CHAPTER V: MINISTRY OF HEAVY INDUSTRIES

Bharat Heavy Electricals Limited

5.1 Avoidable loss due to laxities in supply of Alternate Current Electrical Multiple Units

Bharat Heavy Electricals Limited suffered a loss of ₹13.69 crore due to laxity in supply of complete sets of Alternate Current Electrical Multiple Unit.

Railway Board (Railways) placed (23 January 2013) an order with Bharat Heavy Electricals Limited (BHEL) for supply of 80 sets[1] of Traction Electrics for Alternate Current Electrical Multiple Unit (ACEMU) motor coaches to its three consignees, namely, BEML (24 sets), Titagarh Wagons Limited (TWL) (33 sets) and Jessop & Company Limited (Jessop) (23 sets) at a total value of ₹128.02 crore *plus* taxes of ₹23.13 crore. As per the terms of payment, 98 *per cent* of the value of equipment with 100 *per cent* taxes and duties was to be made on proof of inspection and dispatch of complete set, and balance 2 *per cent* after receipt of equipment by consignee in good condition.

The Corporate Office, BHEL issued (January 2013) an internal order to BHEL, Bhopal (the Division) for execution of the work with scheduled commencement date of supply as 01 May 2013. As per the order, the supplies were to be made to Jessop as four sets each month from May to November, 2013 except August 2013 where only three sets were to be supplied. However, Railways put on hold the dispatches on 17 May 2013 and withdrew the hold on 09 September 2013 after about four months. The supplies were made during the period October 2013 to February 2014 as against the supply completion schedule of November 2013.

The supplies were made by BHEL in piecemeal instead of complete set and were assembled at the place of the consignee. Out of the supplies made till February 2014, eight complete sets of traction electrics to Jessop could be assembled, whereas supplies of 15 transformers, 21 traction motors and 1 set of control gear group-A could not be assembled as complete sets. Jessop discontinued its production sine die due to labour strike and lockout. The supplies to be made to Jessop were put on hold by Railways on 27 March 2014. The said order was amended (27 May 2016) by the Railways, reducing the quantity from 80 sets to 72 sets (34 sets to TWL, 30 sets to BEML & 8 sets to Jessop) almost after a period of more than two years, in view of which, no further supplies were required to be made to Jessop.

The total value of equipment supplied to Jessop during the period from October 2013 to February 2014 was ₹35.85 crore, out of which, Railways released payment of ₹22.16 crore for the eight completed sets only during November 2015 to August 2017 and refused (June 2016) to pay for the other unassembled items citing that payment would be made only

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[1] ***A set is consisting of four traction motors and equal number of gears case assembly, Gear wheel and Nose Suspension Unit (Steel & Rubber Part) each, one main transformer with oil fitted with HV turret & other accessories and other control equipment***

for the complete sets. Railways also advised BHEL to take back those unassembled items from Jessop, as the contract with Jessop was cancelled by Railways. Further, BHEL pursued the matter with Railways (November 2016) for payments which was not acceded to (February 2017). BHEL had not taken back unassembled items despite the advice of Railways in June 2016 before incident of fire which took place in October 2016. BHEL also did not resort to any legal course against the Railways for non-payment and also created a provision of ₹9.21 crore against this debt of ₹13.69 crore (₹35.85 crore - ₹22.16 crore).

BHEL, thus, suffered a loss of ₹13.69 crore due to laxity in supply of complete set of ACEMU Traction Electrics.

BHEL stated (February 2021) that:

i) The supplies were made from different units of BHEL and all the items of a set together could not be supplied. The supply was to be completed in seven months from May 2013 to November 2013. Out of this duration, supplies were put on hold for four months at the behest of Railways. BHEL could supply material for about five months only (till February 2014). It was not possible to complete the supply in five months wherein delivery period is for seven months as these are all manufactured item having minimum process time.

ii) Railways is the only customer for BHEL in transportation business for which BHEL has created exclusive business verticals at Jhansi, Bhopal and EDN, Bangalore plant. Considering this fact, it would not be prudent to risk the future business prospects by entering into any confrontation with the longstanding customer, who has also helped BHEL by way of giving compensatory business on several occasions. Besides this, Railways lodged a complaint against Jessop which includes the total value of BHEL supplied material of ₹35.85 crore, and hence BHEL did not pursue any separate legal action against Railways.

