HARYANA VIDHAN SABHA

COMMITTEE ON PUBLIC UNDERTAKINGS 2024-2025

(FIFTEENTH VIDHAN SABHA)

SEVENTY-FIRST REPORT

ON THE

REPORT

OF THE

COMPTROLLER & AUDITOR GENERAL OF INDIA

ON PUBLIC SECTOR UNDERTAKINGS
ON FUNCTIONING OF HARYANA POWER GENERATION CORPORATION LIMITED
REPORT NO.6 OF THE YEAR 2022 (PERFORMANCE AUDIT)

(Presented to the Haryana Vidhan Sabha on 26th March, 2025)

HARYANA VIDHAN SABHA SECRETARIAT, CHANDIGARH
2025

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1. Shri Anil Vij, MLA

Members

2. Shri Dura Ram, M.L.A.
3. Shri Bharat Bhushan Batra, MLA
4. Shri Pardeep Chaudhary, M.L.A.
5. Dr.Krishan Lal Middha, M.L.A.
6. Shri Sudhir Kumar Singla, MLA
7. Shri Sita Ram Yadav, M.L.A.
8. Shri Chiranjeev Rao, M.L.A.
9. Shri Kuldeep Vats, M.L.A.

SECRETARIAT

1. **Dr. Satish Kumar, Secretary-in-Charge**
2. **Shri Naren Dutt, Additional Secretary**

COMPOSITION OF THE COMMITTEE

THE COMMITTEE ON PUBLIC UNDERTAKINGS

FOR THE REMAINING PERIOD FROM 29.11.2024 TO 31.03.2025

CHAIRPERSON

1. Shri Ram Kumar Gautam, MLA

Members

2. Shri Nirmal Singh, M.L.A.
3. Shri Paramvir Singh, M.L.A.
4. Shri Kuldeep Vats, M.L.A.
5. Shri Anil Yadav, MLA
6. Shri Pawan Kharkhauda, M.L.A.
7. Shri Satpal Jamba, M.L.A.
8. Smt. Shakti Rani Sharma, M.L.A.
9. Shri Vikas Saharan, MLA

SECRETARIAT

1. **Dr. Satish Kumar, Secretary-in-Charge**
2. **Shri Naren Dutt, Additional Secretary**

INTRODUCTION

I, the Chairperson of the Committee on Public Undertakings having been authorized by the Committee in this behalf of Report of the Comptroller and Auditor General of India on functioning of Haryana Power Generation Corporation Limited Report No.6 of the Year 2022 (Performance Audit).

The Committee for the year 2024-25 undertook the unfinished work of the previous Committee(s) and also orally examined the representatives of the Government/Public Sector Undertakings/Boards where necessary. A brief record of the Proceedings of the various meetings has been kept in the Haryana Vidhan Sabha Secretariat.

The Committee are thankful to the Accountant General (Audit), Haryana and his staff for their valuable assistance and guidance during the deliberations. The Committee are also thankful to the Additional Chief Secretary to Government, Haryana, Finance Department including his representatives of the Departments/Corporations/ Boards concerned who appeared before the Committee from time to time. The Committee are highly thankful and appreciates the working of the Secretary-in-charge, Additional Secretary, Dealing Officer and the Staff of the Haryana Vidhan Sabha Secretariat for their unstinted, whole-hearted co-operation and assistance given in preparing this report.

Chandigarh:
The March, 2025

RAM KUMAR GAUTAM
CHAIRPERSON

REPORT

1. The Committee on Public Undertakings for the year 2024-2025 was nominated on 29th March, 2024 by the Hon'ble Speaker in pursuance of motion moved and passed by the Haryana Vidhan Sabha in its sitting held on 22nd February, 2024, authorizing him to nominate the Chairperson/Members of the Committee on Public Undertakings for the year 2024-25 till the dissolution of the Assembly.

2. On the constitution of 15th Assembly, the committee for the remaining period of the year 2024-25 was nominated on 23rd November, 2024 by the Hon'ble Speaker in pursuance of motion moved and passed by the Haryana Vidhan Sabha in its sitting held on 13th November, 2024 authorizing him to nominate the Chairperson/ Members of the Committee for the remaining period of the year 2024-25.

3. The Committee held total **42** meetings during the year at Chandigarh and other places upto 5th March, 2025 till the finalization of the Report.

REPORT

REPORT OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA ON FUNCTIONING OF HARYANA POWER GENERATION CORPORATION LIMITED REPORT No.6 of the Year 2022 (PERFORMANCE AUDIT)

2.6 Repair and Maintenance of Power Plants.

Efficiency of the plant and equipment and their availability for power generation is dependent on adherence to annual maintenance and equipment overhauling schedules. Failure to adhere to these schedules results in higher consumption of coal, fuel oil and higher forced outages and resultant increase in the cost of power generated. These issues also have an impact on variable cost and consequently on merit order as well as impact on operationality in view of provisions of backing down and impact of the same could not be quantified in Audit. Audit findings in respect of overhauling works at Company's plants are discussed in succeeding paragraphs:

(A) Rajiv Gandhi Thermal Power Plant (RGTPP)

RGTPP has installed capacity of 1200 MW having two Units of 600 MW each which were commissioned on 24 August 2010 and 1 March 2011 respectively. As per Operational Manual of Original Equipment Manufacturer (OEM) of the plant, Class-A service i.e., Capital overhauling was required to be conducted within an interval of four to six years depending upon the operating status of the concerned unit. Audit noticed:

1. 2.6.1 Poor execution of capital overhauling works

OEM suggested (January 2017) for capital overhauling of Turbine and Generator of Unit I to overcome the operational problems of higher heat rate, high vibration, leakage of hydrogen from Generator.

The Company also decided (March 2017) to revive two Electro Static Precipitators (ESPs) (no. A1 and A9) of Unit-I which were out of order due to their damaged internals. The Company accorded (April 2017) administrative approval for revival of the two damaged ESPs and overhauling of remaining 62 ESPs on open tender basis to make the plant meet the new environmental norms and also decided to carry out suggested capital overhauling.

The Board of Directors (BODs) of the Company approved (July 2017) the capital overhauling of Unit-I to be done during January to March 2018 for a period of 60 days at an estimated cost of Rs. 43.40 crore.

The Company issued NIT for revival of two ESPs and overhauling of remaining 62 ESPs fields in October 2017 but the work order was issued only by August 2018. Thus, due to delay in award of work of ESPs, the Company had to reschedule (September 2018) the planned capital overhauling to February 2019.

The unit suffered from technical defects repeatedly during January 2018 to December 2019 but the Company persisted with operating the plant against technical advice leading to forced outages for 92 days resulting in loss of generation of 1,124.55 MUs equivalent to Rs. 379.28 crore.

In the meantime, Company decided to schedule the Cooling Tower repair also along with capital overhauling of Unit I and awarded (23 October 2019) work for repair of cooling tower. Due to this, Capital overhauling was rescheduled to October 2019 and thereafter from 15 February 2020 to 29 April 2020 (75 days).

Audit observed that the Unit-I was under forced shut down from 23 November 2019 due to technical faults. During the period of forced shut down period the Company advanced the preponed Capital Overhauling (15 February 2020 to 29 April 2020) for 75 days to 16 December 2019 to 28 February 2020. However, this capital overhauling could be completed by 4 May 2020, a delay of 65 days. The Unit-I was synchronized on 7 May 2020 (by taking 143 days).

Thus, the Capital overhauling was carried out after two years and took 68 extra days than the scheduled plan. The delay in finalisation of work order for revival and overhauling of ESPs and inclusion of the repair work of cooling tower which was finalized in October 2019 were the contributing factors for the delay in scheduling the Capital Overhaul. The delay and excess time taken in overhauling had led to identifiable generation loss of 832.32 MUs valuing Rs. 296.64 crore for 68 days of Unit-I due to extra days taken in Capital Overhauling, loss of generation of 1,124.55 MUs valuing Rs. 379.28 crore due to forced shutdowns during January 2018 to December 2019. Besides due to excess time taken in capital overhauling, the Company could not recover fixed cost of Rs. 98.34 crore from the DISCOMs.

The Management replied (May 2022) that the work was delayed due to multiple problems in Turbine and inclusion of revival work of damaged ESP & cooling towers. Further, due to Covid-19, there was delay in supply of spares from China. The reply is not tenable as Original Equipment Manufacturer (OEM) suggested for capital overhauling during 2017 itself and Management took more than two years to commence the work. The capital overhauling works should have been planned and executed in a coordinated and timely manner which could have minimized the loss of fixed cost.

In their written reply, the State Government/Company stated as under: -

Reply of HPGCL

RGTPP:

In compliance to the observation of audit it is intimated that 600 MW, RGTPP, Hisar Unit-I was commissioned in august-2010. The unit was overhauled in Mar/Apr. 2015 and the next overhauling of 35 days was planned in Oct. 2017 which was approved by the corporation in Aug. 2016. Since overhauling was approved, the various problems such as high turbine heat rate, lower HP & IP cylinder efficiency, high vibration at bearing No.1, leakage of hydrogen from generator, leakages from HPT glands, higher moisture level in TDBFP-1B lube oil were being faced and referred to OEM i.e. Shanghai Electric Company, China.

Based on above problems, SEC, China recommended to go for class-A overhauling for Turbine of Unit-I, RGTPP. As per overhauling norms of SEC Class-A overhauling is to be carried out after an interval of 4 to 6 years depending upon unit operating status. But due to less scheduling of the unit-I RGTPP, it could not achieve the target of required running hrs of 50,000 even after 8 years of running. The total running hrs in 8 years are 48872 which are still less than the 50,000 Hrs in 6 years at 95% PLF,

clearly indicating that there was still sufficient margin left to exploit the maximum benefit of capital overhauling of Unit as per OEM recommended plan.

In the Class-A Overhauling of Turbine, all the three cylinders of Turbine need to be opened and overhauled. It **r**equires shut down of the Unit for 75 days including cooling period of about 15 days.

Since, 75 days shutdown is a very longer period, so it was considered that other longer duration activities required to improve the performance of the unit may also be planned during this class-A overhauling.

Therefore, to rectify two major problems in Unit-I, followings were planned to be carried out during shutdown.

1. Revival of 2 nos. damaged ESP fields (A-1 and A-9) and overhauling of balance 62 nos. ESP fields to achieve new environmental norms. SEC, China (OEM) informed that a shutdown of minimum 60 days shall be required for this one.
2. Repairing/ retrofitting of cooling towers. During summer season, a problem of low vacuum is faced as the vacuum goes down to the extent of -0.83 kg/cm2. This low vacuum leads to high turbine heat rate. To improve the vacuum, in order to have improvement in heat rate and plant performance, some retrofit/ repair work like installation of PVC type fills is proposed to be carried out in the Cooling Tower. The OEM of Cooling Tower (M/s Paharpur Cooling Tower Pvt. Ltd) has informed that 05 months shall be required for supply of material and further 02 months shall be required for carrying out erection and commissioning works. Therefore, a shutdown of 60 days of Unit-I was recommended by the OEM.

Above two activities were essentially required to be carried out to meet environmental norms as per MoEF guidelines and to improve the performance and heat rate. To avoid separate long shutdowns for executing these activities, it was considered in the interest of plant that same may be carried out during the Class-A overhauling. Had separate shutdown been taken for carrying out repair of ESP and Cooling Tower, it would have resulted into loss of fixed cost to the Corporation.

