

CHAPTER XI: MINISTRY OF POWER

Damodar Valley Corporation

11.1 Ash Management in Thermal Power Stations

11.1.1 Introduction

Ash is the residue after combustion of coal for generation of power in coal-based thermal power stations. A part of the ash, around 20 *per cent*, is collected as 'Bottom ash' at the bottom of the furnace. The other part is collected as 'Fly ash' in the Electrostatic Precipitators (ESP¹). This has to be collected and disposed of without letting it out in the atmosphere.

There are two ways of disposal of ash - the dry system and the wet system. Bottom ash is disposed of by using the wet system i.e, in the form of slurry whereas fly ash is collected/disposed of by using either 'the wet' or 'the dry' system. Dry fly ash is collected by means of dry fly ash collection system (DFACS²) and conveyed/transported from buffer hoppers to the storage silos located outside the plant boundary.

Dry fly ash is a valuable resource/raw material for cement, concrete and many other valuable high value added applications. Utilization of fly ash as part substitution of cement in concrete/mortar etc necessitate setting up of a system of dry fly ash collection which is the most efficient system in utilization of ash in a most economic, effective and eco-friendly manner.

Ash Management in thermal power plants indicates limiting ash generation by reducing the ash content of coal used in power generation and also enhancing utilization of ash so generated.

11.1.2 Scope of Audit

A review on "Ash Management in Damodar Valley Corporation (Corporation)" covering the period from 1997-98 to 2001-02 was incorporated in the Audit Report of the Corporation for the year 2002-03. Similarly, a long paragraph on "Ash Management of DVC Thermal Power Plants" was included in the Audit Report of the Corporation for the year 2008-09. The significant issues highlighted in the above reports were:

- High generation of ash due to non-usage of blended coal and use of coal with high ash content:
- Poor Ash Handling system;
- Inadequate evacuation and disposal of ash;
- Violation of pollution control norms.

¹ *Precipitators (ESP) is a device that removes suspended dust particles from a gas or exhaust by applying a high-voltage electrostatic charge and collecting the particles on charged plates.*

² *A dry fly ash collection system ensures collection of ash from the ESP and transportation of the same to the storage silos located outside the plant boundary.*

The Action Taken Note on these issues has not been received so far (January 2013). In the meantime, with the increased generation of power in the thermal power stations of DVC, the generation of ash has increased substantially. In the above backdrop, a follow up audit on Ash Management system in four thermal power stations (MTPS, DTPS, CTPS and BTPS¹) of the Corporation was undertaken which covered a period of three years (2009-10 to 2011-12).

11.1.3 Audit Objectives

The Theme Audit was carried out to assess whether:

- the generation of ash was regulated and managed efficiently as per norms set by Ministry of Environment and Forest (MoEF);
- an efficient mechanism was in place to evacuate ash;
- ash evacuated was utilised effectively in accordance with the guidelines of MoEF and the Corporation;
- an efficient and environmental friendly mechanism was in place for disposal of ash.

11.1.4 Audit Criteria

The criteria for assessing the effectiveness of ash management were derived from:

- norms fixed by Central Electricity Authority(CEA) for blending of coal;
- norms fixed by MoEF/ MoP/ TIFAC/ CPCB/S PCB²;
- estimated and actual generation of ash;
- industry best practice.

11.1.5 Audit findings

11.1.5.1 Generation of Ash

The Corporation with an installed thermal capacity of 4210 MW (June 2012) generated 16.86 MTPA of ash and disposed of 14.74 MTPA of ash during the period from 2009-10 to 2011-12 as detailed below:

Total Ash generation and Utilization

(Figures in million ton per annum)

Power Station	2009-10			2010-11			2011-12		
	Average per cent of ash content in coal consumed	Generation	Utilization	Average per cent of ash content in coal consumed	Generation	Utilization	Average per cent of ash content in coal consumed	Generation	Utilization
BTPS'B'	45.7	1.81	1.80	49.29	1.45	1.45	48.87	1.49	1.79

¹ Meija Thermal Power Station (MTPS), Durgapur Thermal Power Station (DTPS), Chandrapura Thermal Power Station (CTPS), Bokaro Thermal Power Station (BTPS).