Reply of the Management is viewed against the following facts:

i) BHEL had about four more months from December 2013 to March 2014 after the scheduled completion period of November 2013 for supplying the complete 23 sets stipulated in Railways' purchase order. BHEL, however, supplied only eight complete sets and some partial unassembled items for remaining sets in deviation of the condition of the order and the risk of supplying unassembled items remained with BHEL.

ii) If BHEL is competitive, Railways cannot deny future business for pursuing its valid claims through legal routes.

Thus, BHEL suffered a loss of ₹13.69 crore due to laxities in supply of complete set of ACEMU Traction Electrics in one go.

The Audit paragraph was issued to the Ministry in February 2021; their response was awaited (July 2021).

5.2 Non-safeguarding of financial interest resulted in additional burden towards payment of safeguard duty

Electronics Division, Bengaluru unit of Bharat Heavy Electricals Limited did not take cognisance of the proposed changes in tax structure and the delivery schedules, resulting in additional liability of ₹11.58 crore towards payment of safeguard duty for clearing of imports.

Gujarat Industries Power Company Limited (GIPCL) issued (19 March 2018) a Letter of Intent (LoI) to Bharat Heavy Electricals Limited (BHEL/ Company) for setting up 75 MW (AC) Solar Power Plant at Gujarat Solar Park, Charanka on Engineering, Procurement and Construction (EPC) basis at a contract value of ₹305.63 crore. The zero date for execution of the project was 19 March 2018 and the project was scheduled to be completed within 10 months on best effort basis from the date of LoI.

The contract value of ₹305.63 crore was firm price inclusive of all taxes and duties till completion of the project and the rates were not subject to any escalation. Any variation in taxes during original contractual completion period was to be reimbursed on production of documentary evidence. However, reimbursement of anti-dumping duty/ safeguard duty, if applicable on Photo-Voltaic (PV) modules[2], was to be reimbursed only if supply was completed within five months from the date of LoI. Government of India (GoI) notified (30 July 2018) the levy of 25 *per cent* safeguard duty on the import of "Solar Cells whether or not assembled in modules or panels" during 30 July 2018 to 29 July 2019 (both days inclusive) from China and Malaysia.

The Electronics Division, Bengaluru (EDN) of BHEL executed the order for supply of PV modules for GIPCL 75 MW Solar Plant. The orders for supply of PV modules were placed in the ratio of 50:30:20 after reverse auction conducted by EDN as per the details given below:

Table No. 5.1: Details of bidders in the reverse auction

Bidder	Name of the supplier	Date of purchase order	Price* (₹ in crore)	Quantity (*per cent* to total quantity)	Delivery period	Terms of delivery
L1	M/s ZNSHINE PV-Tech Company Limited, China	12.06.2018	79.10	37,500 (50%)	16.08.2018–16.11.2018	Delivered Duty Paid (DDP) at project site
L2	M/s Renesola Jiangsu Limited, China	14.06.2018	44.65	22,500 (30%)	27.07.2018 – 27.09.2018	Cost, Insurance, Freight (CIF) Nhavasheva

[2] *A PV module is an assembly of photo-voltaic cells mounted in a framework for installation. Photo-voltaic cells use sunlight as a source of energy and generate direct electricity.*

Bidder	Name of the supplier	Date of purchase order	Price* (₹ in crore)	Quantity (*per cent* to total quantity)	Delivery period	Terms of delivery
						(Mumbai) Seaport
L3	M/s Vikram Solar Private Limited, Bangalore	27.06.2018	30.76	15,000 (20%)	25.07.2018–22.08.2018	DDP at Project Site

*Exchange Rate of ₹68.50 as of 16 May 2018 adopted per USD as the same was used for Bid Evaluation.

As can be seen from the above table, in case of M/s Renesola Jiangsu Limited terms of delivery were CIF Nhavasheva Seaport. Imports from this supplier were carried out during 15 August – 5 September 2018 when safeguard duty was already enforced. Accordingly, the Company had to pay ₹11.58 crore towards safeguard duty for clearing the goods from the port. The liability for payment of duty in case of supplies by the other two suppliers was not on BHEL as the terms of delivery were DDP, according to which, all the taxes and duties up to project site were to be borne by the suppliers themselves. In case of supplies from M/s Renesola, however, the Company could have claimed reimbursement for safeguard duty, if supplies were ensured within a period of five months from the date of LoI. However, as deliveries by M/s Renesola Jiangsu Limited were not effected within five months from the date of the LoI, i.e., by 19 August 2018, GIPCL rejected the claim of BHEL for reimbursement of safeguard duty. The PV modules supplied by M/s Renesola Jiangsu Limited reached the project site on 26 October 2018, i.e., more than seven months from the date of LoI.

