

## **Chapter IV**

# **Compliance Audit Paragraphs**

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### Compliance Audit Paragraphs

Important Audit findings emerging from test check of transactions of the State Government companies are included in this Chapter.

#### Government companies

#### Maharashtra Small Scale Industries Development Corporation Limited

##### 4.1 *Loss of revenue*

**Maharashtra Small Scale Industries Development Corporation Limited could not recover license fee of ₹ 64.80 lakh for its godowns due to failure in taking possession of godowns immediately after arrears of licensee fee exceeded the amount of Security Deposit obtained from licensees.**

Maharashtra Small Scale Industries Development Corporation Limited (Company) allotted (August 2009) two godowns on lease and license basis at Ahmednagar and Kolhapur to M/s Ganga Vihar Buildcon Private Limited and M/s Lallegra Maskesrv Limited respectively. These godowns were taken on lease from Maharashtra Industrial Development Corporation (MIDC) for a period of 95 years from November 1987 (Ahmednagar) and June 1986 (Kolhapur). The closed area of Ahmednagar godown was 1,513 square feet and open area of 1,13,582 square feet, while the closed area of Kolhapur godown was 5,951 square feet and open area of 61,480 square feet. As per the agreement (September and October 2009) monthly license fee payable was ₹ 2.35 lakh for Ahmednagar godown and ₹ 1.74 lakh for Kolhapur godown. The agreement provided that necessary repairs were to be carried out by the Company and expenses on repairs were to be paid by licensee which were to be adjusted against the lease rent payable by them. The possession of both godowns was handed over to licensees in September and October 2009 respectively.

The agreement provided a moratorium period of 90 days from the date of agreement for completion of repairs. The lease rent was payable from the date of commencement of use of godown or expiry of moratorium period of 90 days whichever was earlier. The agreement was modified in March 2010 and 90 days were provided from the date of communication of sanction for repairs accorded by MIDC instead of 90 days from the date of agreement. The permission for repairs was received from MIDC in March 2010 for Ahmednagar godown and in August 2010 for Kolhapur godown and the Company placed work orders in April 2011 for repairs of both the godowns at

a cost of ₹ 21.87 lakh. The repairs were however not carried out and the Company took over the possession of both godowns in March 2012.

Audit observed (May 2014) that as per the terms of agreement license fee was recoverable from July 2010 for Ahmednagar godown and from December 2010 for Kolhapur godown after considering 90 days from the date of sanction for repairs. However, the Company raised bills of ₹ 40.83 lakh from June 2011 to March 2012 on both the licensees which were not paid so far (November 2014). The Company had not raised bills of ₹ 36.23 lakh for earlier period from July 2010 to May 2011 (11 months) for godown at Ahmednagar and from December 2010 to May 2011 (six months) for Kolhapur godown. Thus, the total license fee recoverable from both licensees worked out to ₹ 77.06 lakh<sup>46</sup> till possession of godowns was taken over by the Company. Ideally, the Company should have taken back possession as soon as the arrears of license fee exceeded the amount of Security Deposit (SD) of ₹ 12.26 lakh.

Thus, failure to recover license fee as per agreement and not taking possession of godowns immediately after non-payment of license fee exceeding SD and non raising demand for the period prior to June 2011 resulted in non-recovery of license fee of ₹ 64.80 lakh after adjusting SD of ₹ 12.26 lakh.

The Management while accepting (September 2014) the audit contention stated that they have raised the claims for both godowns and the amount will be recovered from licensees. The reply was also endorsed by the Government (October 2014). The reply of the Management confirms that the Management did not take timely action and as a result chances for recovery of claims were remote.

#### **Mahila Arthik Vikas Mahamandal**

#### **4.2 Non claiming of Income Tax refund**

**Mahila Arthik Vikas Mahamandal did not claim refund of Income Tax deducted at source by the banks during FY 2008-09 to 2012-13 which resulted in loss of ₹ 37.81 lakh.**

Mahila Arthik Vikas Mahamandal (Company) invests its surplus funds in Fixed Deposits (FDs) with Nationalised banks. During the Financial Year (FY) 2008-09 to 2013-14, the Company earned interest of ₹ 3.88 crore on fixed deposits on which banks deducted Income Tax (IT) of ₹ 39.89 lakh<sup>47</sup> at source (TDS). The Company being a non-profit organisation was exempt

<sup>46</sup> ₹ 49.29 lakh - Ahmednagar; ₹ 27.77 lakh - Kolhapur

<sup>47</sup> 2008-09-₹ 1.67 lakh, 2009-10-₹ 0.13 lakh, 2010-11-₹ 7.64 lakh, 2011-12-₹ 10.51 lakh, 2012-13-₹ 17.86 lakh and 2013-14-₹ 2.08 lakh

under Section 11 of the Income Tax Act, 1961, from payment of IT on interest earned on FDs with banks.