² Ministry of Environment and Forests/Ministry of Power/Technology Information, Forecasting and Assessment Council/Central Pollution Control Board/State Pollution Control Board.

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CTPS	45.33	0.61	0.62	48.57	0.83	0.39	50.79	1.17	0.76
DTPS	42.62	0.64	0.86	43.15	0.56	0.86	45.55	0.72	0.50
MTPS	38.5	1.65	1.81	43.63	2.64	1.70	45.49	3.29	2.20
Total		4.71	5.09		5.48	4.40		6.67	5.25

It was observed that except for the year 2009-10¹, ash generated was not fully utilized.

Management stated (December 2012) that utilisation of ash in its power plants (87.28 percent) was better in comparison to other power utilities of the country. Audit however, observed that the ash so utilised was mostly dumped in the ash ponds in slurry form (89 per cent of total utilization) for subsequent utilisation in mine filling by incurring transportation cost instead of utilizing the same in an eco-friendly manner.

11.1.5.2 Non-usage of beneficiated and blended coal

(a) **Coal beneficiation:** It is a process by which the quality of raw coal is improved either by reducing the extraneous matter from the mined coal or by reducing the associated ash or both. It is a broader term used to describe the complete process of sizing, handling and washing of the run-of-mill coal. Use of beneficiated coal leads to various improvements in the performance of thermal power plants, which contribute towards reduced carbon dioxide emission and hence allowed as credit under Clean Development Mechanism² (CDM). The Environment (Protection) Act, 1986 under which the MOEF notifications are issued, empowers the Government to impose penalty for contraventions of the rules, directions etc. As per the MoEF notifications (1997, 1998 and 2001), any thermal power station falling under a critically polluted area should use beneficiated coal with an ash content not exceeding 34 per cent. CEA identified BTPS and DTPS of DVC which were among the 39 thermal power stations requiring the use of blended/beneficiated coal.

(b) Thus, non-usage of beneficiated coal in the above two power stations was not only in violation of the MoEF norms but also resulted in loss of opportunity to save the cost of generation during the period from 2009-10 to 2011-12 in those TPSs .

Management replied (December 2012) that it had taken up with the coal companies for supply of beneficiated coal but had no choice but to accept the quality of coal supplied by them. This is not acceptable in view of the fact that the Corporation should have explored the possibility of setting up of washeries of their own.

(c) **Blending of coal:** It is also an important tool of ash management since it entails mixing of low ash content imported coal with high ash content indigenous coal to ensure the required heat value and to generate lesser amount of ash in flue gas. Boiler tube leakages due to ash erosion can also be avoided by lowering generation of ash. The committee constituted by the Corporation for studying/analysing the infrastructural

¹ During the year 2009-10 the utilisation of ash was more than ash generated in CTPS, DTPS and MTPS due to clearance of accumulated balance of ash generated in the previous years.

² The Clean Development Mechanism (CDM) is a flexible arrangement under the Kyoto Protocol for international cooperation in reducing green house gas emissions. CDM allows emission-reduction projects in developing countries to earn certified emission reduction (CER) credits, each equivalent to one ton of CO₂. CERs can be traded and sold and used by industrialised countries to meet a part of their targets for reducing emission.

facilities available at Badarpur Power Station of NTPC for blending of imported coal recommended (June 2008) various measures like installation of high pressure fire hydrant, revamping of in-motion railway bridge, blending by dozer operation etc. Audit observed that there were no blending facilities installed in the four power stations of the Corporation under review. There were instances of boiler tube leakages (15717.5 hours) in the power stations during the period from 2009-10 to 2011-12 on account of ash erosion resulting in generation loss of 2407.28 MU. This loss could have been avoided by blending of imported coal with indigenous coal.

