |
| 1.5   | Flux Form and particle size  | As per SFA 5.17 of Clause 17.1 ASME Sec IIC Ed 2013  |                                   |          |               |        |
| 1.6   | Usability  | As per SFA 5.17 of Clause 17.2 ASME Sec IIC Ed 2013  |                                   |          |               |        |
| 1.7   | Packaging  | As per SFA 5.17 of Clause 17.3 ASME Sec IIC Ed 2013  |                                   |          |               |        |
| 1.8   | Marking of packages  | As per SFA 5.17 of Clause 17.4 ASME Sec IIC Ed 2013  |                                   |          |               |        |
| 1.9   | Storage and Drying condition   | All details regarding storage, drying condition and shelf life.  | Vendor to sepecify                |          |               |        |
| <b>2</b>  | <b>Tests Required for Flux</b>   |  |                                   |          |               |        |
| 2.1   | Radiographic test  | As per SFA 5.17 of ASME Sec IIC Ed 2013  | Test Certificates to be provided. |          |               |        |
| 2.2   | * Tensile Test   | As per SFA 5.17 of ASME Sec IIC Ed 2013  |                                   |          |               |        |
| 2.3   | * Impact test (Charpy): 5 Samples at - 20 °F on 2 mm V - notch   | Average of three samples (Discarding Highest and lowest values): 27 J min.<br>Two of the values used for computing average shall $\geq$ 27 J<br>Single Value (Min) : 20J |                                   |          |               |        |
| 2.4   | * The test mentioned at clause 2.2 and 2.3 to be done after carrying out PWHT as mentioned at clause 3 |  | Vendor to Confirm                 |          |               |        |



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|-------------------------------|--|---|---|---|-----------|--------|
| 2.5                           | A packet 25 Kgs to be submitted along with the offer for further technical evaluation, if required. Vendor to submit samples within 7 days after intimation by BHEL. We will check the following characteristic:<br>a) Finish and Uniformity of weld bead<br>b) Slag Removal<br>c) Porosity and undercut<br>d) No smoke<br>The parametrs for welding will be as follows:<br>Current: 350- 500 A<br>Voltage: 30 - 36 V<br>Electrode extension: 25 ± 6 mm<br>Travel speed: 250 - 450 mm /min |   | Vendor to Confirm   |   |           |        |
| 3                             | Post Weld Heat Treatment   | As per Clause 9.4 of SFA 5.17 of ASME Sec IIC Ed 2013                               | S.R graph to be provided  |   |           |        |
| <b>QUALIFYING CONDITIONS:</b> |  |   |   |   |           |        |
| 4.1                           | Only those makes and brand shall be quoted of which atleast 5 Ton is supplied to any heavy fabrication industries in the past 3 years and the flux has performed satisfactorily. The following information is to be submitted by the vendor about the companies where the quoted wire has been supplied.   |   | Vendor to Confirm   |   |           |        |
| 4.2                           | Name of the customer / company where flux has been supplied.   |   | Vendor to specify   |   |           |        |
| 4.3                           | Complete postal address of the customer.   |   | Vendor to specify   |   |           |        |
| 4.4                           | Year of supply.  |   | Vendor to specify   |   |           |        |
| 4.5                           | Application for which the Flux is supplied with details.   |   | Vendor to specify   |   |           |        |
| 4.6                           | Name and designation of the contact person of the customer   |   | Vendor to specify   |   |           |        |
| 4.7                           | Phone, FAX no. and email address of the contact person of the customer.  |   | Vendor to specify   |   |           |        |
| 4.8                           | BHEL reserves the right to verify information provided by vendor. In case the information provided by vendor is found to be false / incorrect, the offer shall be rejected.  |   | Vendor to specify   |   |           |        |
| Signature                     |  | Prepared By   | Checked By  | Approved By   |           |        |
|                               |  |  |  |  |           |        |
| Name                          |  | V K Choudhary   | V K Choudhary   | V K Choudhary   |           |        |
| Designation                   |  | Sr. Engineer  | Sr. Engineer  | Sr. Engineer  |           |        |
| Date of issue                 |  | 13.08.2014  |   |   |           |        |