Audit observed (February 2014) that the Company in the IT return filed for the FY 2008-09 had not claimed refund of ₹ 1.67 lakh being TDS by banks. Further, the IT returns from FY 2009-10 onwards were yet to be filed (September 2014). Section 139(4) of IT Act, 1961 allowed the Company to file IT return before the expiry of one year from the end of the relevant assessment year or before the completion of assessment by IT Department, whichever was earlier. The Company also did not file its revised IT returns for FY 2008-09 claiming refund of TDS from IT Department under Section 139(5) which provided that revised return could be filed at any time before the expiry of one year from the end of the relevant assessment year or before the completion of assessment, whichever was earlier.

The Company had thus lost the opportunity to revise the IT return for FY 2008-09 and filing of IT returns for FY 2009-10 to 2012-13, as the time limit for claiming IT refund had already expired (March 2014). This resulted in loss of ₹ 37.81 lakh to the Company.

The Management while accepting (September 2014) the audit contention stated that returns could not be filed due to non finalisation of their annual accounts. The Management further stated that they have started the process for getting refund from IT Department. The reply was also endorsed by the Government (November 2014). The reply was not acceptable as it was the duty of the Management to finalise the Accounts in time and submit the IT returns which was not adhered to. Further, the time limit for filing IT returns up to FY 2012-13 had already expired.

## **Maharashtra State Power Generation Company Limited**

### **4.3 Repairs and Maintenance of Coal based Thermal Power Generating Units**

#### **Introduction**

**4.3.1** Maharashtra State Power Generation Company Limited (Company) had seven coal based Thermal Power Stations (TPS) with a total generation capacity of 7,980 Mega Watt (MW) of 29 units as of 31 March 2014. For assessing performance of power stations and for fixation of tariff the Maharashtra Electricity Regulatory Commission (MERC) prescribed performance parameters like plant availability, auxiliary consumption, heat rate, oil consumption *etc.* The plant availability<sup>48</sup> prescribed by MERC ranged

<sup>48</sup> Plant availability during any given period is the ratio of hours during which plant is actually operated and maximum possible hours

between 62.04 and 85 *per cent* for seven power stations during 2010-11 to 2013-14. In case of shortfall in plant availability during any year due to controllable factors, the proportionate annual fixed charges<sup>49</sup> were not allowed by MERC to be passed on to consumers through tariff and the Company had to bear that loss. Thus, the Company was to ensure timely repair/replacement of defective/deteriorated equipment/system in the plant to achieve optimum efficiency and plant availability.

Audit covered scrutiny of repair and maintenance activities at five TPS (23 units) situated at Bhusawal, Chandrapur, Khaperkheda, Paras and Parli (installed capacity of 6,730 MW) during 2010-11 to 2013-14. The expenditure on repairs and maintenance works by these five TPS was ₹ 1,818.65 crore during 2010-11 to 2013-14.

Audit findings emerged from the examination of records at five TPS are discussed below:

### **Annual/Capital overhauls**

#### *Planning of overhauls*

**4.3.2** The Capital Overhaul (COH) of a generating unit is taken up once in five years while Annual Overhaul (AOH) is to be carried out annually. Details of AOH/COH planned, actually carried out and shortfalls at five TPS during 2010-11 to 2013-14 were as under:

Year	No. of units planned		No. of units actually taken up		Shortfall	
	AOH	COH	AOH	COH	AOH	COH
2010-11	15	2	6	2	9	0
2011-12	18	5	10	2	8	3
2012-13	15	3	7	2	8	1
2013-14	13	4	6	1	7	3
<b>Total</b>	<b>61</b>	<b>14</b>	<b>29</b>	<b>7</b>	<b>32</b>	<b>7</b>

*(Source: Information furnished by the Company)*

It could be seen from above that there was significant shortfall of 39 units in AOH/COH (52 *per cent*) as compared to 75 units planned during 2010-11 to 2013-14. Audit observed that AOH of four units were taken up once, seven units twice and two units thrice during 2010-11 to 2013-14 as against once in a year. Further, COH of seven units was not carried out during last five years (2009-10 to 2013-14) though they were due as per the norms.

<sup>49</sup> Annual fixed charges included operation and maintenance expenses, depreciation, interest on loans, interest on working capital and return on equity capital *minus* non- tariff income

The Management stated (November 2014) that shortfall in AOH/COH was due to critical grid condition. The fact, however, remained that the deferment of overhauls had an adverse impact on the performance of units leading to lower plant availability. The plant availability of five power stations was between 26.66 and 83.85 *per cent* during 2010-11 to 2013-14 as against minimum plant availability at 80<sup>50</sup> and 85 *per cent* prescribed by MERC for old and new units respectively.

**Execution of overhauls**

**4.3.3** As per the time schedule prescribed by the Company, AOH and COH were to be completed in 20-35 days and 35-60 days respectively. The completion of overhaul within the stipulated time is crucial as high overhauling cycle time leads to loss of generation and reduced plant availability. The strategic and advance planning, timely mobilisation of resources, meticulous monitoring and dedicated round the clock effort reduces the overhaul time.

