**TECHNICAL DETAILS OF EXISTING ESP**

**OEM of Existing ESP :**

**Month & Year of Commissioning :**

**Model Number of Existing ESP :**

**Application :**

**Capacity of Boiler / Equipment :**

|  |  |  |  |
| --- | --- | --- | --- |
| **SL NO** | **DESCRIPTION** | **UNIT** | **DATA** |
| **1** | **PRESENT GAS CONDITION** |  |  |
| Present Gas Flow Rate | m3/hr |  |
| Present Inlet Gas Temperature | Deg.C |  |
| Abnormal Gas Temperature if any | Deg.C |  |
| Time for which Abnormal temperature | Secs |  |
| Normal Operating Pressure of gas to ESP | mm WC |  |
| Abnormal pressure of gas to ESP if any | mm WC |  |
| Time for which abnormal pressure | Secs |  |
| Present Inlet Dust Concentration | gms/ N.cu.m |  |
| Present Outlet emission from the ESP | mg/ N.cu.m |  |
| Dust Emission Required after retrofitting | mg/ N.cu.m |  |
|  |  |  |
| **2** | **GENERAL DATA ON ESP** |  |  |
| Number of ESPs | No |  |
| Number of Gas paths per ESP | No |  |
| Number of working fields in series | No |  |
| Number of dummy fields if any | No |  |
| Length working field | M |  |
| Height of field | M |  |
| Width of field | M |  |
|  |  |  |
| **3** | **COLLECTING ELECTRODE** |  |  |
| Material |  |  |
| Type(Effective width of Collecting Electrode) |  |  |
| Total height of each collecting electrode | Mm |  |
| Thickness | Mm |  |
| Clear gap between two electrodes | Mm |  |
| Total No. of gas passages |  |  |
| No of Rows of Collecting Electrodes per field | No |  |
| No of Collecting Electrodes per field | No |  |
| Total no of collecting plates per Boiler | No |  |
| Specific collecting Area | Sq.m/cu.m/sec |  |
| Total collecting area | m2 |  |
| No. of electrodes in one row |  |  |
|  |  |  |
| **4** | **DISCHARGE ELECTRODE** |  |  |
| Type |  |  |
| Material of Electrode |  |  |
| Material of Frame |  |  |
| Total No. of electrodes | No |  |
| Electrode Size | Mm |  |
|  |  |  |
| **5** | **GAS DISTRIBUTION SYSTEM** |  |  |
| No. of Screens | Nos |  |
| Type |  |  |
| Location |  |  |
|  |  |  |
| **6** | **RAPPING SYSTEM** |  |  |
| **6.1** | **Rappers for Collecting Electrode** |  |  |
| Type |  |  |
| No. of rappers |  |  |
| Rapper Size |  |  |
| No. of electrodes row rapped at any instant | Nos |  |
|  |  |  |
| **6.2** | **Rappers for Emitting Electrode** |  |  |
| Type |  |  |
| No. of rappers |  |  |
| Rapper Size |  |  |
| No. of electrodes row rapped at any instant | Nos |  |
|  |  |  |
| **7** | **DUST HOPPERS** |  |  |
| Type |  |  |
| No. of hoppers | Nos. |  |
| Thickness | mm x mm |  |
| Ground clearance below hopper bottom flange | mm |  |
|  |  |  |
| **8** | **CASING (Roof & Side Wall)** |  |  |
| Thickness | mm |  |
|  |  |  |
| **9** | **INLET & OUTLET FUNNEL** |  |  |
| Thickness | mm |  |
|  |  |  |
| **10** | **THERMAL INSULATION** |  |  |
| Material of Insulation |  |  |
| Thickness of Insulation | Mm |  |
| Material of cladding |  |  |
| Thickness of Cladding | SWG |  |
|  |  |  |
| **11** | **ELECTRICAL ITEMS** |  |  |
| **11.1** | **Details of Tr. Set & Controller** | | |
| No. of TR units provided | Nos |  |
| Location of transformer rectifier |  |  |
| Location of control panel |  |  |
| Output Voltage (Peak) | KV |  |
| Output Current | mA |  |
|  |  |  |
| **12** | **GCV of fuel** | kcal/kg |  |
|  |  |  |
| **13** | **GAS ANALYSIS** |  |  |
| CO2 | % |  |
| H2O | % |  |
| SO2 | % |  |
| CO | % |  |
| N2 | % |  |
| O2 | % |  |
| Any other pl. specify |  |  |
|  |  |  |
| **14** | **FUEL USED** |  |  |
| Coal | % |  |
| Bagasse | % |  |
| Rice Husk | % |  |
| Cotton straw | % |  |
| Pet coke | % |  |
| Any other please specify | % |  |
|  |  |  |
| **15** | **FUEL ANALYSIS** |  |  |
| Carbon | % |  |
| Hydrogen | % |  |
| Oxygen | % |  |
| Nitrogen | % |  |
| Sulphur | % |  |
| Moisture | % |  |
| Ash | % |  |
| Any other pl. specify | % |  |
|  |  |  |

**Note : Please forward us the following also with the filled questionnaire**

1. **GA Drawing of the Existing ESP**
2. **Layout to understand the space availability for ESP up-gradation.**
3. **Describe present condition of the ESP.**