

SALIENT TECHNICAL FEATURES-

A. Brief Scope of Work:

The scope of Dry Sorbent Injection (DSI) System Package for NSPCL projects (Bhilai PPII, Durgapur II and Rourkela II) shall cover design, engineering, manufacture, shop fabrication, preassembly, shop testing/type testing at manufacturer's works, packing, transportation, unloading, handling and conservation of equipment at site, complete services of construction including erection, supervision, pre-commissioning, commissioning and performance testing of equipments under bidder's scope of work of Dry Sorbent Injection (DSI) System and its associated auxiliaries including all associated Electrical, Control & Instrumentation, Civil, Structural and Architecture works. Dry Sorbent Injection System shall use Sodium Bicarbonate as reagent and shall have but not limited to the following:

- Permanent Sodium Bicarbonate (SBC) Storage Silos complete with Truck Unloading System to Storage Silo, Sodium Bicarbonate Feeding, Milling & Injection system;
- Instrument air compressors;
- Complete Electrical System including all motors, LT Switchgears, Transformers, Electrical Actuators, LT power & control cables, cabling, lighting, common MCC containerized substation etc.
- Complete C&I systems including SO₂ analyser.
- Associated Civil, Structural and Architectural works including foundation.
- First fill and one year topping requirement of consumables/oils/lubricants, supply of special maintenance tools and tackles, commissioning spares, mandatory spares etc.

Detailed scope of work has been specified in the bidding documents.

B. Other Technical Features:

1.00.00 Dry Sorbent Injection (DSI) System

1.01.00 System Description:

The DSI system for SO₂ control shall be based on Sodium Bicarbonate as reagent. Sodium Bicarbonate shall be milled before being injected at appropriate location at APH inlet/APH outlet for capturing of SO₂ in the flue gas. ESPs are installed downstream of APH where the reactants shall be collected along with ash.

1.02.00 Service Conditions

The Steam Generators are designed to burn pulverised coal. HFO/HPS/LSHS and LDO(as applicable) shall be used during startup and at low loads for warm up and flame stabilization of Steam Generator. The DSI system shall be designed to remove SO₂ (to meet the stipulated SO₂ efficiency levels) from the flue gas generated in the Steam Generator with pulverized coal firing. High efficiency Electrostatic Precipitators are installed downstream of Steam Generators.