**Avoidable delay in completion of overhauls**

**4.3.4** Audit observed avoidable delay in AOH/COH of 10 units due to lack of proper planning as discussed below:

Sl. No.	No. of overhauls	Prescribed time (in days)	Actual time taken (days)	Total avoidable delay (in days)	Controllable factors for delay	Loss of generation (MUs)
1	5 (2 AOH/ 3 COH)	25-45	35-60	47 (2 to 17 per overhaul)	Non-availability of stock of critical spare materials, Tool and Plants (T&P) and capital insured spares	228.13
2	4 (3 AOH/ 1 COH)	25-35	37-104	81 (4 to 47 per overhaul)	Award of work orders after declaration/closure of the units for overhauls	216.06
3	1 (AOH)	35	46	11	Non-availability of scaffolding system <sup>51</sup> required for boiler overhaul	68.92
<b>Total</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>139</b>	<b>-</b>	<b>513.11</b>

As seen from above that there was avoidable delay of 139 days in completion of 10 overhauls leading to loss of generation of 513.11 Million Units (MUs) (sale value: ₹ 116.73 crore) as detailed in **Annexure-4**. These delays could

<sup>50</sup> Except 62.04 *per cent* for Chandrapur TPS during 2010-11

<sup>51</sup> Scaffolding system was erected in the boiler area to support execution of various repair works simultaneously during overhauls

have been avoided by proper planning for awarding of overhaul contracts and ensuring availability of spare parts and other equipment necessary for overhaul.

### **Preventive maintenance of equipment**

#### ***Electro Static precipitator hoppers***

**4.3.5** The Ash Handling Plant (AHP) of unit 5 at Bhusawal TPS was taken over by the Company on 5 August 2013 for operation and maintenance. As per preventive maintenance practice of Electro Static Precipitator (ESP) hoppers prescribed in the Original Equipment Manufacturer (OEM) (Bharat Heavy Electrical Limited (BHEL)) manual, the Company was to ensure that fly ash was not accumulated in ESP hoppers which may otherwise lead to collapse of the same.

The fly ash evacuation system was not working properly and hence the Company was to ensure removal of fly ash manually to avoid accumulation of fly ash inside the ESP hoppers to prevent structural damages. However, as the fly ash was not removed manually, accumulation of fly ash (15,380 cubic metre) resulted in collapse (November 2013) of eight ESP hoppers. Consequently, commercial date of operation (COD) of the unit was deferred and declared on 3 January 2014 and capacity of the unit of 500 MW was also de-rated to 400 MW. The unit was restored to its rated capacity of 500 MW from 1 September 2014 after repair works of ₹ 16.52 crore. The cost of repairs could not be claimed from BHEL as the collapse of ESP hoppers was due to lack of preventive maintenance.

Thus, due to non-adherence to maintenance practices prescribed in OEM manual, the Company incurred avoidable expenditure of ₹ 16.52 crore on the repair works. The Company also suffered loss of generation of 399.73 MUs<sup>52</sup> on reduced load of the unit during January-August 2014 (sale value: ₹ 103.13 crore<sup>53</sup>).

The Management accepted (November 2014) that fly ash was required to be manually removed for avoiding structural damage to ESP hoppers. However, the Company did not offer any remarks on the issue of non-removal of fly ash manually in the instant case which resulted in collapse of ESP hoppers.

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<sup>52</sup> (100 MW\* 241 days \* 24 hours) at average plant load factor of 69.11 per cent for 2013-14 and 2014-15 (up to October 2015)

<sup>53</sup> 399.73 MUs \* 10,00,000 \* ₹ 2.58 per unit

### **Boiler tube leakages**

**4.3.6** The commercial operation of unit 4 in Bhusawal TPS was started from 16 November 2012. The Company was required to maintain water chemistry parameters of the plant as prescribed by the OEM (BHEL) and carry out proper acid cleaning to keep the boiler tubes free from acidic corrosion/deposition which may otherwise lead to permanent damages to Boiler tubes.

Audit observed that the Company had not adhered to prescribed boiler maintenance practices and improper water chemistry of input water used for boiler, lack of proper acid cleaning, non-rectification of malfunction of water chemistry treatment sub-system and leakage of condenser *etc.* caused frequent Boiler Tube Leakages (BTL) on 15 occasions (65 days forced outages<sup>54</sup>) during November 2012 to October 2014. The Company suffered loss of generation of 777.56 MUs (sale value: ₹ 198.28 crore<sup>55</sup>) during the period of forced outages.

The Management stated (November 2014) that acid cleaning work will be carried out in forthcoming COH of the unit. Thus, the Company did not adhere to prescribed maintenance practices of boiler tubes which caused extensive damages leading to frequent BTL.

### **Coal mill pumps**

**4.3.7** The Company had installed BBD<sup>56</sup> make Coal Mills (CMs) in five units at Chandrapur (unit 7), Paras (unit 3 and 4) and Parli (unit 6 and 7) which were commissioned on 1 October 1997, 31 March 2008, 31 August 2010, 1 November 2007 and 31 July 2010 respectively. These CMs were provided with High Pressure (HP) pumps and Ball and Socket (B&S) pumps for providing oil lubrication to the bearing system of CMs.