Management accepted (December 2012) that blending of coal could not be done due to infrastructural shortcomings of the plants.

It was further observed that due to high ash content in coal in DTPS, the performance of its ESP was affected resulting in emission of black smoke. The emission exceeded from 439.59 mg/Nm³ (10 September 2009) to a maximum of 5403.45 mg/Nm³ (20th December 2010) against the norm of 150 mg/Nm³. Consequently, the West Bengal Pollution Control Board (WBPCB) imposed (September 2011) a pollution cost/penalty of ₹ 20 lakh on DTPS and ordered to submit a bank guarantee of similar amount as an assurance to comply with the environmental norms. The Corporation paid (October 2011) the penalty and submitted the bank guarantee to WBPCB.

11.1.5.3 Absence of initiatives on Clean Development Mechanism

The power stations need to adopt methodologies which increase efficiency of generation and improve the overall plant heat rates. Use of fly ash in construction of bricks and cement, installation of DFACS and ash water recirculation system are included in CDM qualified projects. Keeping in view the above benefits and requirements, the Corporation decided (September 2007) taking up CDM projects and expression of interests for the above projects was invited. Although some parties responded, the management neither took any further action nor apprised the Board. The Board also did not monitor this issue further.

Management in its reply (December 2012) did not mention any reason for not taking any initiative on CDM.

11.1.5.4 Absence of a comprehensive Ash Management Policy

MoEF directed (September 1999) to gradually phase out dumping of fly ash on land. It was observed that after a lapse of 10 years, the Corporation formulated (June 2009) a policy for dry fly ash utilization. The salient feature of this policy was centered on the utilisation of ash in dry form by cement industries so that the Corporation could save transportation cost to the tune of 80 *per cent* on account of ash evacuation and to comply with the environmental norms set by MoEF as well. The MoEF through its notification (November 2009) mandated the thermal power plants to allocate dry fly ash to all manufacturers/agencies/entrepreneurs. The Corporation, however, took nearly two years (September 2011) to include other manufacturers and agencies for utilization of ash.

(a) Dry Fly Ash Collection System

It was envisaged in the policy of June 2009 that 80 percent of the total ash generated in the power stations could be collected through DFACS for supply to user agencies. The status of installation/commissioning of DFACS in the units is given below:

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TPS	Unit	Target Date	Present position
BTPS	1, 2 & 3	April to July 2009	Unit 2- commissioned but lying inoperative
			Unit -1 & 3 not yet commissioned
CTPS	1, 2 & 3	Dec-10	Tendering stage
DTPS	3 & 4	Dec-10	Construction stage
MTPS	1 to 6		Units 1 to 3-Silo already connected to LIL
			Silo of Unit 4, 5 & 6 operational

Due to non-installation of DFACS, the Corporation had to evacuate ash from the ash ponds and dump the same into the open cast mines by incurring transportation cost. It was observed that during the year 2009-10 to 2011-12 the Corporation had to incur ₹ 219.40 crore on transportation of ash (142.67 lakh cubic metre) and therefore lost the opportunity to save ₹ 175.50 crore (80 percent of ₹ 219.40 crore). The above transportation expenditure is recurring in nature and not reimbursable through tariff.

Management stated (December 2012) that the Corporation had already installed DFACS in all its new units and initiated action for installation of the same in old units. It was observed that DFACS had not been commissioned in one of the new units (unit # 7) of CTPS. It was further observed that the DFACS had not been installed in the old units (December 2012).

Management's contention that there was no loss due to non-installation of DFACS was not acceptable as the savings in transportation cost was envisaged by the management itself while framing the policy in June 2009.

(b) Ash disposal initiatives

There was poor off-take of ash from the Corporation's premises. The reasons for poor off-take in MTPS, the station equipped with DFACS, were non-availability of operators at the dry fly ash silo, congestion as well as time restrictions at the gate of MTPS. The Corporation did not take suitable action to remove the above bottlenecks.