After finalisation of various contracts which took longer time in completing require formalities as per Work & Purchase Regulation, 2015 including work of ESP and cooling tower overhauling was planned in Oct., 2019. However, HERC allowed the shutdown of Unit for a period of 75 days w.e.f. 01.01.2020.

Unfortunately, due to damage of PT cubicle, NGT panel of Generator & other connected cables, unit-I went under forced shut down on 23.11.2019. To minimize the outage period of unit, overhauling of Unit-I, RGTPP was rescheduled from 16.12.2019 to 28.02.2020. Work order for supply erection, testing and commission of PT cubicle, NGT panel and bus duct was issued to M/s SEC China on 10.01.2020. As per work order terms & conditions, M/s SEC China agreed that the said work will be completed by 27.02.2020. But due to outbreak / wide spreading of deadly corona virus pandemic in China and further lockdown in China from mid of Jan 2020, the manufacturing of PT cubicle, NGT panel & Bus Duct at China got delayed. After relaxation of lockdown in China at end of Feb, the manufacturing of material was completed & material was made ready to dispatch by 23rd March 2020. SEC china tried to send the material at India but

international flights from China to Delhi were suspended due to outbreak at corona virus in India. Thereafter complete lockdown was also announced in India from 24thMarch.

SEC China made their best effort & sent material at Mumbai Airport by 7thApril 2020.The presence of Chinese Engineers was essentially required during the ETC work of PT Cubicle Panel but due to outbreak of Covid-19, the Chinese Engineers could not reach the site. Material received at RGTPP on 17.04.2020 and installation & commissioning work was got completed by HPGCL Engineers under the supervision of Chinese Engineers through Video Conferencing. During this unprecedented period of Covid-19, HPGCL Engineers took great initiative in carrying out ETC work of PT Cubicle Panel and with the effort of HPGCL Engineers, Unit-I of RGTPP was put on bars on 07.05.2020.

The above facts clearly indicate that delay in the overhauling from 28.02.2020 to 07.05.2020 was a forced majeure condition due to lockdown in China and India because of COVID-19 outbreak. All the facts has also been brought the under cognizance of hon'ble HERC and further requested to allow fixed cost to RGTPP, HPGCL during said forced majeure period i.e. 28.02.2020 to 07.05.2020.

Keeping in view of all the above facts, generation loss of 832.32 MUs valuing 296.64 crore for 68 days of Unit-I due to extra days taken in Capital Overhauling, loss of generation of 1124.55 MUS valuing 379.28 crore due to forced shutdowns during January 2018 to December 2019 in respect of Unit-I was unavoidable and beyond control. The observation of audit regarding loss due to poor planning in execution of capital overhauling of Unit-I is not correct as all out efforts were made for finalization of contracts and execution of overhauling works within stipulated times.

During the course of oral examination, the Committee recommended that tender documents for installation of plant may be furnished to the Committee for examination. The Committee further desired the relevant condition in the tender document under which the work was given to Chinese Company be furnished to the Committee. Additionally, information regarding scheduled completion period for installation of plant and actual time taken in commissioning of plant alongwith loss of electricity generation during delayed period be provided to the Committee.

2. 2.6.2 Delay in repair of High Intermediate Pressure Rotor of Unit-II of RGTPP

The Capital overhauling of the Unit-II was scheduled from 15 February 2021 to 30 April 2021. The Unit-II was backed down from 13 September 2020 to 18 September 2020. On obtaining schedule, it was lighted up (on 19 September 2020) when it developed technical fault. The OEM on inspection recommended (13 October 2020) shutting down the unit and overhauling of Turbine Generator set and repair of High Intermediate Pressure Rotor (HIP Rotor).

OEM submitted (December 2020) an offer for Rs. 27.80 crore, which included Rs. 9.74 crore for overhauling of the Unit and Rs. 3.08 crore for repair while Rs. 14.08 crore was for transportation of Rotor to China based OEM. The Company placed (20 February 2021) a work order to OEM for Rs. 11.25 crore (excluding transportation).

OEM after dismantlement and inspection of the damaged turbine and HIP Rotor concluded that the equipment was not repairable and suggested (March 2021) for replacement. To bring the unit operational at the earliest, the Company decided (June 2021) to procure one old HIP Rotor also.

Audit observed that Unit-II of RGTPP which was commissioned in March 2011 had remained under forced shutdown during 2013-14 also when the HIP Rotor was sent to OEM in China for repair. At that time, Rotor was within Guarantee/ warranty period, so the repair cost was borne by the Contractor. This time the same HIP Rotor was damaged but was out of warranty. The Company had however, not carried out any cost benefit analysis either go for repair or purchase a new rotor in view of high transportation cost against a very small component of repair cost and loss of fixed cost of Rs. 0.97 crore per day as well as that of generation of 12.24 MUs per day.

Company placed (July 2021) a purchase order for procurement of two HIP Rotors at a value of US $48.50 lakh (one fully bladed new HIP Rotor at US $37.50 lakh and one fully blades old HIP Rotor at US $11 lakh) i.e., at Rs. 47.74 crore inclusive of taxes and duties. OEM was required to ship new HIP Rotor within 13 Months from the date of issue of PO and the old HIP Rotor was to be shipped within six Months from the date of issue of PO and after receipt of 30 *per cent* advance payment of old Rotor. HIP Rotor has been received during January 2022 but unit could not be commissioned due to non-receipt of associated spares.

Thus, fixed cost of Rs. 396.77 crore could not be recovered from DISCOMs apart from loss of potential revenue for forced shutdown period.

The Management replied (May 2022) that work was delayed due to covid-19 restrictions and the HIP Rotor has been received during January 2022 but unit could not be commissioned due to non-receipt of necessary associated spares from China due to lock down restrictions. The reply is not tenable as Management should have assessed the requirement of associated spares at the time of placing purchase order for HIP Rotor so that associated material would be received along with HIP Rotor.

(B) Deen Bandhu Chhotu Ram Thermal Power Plant (DCRTPP)

Unit I and Unit II of DCRTPP, Yamuna Nagar were commissioned in April 2008 and June 2008 respectively. The overhauling of these units was carried out by the OEM during 2012-13 and Units were re-commissioned on 5 February 2013 and 5 September 2013 respectively. The OEM had specified that Capital overhauling period for turbine

ranged between four to six years. Accordingly, the Company planned for Capital overhauling of both Units during 2016-17 to 2017-18. The administrative approval of Capital Overhauling of the both the Units were granted (December 2016) by Board of Directors (BoDs). The Company had also included work of revival and repair of Electrostatic precipitators (ESP) during Capital Overhauling to comply with the environment norms.

The Company issued work order on OEM for capital overhauling of Turbine and Generator of both the Units with a contract cost of Rs. 9.19 crore in January 2018. Audit observed:

In their written reply, the State Government/Company stated as under:-

Reply of HPGCL

It is submitted that:-

1. Capital overhauling of Unit-2, RGTPP was scheduled from 15.02.2021 to 30.04.2021 in which all the three turbine cylinders and its generator have to be dismantled and overhauled. However, before carrying out overhauling, on 19.09.2020, when unit was lighted up in warm condition and rolled, its turbine tripped on high vibrations at bearing no.1 during coast up of the turbine. The matter was taken up with SEC, China (OEM) and accordingly it was advised by SEC China to carryout overhauling to rectify the problem. At this time it was envisaged that the probable reason of the high vibration and eccentricity is bend in the HIP rotor, but the exact extent of problem can only be known after dismantlement of HIP turbine.

2. As there were restrictions imposed by Govt. of India for bilateral trade with China. The process of obtaining necessary clearances from Govt. of Haryana, MoEA, GOI and DPIIT was initiated on 20th October 2020 and final clearance was obtained on 20th January 2021. After obtaining the approval and Work Order 06/Ch-57/RGTPP/TGM-II/184 dated 20.02.2021 was placed on M/s Shanghai Electric India Pvt. Ltd. (SEIPL), Gurugram (Indian Service Company of SEC, China) for level-A overhauling of TG set.

3. In parallel, the matter was taken up with BHEL for rectification of the problem which includes repair of rotor, supply of spares and capital overhauling of turbine. BHEL intimated that it is not likely to be a normal overhauling and they do not have any experience on dealing with such machines.

This overhauling was not a normal scheduled overhauling. It was well known to BHEL that actual damage can't be estimated before opening of cylinder, so BHEL denied to do the work. The only option left was OEM SEC China. And due to restriction, it was not possible to award the work of opening of HIP turbine.

4. As per the work order, the completion schedule of activity of assembly and commissioning of Turbine and Generator after receipt of HIP rotor was 45 days. Also, it was assured that SEC will make the effort to complete the job within time schedule. Required list of spares have to be prepared by SEIPL after dismantling of turbine and to be handover to HPGCL. Overhauling was commenced in March 2021 and a crack was found at the entire periphery of balancing drum of the HIP rotor and OEM informed that the rotor is unrepairable. Accordingly, PO for supply of one fully bladed New HIP Rotor and one fully bladed Used HIP Rotor was placed on SEC China.

5. After repeated persuasion, SEC supplied the list of required spares through e-mail dt.16.11.2021, 29.12.2021 & 16.02.2022. Promptly, purchase orders dated 13.12.2021,

14.01.2022 & 23.02.2022 respectively for supply of spares for Main Turbine, Generator and exciter of RGTPP, Khedar, Hisar were placed on SEC, China.

6. Status of Unit-2 was informed to Government of Haryana on 15.07.2021 vide which it was intimated that Unit-II likely to be made ready for operation with old HIP rotor by 08.04.2022.

7. It is further intimated that due to OMICRON, a new variant of COVID-19, VISA restrictions were imposed by GoI, therefore Chinese experts were not able to reach at site. For timely revival of the Unit-2, the work was got executed with supervision of SEC, China through video conferencing. All the overhauling activities pertaining to final box up of HIP Turbine, LP Turbines (LP-1 & LP-2) & TDBFPs, were completed by SEC, China through its Indian Channel Partner i.e. M/s Supermech Infrastructure Pvt. Ltd., as per schedule.

8. However, some of the spares required for box up of generator, exciter & actuators which were scheduled to be dispatched on 17.03.2022 from Shanghai, China could not be despatched due to restriction/lockdown re-imposed in Shanghai in the wake of sudden surge in Covid-19 cases. The same was confirmed by SEC vide email dated 16.03.2022.

9. HPGCL had made an attempt with the intervention of GoI to have possibility of arrangement of required spares from DVC, Raghunathpur (as Units are identical to RGTPP Units), but all the spares required for box up of Unit-2 RGTPP were also not available with DVC, Raghunathpur.

10. SEC, China has again intimated vide their mail dated 21.03.2022 that Minhang district of Shanghai in which their workshop was located, was still most serious pandemic area and lockdown in that area was extended. SEC China, vide e-mail dated 14.04.2022 has intimated that Lockdown was still in force in Shanghai, China. They have also confirmed that the material was ready for packing & dispatch. SEC has further intimated that after lifting of lockdown the material would be dispatched by air through earliest available flight.

11. The old HIP rotor was received at RGTPP on 14-01-2022 and new HIP rotor has been received at RGTPP on 15.03.2023. However, after lots of efforts and by using old HIP rotor, HPGCL synchronized the machine with grid on 12.06.2022 otherwise with new rotor it will synchronize on 29.04.2023 (considering 45 days in assembly and commissioning of TG set) With the purchase of Used fully bladed HIP rotor, HPGCL saved Rs. 311.37 Crores. SEC was agreed to supply the rotor only after issuance of purchase order of new HIP rotor.