Audit observed high failure rate of HP pumps (113 occasions<sup>57</sup>) and B&S pumps (39 occasions<sup>58</sup>) at five units during 2010-11 to 2013-14. Of these, on 45 and 33 occasions pumps were replaced. The Company incurred total expenditure of ₹ 3.07 crore on replacement of these 78 failed pumps (45 HP pumps: ₹ 1.87 crore and 33 B&S pumps: ₹ 1.20 crore). The high failure rate of pumps was due to contamination of lubricating oil resulting from inadequate seal oil pressure and lack of timely replacement of seal air gasket of CMs. Thus, failure of pumps could have been minimised by adopting preventive maintenance practices and minimised the expenditure of ₹ 3.07 crore on replacement of failed pumps during 2010-14.

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<sup>54</sup> Forced outages means closure of plant due to unplanned break downs

<sup>55</sup> 777.56 MUs \* 10, 00,000 \* ₹ 2.55 per unit

<sup>56</sup> BBD stands for B-Broyer (inventor), B-Boulet (French word for balls) and D-Direct firing

<sup>57</sup> Chandrapur TPS : 8, Paras TPS:10 and Parli TPS: 95

<sup>58</sup> Chandrapur TPS: 17, Paras TPS: 7 and Parli TPS: 15



The Management stated (November 2014) that various corrective actions for preventing oil contamination of the lubrication system has now been taken up and failure rate of pumps has reduced.

### Repair/replacement of defective equipment

**4.3.8** Seven units (Bhusawal unit 4 and 5, Khaperkheda unit 5, Paras unit 3 and 4 and Parli unit 6 and 7) were commissioned during November 2007 to January 2014. The main plants (Boiler, Turbine and Generator) of these units were supplied and commissioned by BHEL while balance of Plant (Coal Handling Plants, Ash Handling Plants *etc.*) were supplied and commissioned by other contractors. Audit noticed instances of delay in repair/replacement of defective equipment during guarantee period as discussed below:

#### Main plant equipment

**4.3.9** Delays in repair/replacement of equipment of main plant by BHEL were as under:

Sl. No.	Name of equipment	Remarks of Audit	Loss of generation in MUs (sale value in ₹)
1.	Turbine Generator wheel blades	The unit 5 of Khaperkheda was commissioned on 16 April 2012. The problem of high vibrations in bearings of Turbine Generator (TG) wheels was noticed during trial operation stage and the same was communicated (January 2012) to BHEL. However, defects were not rectified by BHEL in time. As a result, there was a breakdown of the unit on 22 August 2012. The defects were attended by BHEL only after failure of unit. The unit was resumed on 12 September 2012. Thus, the unit was not available for generation for 21 days.	256.94 (₹ 52.93 crore <sup>59</sup> )
2.	Turbine Barring Gear	The Turbine Barring Gear (TBG) <sup>60</sup> of unit 5 at Khaperkheda TPS failed on five occasions during synchronisation stage (April-December 2011) and three occasions (October 2012 to January 2014) after commercial operation. Though, the defects were communicated to BHEL on various occasions, the same were not attended by BHEL till date (November 2014). This contributed to extension of force outages.	60.17 (₹ 12.17 crore <sup>61</sup> )
3.	High Pressure Steam Turbine (HPT)	The unit 4 of Paras TPS was facing problem of steam leakages in HPT since commissioning on 31 August 2010. Though HPT overhaul at cost of ₹ 33 lakh was carried (May-June 2012) out by BHEL along with AOH, the problem was not rectified so far (November 2014). The Company started reporting loss of generation of 3 MUs per month due to lower HPT efficiency only from July 2014.	12 (₹ 2.04 crore <sup>62</sup> )
<b>Total</b>			<b>329.11</b> <b>(₹ 67.14 crore)</b>

<sup>59</sup> 256.94 MUs \* 10,00,000 \* ₹ 2.06 per unit

<sup>60</sup> TBG is critical equipment which maintains the speed of turbine to avoid its uneven cooling

<sup>61</sup> (44.12 MUs \* 10,00,000 \* ₹ 2.01 per unit) plus (16.05 MUs \* 10,00,000 \* ₹ 2.06 per unit)

<sup>62</sup> 12 MUs \* 10,00,000 \* ₹ 1.70 per unit

As per standard terms of turnkey contract, BHEL was responsible for rectification of defects during testing and within the guarantee period of one year. It was further provided that the BHEL was required to carry out rectification/replacement of defective equipment at his own expense within 15 days from the date of intimation of defects. In case BHEL failed to remove the defects within the specified time, the Company was to undertake the removal of such defects at risk and cost of BHEL by giving 15 days' notice.