The contention of the management (December 2012) that due to non-availability of fly ash takers the ash had to be dumped in ash ponds was not acceptable as poor off-take of ash was due to non-availability of infrastructural facilities for supply of ash to the prospective ash takers.

(c) Undue contractual benefit to the user agency

As per the MoEF notification, the thermal power stations should facilitate the ash user agencies by making them available land, electricity etc and provide access to the ash lifting area for promoting and setting up of ash-based production units in the proximity of the area where ash is generated. The Corporation entered into an agreement (April 2005) with Lafarge India Private Limited (LIL) for collection of dry fly ash for an estimated quantity of 1200 tonnes (+/- 25 per cent) per day (TPD) free of cost from the three units of MTPS (U # 1, 2 and 3) for its cement factory which was to be set up at MTPS premises. As per the agreement, the Corporation leased out 78 acres of land at MTPS on a long term basis for 30 years, agreed to share 66 percent of the initial capital cost incurred by LIL for installation of collection, classification, storage and transportation system for fly ash within the power plant and 60 percent of the operation and

maintenance (O&M) cost of the above system to be incurred by LIL. The Corporation also allowed LIL to share common infrastructure facilities like its lone captive railway line for bringing the coal at MTPS.

It was observed that the terms and conditions of the above agreement with LIL were prejudicial to the financial interests of the Corporation on the following grounds:

- Sharing of initial capital cost incurred by LIL in respect of collection, classification, storage and transportation system for fly ash within the power plant is not financially prudent since there is no stake of the Corporation in LIL;
- The cement plant is operated by LIL exclusively without any profit sharing clause in the agreement. Thus, sharing of O&M expenditure by the Corporation during the entire period of agreement (30 years) lacks commercial justification.
- Allowing LIL to use the dedicated lone captive railway of MTPS has been frequently hindering the inward coal rake movement leading to loss of generation of power. During November 2011, Unit 7 of MTPS could not generate power due to such hindrances and suffered contribution loss of ₹ 3.28 crore.
- Extending such undue facility to LIL was not in line with the MoEF directives.

On commissioning of the cement plant (April 2009), LIL submitted its claim for reimbursement of ₹ 16.36 crore of Corporation's share (capital expenditure of ₹ 12.22 crore and O & M cost of ₹ 4.14 crore). Another claim amounting to ₹ 1.12 crore had been submitted by LIL towards relocation of its plant at MTPS. These claims were under scrutiny of the Corporation (September 2012).

Management has accepted (December 2012) the audit observation.

Audit further observed that the agreements entered into by NTPC with the user agencies for supply of ash from its power stations did not contain any clause for sharing of capital and O&M cost.

11.1.5.5 Evacuation of Ash

(a) Under performance of the Electro Static Precipitator and Ash Handling Plant

Electro Static Precipitator (ESP) is installed in thermal power plants to entrap the flying ash emerging from the boiler and flush out the same through the hopper forming part of the Ash Handling Plant (AHP). As per the Technical Audit Report of the power stations, functioning of ESPs in BTPS, MTPS and DTPS were affected due to poor ash evacuation from the AHP hoppers. Thus, inadequate evacuation of ash by ESP and AHP resulted in load restriction and consequent generation loss of 402.3 MU in the three thermal power plants during the period from 2009-10 to 2011-12 and the Corporation had to suffer contribution loss of ₹ 64.96 crore.

Management stated (December 2012) that ESPs' performance of BTPS & DTPS was hampered due to high ash content of coal. The reply of management is not acceptable as the generation loss could have been avoided by regular maintenance of ESP and AHP.

