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Minutes of Meeting held on 13-04-2005 between M/S BASL and M/s BHEL at M/s Bannari Amman Sugars Ltd., Alaganchi Village, Nanjangud regarding rectification works to arrest steam / oil leakages from Turbine Assy. (20 MW Set).

Members Present

M/S BASL

S/Shri

- 1) R. Ramgopal
- 2) M. Sengottaiyan
- 3) M. Jayadhar Rao
- 4) K.B. Rangasamy

M/S BHEL / HYD

S/Shri

- 1) A. Rajanna
- 2) K. Kesavulu
- 3) M. D. A. Lateef

M/S BHEL / PSSR SITE

Shri

- 1) P.N. Krishna

BHEL, Hyd Engineers reached BASL site on 09-03-2005 for attending to the rectification works to arrest steam / oil leakages from the Turbine assembly and HP Valve etc.

The details of various observations made after dismantling the Turbine assembly, the works completed and the status during the period from 09-03-2005 upto 13-04-2005 are as detailed below :

I. OBSERVATIONS

1. Casing parting plane was observed after cleaning and with top casing in position without any tightening and dowel pins in position. Parting plane gaps are observed to be from 0.00 mm to 0.35 mm at the leakage area of the parting plane (left front side maximum gap is 0.35 mm)
2. HP Governing valve parting plane gap checked by lead wire, the variation in thickness was found 0.25 mm at the center portion (blue also observed at both the ends only).
3. a) Front oil seal radial clearance was found 0.05 mm / 0.10 mm. At the sealing area of the rotor grooves marks are noticed.
b) Damping device pipe was observed in loose condition.
c) HP Coupling guard was observed not properly tightened.

II. RECTIFICATION WORKS COMPLETED

- 1) HP Governing valve parting plane blue matching achieved by scraping above 90% and assembled back and properly tightened. HP governing valve idle lifts measured and recorded.
- 2) Casing parting plane matching done by scrapping and blue points are observed above 85%, 0.03 feeler gauge was not entering anywhere in the parting plane (in side and out side casing parting plane).

- 2a) After completion of the parting plane matching and the gland seating areas, the vertical and horizontal diameters are measured and recorded.
- 2b) To achieve the clearances as per design values casing fins and rotor fins are scraped by hand (in casing fin top and bottom vertically arc shape material was removed and on rotor fin radially removed as required)
- 2c) The front steam gland 1&2 , BP gland, intermediate gland and Rear Steam gland outer diameters of the seating area checked and rectified as per assembly diameter by scrapping and machining.
- 2d) All glands vertical clearances increased by machining the fins as per design requirements.
- 2e) Complete centering and alignments are achieved within the limits as per design values.
- 2f) After all the works are completed satisfactorily, the turbine is boxed up on 09-04-2005 by replacing with new studs / capnuts / fastners / other spares supplied by BHEL / Hyd and tightening with bolt heating equipment.
- 3) Damping device pipe opened and checked the aluminum washers, dressed and assembled back properly.
 - 3a) Front oil gland gasket thickness was increased, the sealing fins shifted to avoid the grooved area to prevent oil leakages.
 - 3b) HP coupling guard assembled and properly tightened.
- 4) All the dismantled components are reerected satisfactorily and cleared for turbine insulation and further operation.
- 5) All the alignment / protocol readings are enclosed.

III. STATUS

- 1) Oil flushing completed satisfactorily on 12-04-2005 and 13-04-2005.
- 2) Sugar plant crushing season for 2004-2005 has stopped w.e.f. 05-04-2005. As such M/s BASL informed that the 20 MW STG could be run with a load of only 4 - 5 MW after 20-04-2005 for a day and further full load testing / trial run / PG test could be undertaken only during first week of July 2005 when the crushing season commences. BHEL requested M/s BASL to confirm the date of start of the set.

BHEL / Hyderabad engineers are leaving the site on 14-04-2005 and will be back with their commissioning engineers at site after receipt of intimation from M/s BASL about starting the set.

M/s BASL

m. jay Anandkumar
10.04.05

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