Audit observed that the risk and cost clause was ineffective in case of BHEL. BHEL was the OEM and the Company had to depend upon BHEL only for replacement/repairs of equipment. As such, the Company did not enforce the clause for execution of repair works at risk and cost of BHEL. The loss of generation of 329.11 MUs (sale value ₹ 67.14 crore) due to delay in repairs/replacement were also not recoverable from BHEL.

### **ESP fields**

**4.3.10** The ESP hopper is meant for storage of fly ash. The ESP hopper of unit 4 of Bhusawal TPS has 72 fields. However, 16 ESP fields were out of service from March-June 2013 onwards. The Company attributed this to poor workmanship of BHEL. Due to non-availability of 16 fields, unit could not be operated at full load and led to loss of generation.

Audit observed that there was inordinate delay in finalisation of contract for repair of ESP fields. The budgetary offer for supply of material required for restoration of fields was sought from BHEL on 30 October 2013 after a period of four months from the date of failure. BHEL submitted the offer in 10 November 2013. The contract for supply of material was awarded to BHEL on 1 March 2014 at a cost of ₹ 7.82 crore. Similarly, contract for erection of fields was awarded to M/s Alstom India Limited, Nagpur on 5 May 2014 at cost of ₹ 3.54 crore. The replacement of the damaged fields was completed on 19 October 2014 after a period of 16-19 months from the date of failure. The Company suffered loss of generation of 467.93 MUs (sale value: ₹ 119.32 crore<sup>63</sup>) due to non-availability of ESP fields during March 2013 to September 2014 which could have been minimised by awarding repairing contracts promptly. Further, the Company had not taken decision for recovery of replacement cost of ₹ 11.36 crore from BHEL till date (October 2014) though the failure of fields was attributed to poor workmanship of BHEL.

The Management in its reply (November 2014) did not offer any justification for delay in finalisation of agencies for repair works.

The delays in repairs/replacement of equipment supplied by contractors other than BHEL are discussed below:

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<sup>63</sup> 467.93 MUs \* 10,00,000 \* ₹ 2.55 per unit

***Fly ash evacuation system***

**4.3.11** The unit 5 of Khaperkheda TPS and unit 4 and 5 of Bhusawal TPS with capacity of 500 MW each unit were commissioned on 16 April 2012, 16 November 2012 and 3 January 2014 respectively. The system for evacuation of fly ash from ESP hoppers to Storage Silos was constructed in all the three units by M/s Techpro Systems Limited, Pune at a cost of ₹ 36.51 crore (Khaperkheda) and ₹ 46.56 crore (Bhusawal). As per the design parameters, fly ash was to be evacuated through vacuum pumps from ESP hoppers to buffer hoppers from where it was to be transported to Silo via dedicated pipelines by pneumatic pressure. The fly ash collected in a shift of eight hours was designed for evacuation in five and half hours. The fly ash is extremely corrosive in nature and if left within ESP hoppers damages equipment. The OEM manual also provided that utmost care was to be taken to ensure that evacuation of fly ash was complete and there was no ash build up in the hopper.

Audit observed that major defects like insufficient design capacity of vacuum pumps, inadequate compressor air pressure, frequent failure of buffer hopper bag filters and ash valves, failure of fluidising blower heater coil *etc.* in the fly ash evacuation system of above three units were noticed during trial run and guarantee period. The defects were however yet to be fully rectified till date (November 2014). As a result, the fly ash was not getting evacuated from ESP hoppers to Buffer hoppers within the stipulated time and it accumulated in ESP hoppers which had an adverse impact on performance of all the three units. The Company reported generation loss of 610.85 MUs (sale value: ₹ 148.60 crore<sup>64</sup>) up to October 2014 in three units. This had also resulted in lower plant availability which was 63.12 and 54.71 *per cent* at Bhusawal (unit 4) and 54.58 and 62.16 *per cent* at Khaperkheda during 2012-13 and 2013-14 as against 80 and 85 *per cent* respectively prescribed by MERC.

Further, the fly ash was required to be unloaded manually and transported to the dumping area and the Company incurred additional expenditure of ₹ 2.69 crore on lifting and transportation of fly ash during April 2012 to October 2014. Besides, accumulated fly ash caused extensive damages to various equipment/auxiliaries of AHP. The Company spent ₹ 4.53 crore on repairs/reconditioning/modification works of various equipment of AHP during 2012-14.

The Management while accepting the fact stated (November 2014) that the matter was taken up with the contractor and various modifications were also carried out but the rated parameters could not be achieved so far. It was further stated that action plan for rectification of defects in the system and improvement of ash evacuation was prepared and implementation was in progress.

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<sup>64</sup> Bhusawal unit 4: ₹ 91.37 crore (358.31 MUs \* 10,00,000\* ₹ 2.55 per unit), Bhusawal unit 5: ₹ 26.67 crore (103.38 MUs \* 10,00,000\* ₹ 2.58 per unit) and Khaperkheda unit 5: ₹ 30.56 crore (149.16 MUs \* 10,00,000 \* ₹ 2.01/2.06 per unit)

***Coal mill reject handling system***

**4.3.12** Coal Mill Reject Handling System (CMRHS) was an alternative system to the existing manual system for collection and transportation of coal mill rejects to the dumping yard. The contract for erection and commissioning of CMRHS in unit 4 and 5 of Bhusawal TPS was awarded (November 2007) to M/s Tata Power Limited (TPL) at a cost of ₹ 7.03 crore. However, TPL executed the work through vendor (M/s Macawber Beekay Private Limited (MBPL)) approved by the Company.