12. Had the lock down not imposed in China, the material would have been dispatched in time i.e. by 16-18th March, 2022, and there would have been no delay in bringing the unit on bar by 08.04.2022.

Considering above, it has been revealed that delay in revival of the Unit-II was contributed to non-availability of Chinese experts at site due to VISA restrictions and surge of Omicron, a new variant of COVID-19, in shanghai China which were beyond the control of HPGCL and there was no deficiency in planning on the part of HPGCL.

During the course of oral examination, the Committee observed that the reply submitted by the department was not satisfactory. The Committee desired that the revised reply to the para be submitted to the Committee at the earliest.

(D) Western Yamuna Canal Hydro Electric Project

3. 2.6.6 Dealy in overhauling work of machines due to acceptance of non interchangeable blades resulted into loss of green energy.

The Company had commissioned four Power Houses namely A, B, C and D during 1986, 1987, 1989 and 2004 respectively at Western Yamuna Canal (WYC) Hydro Electric project at Bhudkalan, Yamuna Nagar with a total capacity of 62.4 MW. The Machines B1, C1 and C2 were running on partial load and to improve their efficiency, the Company placed (October 2015) a Purchase Order (PO) for purchase of four sets of runner blades on the OEM at a cost of Rs. 8.48 crore for the capital overhauling of Machines. The supplied material was to be identical and interchangeable amongst the different machines. The Guarantee/warranty period was 12 months from the date when the product was put to use or 18 months from the date of dispatch whichever was earlier. The material supplied during July & September 2016 certified that all the components and equipments were identical in construction, interchangeable and suitable to the equipments already installed at WYC,Hydel Yamuna Nagar. The following was observed:

Overhauling of Machine B-1

The Company issued work order (November 2017) for Capital overhauling of Machine B-1 to a contractor which was carried out from 8 December 2017 to 7 March 2018. The Company observed (March 2018) that despite Capital Overhauling, the Machine could achieve the load of six MW only against the desired load of 7.5 MW. The low generation was taken up (March 2018) with contractor who attributed it to fault in new runner blades supplied by OEM. It was then observed that new blades procured from OEM were not identical/ inter-changeable as certified and needed technical adjustment from the supplier/OEM. As a result, despite its capital overhauling, the desired load could not be achieved and machine B-1 kept running on partial load of six MW.

Audit observed that despite knowing this fact, Company did not make any efforts to get the blades of Machine B-1 replaced from the OEM and let the machine B-1 to perform at lower load (April 2018 to June 2021) which resulted in generation loss of 27.336 MUs of green energy.

Overhauling of Machine C-1

Thereafter, during December 2017, the Company issued another work order for Repair Modernisation and Upgradation (RM&U) of turbine and generator of machines C1 and C2 to a firm. The machine C1 was given to the firm on 13 March 2018 with scheduled date of completion as 12 September 2018. As the blades were not inter-changeable, the Company sent (May 2018) them to OEM for carrying out technical adjustment which were received back in December 2018. Due to this reason, C-1 Machine could be commissioned on 25 January 2019 with a delay of 134 days. It was observed that after overhauling the Machine successfully achieved the desired load level of 7.5 MW, but the delay in commission of machine resulted in generation loss of 15.44 MUs of green energy.

Overhauling of Machine C-2

Audit noticed that despite successful completion of RM&U work at Machine C-1 in January 2019, the Company took almost one year for providing site for overhauling work of C-2 machine. The work of overhauling of C-2 Machine was started by 17 January 2020

with scheduled date of completion as 16 July 2020. However, the work of overhauling was yet to be completed (July 2021). The main reasons for delay were extra repair work carried out by the firm on the non-inter-changeable blades supplied by OEM and spread of Covid-19 pandemic.

Table 2.9- Details of period of capital overhauling contract

Reasons for delay	**Period**	**Period**
Total period from the commencement of work	17 January 2020 to 17 July 2021	18 months
Delay on account of COVID	March to May- 2020 March to May- 2021	6 Months
Period allowed to firm		6 months
Delay till July 2021		**6 months**

Source: Compiled from the records of company.

Delayed completion of overhauling work resulted of machine C-2 in loss of generation 21.0275 MUs of green energy.

Therefore, there was total generation loss of 63.80 MUs of green energy valuing Rs. 30.73 crore in respect of all the three Machines due to acceptance of non-inter-changeable blades and delay in completion of overhauling work in Machine B-1, C-1 and C-2. Further, the Company had to bear higher inventory carrying cost due to delayed utilisation of runner blades. It was further observed that although fixed cost of hydel project was recovered by the Company by achieving the normative PLF, but due to lesser generation, DISCOMs had to purchase 63.80 MUs of power from other sources which resulted into extra burden to the extent of Rs. 30.73 crore on the state consumers.

The Management replied (May 2022) that the matter was pursued with the OEM and correction work on blades in all three machines has now been completed and machines are running at full load. The reply is not tenable as Management took more than two years in taking corrective action after detection of fitment issues during March 2018 which resulted in generation loss of green energy.

In their written reply, the State Government/Company stated as under: -

Reply of HPGCL

Overhauling of machine B-1:

The capital overhauling of machine B-I was started w.e.f. 08.12.2017 and was completed on 07.03.2018. When the machine was synchronized after the completion of overhauling, it was observed that the machine was able to achieve a load of only 6.0 MW instead of required load of 7.5 MW. After analysis, it was observed that the blades supplied by the OEM i.e. M/s Voith Hydro Pvt. Ltd. are not interchangeable and identical to the ones installed on the machine B-I. Problem in the fitment of blades with exciting links was faced. The matter was taken up with the OEM regarding inter-changeability of blades who offered to carry out the rectification work of blades of machine B-I.

Meanwhile, machine C-1 was put under shutdown to carryout R&M works and the OEM was asked to check the blades supplied by them for any fitment problem. The OEM after inspection agreed and offered to carry out the fitment of blades of machine C-1 free of cost. In view of this offer, runner hub and blades of machine C-1 were sent to M/s Voith Hydro works and machine C-I achieved a full load of 8.0 MW at rated head and flow after fitment of blades by the OEM. As per grant of financial assistance from MNRE, the work of capital overhauling of C-I and C-II was to be completed before 18.12.2020 and taking shutdown on 2 machines simultaneously (i.e. on C-I which was already under capital overhauling and on B-I for rectification of blades) would have caused excessive loss of generation to HPGCL. As such, it was decided to carry out the overhauling/RM&U work of machines C-I & C-II on priority to avail the grant of MNRE and the correction work in blades of machine B1 will be carried out subsequently. After the completion of R&M works of machine C-I & C-II, the correction work on blades of machine B-I has been carried out by the OEM free of cost. The machine B-I is presently running at a full load of 8.0 MW at rated head & flow after the correction work.

RM&U/Capital overhauling of machine C-1:

The RM&U work on the machine was started by the firm i.e. M/s Gogoal Hydro Pvt. Ltd. Haridwar w.e.f. 13.03.2018 and was completed on dated 25.01.2019. The work was delayed approximately for a period of 4 months & 13 days. As the blades supplied by OEM i.e. M/s Voith Hydro Pvt. Ltd. were not interchangeable and having some fitment problems with existing links therefore HPGCL sent the set of blades to the OEM's works at Vadodara along with runner hub for the rectification of blade set and its proper fitment to the runner hub. The runner hub was also to be repaired. The repair of runner hub was in the scope of M/s Gogoal Hydro Pvt. Ltd. Haridwar. However, HPGCL requested to OEM i.e. M/s Voith Hydro Pvt. Ltd. to carry out the work of runner hub at its works at the time of fitment of blades. The OEM agreed to carry out the repair work on runner hub, free of cost as a goodwill gesture to HPGCL. During carrying out the rectification work, the OEM observed & intimated that there was a considerable damage in the runner hub due to continuous running & ageing. The firm further intimated that it will take extra time to rectify the runner hub. HPGCL requested the OEM to get the runner hub rectified/repaired at the earliest and fit the same properly with set of blades so as to achieve maximum load. The matter was vigorously perused with the firm at the different levels to expedite the repair of the hub and a DO letter was also issued by CE/DCRTPP to Vice President of M/s Voith Hydro Pv.t Ltd. to complete the work at the earliest. The OEM carried out the work at its own cost, however, as the runner hub was in bad shape and the OEM carried out the work as per their standard procedure, it took some extra time to get the same repaired/rectified. It is pertinent to mention that HPGCL was not having any spare runner hub and procurement of new runner hub would have taken at least one year and would have been very costly affair. The necessary deductions towards cost of repair of hub were affected from the bills of Gogoal Hydro Pvt. Ltd. Haridwar apart from levy of penalty for delays.

RM&U/Capital overhauling of machine C-2:

The work of RM&U/ Capital Overhauling of machine C-2 was started by the firm w.e.f. 17.01.2020. As per WO, the work was to be completed within 6 months from the start of work. As such, the work would have to be completed by 16.07.2020. However, the work was got completed by the firm on 30.06.2021.

The main reasons for the delay are as under:

i) **Spread of Covid-19 during this period**: - There was lockdown of approximately 6 months during March-20 to June-21 due to spared of Pandemic Covid-19. Apart from this lockdown period, there were constraints on travelling which lead to scarcity of labour deployment at firm's factory works and as well as Project site. This lead to considerable delay in completion of the work.

ii) **Repair work of Runner Hub**:- After dismantlement of Runner Hub, it was observed that there was considerable damage in the Runner Hub. OEM of the equipment i.e. M/s Voith Hydro Pvt. Ltd. suggested that the old & damaged Runner Hub may be replaced with new Runner Hub. The procurement of new Runner Hub would have taken a very long period as the Runner Hub is only manufactured after placement of PO and the complete process would have taken at least 1 year, which would have lead to higher generation loss. However, M/s Gogoal Hydro Pvt. Ltd. assured that it has previously repaired this kind of defect at other projects and will be able to repair the Runner Hub and make the assembly with the runner blades. As the defect in the Runner Hub was serious in nature, the time taken to repair the same was on higher side which resulted into delay in completion of the work.

It is submitted that reason for delay in completion of work of C-II machine was due to restriction imposed by Govt. on account of pandemic covid-19 and serious defect observed in hub which was repaired by M/s Gogoal Hydro Pvt. Ltd. However, there was no inter-changeability issue of blades supplied by M/s Voith Hydro Pvt. Ltd. as the firm had already supplied the modified links before the commencement of RM&U work of machine C-II and the original blades were used.

As the work of machine C-I & C-II was not completed within stipulated period a penalty amounting to Rs. 30.68 lakhs has been imposed on M/s Gogoal Hydro Pvt. Ltd. as per provision of the work order.

After completion of capital overhauling of machine B-1 in the month of March 2018, it was observed that the machine was able to achieve a load of only 6.0 MW instead of required load of 7.5 MW. After analysis, it was observed that the blades supplied by the OEM i.e. M/s Voith Hydro Pvt. Ltd. are not interchangeable and identical to the ones installed on the machine B-I. Problem is fitment of blades with existing links was faced. The matter was taken up with the OEM regarding inter-changeability of blades who offered to carry out the rectification work of blades of machine B-I.