Audit scrutiny of the records revealed the following:

i) As per Clause 7.13.3 (A) of the Request for Proposal (RFP) floated (18 December 2017) by GIPCL, GIPCL was to reimburse any increase in taxes and duties due to statutory variation upon submission of documentary evidence. However, after the Director General of Safeguards, Customs and Central Excise, proposed (5 January 2018) a levy of safeguard duty of 70 *per cent* on "Solar Cells whether or not assembled in modules or panels" imported from China and Malaysia, GIPCL amended the terms (12 January 2018), safeguarding its financial interests, to restrict reimbursement of anti-dumping duty/ safeguard duty on PV modules only if supply was completed within five months from the date of LoI.

ii) BHEL participated in the bid and bagged the order through reverse auction conducted on 20 February 2018 and floated a tender (28 February 2018) for procurement of PV modules. Clause 5.3.39 of this RFP stipulated that, for PV modules, the vendors have to be Tier-I manufacturers as per Bloomberg NEF[3] (BNEF) Q4 2017 Report and fulfilling

[3] ***Bloomberg New Energy Finance (BNEF) Tier-I manufacturers are those who have provided own-brand, own-manufacture products to six different projects, which have been financed non-recourse by six different (non-development) banks, in the past two years.***

other tender requirements, subject to approval of GIPCL. However, BHEL did not incorporate this requirement of vendors being 'Tier-I manufacturers as per BNEF Q4 2017 Report' as a 'Pre-Qualification Criteria (PQC)'. As a result, of the 12 bids received, only five were BNEF approved vendors and, of these, GIPCL approved only three vendors. As reverse auction guidelines of the Company required a minimum of four bidders, this tender was cancelled (28 March 2018). Subsequently, BHEL floated another tender on 30 March 2018 which was cancelled (4 April 2018) on the grounds of expected changes in the terms and conditions of the tender. Another tender was floated by the Company on 28 April 2018 with the same terms as incorporated in tender of 30 March 2018. In the process, BHEL lost valuable time which was critical to meet the delivery schedule of five months.

iii) As per Clause 6.9.2 of the RFP, the best effort schedule for completion of supply of PV modules, in phased manner, was 210 days (seven months) from the zero date (19 March 2018). This schedule was amended on 12 January 2018 by GIPCL and the schedule was compressed to 150 days (five months) from the zero date. However, BHEL considered only the pre-amended schedule of seven months[4] while floating the tender for supply of PV modules in April 2018, which impacted the overall supply schedule. Ensuring that deliveries are made within five months from date of LoI was all the more important in the case of M/s Renesola Jiangsu Limited, as reimbursement of safeguard duty by GIPCL was dependent upon this. Considering the lead time of 30 days for clearing the goods from port and delivery to project site, the deliveries from M/s Renesola Jiangsu Limited should have been completed by 19 July 2018 so as to reach the project site by 19 August 2018. On the contrary, the order was awarded with delivery up to 27 September 2018.

EDN of BHEL did not take cognisance of the proposed changes in tax structure and the delivery schedules, resulting in additional liability of ₹11.58 crore towards payment of safeguard duty for clearing of imports.

The BHEL Corporate Office endorsed (July 2020) the reply of the EDN Management which stated that:

i) The first tender was floated, proactively before receipt of LoI from GIPCL itself, with requirement of PV modules from Bloomberg Tier-1 list. The cancellation of tender was due to non-acceptance of DDP delivery terms by GIPCL approved PV module manufacturers and rejection by GIPCL of PV module manufacturers who agreed for DDP delivery terms. It is pertinent to mention that these manufacturers were Bloomberg Tier-I listed.

ii) BHEL had made the decision to keep the delivery schedule as specified without linking to the safeguard duty reimbursement cut-off date on 19 August 2018 set by GIPCL owing to the definite costs which will be incurred by BHEL while procuring the PV modules rather than an uncertain cost of safeguard duty, imposition date and percentage of which