Audit observed that system installed (November 2012/January 2014) at a cost of ₹ 7.03 crore in both the units was not functional and lying idle till date (October 2014) on account of various problems like lack of adequate compressor air pressure, choking up of coal mill reject discharge pipelines, non-availability of platforms for removal of choke up *etc.* As CMRHS was not in service, coal mill rejects were removed manually. The Company incurred extra expenditure of ₹ 18.32 lakh on transportation of coal mill reject during December 2012 to September 2014.

The Management stated (November 2014) that they are working on restoration of system.

***Ash pipeline structure***

**4.3.13** The work for designing, engineering, manufacturing, installation, testing and commissioning of AHP in unit 3 and 4 of Paras TPS was awarded (August 2005-November 2007) to M/s Techpro India Limited (TIL), Pune and M/s McNally Bharat Engineering Company Limited, Kolkata for ₹ 36.87 crore and ₹ 33.99 crore respectively. As per the terms of contract for unit 4, ash pipe line was to be laid down in the existing pipe rack structure used for unit 3 after ensuring that the structure was designed to cater additional load of pipeline for unit 4. Accordingly, the Company informed (January 2010) M/s TIL for verifying structural stability of the structure and checking of design calculations/drawings to ensure that pipe rack was designed to cater to additional load. However, the pipe line of unit 4 was laid on the existing structure without verifying structural stability and ensuring its strength and the commercial operation of the unit 4 was started from 31 August 2010. Though, the Company was fully aware that the structure was defective, the repair works was not carried out at the risk and cost of the contractor. As a result, the pipe rack structure collapsed on 13 June 2012 resulting in forced outages of unit 3 from 13 to 20 June 2012 and unit 4 from 16 to 25 June 2012 and loss of generation was 102.94 MUs (sale value: ₹ 17.91 crore<sup>65</sup>). The Company constructed (June 2012) temporary structures at cost of ₹ 1.74 crore for resumption of units which was recovered from the contractor by encashing the performance bank guarantee. The contractor finally constructed the permanent structure as per approved design in March 2013.

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<sup>65</sup> 102.94 MUs \*10,00,000 \* ₹ 1.74 per unit

Had the Company carried out repair works of defective pipe rack structure in time, loss of generation due to collapse could have been avoided. Further, the forced outages contributed to lower availability at 74.36 and 66.51 *per cent* in respect of unit 3 and unit 4 respectively during 2012-13 against 80 *per cent* prescribed by MERC.

The Management stated (November 2014) that the performance bank guarantee of ₹ 3.69 crore was forfeited and structure was restored as per new design at their cost. It was further stated that loss on account of generation loss cannot be recovered from the contractor as per contractual terms. The reply of the Company was however silent as to how the contractor was allowed to execute works without ensuring the strength of structure.

#### ***Boiler coils and tubes***

**4.3.14** The Central Power Research Institute (CPRI) and Regional Boiler Inspector recommended (2009) complete replacement of the deteriorated coils/tubes in the boiler of unit 2 at Bhusawal TPS (BTPS). The loss of revenue on account of generation loss due to BTL was estimated at ₹ 1 crore per day. Accordingly, BTPS submitted (December 2009) a proposal to the Head Office (HO) for procurement of coils/tubes which was approved in August 2010. The replacement was proposed to be carried out during COH planned in 2010-11. The supply order for coils/tubes valuing ₹ 6.81 crore was, however, placed (15 December 2011) with M/s BHEL after 15 months from the date of administrative approval without any justification for delay on record. Audit observed that due to delay in procurement, boiler coils and tubes could not be replaced during COH taken up during August-October 2011 as envisaged. Thus, there was inordinate delay in replacement of deteriorated boiler tubes and coils. The Company suffered loss of generation of 211.44 MUs (sale value: ₹ 55.54 crore<sup>66</sup>) due to 15 incidences of BTL during April 2012 to September 2014. Further, boiler coils/tubes worth ₹ 6.81 crore procured (April 2012-December 2012) were lying idle till date (November 2014).

The Management stated (November 2014) that the replacement is proposed to be carried out during next overhaul.

The matter was reported to the Government (August 2014), their replies were awaited (December 2014).

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<sup>66</sup> Calculated at the selling rate of ₹ 3.34, ₹ 2.45 and ₹ 2.43 per unit for 2012-13, 2013-14 and 2014-15 respectively

## Conclusions and Recommendation

The annual/capital overhauls of generating units planned by the Company were deferred leading to lower plant availability. The Company did not have a proper system in place to ensure that spare material were available to complete planned/rescheduled overhauls within prescribed time.