Meanwhile, a grant of financial assistance of Rs. 10 Crores was sanctioned by MNRE to carry out the capital overhauling/RM&U work of machine C-I & C-II. However, as per terms & conditions of the grant, capital overhauling/RM&U work of machine C-I & C-II was to be completed before 18.12.2020. As such, machine C-I was put under shutdown to carry out the capital overhauling/RM&U works immediately after completion of capital overhauling of machine B-I in the month of March 2018. The OEM carried out the fitment of blades of machine C-I free of cost and machine C-I achieved a full load of 8.0 MW at rated head & flow after completion of its capital overhauling/RM&U works. After the completion of stabilization period/guarantee-warranty period of machine C-I, machine C-II was put under shutdown to carry out the capital overhauling/RM&U work in the month of Jan-2020 so that its capital overhauling/RM&U works can be carried out

before the deadline of 18.12.2020 otherwise it would have created hindrance in the financial assistance to be received from MNRE. As stated earlier, the OEM was ready to carry out the rectification work in the fitment of blades in machine B-I as soon as the problem was faced after completion of capital overhauling of machine B-I in the month of March 2018. However, HPGCL was not in position to take another shutdown on machine B-I for a longer period of time as shutdown was taken on machines C-I & C-II one by one to carry out the capital overhauling/RM&U works.

After the completion of stabilization period/guarantee-warranty period of machine C-I, machine C-II was put under shutdown to carry out the capital overhauling/RM&U work in the month of Jan-2020 so that its capital overhauling/RM&U works can be carried out before the deadline of 18.12.2020 otherwise it would have created hindrance in the financial assistance to be received from MNRE.

As stated earlier, the OEM was ready to carry out the rectification work in the fitment of blades in machine B-I as soon as the problem was faced after completion of capital overhauling of machine B-I in the month of March 2018. However, HPGCL was not in position to take another shutdown on machine B-I for a longer period of time as shutdown was taken on machines C-I & C-II one by one to carry out the capital overhauling/RM&U works.

As stated in the initial reply, taking shutdown on 2 machines simultaneously (i.e. on B-I for rectification of blades and C-I/C-II for capital overhauling/RM&U works) would have caused excessive loss of generation to HPGCL during the period and the Project would have not been able to recover the fixed cost by not achieving normative PLF.

After the completion of R&M works of machine C-I & C-II, the correction work on blades of machine B-I has been carried out by the OEM free of cost. The machine B-I is presently running at a full load of 8.0 MW at rated head & flow after the correction work.

During the course of oral examination, the Committee observed that the Company suffered a loss of Rs. 30.73 crore due to supply of faulty blades by the supplier. The Committee recommended that concerned senior officers may be called for before the Committee for oral examination in this regard.

The Committee recommended that concerned responsible/senior officers be called for before the Committee for oral examination who failed to complete the overhauling work of machine B-1, C-1 and C-2.

Fuel and Inventory Management

Fuel cost is the major component of the total cost of the power generation. Optimization of the fuel cost through effective and efficient planning of procurement and consumption is therefore necessary to generate electricity at economical rates. Audit findings in fuel management are discussed as under.

4. 3.1 Excess consumption of coal

The consumption of coal depends upon its Gross Calorific Value (GCV) and efficiency of thermal plant. Lesser GCV of coal and higher Station Heat Rate (SHR) of plant would result into higher consumption of coal. HERC determines normative coal consumption every year through its tariff orders keeping in view the average GCV of coal received at plant and SHR of plant during previous year. Audit analysed the coal consumption pattern of all the three power plants of Company and found that it was within the norms of approved by HERC at all units except at RGTPP (Unit-II) during 2019-20 and 2020-21 as detailed below:

Table 3.1: Details showing normative consumption of coal viz a viz actual consumption of coal

Year	GCV of Coal		Power generation (in MUs)	Normative coal consumption for actual generation (in MT)	Actual coal consumption (in MT)	Excess coal consumption (in MT)	Coal cost per MT	Excess coal cost (Rs. in crore)
	Approved	Actual						
2019-20	3,641	3,461	1,547.17	10,74,189.22	10,88,244.96	14,055.74	4,879	6.86
2020-21	3,539	3,378	405.92	2,90,616.81	2,93,776.31	3,159.50	5,142	1.62
Total						**17,215.24**		**8.48**

Source : Information supplied by the Company and HERC Tariff orders

It was observed that coal consumption was higher than HERC norms due to low GCV of coal and reduced efficiency of plant. Actual GCV of coal received was 3,461 and 3,378 against the norms of 3,641 and 3,539 during 2019-20 and 2020-21 respectively. Also, SHR of plant remained higher during this period at 2,442 and 2,461 kcal/kwh against the norms of 2,387 kcal/kwh (refer table 2.5 of Chapter 2). Audit also observed that Unit-II remained under shutdown due to damage of rotor during 2013 and now since September 2020. This resulted in excess consumption of coal of 17,215.24 MT valuing Rs. 8.48 crore during 2019-21. The cost of excess coal consumed was direct loss to the Company as it could not be recovered through tariff.

The Management replied (May 2022) that they had to bear losses as per prevalent regulations. Now the regulations has been revised (March 2022) by HERC, therefore, further losses on account of excess coal consumption will be claimed and recovered through tariff. However, the fact remained that the company failed to adhere to the coal consumption norms during 2016-21 and suffered losses.

In their written reply, the State Government/Company stated as under: -

RGTPP:-

Reply of HPGCL

Rajiv Gandhi Thermal Power Plant has coal linkage with various coal companies of Coal India Limited as per the Fuel Supply Agreement (FSA). The Annual Contracted Quantity of coal for 2x600 MW RGTPP, Khedar during 2019-20 to 2020-21 is tabulated as under:-

Sr. No	Coal Company	Annual Contracted Quantity (ACQ) (Lac MT)	Grade/GCV band of ROM coal	% Materialization	
				2019-20	2020-21
1	MCL	15.00	G-10 to G-13	37.25	6.06
2	ECL	4.00	G-10 & above	23.54	7.44
3	NCL	15.00	G-7 to G-10`	30.68	17.86
4	CCL	13.02	G-7 to G-12	57.64	32.99
	Sub-Total	**47.02**			

As depicted in the above table, materialization of coal from MCL was 37.25 % and 6.06% during FY 2019-20 & 2020-21. Due to this low GCV coal, consumption has increased. The coal consumption depends upon the Heat Rate of the unit and GCV of coal received. i.e. the coal consumption is inversely proportional to the calorific value of the coal. As per the OEM, Heat Rate gets deteriorated due to part load operation of the Unit, so, the coal consumption increased. The loading of the plant during the year 2019-20 and 2020-21 was below normative target of 85% due to the load restriction imposed by SLDC. HERC made a provision in MYT regulation 2019 for compensation for deterioration in Heat Rate due to part load operation.

Year	Plant Utilization Factor (%)	Compensation allowed (%)
2019-20	73.88	4.00
2020-21	76.82	2.25

From the above table, it is clear that the compensation allowed in Heat Rate directly compensates the loss due to excess coal consumption. HPGCL lodged a compensation claim of INR 14,31,03,599/- for FY 2020-21 along with carrying cost/interest, which was rejected by the HERC.

Thereafter, HPGCL has filed petition before The Appellate Tribunal For Electricity at New Delhi on 13.02.2023 seeking directions against Haryana Power Purchase Centre (HPPC) to make payment of INR 14,31,03,599/- for FY 2020-21 along with carrying

cost/interest on account of scheduling of HPGCL's Power Plants below Normative Annual Plant Availability Factor (“NAPAF”) in terms of the HERC Regulations, 2019 (“HERC MYT Regulations, 2019”). Hence, loss of Rs. 8.48 Crore covered in above petition if allowed.

The observation of audit i.e. excess consumption of coal of 17,215.24 MT valuing Rs.8.48 Crore during 2019-21 happened, because Unit-II remained under shutdown due to damage of rotor during 2013 and since September 2020, which is not correct, as there was no consumption of coal during shutdown of units

During the course of oral examination, the Committee recommended that the latest status with regard to consumption of coal vis-à-vis norm fixed by Haryana Electricity Regulatory Commission be intimated to the Committee at the earliest.

5. 3.2 Excess consumption of Secondary fuel

Apart from coal, diesel and furnace oil are also used as secondary fuel to light up the boiler in thermal power plants. The consumption of fuel oil is directly proportional to number of starts/ stops of plant. HERC had fixed normative consumption rate (ml/kwh) for fuel oil for each year in respect of all the thermal power plant of the Company. The position of actual consumption of fuel oil vis-à-vis HERC norms in respect of Units having excess consumption was as under:

Table 3.2: Details showing normative consumption vis-a-vis actual consumption of oil

Name of the Plant	Unit	Year	Actual generation (In MUs)	Specific oil consumption (ML/KWH)			Total excess consump-tion (in KL)	Cost per KL as approved by HERC	Total cost (Rs in crore)
				Approved by HERC	Actual	Excess			
RGTPP	**I**	2020-21	1,230.98	0.5	0.649	0.149	183.41	51,156.00	0.93
	II		405.93	0.5	1.700	1.200	487.11	51,156.00	2.49
						Total (A)	**670.52**		**3.42**
PTPS	**V**	2016-17	169.215	1	2.22	1.22	206.44	39,255.58	0.81
		2017-18	140.77	1	4.04	3.04	427.94	38,880.01	1.66
		2018-19	176.752	1	2.94	1.94	342.90	31,285.00	1.07
	VI	2016-17	219.542	1	2.11	1.11	243.69	39,255.58	0.96
		2017-18	373.687	1	2.60	1.60	597.90	38,880.01	2.32
		2018-19	324.001	1	1.77	0.77	249.48	31,285.00	0.78
		2020-21	51.928	1	5.17	4.17	216.54	51,515.00	1.12
	VII	2020-21	619.476	0.5	0.96	0.46	284.96	51,515.00	1.47
	VIII	2016-17	690.272	1	1.02	0.02	13.81	39,255.58	0.05
		2017-18	787.366	1	1.26	0.26	204.72	38,880.01	0.80
		2020-21	547.078	0.5	0.92	0.42	229.77	51,515.00	1.18
						Total (B)	**3,018.15**		**12.22**
						Grand Total (A+B)	**3,688.67**		**15.64**

Source: Information supplied by the Company and HERC Tariff orders

There was excess expenditure of Rs. 15.64 crore on account of excess consumption of secondary fuel during the period 2016-21. The main reasons for higher consumption were low PLF due to less scheduling on account of higher variable cost and more numbers of start/stop operations and tripping on account of forced outages. PTPS consumed excess secondary fuel worth Rs. 12.22 crore due to its older units

The Management replied (May 2022) that reasons for excess fuel consumption were frequent start/ stops due to excessive backing down and oil used during testing/balancing of Rotor. The reply is not tenable as frequent starts/stops are on account of backing down instructions due to higher variable cost of generation.

Management should take action to reduce its variable cost by optimizing fuel linkage and timely maintenance/overhauling of plants.

In their written reply, the State Government/Company stated as under: -

Reply of HPGCL

RGTPP:-

The targets of specific oil consumption given by HERC are fixed by considering plant PLF of 85%.

Specific oil consumption depends upon no. of Start/Stop operation, Plant Load Factor (PLF) and Coal Quality. The Plant load factor of RGTPP unit-I & II during 2020-21 remained 23.42 % and 7.72% respectively. The main reason of low Plant Load Factor was reserve shutdown imposed by SLDC because of no demand. (5188:55 Hrs for Unit-I & 3239:48 Hrs for Unit- II). The numbers of start-ups due to no-demand are 5 & 4 for Unit-I & II respectively.

