



सीएसआईआर - राष्ट्रीय धातुकर्म प्रयोगशाला
CSIR - NATIONAL METALLURGICAL LABORATORY
(Council of Scientific & Industrial Research)



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CORRIGENDUM

REFERENCE NO.:- P/NC/76/NSR/SO(MG)/OTE/22-23

DATE: 27/03/2023

NAME OF EQUIPMENT: COMPACT COAL GASIFIER PLANT

NOTE: The Bids must be submitted in the Central Public Procurement Portal (URL:<https://etenders.gov.in/e procure/app>) only. Manual/Offline bids shall not be accepted under any circumstances. Bidders should quote in INR only.

CONSEQUENT TO THE PRE-BID MEETING HELD ON 16/03/2023, THE REVISED SPECIFICATION IS GIVEN BELOW:-

SPECIFICATIONS:-

Technical requirements	
Name of The Equipment	Compact Gas Producer Plant
Name of the Product	Producer gas
Required Temperature in degree centigrade	1100 °C minimum at the central zone of rotary kiln during actual load run
Raw Material to be reduced	Mn ore lumps of size 6-75mm of following major constituents (Wt.-%): Mn: 47-50 Fe: 3.5-4.5 SiO ₂ : 8-12
Reducing agent to be used	Coke fines of <6mm of following chemical composition (Wt.-%): Fixed carbon: 62-72 Ash: 27-34 VM: 1-4
Material Feeding Rate	100kg/hr
End use	Using the gas as a fuel for calcination and roasting of material in Rotary Kiln of size 9.5m l x 0.5m ID
Gas generating plant	Boiler grade materials
Rated capacity of the gasifier	300000 Kcal/h ±5%
Type of feed coal for gasifier	Proximate analysis of coal Fixed carbon: 45-65% Volatile matter: 20-30% Ash: 10-35%
Combustion system	Automatic with pneumatic valves and instrumentation controls: <ul style="list-style-type: none">• Burner Capacity: up to 3,00,000 kcal/h• PID Controller• Temperature Sensor: up to 1200 °C• Air Blower• Air Gas Controlling Valve• Burner Auto Ignition System• Gas and Air Controlling Damper with Automated servo motor• Auto fire Burner with pilot flame and flame sensor.• Temperature PID Controlling unit
Automatic Fuel Feeding System	<ul style="list-style-type: none">• Buffer Coal Storage Hoppers (2 hours storage capacity) with Level Sensor and two sliding pneumatic operated sliding valves.• MOC: MS and SS• Level sensor with Warning alarm

	<ul style="list-style-type: none"> Control Panel for maintaining proper level of Coal in Hopper and continuous feeding in reactor as required.
Gas Analyzer and Instrumentation	<p>The Multi Gas Analyzer with 128x64 Graphic LCD Display, 2 Audible/visual alarm with USB output working on 230V AC for the gases listed below.</p> <p>(i) Oxygen Analyzer (Range: 0-25 %, Minimum Display: 0.1%, Accuracy \pm 2%) (ii) Carbon Monoxide Analyzer (Range: 0-100 %, NDIR type continuous duty, Minimum Display: 0.1%, Accuracy: \pm2%) (iii) Sulphur Analyzer (Range: 0-100 ppm, Minimum Display: 1 ppm, Accuracy: \pm5%) (iv) Carbon Dioxide Analyzer (Range: 0-50%, Minimum Display: 0.1%, Accuracy: \pm5%) (v) Hydrogen Analyzer (Range: 0-50%, Minimum Display: 0.1%, Accuracy: \pm5%)</p>
Feedback mechanism for gas generation	Safe co-ordination of Gas generation – Gas consumption system
Compatibility to existing rotary kiln	Integration with existing kiln (9.5m l x 0.5m ID) via 10 m \pm 25% ducting to supply the fuel gas
Safety requirements	Equipped with: (a) Safety interlocks, (b) emergency shut down switch (c) Alarm System for fugitive CO gas around the rotary kiln and Gasifier unit.
Electrical requirements	General power supply in NML's scope, Party should supply all the electrical/electronic drawings Party should mention if Chemical Earthing required
Civil requirements	Necessary shed and grouting in NML' scope 1" water line to the equipment in NML' scope
Acceptance criteria	3 successful on-load rotary kiln hot runs of 02 days each with party's assistance to run the Gas Producer Plant

Important:

- Supply to be compliant with standard terms and conditions of S&P (NML).
- Calibration certificate of all the sensors to be supplied with the equipment.
- Supply of the Consumable coal for 3 on-load rotary kiln hot runs of 02 days each

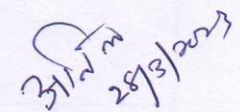
THE REVISED DEADLINE FOR BID SUBMISSION END DATE AND DATE OF OPENING OF BIDS ARE AS FOLLOWS:

Last Date for Submission of Bids	17/04/2023 by 03:30 P.M. (IST)	Opening of Bids	18/04/2023 by 04:00 P.M. (IST)
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BID Securing Declaration Form should reach this office by 17/04/2023.

The above amendments shall amount to amendments of the relevant terms of our Bid Document for CSIR-NML Tender No. **P/NC/76/NSR/SO(MG)/OTE/22-23**
All other Tender terms and conditions remain unchanged.

Bidders should quote only in INR.


Stores & Purchase Officer
CSIR-NML, Jamshedpur