*The Company may ensure timely award of overhaul contracts and availability of spare material so that planned/ re-scheduled overhauls can be carried out without delay.*

The new units did not operate at full efficiency due to delay in repairs/replacement of defective equipment and lack of proper preventive maintenance. The plant availability of seven new units was between 42.80 and 83.85 per cent during 2010-11 to 2013-14 which was lower than 80-85 per cent prescribed by MERC.

*The Company may ensure proper preventive maintenance and timely repairs/replacement of defective equipment to avoid forced outages and consequent loss of generation.*

The Company had to depend on the OEM for replacement/repairs of equipment and it did not enforce the risk and cost clause.

*The Company may incorporate suitable clause in contracts with OEMs for levy of penalty in case repairs/replacement of defective equipment are not carried out within the specified time.*

## Maharashtra State Electricity Distribution Company Limited

### 4.4 Extra expenditure

**Maharashtra State Electricity Distribution Company Limited incurred an extra expenditure of ₹ 3.94 crore on procurement of meters due to lack of condition in tender for enforcing the suppliers to supply meters at lower rate quoted by them against subsequent tender.**

Maharashtra State Electricity Distribution Company Limited (Company) invites tenders during each year for procurement of energy meters. Accordingly, the Company invited (October 2010) tender for procurement of 10 lakh Radio Frequency (RF)<sup>67</sup> meters. The lowest offer (L1) of ₹ 1,485 per meter was received from M/s HPL Electric and Power Private Limited, New Delhi and other four firms agreed to match with L1 rate. The Company considering additional requirement decided (November 2011) to purchase

<sup>67</sup> LTAC Single Phase 5-30 Amps static energy meters with RF communication Port without enclosure



11 lakh meters<sup>68</sup> from the qualified bidders. The Company issued Letters of Award (LoA) on 17 January 2012 to all the five qualified bidders. The delivery schedule for all suppliers stipulated that the first lot of 1.30 lakh meters was to be delivered within two months from the date of LoA and thereafter, at the rate of 4.20 lakh meters per month from the date of release order.

Further, the Company invited (November 2011) second tender for purchase of 20 lakh RF meters with same technical specification. The technical bids were opened on 20 January 2012 and the price bids were opened on 3 January 2013. The delay in opening of tender was due to time taken for retesting of samples and final inter-operability testing reports of new technology RF meters to be procured. The lowest offer (L1) of ₹ 1,323 per meter was received from M/s Rolex Meters Private Limited, Hyderabad and other five bidders agreed to match with L1 rate. The rate offered was lower by ₹ 162 per meter as compared to rate of first tender. The Company placed orders in February 2014 and the supply was to commence from April 2014.

Audit observed (February 2014) that out of six suppliers selected against second tender five were supplying meters against the first tender. The Company procured 2.91 lakh meters from four suppliers at the rate of ₹ 1,485 per meter after opening of price bid during the period from January to October 2013. Out of total 2.91 lakh meters supplied after opening of second tender, 2.23 lakh meters were supplied belatedly for which the Company recovered Liquidated Damages (LD) of ₹ 77.45 lakh as per tender condition. Audit however observed (February 2014) that the Company to safeguard its financial interest should have incorporated a suitable clause in contracts to the effect that during validity of contracts, if any favourable price is offered in subsequent contracts, it should become applicable to the subject contracts. Thus, in the absence of a clause in the tender, the Company procured 2.91 lakh meters to fulfill its requirement from the suppliers at the rates higher than the rates quoted by themselves for similar meters against subsequent tender and incurred extra expenditure of ₹ 3.94 crore.<sup>69</sup>

The Management stated (September 2014) that the Company had followed all the terms and conditions of tender/contract and hence there was no additional expenditure. It was further added that as suggested by Audit, suitable condition would be incorporated in future tenders enforcing suppliers to supply at lower rate quoted by them against subsequent tender. The reply was also endorsed by the Government (September 2014).

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<sup>68</sup> Genus Power Infrastructure Limited-1 lakh meters, Himachal Energy Private Limited-1 lakh meters, HPL Electric and Power Private Limited-4.30 lakh meters, Palmohan Electronics Private Limited-3.70 lakh meters and Rolex Meters Private Limited-1 lakh meters

<sup>69</sup> 2.91 lakh meters x Rate difference ₹ 162 per meter less LD recovered ₹ 77.45 lakh

**4.5 Undue benefit to HT consumer**

**Maharashtra State Electricity Distribution Company Limited supplied electricity for construction activity at industrial rate instead of commercial rate thereby benefiting consumer by ₹ 50.94 lakh.**

Maharashtra Electricity Regulatory Commission tariff order (August 2009), provides that the connection for construction activity was to be classified under 'commercial category'. The tariff for commercial activity was comparatively higher than the industrial activity.