The oil consumption in Unit-I and Unit-II during FY 2020-21 due to backing down outages/light-up are 397 KL and 404 KL respectively. Apart from this, the excess oil consumption of 251 KL in Unit-II was due to testing/balancing of turbine rotor to identify the problem of high vibration as per the recommendation of OEM SEC, China.

Excluding the oil consumption due to start-up on account of backing down outage and testing of rotor of Unit-II, the specific oil consumption of Unit-I & Unit-II would be 0.33 ml/kwh & 0.08ml/kwh respectively, which are well within HERC norms.

During Year 2021-22 & 2022-23 the scheduling of RGTPP improved significantly and accordingly the PLF & specific oil consumption improved. The PLF and specific oil consumption of RGTPP units during FY- 2021-22 & 2022-23 is as under:-

	2021-22		**2022-23**	
	PLF (%)	**SOC (ml/kwh)**	**PLF (%)**	**SOC (ml/kwh)**
Unit-I	50.88	0.317	67.76	0.467
Unit-II	Unit under shut down		58.51	0.597

From the above table it is evident that the specific oil consumption of Unit-I is within HERC norms.

The specific oil consumption of Unit-II is slightly higher during 2022-23 due to oil consumption during commission activity after capital overhauling. If, the oil during commissioning activities is excluded, then the specific oil consumption would be 0.46 ml/kwh, which is within HERC norms.

PTPS:

Specific oil consumption of units decreases with continuous running of unit. Higher the PLF lesser will be the specific oil consumption. HERC fixes the Targets for HPGCL regarding Performance parameters viz PLF (Plant Load factor), ACP (Auxiliary Power Consumption), Specific oil consumption & heat rate etc. Targets fixed by HERC for SOC for PTPS Unit- 5 to 8 for 2016-19 are as under:

Unit-5

Parameter	2016-17	2017-18	2018-19
PLF (%) HERC	35	35	82.5
PLF (%) Actual	9.20	7.65	9.61
SOC (ml/kwh) HERC	1	1	1
SOC (ml/kwh) Actual	2.22	4.04	2.94
Approx Oil cons during Backing down start ups (KL)	277.03	433.03	464.16
SOC excluding backing down start ups(ml/kwh)	**0.58**	**0.97**	**0.32**

Unit 6

Parameter	2016-17	2017-18	2018-19	2020-21
PLF (%) HERC	35	35	82.5	35
PLF (%) Actual	11.93	20.31	17.61	2.82
SOC (ml/kwh) HERC	1	1	1	1
SOC (ml/kwh) Actual	2.11	2.60	1.77	5.17
Approx Oil cons during Backing down start ups (KL)	321.99	727.31	456.86	114.8
SOC excluding backing down start ups(ml/kwh)	**0.65**	**0.66**	**0.36**	**2.96**

Due to excessive backing downs, the actual PLF was very much on the lower side as compared to HERC Targets (due to many cold start ups). Sometimes, the Unit had to be boxed up even before synchronization, as per the message of the DISCOM's, which resulted into oil consumption only without any generation. Thus, the SOC has increased due to more start ups.

Further, Unit-6 was under Bi-annual overhauling from 01.02.2018 to 09.03.2018 during the FY 2017-18 for replacement of Generator Transformer. Excessive oil was consumed for testing and trials after this overhauling.

During FY 2020-21 The PLF of the unit for the year 2020-21 was only 2.82 %, due to which SOC appears to be very high.

Unit-7 during 2020-21

Parameter	**HERC Target**	**2020-21**
PLF (%)	85	28.29
SOC (ml/kwh)	1	0.96
Approx Oil cons during Backing down start ups (KL)	-	500.5
SOC excluding backing down start ups (ml/kwh)	-	**0.16**

The main reasons of higher SOC are as under:

- Cold start ups during 2020-21 were 11 nos. during cold start up oil consumption is much higher.

Unit-8 during 2016-17, 2017-18 & 2020-21

Parameter	**HERC Target**	**2016-17**	**2017-18**	**2020-21**
		Actual	**Actual**	**Actual**
PLF (%)	85	31.52	35.95	24.98
SOC (ml/kwh)	1	1.02	1.26	0.92
Approx Oil cons during Backing down start ups (KL)	-	575.77	657.25	407.36
SOC excluding backing down start ups (ml/kwh)	-	**0.19**	**0.43**	**0.18**

Backing down is a process in which power purchaser i.e. DISCOMs asks to reduce the load or shutdown the units depending upon their requirement. Less continuous running of units is the main reason for specific oil consumption beyond norms.

Moreover, oil consumption depends on various factors, beyond control, as delineated below:-

- Whether PRDS steam is available at station or not: Steam is required for HFO heating, sealing steam etc. Further time consumed in heating depends on initial temperatures of HFO which can increase the time consumed in synchronization unit and accordingly the oil consumption.
- Lower the turbine metal temperature higher will the oil consumption and the turbine metal temperature can vary in every start up depending upon period of shutdown.
- Many times several testing are required at various stages start up of unit e.g. safety floating and boiler, turbine & generator protections checking which are time consuming and accordingly the oil consumption increases.
- Startup for post overhauling startups including boiler, turbine and generator protection testing done by maintenance engineer & BHEL.
- Moreover Startup of unit, specially the cold startup, is a lengthy process which involves handling of various machineries & parameters simultaneously. Cold startup involves startup of auxiliaries after long time gap. Starting auxiliaries after a long time can results in many unforeseen problems which results increase in oil consumption.
- In warm startups oil consumption vary with time involves in rectification of faults.

From the above, it is clear that SOC increases mainly due to less running of unit, testing after overhauling and no of start ups. However, efforts are being made to reduce SOC further by implementing best O&M practices

During the course of oral examination, the Committee recommended that the latest position regarding consumption of secondary fuel be intimated to the Committee alongwith detail report containing justification for higher consumption of secondary fuel.

6. 3.3 Unsettled quantity and quality claims

The Company entered into Fuel Supply Agreements (FSA) with the coal Companies i.e. Central Coalfields Limited (CCL), Mahanadi Coalfields Limited (MCL), Northern Coalfields Limited (NCL) and Eastern Coalfields Limited (ECL) for supply of coal. The FSA provided that the seller would raise source-wise bills for the coal supplied to the purchaser on declared graded basis within seven days of delivery of coal. Procedures regarding raising of bills, quality and quantity claims on account of grade slippage, under loading/overloading, short supplies, stones etc. have been prescribed in FSA. Quantity claims consisted of mainly under loading claims and claims on short delivery of coal. Quality claims involved claims on account of grade slippage and claims on account of un-sampled rakes from the colliery end.

It was observed that quantity claims of Rs. 494.32 crore and quality claims of Rs. 270.50 crore raised by the Company with coal supply companies were pending as at the end of March 2021. Following table indicates year wise detail of claim lodged, recovered and pending during 2016-21:

Table 3.3: Details showing status of quantity and quality claims in respect of coal

(Rs. in crore)

Financial Year	Claims outstanding at the beginning of year	Claims lodged during the year	Claims reconciled during the year	Claims realized during the year	Claims out standing at the end of the year
	A	B	C	E	F=A+B-C
A. Quantity Claims					
2016-17	94.24	29.57	14.66	14.66	109.15
2017-18	109.15	117.25	3.57	3.57	222.83
2018-19	222.83	31.46	2.75	2.75	251.54
2019-20	251.54	234.94	0.70	0.02	485.78
2020-21	485.78	8.52	0	0	494.30
Total		421.74	21.68		
B. Quality Claims					
2016-17	49.21	109.76	12.69	8.79	146.28
2017-18	146.28	232.64	60.31	51.94	318.61
2018-19	318.61	157.27	142.15	95.66	333.73
2019-20	333.73	97.45	149.97	47.82	281.21
2020-21	281.21	28.59	39.3	13.12	270.50
Total		625.71	404.42		

Source: Information supplied by the Company

The Company could reconcile quantity claims of only Rs. 21.68 crore (5.14 *per cent*) against the total claims of Rs. 421.74 crore lodged with the Coal Companies. The Company has not reconciled any claims during 2020-21.

The reconciliation of quality claims increased during 2016 to 2020 but was low during 2020-21.

The matter for recovery of claims of Rs. 477.86 crore for quantity claims and Rs. 158.21 crore for quality claims were pending with Committee of Administrative Mechanism for Resolution of CPSEs Disputes (AMRCD) as on 28 February 2021. It was observed that claims had increased year upon year. Delay in settlement of claims resulted into blockade of funds leading to higher working capital loans by the Company. Besides, timely realisation of claims could have reduced variable cost of generation as the value of claims received is deducted from the total cost shown in coal price store ledger. It is recommended that the Company should make efforts to settle/ realise the coal claims at the earliest.

In their written reply, the State Government/Company stated as under: -

Reply of HPGCL

PTPS:

PTPS, Panipat is having the coal linkage from different subsidiaries of Coal India Ltd. i.e. CCL, BCCL& WCL under Fuel Supply agreement. As per the procedure laid down in coal accounting manual of HPGCL, quality and quantity claims are being lodged with coal companies on regular basis.

In order to realize the pending claims (quality and quantity) committee of FA&CAO and SE/Fuel from all the three power plants of HPGCL have been formed vide office 76/HPGCL dated 08.04.2019 **(Copy attached)**. Accordingly, team from all the three power plants have been visiting coal companies regularly for resolving the pending claims.

Further, due to ongoing COVID-19 pandemic during 2020-21, quality reconciliation was delayed due to delay in declaration of referee results by CIMFR.

As on date, it is intimated that the quality and quantity reconciliation with all the coal companies till 2020-21 except BCCL have been completed and the claims realized during reconciliation have been passed in Price Store Ledger.

The reconciliation with BCCL is pending being matter related to abnormal upgradation of quality results of referee sample analys and is under consideration before AMRCD and final decision is still awaited. Similar all qty. claims have been reconciled with the coal complies except under loading, stone and shortage of coal claims etc. The disputed claims have already been referred to AMRCD which is being pursued through corporate office of HPGCL.

Moreover, PTPS in coordination with corporate office is in regular touch with coal companies for reconciliation of quantity and quality claims and there is no delay on the part of HPGCL to reconcile them.

RGTPP:-

RGTPP, HPGCL, Khedar is having the coal linkage from different subsidiaries of Coal India Limited i.e. BCCL, MCL, ECL, NCL under Fuel Supply Agreement.

In compliance of office order No. 76/HPGCL dated 08.04.2019 the team of SE/Fuel & FA & CAO of the plant have been visiting coal companies regularly for reconciliation and resolving the pending claims. The latest status of unsettled quantity claim & quality claim from FY 2016-17 to F.Y. 2020-21 is tabulated below:

Particulars	Quality Claim	Stone claim	Surface Moisture claim	Under loading claim	Shortage claim	Compensation claim	Total
Op. Balance as on 01.04.16	16.22	0.30	-	14.19	0.06	16.20	46.97
Claim Lodged from 01-04.16 to 31-03-21	234.82	0.67	0.95	48.79	3.70	21.91	310.84
Claim received from 01-04.16 to 31-03-21	125.62	0.11	0.07	1.35	0.82	-	127.97
Closing Balance as on 31.03.2021	125.42	0.86	0.88	61.63	2.94	38.11	229.84

At the time of quality as well as financial Reconciliation, the team of Technical as well of Accounts wing have discussed in detailed with team of Sales/Quality and Finance of respective Coal Companies every year. But Due to COVID-19 team of RGTPP, HPGCL is not able to visit office of Coal Companies for settlement of pending claims of RGTPP. However, RGTPP, HPGCL have made communication through various letters with Coal companies for settlement of pending claims

Claims of FY 2020-21 onwards is pending because the Coal India Limited have started online quality Reconciliation through Web Portal. This Web Portal launched by Coal India is not a full-fledged System. There are many technical glitches persisted in Web Portal. Hence, Claims are pending.