(b) Limited Ash Pond Capacity

Of the four thermal power stations, the Corporation has limited ash pond capacity in BTPS and MTPS. In BTPS, both bottom ash and dry fly ash of BTPS 'B' (3X210 MW) are discharged into the existing ash pond near river Konar. The area of the ash pond is

12.07 hectares which is not sufficient to accommodate the ash generated. Continuous evacuation of such ash from ponds to the abandoned mines is, therefore, required. It was observed that based on the Jharkhand High Court order (July 2006), the Jharkhand State Pollution Control Board (JSPCB) was directed to take appropriate action against BTPS-B or order closure of the unit for causing pollution to river Konar and other tributaries including river Damodar. BTPS committed (January 2007) to construct a new ash pond at a distant place with zero discharge system and abandon the existing ash pond. The work for construction of the new ash pond at Noorinagar in Govindpur area (about 4 KM away from BTPS) was awarded (November 2008) to Hindustan Steelworks Construction Limited (HSCL) at a cost of ₹ 48.50 crore with scheduled date of completion of 18 months i.e. March 2010. The scope of work was subsequently revised (November 2011) which resulted delay in completion of work. The cost of work increased to ₹ 76 crore and the completion period extended upto June 2012. However, the work was not completed (December 2012). Thus, the effluents continued causing pollution and sedimentation in the rivers. In the meantime, JSPCB issued notice (December 2009) to close down the operation of Unit # 1 of BTPS-B. The Corporation appealed (January 2010) to the JSPCB for reconsideration of the matter and committed for early construction of permanent ash pond, which was still pending (December 2012).

(i) Delay in acquisition of land resulted in environmental degradation

The ash ponds in MTPS with an area of 600 acres and holding capacity of 220 lakh m³ were constructed to meet the requirement of Units # 1, 2 & 3 (3 X 210 MW). Subsequently, five more units were commissioned in 2005, 2008, 2011 and 2012 respectively* without acquiring any additional land for construction of ash ponds. Further, the work for evacuation of ash from ash ponds to the abandoned mines was delayed. Evacuation started only in 2009 when the ash ponds were filled with 175.08 lakh m³ of ash. Ash evacuation rate (i.e. 2.25 lakh MT per month) was not commensurate with the rate of accumulation of ash in the ash ponds (i.e. 3 lakh MT per month approx) resulting in filling up of ash ponds. It was observed that there was restriction on



movement of vehicle for lifting of ash from the ash ponds due to absence of passage for vehicle movement owing to non-acquisition of land by the Corporation. As a result spillage of ash slurry took place in the nearby paddy fields (exhibited above), affecting

* Unit-4 – 210 MW, Unit-5 & 6 – 2 X 250 MW and Unit-7 & 8 – 2 X 500 MW.

nearly 300 acres of land. Till 2009-10, the Corporation had to pay avoidable crop compensation to the tune of ₹ 1.74 crore for 150 acres of land (January 2012) and compensation for the remaining 150 acres was to be paid (August 2012). Due to breach (March 2012) in the ash pond, the nearby dams (Jamgari Dam and the upper Maliara Jor Bundh) of West Bengal were affected due to huge deposition of fly ash on the bed of the dams which reduced the capacity of the dams considerably and created problems in irrigation in the command area. Block Development Officer, Govt. of West Bengal observed (08 June 2012) that Maliara Jor Bandh was fully covered with ash and that the water was destroying the agricultural land nearby; that fly ash was getting deposited on residences and causing breathing trouble among the inhabitants. The Corporation is liable to bear the cost of cleaning of the above dams.

Management stated (December 2012) that the process of acquisition of land for additional pond had been taken up with the MoEF. The belated action for acquisition of land lacked justification and resulted in environmental degradation.