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[4] ***First delivery of 10 MW commencing from four weeks from the date of Manufacture Quality Plan (MQP) approval by GIPCL and thereafter 10 MW every month.***

were not known at the time of tendering. Moreover, with short delivery period of most likely two months or one month for foreign vendor (expected purchase order placement by 10 June 2018 – i.e., 44 days from the date of tender, covering tender opening time, technical/ commercial clarifications, reverse auction, negotiation, etc., as per the policies and guidelines), the rates offered by PV module manufacturers would have been exorbitantly higher or, in worst case, manufacturers would not have quoted for the tender, resulting in further delays.

iii) As a savings initiative practiced by BHEL, reverse auction is attempted for all high value procurements. Attempts were made to increase participation of PV module manufacturers who were likely to be qualified by BHEL and GIPCL for the new tender. BHEL was successful in its attempts by getting 10 PV module manufacturers approved by GIPCL as against only three PV module manufacturers in the first tender. Savings of ₹7.70 crore was achieved through reverse auction due to these attempts. Also BHEL had indirect saving by way of supplying BHEL manufactured modules for balance 21.5 MW and reduced foreign exchange outflow as GIPCL agreed to relax the terms of BNEF vendor for this portion meant for achieving generation guarantee.

iv) The benefit of safeguard duty payment accrued only to the GoI and no vendor benefitted. BHEL and GIPCL being PSUs, the payment made to GoI is amongst the arms of GoI only and not getting reimbursement from GIPCL may not be considered as a loss.

The reply needs to be viewed in the light of the facts given below:

(i) Though Management acted proactively and issued first tender before receipt of LoI from GIPCL, it failed to incorporate requirement of Bloomberg Tier I listed vendors under 'Pre-Qualification Criteria' in the first tender as was done in the re-floated tenders dated 30 March and 28 April 2018. As a result, out of 12 bidders, only five met the criteria.

(ii) The tender conditions stipulated that that the quantity could be split in the ratio of 50:30:20. In case, no subsequent vendor accepted to supply at L1 price, balance quantity could be ordered on L1 only. In view of this, BHEL should have insisted for delivery terms as 'DDP Project Site – Charanka', for indigenous procurement as well as import, to mitigate the additional liability of safeguard duty, if levied.

(iii) Saving of ₹7.70 crore has been worked out by Management by taking difference of amount quoted by the lowest bidder as per the sealed bid and amount arrived at after reverse auction. However, reverse auction was part of all the three tenders floated by BHEL. Similarly, saving on account of supplying BHEL manufactured modules pertains to GIPCL agreeing to relax the terms for additional 21.5 MW meant to ensure generation guarantee and to avoid liquidated damages/ compensation on account of Net Electrical Energy Generation guaranteed as per Clause 10 and Clause 8 of the LoI dated 19 March 2018. Hence, both these savings have no relevance to the audit observation made.

(iv) Had the entire order of 75 MW been placed on delivery terms as DDP, the entire burden of payment of safeguard duty would have been borne by the vendor with no burden

on BHEL. Hence, the contention that the payment of safeguard duty is amongst the arms of the GoI is not acceptable.

Hence, while GIPCL was vigilant and safeguarded its financial interests, BHEL, on the other hand ignored the tender terms and amendments by GIPCL while floating its tenders for procurement which costed it an additional liability of ₹11.58 crore towards payment of safeguard duty for clearing of imports.

The Audit paragraph was issued to the Ministry in November 2020; their response was awaited (July 2021).

Heavy Engineering Corporation Limited

5.3 Loss due to failure of Heavy Engineering Corporation Limited to ensure guaranteed availability of draglines

Heavy Engineering Corporation Limited suffered loss of ₹32.74 crore due to its inability to ensure the guaranteed availability of two draglines supplied to Northern Coalfields Limited and consequent encashment of performance bank guarantee by Northern Coalfields Limited.

Heavy Engineering Corporation Limited, Ranchi (HEC) received (30 September 2009) order for supply, erection and commissioning of an electric walking dragline[5] at a price of ₹153.10 crore from Northern Coalfields Limited (NCL), Singrauli. NCL amended (December 2010) the supply order by adding two sets of draglines at the same rate. The price of draglines was inclusive of consumable spares and consumables for warranty period of one year and backup spares and consumables required for two years beyond warranty period.