Further, Majority of claim in terms of quantity are that of under loading claims and short supply compensation claim for which the coal companies are not ready to accept the claim on either on stencilled weight plea for under loading claims or Railway factor in case of short supply compensation claim. As such HPGCL have referred to AMRCD and meeting is awaited for almost three year.

Further, Majority of claim in terms of quality are due to unavailability of referee results for the downgraded result of CIMFR challenged by coal company as there is nine to twelve month lagging in receipt of referee results.

Keeping in view of above, it is clear that RGTPP, HPGCL in coordination with Corporate Office is having regular follow up with Coal Companies for reconciliation of pending quantity and quality claims in a regular manner and all efforts for realization of pending quantity & quality claims.

During the course of oral examination, the departmental representative intimated that the claim of Rs. 345 crore were pending before Administrative Mechanism for Resolution of CPSEs (Central Public Sector Enterprise) for settlement. The Committee recommended that final outcome of the claim settlement be informed to the Committee.

7. 3.3.1 Non-recovery of compensation for short supplies of Coal.

The Company entered into a Fuel Supply Agreement (FSA) with six coal companies. The FSA provided that if for a year, the Level of Delivery by the seller, or the Level of Lifting by the purchaser fell below Annual Contracted Quantity (ACQ) with respect to that year, the defaulting party would be liable to pay compensation to the other party for such shortfall in Level of Delivery or Level of Lifting, as the case may be (Failed Quantity). The applicable clause for compensation is as under :

Table 3.4: Rate of compensation for the failed quantity as per level of delivery/lifting of coal

Sr. No.	Level of Delivery/Lifting of Coal in a year	Rate of Compensation for the failed quantity
1	Less than 100*per cent* but upto 90 *per cent* of ACQ	Nil
2	Below 90 *per cent* but upto 85 *per cent* of ACQ	10 *per cent*
3	Below 85 *per cent* but upto 80 *per cent* of ACQ	20 *per cent*
4	Below 80 *per cent* of ACQ	40 *per cent*

Source: Information extract from the Fuel Supply Agreements of the Coal Companies

Details of Annual Contract Quantity, actual quantity received, short supply by the coal companies and compensation for short supply to be received by the Company were as under:

Table 3.5: Annual Contracted Quantity, actual quantity and amount of short supply compensation to be recovered from coal companies

Year	ACQ (in lakh Metric Tonne)	Actual Quantity received (in lakh Metric Tonne)	Short supply of Coal		Amount of Compensation for Short supply of coal Rs.(in crore)
			in lakh Metric Tonne	In *per cent*	
DCRTPP at Yamuna Nagar					
Name of the coal company: - Central Coal Limited					
2011-12	28	22.89	5.11	18.25	3.49
2014-15	28	19.84	8.16	29.15	18.03
2017-18	28	18.56	9.44	33.71	24.09
2018-19	28	17.62	10.38	37.07	34.27
2019-20	28	22.25	5.75	20.53	7.01
Total (A)					**86.89**

RGTPP at Khedar					
Name of the coal company: - Central Coal Limited					
2017-18	13.02	7.04	5.98	45.92	3.38
2018-19	13.02	5.03	7.99	61.36	9.34
2019-20	13.02	9.01	4.01	30.80	0.02
Name of the Coal company: - Northern Coal Company					
2017-18	15	8.44	6.56	43.73	2.68
2019-20	15	8.10	6.91	46.07	3.36
Name of the company: - Mahanadi Coal Limited					
2018-19	25.6	8.45	17.15	66.99	1.62
Total (B)					**20.40**
Panipat Thermal Power Station at Panipat					
Name of the coal company: - Central Coalfields Limited					
2017-18	26.65	5.50	21.15	79.36	98.60
2018-19	26.65	15.09	11.56	43.37	43.70
Name of the coal company: - Western Coalfields Limited					
2017-18	3	0.84	2.16	71.97	9.70
2018-19	3	1.07	1.93	64.48	8.65
Total (C)					**160.65**
Grand Total (A+B+C)					**267.94**

Source: Fuel Supply Agreements with the Coal Companies and Information supplied by the Company

Out of total claims of Rs. 267.94 crore during 2011-12 to 2019-20 as much as Rs. 241.92 crore (90 *per cent)* were recoverable from CCL as there was continuous short supply (average 38.53 *per cent)* of coal by CCL. The Company referred (May 2020) the matter of non-payment by coal companies to AMRCD, the response of which was awaited (March 2021). However, Company does not account for these recoverables in its annual financial statements.

Further scrutiny revealed that due to short supply of coal at RGTPP and PTPS, the units of these plants remained shut down for 38 days during August 2017to March 2018 due to which these units could not achieve their normative PLF and failed to earn fixed cost of Rs. 36.45 crore (Rs. 25.70 crore in RGTPP and Rs. 10.70 crore in PTPS).

The Management informed (May 2022) that in order to realize the pending claims, a committee comprising officers from all three power plants had been constituted (April 2019) which visited coal companies regularly for resolving the pending claims. In addition

the matter regarding non-settlement of the claims was referred to Alternative Dispute Resolution Mechanism (ADRM) which was wound up during December 2018. Thereafter, a new forum i.e. Administrative Mechanism for Resolution of CPSEs Disputes (AMRCD) was constituted by Government of India, Ministry of Coal in place of ADRM to resolve the pending claims and decision of the same is awaited (May 2022).

In their written reply, the State Government/Company stated as under: -

REPLY OF HPGCL

DCRTPP:

DCRTPP has lodged short delivery compensation claims with CCL for the Financial Years 2011-12, 2014-15, 2017-18, 2018-19 & 2019-20. Communications were also made with the coal company for settlement of the short delivery compensation claims. Further, during the reconciliation meetings with CCL the matter of claim of short delivery compensation was also raised. However, the same have not been accepted by the coal company on the plea of Railway Failure & Force Majeure clause of FSA. Thus, the matter regarding non- settlement of the claims was also taken up in ADRM.

The ADRM has been wound up after its last meeting on 07.02.2018. Moreover, a new forum named as Administrative Mechanism for Resolution of CPSE's Disputes (AMRCD) has been formed by Ministry of Coal, GoI and the matter has been referred to AMRCD. 1st meeting of AMRCD was scheduled to be held on 23.11.2021 through VC. However, the same was postponed till further instructions. HPGCL is continuously requesting for scheduling of meeting but no date has been fixed so far.

Meanwhile, Under Secretary to GoI on dated 22.03.2023 has requested Chief Manager, CIL, Kolkata to upload the HPGCL case on DPE portal.

RGTPP:-

RGTPP have lodged short delivery compensation claims with different Coal Companies for the Financial Years 2017-18, 2018-19 & 2019-20. Communications were also made with the coal companies for settlement of the short delivery compensation claims**.** Coal companies are denying compensation on ground of railway factor. As per coal companies, they are ready to give annual contracted quantity as per FSA, but railway is not able to provide rakes on timely basis, due to this coal companies have supplied short quantity as compare to annual contracted quantity. Copy of letter received from MCL regarding non acceptance of compensation claim of HPGCL of F.Y. 2018-19 is enclosed for your ready reference. Further, the matter regarding non- settlement of the claims were also taken up in ADRM.

The ADRM has been wound up after its last meeting on 07.02.2018. Moreover, a new forum named as Administrative Mechanism for Resolution of CPSE's Disputes (AMRCD) has been formed by Ministry of Coal, Government of India and the matter has been referred to AMRCD & the decision of ADRM is still pending. However, the same was postponed till further instructions. HPGCL is continuously requesting for scheduling of meeting but no date has been fixed so far.

Further RGTPP has FSA with MCL, NCL, ECL, & CCL. RGTPP was also getting coal supplies from BCCL against the FSA of PTPS Panipat. RGTPP had sufficient coal stock level in the beginning of May-2017 i.e. 4,58,100.97 MT.

RGTPP and Corporate office, HPGCL Panchkula tried very hard with coal companies and Railway to augment the coal supplies. It is pertinent to mention here that RGTPP generating units were running continuously therefore it was not possible for RGTPP to raise the coal stock level. Further, due to critical requirement of coal in whole country and limited production of coal, coal companies and railways were giving preference in coal supplies to the consumer having critical stock position i.e. coal stock less than 07 days as per record of CEA. Therefore, situation of coal availability at plant end got worsened in July'17 and onwards.

RGTPP submitted sufficient no. of Coal rake programme in the month of May'17 to Oct'17 to build up the coal stock level. The status of Rail programme submitted/ Programme sanctioned and actual loading of Rakes during the period May'17 to Oct'17 are tabulated below:

Month	**Monthly Scheduled Qty (No of Rakes)**	**Rail Programme Submitted by RGTPP (No. of Rakes)**	**Rail Programme Sanctioned by Coal Company (No. of Rakes)**	**No of rakes per day sanctioned**	**Rakes Loaded during the month**	**% Materi alizati on**
May-17	101	157	140	4.5	59	42
June-17	101	111	111	3.7	26	23
July-17	89	141	139	4.5	80	58
Aug-17	89	146	144	4.8	62	43
Sept-17	89	152	131	4.4	68	52
Oct'17	101	169	154	5.0	98	64

From the above table it is clear that RGTPP demanded sufficient no. of Rakes to build up the stock up to normative level as per the guidelines of HERC but Railways/coal companies were unable to load the sufficient no. of Rakes.

Advance funds were also available throughout the period i.e. from May-17 to Oct-17 with coal company. Maximum efforts were made by regular persuasion with Railway & coal companies for enhancing the coal supplies to RGTPP. Even the officer from corporate office and RGTPP regularly visited the coal company to augment the coal supply from coal company. But being the rainy season and flooding of coal mines, coal company could not supply the coal rakes as per sanctioned rail movement programme.

However units were remain shut down on this period on account of no demand. The detailed of backing down are as below:-

Unit-1 Shut Down period	Unit-2 Shut Down period
19.10.2017 to 01.12.2017	31.08.2017 to 04.09.2017
11.12.2017 to 12.12.2017	22.09.2017 to 27.09.2017
13.01.2018 to 18.01.2018	28.10.2017 to 22.11.2017
12.02.2018 to 15.02.2018	26.11.2017 to 06.12.2017
	11.12.2017 to 13.12.2017
	23.01.2018 to 24.01.2018

In view of above, it is clear that RGTPP, HPGCL is making all efforts for realization of compensation claim for short delivery of coal.

PTPS:-

PTPS has lodged the short delivery compensation claims with CCL and WCL for the Financial Years 2017-18 and 2018-19. Communications were also made with the coal companies for settlement of the short delivery compensation claims. Further during the reconciliation meetings with CCL and WCL, the matter of claim of short delivery compensation was also raised. However, the same have not been accepted by the coal companies on the plea of Railway Failure & Force Majeure clause of FSA. Thus, the matter regarding non- settlement of the claims are being referred to AMRCD and the decision of AMRCD will be final for both the parties i.e. Coal Companies and HPGCL.