Maharashtra State Electricity Distribution Company Limited (Company) sanctioned (August 2008) a temporary High Tension (HT) power supply connection with a connected load of 520 KW to M/s B.G. Shirke Construction Technology Private Limited (Consumer No.028659035790). The activity of the consumer included construction of housing project in Sectors 16 and 17, Kharghar, Navi Mumbai. The casting yard/batching plant and labour camp required for construction activity were situated at Sector 15. Power supply to all these activities was managed through the above connection.

Audit observed (March 2014) that the above HT connection to M/s B.G. Shirke was categorised by the Company under 'industrial category' instead of 'commercial category' for the period from September 2009 to July 2011 and thereafter the connection was disconnected. The consumer then applied (November 2011) for another HT connection for construction of housing project at Sector 36, Kharghar. Accordingly, the connection was sanctioned by the Company (January 2012) for a connected load of 840 KW (Consumer No.028659039080) under commercial category. The consumer requested (December 2011) for a third connection for casting yard/labour camp located in Sector 15, Kharghar with a connected load of 464 KW which was sanctioned under industrial category (Consumer No.028659038890). As the construction of housing project and related casting yard/batching plants were in the nature of construction activity, the supply to above consumer should have been categorised as commercial category instead of industrial category. Thus, providing electricity supply at two sites (Consumer Nos.028659035790 and 028659038890) under industrial category instead of commercial category resulted in undue benefit of ₹ 50.94<sup>70</sup> lakh to M/s B.G. Shirke. In similar other cases, audit observed that two consumers viz: M/s J. Kumar Infra Projects Limited (Consumer No.028619040230) and M/s Larsen and Toubro Limited (Consumer No.000149039810) were provided connections for batching plant/casting yard at commercial rate.

The Management stated (October 2014) that the industrial tariff was applied as the consumer was engaged in manufacturing of cement blocks and there was no construction activity. The Company further stated that two similar

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<sup>70</sup>Difference in commercial and industrial rate during September 2009 to July 2011 for first connection (₹ 19.64 lakh) and during April 2012 to April 2014 for third connection (₹ 31.30 lakh)



consumers viz: M/s J. Kumar Infra Projects Limited (Consumer No.028619040230) and M/s Larsen and Toubro Limited (Consumer No.000149039810) were provided common connections for batching plant/casting yard and construction activity and therefore commercial tariff was applied to them. The reply was also endorsed by the Government (October 2014). The reply was not acceptable as the Consumer had used the connection for batching plant/casting yard as well as for construction activity. The Company in its Technical feasibility report (January 2012) had also mentioned the purpose as commercial and proposed commercial tariff. Hence, the Company should have applied commercial tariff in this case also.

#### **4.6 Undue favour to supplier**

**Maharashtra State Electricity Distribution Company Limited in violation of tender condition paid Price Variation of ₹ 2.77 crore for belated supply of distribution transformers.**

Maharashtra State Electricity Distribution Company Limited (Company) invited (January 2011) tender for supply of 13,876 three phase Distribution Transformers (DTs) and offers received there against were opened in March 2011. The Company issued (September 2011 and June 2012) supply orders to M/s Accurate Transformers Limited (ATL), New Delhi for purchase of 12,219<sup>71</sup> three phase DTs at a cost of ₹ 98.16 crore and transformers were to be delivered as per the delivery schedule prescribed by the Company.

Clause 6 of Special Terms and conditions read with Clause 28 of Section II of the tender stipulated that Liquidated Damages (LD) at half *per cent* per week or part of week for the delayed delivery subject to a maximum of 10 *per cent* of the contract price were to be levied in case of delay in supplying the DTs. Further no Positive Price Variation (PPV) was applicable for the delayed delivery as well as if the supply could not be brought into use where delay was not attributable to the Company.

Audit observed (February 2014) that 2,947 DTs were supplied during the period from January to November 2012 by M/s ATL before the Scheduled Delivery Date (SDD). However, these transformers required certain rectifications. The rectifications in these transformers were carried out by M/s ATL after SDD. The Company had therefore recovered LD of ₹ 0.55 crore for delay ranging from one to 355 days from the SDD to the date of attending the rectifications. Audit also observed that despite delay in rectification, the Company also paid PPV of ₹ 2.77 crore up to the SDD though the same was not payable as per terms of tender. Thus, the payment of PPV of ₹ 2.77 crore was irregular and granted undue benefit to the supplier.

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<sup>71</sup> Original order (September 2011) of 9,256 DTs and extension order (June 2012) for 2,963 DTs

*Chapter-IV-Compliance Audit Paragraphs*

The Management accepted (December 2014) the audit observation and stated that the price variation of ₹ 2.77 crore was paid erroneously and would be recovered from M/s ATL. However, the amount was yet to be recovered (December 2014).

The matter was reported to the Government (September 2014); their reply was awaited (December 2014).

**MUMBAI**  
**The 3 MAR 2015**



**(PUNAM PANDEY)**

**Principal Accountant General (Audit)-III, Maharashtra**

*Countersigned*

**NEW DELHI**  
**The 5 MAR 2015**



**(SHASHI KANT SHARMA)**

**Comptroller and Auditor General of India**