As per clause 22 of the supply order, HEC had to furnish performance bank guarantee equivalent to 10 *per cent* of the total equipment value[6]. NCL had full right to invoke/ encash the performance bank guarantee in the event of unsatisfactory performance and/ or contractual failure. Further, as per clause 23 of the supply order, availability of the dragline was stipulated to be not less than 90 *per cent* during the warranty period and, thereafter, for 24 months from the date of commissioning.

HEC supplied three draglines to NCL which were commissioned in May 2014 (HMB-13), January 2016 (HMB-14) and May 2019 (HMB-15). HEC was unable to ensure the guaranteed availability of two draglines HMB-13 and HMB-14 and consequently, NCL encashed (25 September 2019) four bank guarantees valuing ₹32.74 crore.

In this regard, Audit observed the following:

[5] ***Large excavator with a bucket pulled in by a wire cable***

[6] ***Including value of accessories, consumable spares and consumables for the warranty period of the equipment and erection and commissioning charges etc. on landed basis.***

i) The availability of HMB-13, was consistently below the guaranteed level of 90 *per cent* since its commissioning. The monthly availability ranged between 43 *per cent* and 71 *per cent* during the first year (May 2014 to April 2015), remained zero for five months during the second year (May 2015 to April 2016) with an average of 27 *per cent* and averaged 68 *per cent* in the third year (May 2016 to April 2017).

The availability of HMB-14 also remained consistently below the guaranteed level during the first three years (January 2016 to January 2019) averaging 50, 63 and 71 *per cent* respectively, with the exception of one month of January 2019 when the availability was above 90 *per cent*.

ii) The availability of the draglines remained poor as there were premature failure/ repeated breakdown of major components and recurring problems of looseness and misalignment due to improper tooth profile and hole mismatch. Further, HEC was unable to maintain and supply inventory of essential spares for quick manufacture and replacement of the defective parts in the machines.

iii) The Audit Committee in HEC also had prima facie noted (December 2019) that delay on the part of HEC to supply spares to the site caused prolonged non-availability of the draglines.

iv) NCL continuously raised the issue of non-availability and breakdown of the draglines and blamed HEC for poor quality of erection, supply of spurious and faulty materials. HEC supplied spares of ₹1.36 crore under warranty and spent ₹0.35 crore towards repair and maintenance of the draglines but could not achieve the guaranteed availability of the draglines HMB-13 and HMB-14 during the warranty period and thereafter for 24 months.

v) As the performance of the draglines was considerably below the guaranteed levels, NCL encashed the performance bank guarantee.

Thus, HEC suffered a loss of ₹32.74 crore due to its inability to ensure the guaranteed availability of two draglines supplied to NCL and consequent encashment of performance bank guarantee by NCL.

Management stated (July and December 2020/ February 2021) the following:

- The constraints in ensuring guaranteed availability of two draglines was failure of major and critical components (Motor Pinion Shaft, Intermediate Pinion Shaft, Slew Rack Segment, Upper and Roller Rail segment, Swing Shaft, Purchase items etc.). The inventory of spares could not be kept due to long manufacturing cycles, lengthy procurement process, high value of items and unhealthy financial condition of HEC.

- There were various other problems affecting the availability of the draglines like teeth profile problem in gearing items, foundation hole and connecting hole mounting problem in Slew Rack Segment and fatigue problem in Roller Rail Segment. All these

problems occurred due to machineries (Gear cutting machines, drill machines etc.,) that were old and needed rectification/ modernization.

- To ensure smooth running of the third dragline (HMB-15), it had carried out changes in erection as per the latest technology, started maintaining stock of critical items, close monitoring and initiated steps towards engaging a service provider for preventive maintenance to maintain 90 *per cent* availability.
- The daily routine maintenance of machines (2 hours per day or 8 *per cent* of 24 hours) was included in breakdown and therefore only 92 *per cent* availability was achievable for a month with zero hours break down, which was difficult. This issue was raised with NCL during pre-tender meetings, however, it was not accepted and therefore to bag this order for draglines, the NIT condition was accepted.
- They had approached (15 July 2020) NCL to refund the performance bank guarantee amount.