Further for supply of coal rakes to PTPS Panipat, the rail movement program were submitted regularly on monthly basis to coal companies in accordance to FSA clause no. 3.5. For this purpose sufficient advance cyclic funds were also made available with coal companies by HPGCL.

The detail of coal stock during the month of Aug.'17 to Oct.,17 and Mar'18 is given as under:

Month	Closing balance of coal stock (MT)	Carpet coal (MT)	Useable coal stock (MT)
Aug'17	71576.964	60000	11576.964
Sep'18	91486.894	60000	31486.894
Oct'17	87414.235	60000	27414.235
Mar'18	96111.653	60000	36111.653

From the above, it is clear that the coal stock position during these months was very critical and all the four units of PTPS were running during this period. In order to cater the increased requirement of coal, sufficient rail movement program were got sanctioned and advance coal funds were also released to coal companies but coal companies failed to supply the coal rakes as per requirement resulting in depletion of coal stock below the minimum level as prescribed by CEA.

In order to meet out the requirement of coal for the generating units of PTPS, the coal was arranged through diversion in accordance with FSA clause no. 3.2 under which HPGCL can transfer the coal meant for one power plant to another power plant fully owned by HPGCL, detail given as under:

Month	No. of diverted coal rakes received at PTPS
Aug'17	6
Sep'17	6
Oct'17	9
Nov'17	6
Mar'18	14

PTPS Panipat in coordination with corporate office, Panchkula did its best to arrange coal for its generating units but due to the monopolistic behavior of coal companies and railways, less coal was supplied to PTPS Panipat resulting in depletion of coal stock and outage of Unit No.5.

As far as loss of revenue to the corporation is concerned, it is submitted that during the forced shut down of Unit 5, variable cost neither incurred nor recovered. As such, no loss on this account. Regarding fixed cost, the deemed PLF during these months have been achieved, as such, full fixed cost was recovered.

During the course of oral examination, the departmental representative intimated that the matter regarding claim settlement has been forwarded before Administrative Mechanism for Resolution of CPSEs (Central Public Sector Enterprise). The Committee recommended that detail report in this regard be obtained from Coal India Limited and submitted to the Committee at the earliest.

8. 3.3.2 Non-receipt of quality claims on un-sampled rakes.

DCRTPP, Yamuna Nagar was receiving coal supplies from Central Coalfields Limited (CCL) with Annual Contracted Quantity of 28 lakh MT. The FSA provided for seller to raise source-wise bills for the coal supplied on declared grade basis within seven days of delivery. The samples of coal were to be taken jointly at loading point for assessment of the quality of the coal. The FSA also provided for CCL to give regular credit note on account of grade slippage to the extent of difference of the base price of declared grade and analysed grade of coal.

On the petition regarding various coal claims of the Company, the Alternative Dispute Resolution Mechanism (ADRM) decided (May 2016) that for validating the grade slippage claims, third party coal sampling would be done by Central Institute of Mining and Fuel Research (CIMFR) at the loading end in the presence of the both the parties for avoiding disputes. Accordingly, a tripartite agreement between the Company, CCL and CIMFR was executed (September 2016) for sample collection, preparation, testing and analysis of coal at loading end. Clause 1 of the tripartite agreement, provided that CIMFR would be wholly responsible for collection, preparation and analysis of coal in respect of applicable FSA's. Clause 8 of the agreement further provided that CIMFR would hand over part of coal sample at loading ends to authorized representative of Company or any other agency deployed by Company. Clause 13 further provided that the collection and preparation of sample would be witnessed by the representatives of the Coal Company and the Thermal Plant. The Company appointed (June 2015) a coal handling agent for witnessing the sampling of coal on its behalf. The work of liaison with Coal Company, Railways and other agencies in connection with dispatch of coal was also within the scope of the coal handling agent.

It was observed that CIMFR could not take samples from 291 rakes dispatched during November 2016 to August 2018. CIMFR failed to collect all samples during initial period (November 2016 to June 2017) due to lack of coordination between Coal Handling Agent and CIMFR. Further, during June 2018 to August 2018, coal was dispatched from a new siding (KUJU) from which rakes were dispatched un-sampled due to lack of coordination between CIMFR and Coal Handling Agent.

Accordingly, quality analysis of coal at loading point was not carried out by the CIMFR. However, Company prepared grade slippage claims of such un- sampled coal rakes on the basis of coal sampling analysis done at unloading end as detailed below :

Table 3.6: Un-sampled rakes received from the coal company and claims thereof

Sr. No.	Period of receipt of rakes		Total number of un-sampled rakes received	Name of coal company	Month of raising claim	Amount of claims (Rs. in crore)
	From	To				
1	November 2016	June 2017	135	M/s CCL	November 2017	19.04
2	June 2018	August 2018	149	M/s CCL	October 2018	27.99

3	November 2016	June 2017	7	M/s MCL	November 2017	1.03
	Total		**291**			**48.06**

Source: Records of the Company relating to coal claims

It was observed that despite appointment of sampling agency (CIMFR) and engagement of Coal Handling Agent for supervision of loading of coal at various sites of the coal companies, sampling of coal rakes dispatched to Company was erratic during November 2016 to August 2018. The Company had not incorporated any penalty clause in the agreement (with CIMFR) in case of a rake goes un-sampled.

Due to non-availability of loading end sampling analysis reports, the grade slippage claims were not processed as per the orders of AMRCD, and no credit note was received from the coal companies. Hence, the claims amounting to Rs. 48.06 crore continue to be pending (December 2021) with the coal companies.

The Management replied (May 2022) that initially CIMFR could not start sampling at all the collieries/ sidings due to improper sampling conditions. However, DCRTPP is insisting CCL for settling of claims on declared grade basis and the matter is also being taken up before AMRCD.

In their written reply, the State Government/Company stated as under: -

REPLY OF HPGCL

DCRTPP:

It is submitted that as per the direction of GoI and ministry of coal CIMFR (Govt of India undertaking) was appointed as independent third-party sampling agency at loading end of coal companies w.e.f. Nov-2016. Accordingly, the existing third-party sampling agency M/s Elegant Surveyors, New Delhi was disengaged ending Oct-2016. Further as per tripartite agreement all the enabling conditions for sample collection & preparation were to be provided by coal companies to CIMFR. But initially CIMFR could not start sampling at all the collieries/sidings of coal companies due to improper sampling conditions. The tripartite agreement signed with CIMFR is similar for all Power plants in India having no provision of penalty on account of dispatch of un-sampled rakes. Moreover, the NTPC has signed the same agreement with CIMFR prior to HPGCL.

Both the units of DCRTPP were on bar and DCRTPP was bound to take the coal for running of the units during the period Nov-2016 to Aug-2018. To avoid the generation loss due to non-availability of coal, the supplies were not stopped.

However, DCRTPP has raised the quality claim amounting to Rs 19.04 crores for receipt of un-sampled rakes from the collieries where sampling started after Nov-2016 by CIMFR. The matter was also raised with CCL authorities during reconciliation meetings on 22.08.2019 but CCL is pressing hard to settle the issue of un-sampled rakes on declared grade in line with NTPC settlement. Though India's largest thermal power producer NTPC has settled the issue of un-sampled rakes on declared grade basis, DCRTPP is still insisting CCL for settling the same on the pattern of settlement of pre-CIMFR claims.

Claims amounting to Rs 27.90 crores for the period June 18 to Aug 18 were lodged for receipt of 67 nos. un-sampled rakes from New Kuju siding of CCL. As sampling at loading end of New Kuju siding of CCL was not being done by CIMFR the quality claims were lodged on the basis of unloading end results of DCRTPP as directed by HQ/HPGCL as CIMFR is carrying out the sampling work at unloading end of DCRTPP w.e.f. Apr-2018. Further the issue regarding settlement of un-sampled rakes of New Kuju siding of CCL with NTPC is still pending.

Regarding claims of Rs 1.03 crore in respect of un-sampled coal rakes received from M/s MCL does not relate to DCRTPP, Yamuna Nagar.

The matter regarding settlement of claims was being pursued regularly with CCL and now the matter is also being taken up before AMRCD for resolution of the claims. However, the same was postponed till further instructions. HPGCL is continuously requesting for scheduling of meeting but no date has been fixed so far.

Meanwhile, Under Secretary to GoI on dated 22.03.2023 has requested Chief Manager, CIL, Kolkata to upload the HPGCL case on DPE portal.

During the course of oral examination, the departmental representative intimated that the claim of Rs. 19 crore were pending before Administrative Mechanism for Resolution of CPSEs (Central Public Sector Enterprise) for settlement. The Committee recommended that final outcome of the claim settlement be informed to the Committee.

9. 3.5.1 Inventory Management

HPGCL Purchase and Works Regulations, 2015, requires that the indents for purchase of items should be raised after the quantity in stock has reached at the "Re-order Level" as determined for the respective items. Such indents/requisitions, amongst other particulars, should also indicate Re-Order Quantity, Stock in hand (while considering the stock in hand it should be ensured that no item has been kept reserved for any specific use), pending Purchase Orders, Consumption statistics, safety stocks etc. One time purchase for projects or capital equipment's/ spares should be properly justified. Obsolescence factor should also be taken into account i.e., the equipment to be purchased should conform to the latest specifications and technology available in the market.

Scrutiny of records revealed the following points:

- All the three plants did not prepare item wise Inventory Control techniques i.e., Minimum Level, Maximum Level, Re-order Level and danger Level of material. As a result, plants initiated the purchase process when the stock position of respective items was either nil or very low.
- DCRTPP purchased machinery spares parts valuing Rs. 0.79 crore procured during August 2019 and October 2020 vide two POs were yet to be issued (July 2021).
- Furnace Oil (FO) valuing Rs. 8.88 crore purchased during November 2012 and June 2015 was not utilised (July 2021). Supreme Court of India imposed ban (November 2017) on use of FO due to high pollutant contents and adverse impact on environment. Hence, chances for use of this FO in future were very remote but the Company has not taken any action for its disposal.
- Mandatory and Recommendatory spares valuing Rs. 186.74 crore were still to be utilized (July 2021) even after capital overhauling of both the Units (Unit-I and II of DCRTPP) were carried out two times (2012-13 and 2018-20). The Unit-I and II were commissioned during 2008 and completed almost half of their life upto 2021 and Capital Overhauling of both the units has been carried out twice (December 2021). Also Unit-I and Unit II of RGTPP were commissioned during 2010 and have completed almost half of their life upto 2021. Hence, chances of use of this mandatory material are very remote.
- Spare parts valuing Rs. 47.37 crore of Unit I to Unit IV of PTPS-I, which had been surveyed off, dismantled and disposed of, were lying in the store for final disposal.

***** Simultaneously, spare parts valuing Rs. 7.46 crore of Unit V of PTPS-II, which had been closed and were under disposal, were lying in the store for final disposal. Therefore, inventory which is not required in the plant has not been disposed of.

The Management informed (May 2022) that ERP system is being implemented and after its implementation various inventory control measures will be fixed. Furnace oil of DCRTPP has been auctioned and Furnace oil at RGTPP is yet to be auctioned. Further, mandatory spares received as per commissioning package were intended to be utilized during lifetime of units and are presently being utilized as per the site requirement. The reply is not acceptable in view of the fact that Capital Overhauling of all the units of HPGCL having been completed and the units having expired half of their useful life, the material is yet to be utilised. Further, the Company should take early action to dispose off the furnace oil at RGTPP.

