

TD-106-1 Rev No. 5 Form No.		PRODUCT STANDARD PULVERISERS HYDERABAD	Product	BA 75023
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Carrying out Performance Guarantee test of Pulverisers in Coal based Power plant sites in India on Rate contract basis.

INTRODUCTION

BHEL make Pulverisers for grinding Coal are supplied to various Power Plants. As part of the project tender/contract requirements Performance Guarantee tests of these Pulverisers need to be carried out as per the terms and conditions as well as Customer approved PG Test procedure. A typical Tender document (relevant pages) and PG Test procedure copy are attached as Annexure-I & II. Getting the approval of the Test procedure from Customer, Co-ordination of test activities with Customer shall be done by BHEL Engineer. Rest of the jobs as enumerated in the “Scope of Work” shall be part of the Contractors job, ensuring successful completion of the PG Test and submitting draft test report to BHEL.

1.0 SCOPE OF WORK

- 1.1 Initial preparation work (including wear measurement) for conducting the Performance Guarantee test (PG Test) of Pulveriser(s) for each project site.
- 1.2 Deployment of team to site for Optimisation of the Mills Performance, so that the PG Test parameters/test results can be achieved while conducting the test at the stipulated time given in the Tender/Contract for each project.
- 1.3 Carrying out capacity test for number of coal pulverisers as specified in the contract.
- 1.4 Carryout raw coal analysis for its Proximate/Ultime analysis (including Total Moisture), HGI and Abrasive index (YGP) for the Test coal samples at NABL/ GOI/ customer/ BHEL lab. In case of any dispute in the results, the neutral sample is to be tested at GOI/ NABL third party lab.
- 1.7 Carryout minor modifications, if any and Mill performance tuning to achieve the test results as directed by BHEL.
- 1.7 Upon successful completion of the PG Test, to submit a draft PG Test report to BHEL.
- 1.8 To arrange a set of calibrated Test equipment(s), as required, with valid calibration certificate.

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NOTE:

- 1.0 Monsoon (rainy) season, normally, is not ideal for carrying out the Performance Guarantee (PG) Test of Pulverisers.
- 2.0 Releasing the Mill for inspection and Optimisation works need to be co-ordinated with the Customer, for preparing the same for PG Test.
- 3.0 Materials required at site for Mill modifications, like Venturi Collar height increase, inverted cone gap reduction shall be arranged by the Contractor.
- 4.0 Contractor to deploy Manpower to the Project site, as and when required for carrying out Mill Optimisation, Modification, Trial tests and Final Performance Guarantee test etc; meeting the tender/contract terms and conditions, and successful completion of the PG Test.

2.0 FACILITIES

The following facilities will be arranged at site by BHEL/Customer:

- Crane with hoist provided for Mill Equipment Handling.
- Power, Compressed air.
- Laboratory facilities of Customer
- Spring Compression/Ring-roll setting instruments
- Wear measurement Gauge

Rest of the facility and materials required to be arranged by the Contractor for completion of the work.

3.0 BOARDING, LODGING AND TRANSPORT

The location of the site will be intimated at the time of placing work order. The Contractor has to make his own arrangements for lodging, boarding and transportation from place of stay to the site and back. The job usually starts at 8 AM everyday. However, this may differ based on Site conditions.

Transport is required for the movement of manpower, instruments (PG Test instruments like PF samplers, etc.) and coal samples (raw coal samples, mill rejects, pulverized coal sample) inside the site premises (chemical labs, control rooms, mill area, etc.) and other contingencies.

Most of the times customer permits mill loading to higher values at night time as not to disrupt the normal power supply. Hence, the requirement comes in odd hours and arrangement to be made accordingly.



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4.0 MAN POWER

On an average, five (5) days may be considered for carrying out One (1) Mill PG Test which includes all activities. The Contractor has to deploy the following personnel at the site to carry out the job in time. The tentative manpower needed to carryout PG Test is as below:

- | | |
|----------------|--|
| a) Engineer | 2 Nos. |
| b) Supervisors | 2 Nos. |
| c) Helpers | 4-5 Nos. (<i>to be arranged locally</i>) |

The Manpower would be required for the following activities:

- Carrying the PG Test instruments from service building to firing floor.
- Collection of Pulverised fuel sample from each corner of individual running Mills using Iso-Kinetic Sampler/Cyclone collector (as specified in customer contract)
- Collection of Raw Coal sample from Mill Feeders for HGI, Total Moisture and transporting to chemical lab.
- Collection of Reject Samples and weighing of the same.

5.0 DELIVERY

5.1 At Site: The responsibility of the Contractor ends only after successful completion of all the above jobs and Certified by BHEL Engineer.

5.2 After the test, draft PG test report shall be submitted to BHEL within 90 days of the date of signing of the MOM with BHEL/ Customer for each project Site visit.

6.0 GENERAL INFORMATION

Contractor to quote on per Pulveriser basis for all the elements listed in Sl. No.1.1 to 1.8 the scope of work.

BHEL shall inform the Contractor one week in advance for conducting the Mill PG Test. However, in cases where there is urgent requirement at site to conduct the test, The Contractor should deploy the team immediately.

The scope of work projected above is based on Employer's estimation. There can be minor variations based on the requirements from Project to project. It is the responsibility of the Contractor to complete the work as per actual requirements.

Payment shall be based on actual quantities after completion of the job and duly certified by BHEL. Refer Payment terms for specific details.

Minor changes, if any, in scope of work shall be provided along with the order.