The reply of the Management is to be viewed in light of the following:

- The fact that availability of draglines was constrained due to premature failure of critical components, older machines and its inability to supply spares to the site has been accepted by the management.
- Reasons for not taking corrective measures as per the latest technology during erection, maintaining the stock of critical items, closely monitoring and taking up preventive maintenance to achieve better availability of draglines HMB-13 and 14, as in the case of HMB-15 subsequently has not been explained.
- The contention of Management that achieving the guaranteed availability was very difficult in view of inclusion of routine maintenance hours under breakdown is not acceptable as the performance of draglines 13 and 14 was considerably lower than the threshold of 90 *per cent* and even the exclusion of the maintenance hours would not have led to achieving the desired performance.

Moreover, the Management was aware of the NIT condition regarding guaranteed 90 *per cent* availability and hence should have taken necessary steps to ensure its achievement, as was subsequently done for HMB-15, after the performance bank guarantee was encashed by NCL due to unsatisfactory performance with respect to HMB-13 and 14.

- Further, the reply of Management, that it had requested NCL to refund the performance bank guarantee amount, does not hold merit as it has not questioned the encashment of performance bank guarantee but has only requested NCL to consider the return of performance bank guarantees on the ground of worsened financial situation of HEC in the wake of the Covid-19 pandemic. Also, this request was raised after a lapse of nine months since the performance bank guarantees were encashed by NCL, and no response or assurance was received (February 2021) from NCL in this regard.

Thus, failure on the part of HEC to ensure guaranteed availability of two draglines supplied to NCL led to a loss of ₹32.74 crore due to encashment of performance bank guarantee by NCL.

The Audit paragraph was issued to the Ministry in January 2021; their response was awaited (July 2021).

5.4 Infructuous expenditure on technical audit

Heavy Engineering Corporation Limited entered into two technology transfer contracts including technical audit, without assurance of funds/ in anticipation of getting manufacturing orders. Non-availability of funds and orders resulted in infructuous expenditure of ₹12.47 crore (₹6.74 crore to CNIITMASH, Russia and ₹5.73 crore to OKBM, Russia) on technical audit.

Heavy Engineering Corporation Limited (HEC or Company) entered into two technology transfer contracts with CNIITMASH, Russia and OKBM Afrikantov, Russia in May 2017 and June 2017 at a cost of 7.25 million USD and 10 million USD respectively.

5.4.1 HEC entered (30 May 2017) into a Technology Development Agreement with CNIITMASH, Russia for transfer of technology with respect to manufacture of components for nuclear and thermal power plants, ship shafts, hollow ingots at a cost of 7.25 million USD. As per the agreement, development of technology was to be completed in five stages, wherein stage 1 involved technical audit and review of basic information and stages 2 to 5 involved the development of end-to-end technology, manuals, on-site trainings and corrections and updates of technology transfers. The agreement was effective for 36 months from October 2017. Technical audit under stage-1 was completed in December 2017 and HEC paid ₹6.74 crore. In this regard, Audit observed the following:

i) HEC had entered into this agreement for transfer of technology in anticipation of approval of its modernisation plan but without specific provision of requisite funds.

ii) The modernisation plan of HEC was conceived in June 2014 and a revised proposal (₹1,252 crore) sent to the Department of Heavy Industries in October 2017 was yet to be approved (February 2021). Nevertheless, payment of ₹6.74 crore for the stage 1 of agreement with CNIITMASH was released with a remark that on receipt of modernisation fund, the same would be shown as utilised.

iii) HEC had incurred continuous losses since 2014-15 (except profit during the year 2017-18 on account of receipt of consideration in lieu of land handed over to Government of Jharkhand) and therefore, did not have any surplus resources available to fund the project.

iv) After the conduct of technical audit and review of basic information (stage 1), which was completed in December 2017, there was no further progress of work and the other stages (Stage 2 to 5) of the agreement with CNIITMASH could not be started before the contract's expiry.

Thus, the Company incurred infructuous expenditure of ₹6.74 crore on the stage 1 of the contract with CNIITMASH and the remaining stages could not be executed.

Management replied (December 2020) that CNIITMASH was entrusted with the task of technical audit as a preparatory step for modernisation. It further stated that Saraswat Committee, set up by Government of India (GoI) to examine the modernisation plan of HEC, in its report had recommended to nurture and revive the Company and based on the recommendations, Department of Heavy Industries had sent the modernisation proposal to the competent authority. However, the Core Group of Secretaries had recommended (May 2018) that no separate fund would be provided by GoI for revival and modernisation of HEC and the same had to be mobilized internally.