In their written reply, the State Government/Company stated as under: -

REPLY OF HPGCL

DCRTPP:

The point wise reply is as under:

1. Most of the items of consumable type & of regular usage like chemicals, lubricants, bearings, lights etc. for which Minimum Level, Maximum Level, Re order Level and danger Level is required to be maintained, Annual Rate Contracts (ARCs) are being issued from time to time for the arrangement of the material in short span as per the site requirement, to avoid excess storage of inventory. Whenever need of material is raised by the user section estimating its minimum level, indent is placed against ARC and material is arranged within short span of time as per requirement (maximum level) of user section. Therefore, levels of the required material are regularly monitored & maintained by its end users as per site requirement. The other spares & material of the Power Plant are reviewed critically by the end users and its indent/requirements are placed after duly analysing its stock position, consumption pattern and present & anticipated requirement of the Site for its timely availability to avoid storage of excess inventory in parallel.

As such, purchase process is got initiated appropriately with consistent reviewing & analysing all the factors like stock position, consumption pattern, site requirement etc. by the end users to avoid storage of excess inventory & blockage of funds towards inventory.

2. Furnace Oil (FO) has been disposed of w.r.t. DCRTPP, HPGCL, Yamuna Nagar.

3. Mandatory and Recommendatory spares being Essential/Insurance stock items are part & parcel and lifeline of 2x300 MW Power Plant of DCRTPP, Yamuna nagar supplied as the package under EPC contract & recommended by OEM (M/s SEC, China), keeping in view its future requirements. These spares are emergent in nature, not readily available in local market and having very long delivery period being China Origin. Having done the Capital overhauling of both the Units does never means that these spares cannot be utilized anymore. There might be any emergency & unforeseen situation & circumstances of the Power Plant for usage of these spares immediately. So, these spares can be required & utilized at any time as per the requirement & emergency of the Power Plant. Therefore, these spares would have be kept available during the whole life span of the Units.

The consumption of mandatory and recommended spares during previous years is as under:

Financial Year	**Stock of Mandatory Spares (Crore)**	**Stock of Recommended Spares (Crore)**	**Consumption of mandatory spares during the year (Cr)**	**Consumption of Recommended spares during the year (Cr)**
2015-16	25.90	24.92		
2016-17	24.19	22.33	1.71	2.59
2017-18	22.25	19.54	1.94	2.79
2018-19	21.28	19.13	0.97	0.41

2019-20	20.31	17.97	0.97	1.16
2020-21	19.88	17.61	1.43	0.36
2021-22	19.81	17.07	0.07	0.54
2022-23	18.98	15.22	0.83	1.85
Total Consumption			**7.92**	**9.70**

From the above table, it is clear that mandatory and recommended spares are continuously reduced and are being consumed as per site requirements.

RGTPP:-

- It is intimated that purchase of the item are being initiated as and when the stock level becomes nil or very low or in anticipation /planning as per site requirement and same has been critically reviewed by the end users of RGTPP by following HPGCL PR-15. No item has been kept reserved for any specific use and can be spared for RGTPP end users and other HPGCL plants as per their site requirement.
- Further, the purchase process restricted to the minimum bare requirement, and be made after obtaining non availability certificate from the store, sub-stores and from other HPGCL plants stores and done keeping in view the consumption pattern and various level of inventory so as to avoid over stocking, and at the same time to ensure that the stock is readily/timely available for consumption for the O&M of the Plant for uninterrupted power supply so as to avoid generation loss due to non-availability of spares required for O&M of units. RGTPP is maintaining Max. Mini. Level, reorder Level of stock items such as lubricants.
- Mandatory and recommended spares were handed over by the OEM i.e. M/s RIL at the time of commissioning. Some of spares are insurance spares kept to meet out plant emergencies and other are being used for O&M purposes.

However as per requirement of sites, end users of RGTPP & other plant of HPGCL are utilizing these spares. So in view of above and it is fact that during the initial period, when the equipment is new, the wear and tear is less; however, with the passage of time, the wear and tear increases, and the probability of usage of Mandatory and Recommended spares shall increase and thus, are expected to be utilized in the coming years.

- Memorandum was put-up for administrative approval for disposal of unused furnace oil (FO) available at RGTPP, Khedar before WTD. In 70th meeting of WTDs, HPGCL held on 14.10.2021, the decision of WTD is reproduced as under: -

"Whole Time Directors considered the memorandum and after deliberation, accorded approval to the proposal as brought out in the memorandum"

- Accordingly, the unused Furnace Oil was e-auctioned through MSTC Limited on 11.03.2022 to M/s Balaji Traders, Mathura. @ Rs.45663/- per KL plus taxes. Total value of the auction was Rs. 8,81,96,897.60 including taxes. Payment against total quantity received Rs. 8,51,99,029 and total oil lifted is 1383.869. However, payment against auction has been received at RGTPP.
- The utilization of mandatory spares is expected to increase substantially as the equipments have already expired half of their useful life and the wear & tear shall be more in the coming years. Further, the Inventory on account of mandatory spares has already shown a decreasing trend.

PTPS:-

- PTPS is maintaining max level, min level, reorder level of stock items such as lubricants, chemicals. Further, the purchase process is initiated when the stock level is Nil or very low and the requirement is critically reviewed by the end user.

- The segregation and final disposal of spare material relating to unit 1 to 4 is under process. Out of 47.37 crores book value items, appx. Rs. 24 crore value items have been disposed off through e-auction by MSTC and remaining items of appx. Rs. 23.37 crore value are under process for segregation and disposal as scrap items.

- The decision to phase out unit-5 is under re-consideration and items lying in O&M stores relating to unit-5 of value of Rs. 7.46 crores will be retained or disposed off accordingly.

During the course of oral examination, the departmental representative intimated that furnace oil could not be used due to ban imposed by Hon'ble Supreme Court of India and the same has been disposed off. The Committee recommended that reasons for delay in disposal of furnace oil alongwith detail of loss incurred on sale of furnace oil, if any, be intimated to the Committee.

Details of Pending Recommendations of the Committee till the Finalization of this Report.

Sr. No.	Board/Corporation	Report No.	Recommendation	No. of Recommendation
1	2	3	4	5
	HVPNL/HPGCL/ UHBVNL/ DHBVNL	35th	23 HPGCL	1
		52nd	8,10 HVPNL	2
		53rd	1 HPGCL 42 UHBVNL	2
		58th	1 DHBVNL	1
		60th	2 DHBVNL	1
		61th	1-2 & 4 UHBVNL & DHBVNL	3
		62nd	5 HPGCL 13-14 HVPNL	1 2
		63rd	1-7 UHBVNL & DHBVNL	7
		64th	3-7, 12-13 UHBVNL & DHBVNL 1- DHBVNL	7 1
		65th	1-3 HPGCL 3- UHBVNL 5- UHBVNL & DHBVNL	3 1 1
		66th	5-HVPNL 6-7 UHBVNL 8-DHBVNL	1 2 1
		67th	4-5 UHBVNL 12-14 HPGCL 15- UHBVNL & DHBVNL 16-DHBVNL	2 3 1 1
		68th	7- UHBVNL 15- DHBVNL	1 1

		69th	1-8 HVPNL	8
			9-HPGCL	1
			10-DHBVNL	1
			11-12 UHBVNL	2
		70th	1 & 9 HVPNL	2
			2-4 & 6 UHBVNL	4
			5 & 7-8 DHBVNL	3
	TOTAL			67
2.	Haryana State industrial and infrastructure Development Corporation	57th	4	1
		58th	4	1
		60th	8	1
		62nd	6-10	5
		65th	6	1
		67th	9-11	3
		68th	1-6 & 17	7
		69th	13-14, 16-17	4
		70th	10-11	2
	TOTAL			25
3.	Haryana Financial Corporation	49th	2-6	5
		50th	4 & 23	2
		52nd	18	1
		56th	5-6	2
		57th	9-10	2
		67th	7	1
	TOTAL			13
4.	Haryana Agro Industries Corporation Ltd.	16th	6.29	1
		23rd	14-16	3
		38th	8	1
		48th	27-33	7
		53rd	29-36	8
		56th	2	1
		57th	7	1
		58th	6-7	2
		59th	8-16	9
		62nd	11	1
		64th	15	1
		65th	7	1

	Haryana Agro Industries Corporation Ltd. And Haryana Warehousing Corporation	**66th**	**1-4**	**4**
		67th	**1-3** **8-9**	**3** **2**
	Haryana Agro Industries Corporation Ltd.	**68th**	**8-14**	**7**
	Haryana Agro Industries Corporation Ltd.	**69th**	**15, 18-19**	**3**
	TOTAL			**55**
5.	**Haryana Land Reclamation & Development Corporation ltd.**	**53rd**	**39**	**1**
	TOTAL			**1**
6.	**Haryana Warehousing Corporation**	**50th**	**16 & 18**	**2**
		52nd	**19**	**1**
		53rd	**28, 47**	**2**
		55th	**8,9,10,11,13**	**5**
		60th	**7**	**1**
		63rd	**8 -12 & 14**	**6**
		69th	**20-21**	**2**
	TOTAL			**19**
7.	**Haryana Seeds Development Corporation Ltd.**	**49th**	**9**	**1**
		53rd	**3,4**	**2**
		64th	**8**	**1**
	TOTAL			**4**
8.	**Haryana Tourism Corporation Limited**	**59th**	**5**	**1**
		62nd	**3-4**	**2**
	TOTAL			**3**
9.	**Haryana Forest Development Corporation Limited**	**58th**	**3**	**1**
		66th	**9**	**1**
	TOTAL			**2**

10.	**Haryana SC Finance & Development Corporation Limited**	**60th**	**6**	**1**
		63rd	**1**	**1**
	TOTAL			**2**
11.	**Haryana Roads & Bridges Development Corporation Limited**			
		57th	**8**	**1**
		61st	**5,7,8,9,11,12**	**6**
		62nd	**15-16**	**2**
		64th	**14**	**1**
		68th	**19-20**	**2**
	TOTAL			**12**
12.	**Haryana Police Housing Corporation Limited**	**60th**	**5**	**1**
		68th	**18**	**1**
		70th	**12**	**1**
	TOTAL			**3**
13	**Haryana Women Development Corporation Limited**	**64th**	**16**	**1**
			TOTAL	**1**
14	**Haryana Backward Classes and Economically Weaker Section Kalyan Nigam Limited**	**64th**	**18-23**	**6**
			TOTAL	**6**
15	**Haryana State Electronices Development Corp. Ltd.**	**67th**	**9**	**1**
			TOTAL	**1**
16	**Haryana Medical Services Corporation Ltd.**	**69th**	**22**	**1**
			TOTAL	**1**

Sr. No.	Board/Corporation	Report No.	Recommendation	No. of Recommendation
1	2	3	4	5
Outstanding recommendation in respect of Non-General working companies				
1.	Haryana State Small Minor Irrigation &Tubewells Corporation	42nd	27	1
		51st	5-6	2
	TOTAL			3
2.	Haryana State Small Industires Export Corporation	19th	11(General)	1
		43rd	3-4 & 7	3
		51st	8	1
	TOTAL			5
3.	Haryana Mineral Limited	41st	18	1
		45th	1-14 (General)	14
		48th	23-24 & 41	3
	TOTAL			18
Outstanding recommendation in respect of General working companies				
1.	Haryana Urban Development Authority	47th	7-20	14
		67th	1	1
	TOTAL			15

11709–H.V.S.–H.G.P.,Pkl.