Management's reply is not tenable on account of the following:

- Technical audit would be necessary only if Company had necessary funds to follow it up with procurement of technology. In the absence of procurement of technology, the expenditure on technical audit was infructuous.
- The Saraswat Committee had recommended that upgradation must be done in a comprehensive manner with prior provision of complete funding. It had noted that the Capex fund allocation should relate to the total requirement at one go and part investment would not yield the desired outcome. Therefore, entering into agreement for technology transfer, without assurance of funds thereof, was not in line with the recommendations of the Committee.

5.4.2 GoI accorded (June 2017) approval for 10 indigenous Pressurised Heavy Water Reactors (PHWRs) of 700 MW each to be set up by Nuclear Power Corporation of India Limited (NPCIL). HEC in anticipation of getting the order from NPCIL invited (July 2017) an Expression of Interest from Companies having technologies in PHWR. HEC entered into (May 2018) a contract with OKBM Afrikantov, Russia (OKBM) at a total cost of 10 million USD[7]. Stage 1 of the contract involved technical audit and stages 2 to 5 included development and transfer of technological process documentation including design documentation, consultation of technical re-equipment of its manufacturing facilities, technological preparation of manufacturing facilities for fabrication of equipment for Nuclear Power Plant (NPP) etc. Technical audit was conducted in June 2018 and HEC paid ₹5.73 crore to OKBM in May 2019 and October 2020.

In this regard Audit observed the following:

i) The contract with OKBM was entered into without securing assured orders for manufacturing NPP equipment.

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[7] ***Comprised of Technical Audit (8 lakh USD), Development of Technology (47.50 lakh USD), Implementation (31 lakh USD) and Documentation and training (13.50 lakh USD).***

ii) The Board of Directors of HEC had expressed (May 2018) concern with regard to the huge funds required to execute the project considering the Company's financial health, and directed the Management to explore possibility of funding the OKBM project through 'Technology Acquisition Fund Programme (TAFP) under Enhancement of competitiveness in the Indian Capital Goods Sector' of Department of Heavy Industries or to approach NPCIL/ Department of Atomic Energy for funds.

iii) The Board of Directors of HEC decided (March 2019) not to go further with the agreement with OKBM without the arrangement of funds and noted (June 2019) that no sincere efforts were made to obtain required funding and expressed its concern over the serious lapse to be further investigated for fixing of responsibility. Meanwhile, HEC could not participate in the major tenders floated by NPCIL because of non-availability of required facilities and also as it did not meet the qualifying criteria.

Thus, the Company entered into agreement with OKBM in anticipation of manufacturing orders from NPCIL and incurred infructuous expenditure of ₹5.73 crore and only stage 1 of the contract could be implemented and the stages 2 to 5 could not be implemented.

Management replied (December 2020) that NPCIL had shown support to work closely to set-up power plants in India and that technical audit was a pre-requisite to assess the equipment for capacity building in order to initiate manufacturing of equipment and components for Nuclear Power Plant. OKBM was entrusted with the task of technical audit as a preparatory step for modernisation. It further stated that Saraswat Committee, set up by the GoI to examine the modernisation plan of HEC, in its report had recommended to nurture and revive the Company. It also stated that HEC could not participate in the tenders in the absence of approved expenditure for modernisation. However, the Core Group of Secretaries had recommended (May 2018) that no separate fund would be provided by GoI for revival and modernisation of HEC and same had to be mobilized internally.

Management's reply is not tenable on account of the following:

- The Company had entered into an agreement and incurred expenditure based on its anticipation of receiving orders from NPCIL, without any provision for funds.

- Though NPCIL had shown interest (October 2016) in working closely with HEC, in the absence of modernisation, HEC failed to qualify for tenders floated by NPCIL.

- As cited in 5.4.1 above, Saraswat Committee had recommended that the Capex fund allocation should be available at one go and part investment would not yield the desired outcome. Therefore, entering into agreements for technology transfers, without assurance of funds thereof, was not in line with the recommendation of the Committee.

The above instances highlight the fact that, the decision of HEC to enter into these agreements with foreign companies was without provision for requisite funds or in anticipation of manufacturing orders. HEC failed to obtain approval for its modernisation plan and the absence of funds resulted in infructuous expenditure of ₹12.47 crore

(₹6.74 crore to CNIITMASH, Russia and ₹5.73 crore to OKBM, Russia) on technical audits.

The Audit paragraph was issued to the Ministry in February 2021; their response was awaited (July 2021).