11.1.5.6 Deficiency in tendering process for evacuation of ash

The Corporation had restricted (November 2006) the Qualifying Requirement (QR) of tenders for evacuation of ash from the ash ponds to only those contractors who had experience in “evacuation and dumping of ash in power stations” instead of industry practice of keeping the QR as “ash or earth evacuation”, a practice which had been followed by DVC prior to 2006. The contracts awarded accordingly were due to expire and the Corporation invited (March 2010) fresh tenders based on the above restrictive QR. The action led to cartel formation among the qualified bidders violating the provisions of the Works and Procurement Manual of the Corporation and CVC guidelines. Subsequently, the Corporation modified the QR, at the behest (August 2010) of the Ministry of Power, and made it more competitive by reverting to the norm prevailing prior to November 2006 i.e. “ash or earth evacuation”. Fresh tenders were issued (September 2010) by cancellation of tenders issued in March 2010. The apex Court gave an interim order (December 2011) in the case filed by existing contractors stating that the Corporation may process the new tender based on the modified QR, but the order could be placed only after the case was decided and the case was pending as of December 2012. It was observed that the L1 bidders with respect to fresh tenders (with relaxed QR) (September-October 2010) of BTPS, DTPS and MTPS were found to be lower by 24.8 per cent, 23.3 per cent and 2.85 per cent respectively than the estimated rates. Thus, due to restrictive QR in 2007 the Corporation could not avail of competitive market rates and had to incur extra expenditure^v of ₹ 32.84 crore on transportation of 145.43 lakh M³ during the period from 2008-09 to 2011-12.

While accepting the above observation, the management stated (December 2012) that the modified QR was finalised in line with the Works & Purchase Manual and CVC guidelines.

11.1.5.7 Utilization/Disposal of Ash

(a) Loss of generation due to non-adherence to environmental norms

Ash generated in BTPS-B plant is dumped in the abandoned mines of Bokaro & Kargali area of Central Coalfields Limited (CCL). In terms of the recent agreement (December

^v earlier tender rates of ₹147.87(DTPS), ₹222.41(MTPS) ₹136.29 (CTPS) and ₹115.96(BTPS)

2010) with CCL, BTPS is to take necessary measures for compaction of fly ash regularly with dozer, reclamation of the top with soil etc to avoid pollution. It was, however, observed that despite repeated cautioning by CCL, BTPS did not take necessary action in this regard. CCL disallowed BTPS from disposing of ash in its mines for 41 days (11.05.2012 to 20.06.2012) due to which the ash could not be evacuated from its ash ponds for dumping into the mines of CCL. Consequently, BTPS had to forcefully shut down its units for 316 hours (from 08.06.2012 to 15.06.2012) leading to generation loss of 46.669 MU and loss of contribution amounting to ₹ 8.40 crore.

Management replied that shut down of BTPS during the above period was not due to non-compliance with environmental norms. This contention was not acceptable as the correspondence of the BTPS management with its headquarters and with CCL, JSPCB and Jharkhand State Electricity Board revealed that generation was disrupted during the above period due to non-evacuation of ash from ash ponds.

Conclusion

Managing ash has been a long standing problem for the Corporation. The MoEF and pollution control boards had issued directions from time to time for reduction of ash generation, collection, evacuation and utilisation of the same in an effective and eco-friendly manner. Underperformance of the ash handling system, non-installation of dry fly ash collection system in all the power stations, poor management of ash ponds and further dumping in abandoned mines led to loss of generation, river and dam pollution and damages to paddy fields. Huge avoidable cost on transportation of ash continued to be incurred. The corporation needed to develop a clear strategy for utilisation of ash in an eco-friendly manner through CDM projects.

The matter was reported to the Ministry in December 2012; their reply was awaited (March 2013).

11.2 Irregular/ double payment

Non-observance of proper procedure and misuse of official capacity and absence of security and other safety measures led to irregular/double payment of ₹ 58.95 lakh.

Damodar Valley Corporation (Corporation) follows a standing procedure for issue of work order and payment of bills thereof. The proposal for work are forwarded by the concerned user section with detailed scope of work, estimated cost, completion schedule to the appropriate authority as per the delegation for obtaining administrative approval to undertake the proposed works prior to the floating of enquiry and finalization for issue of work order. The work bills are submitted by the contractor to the concerned user section which then certifies the work done and sends the bill to the Accounts Section for payment. If the bill is found to be in order, it is passed for payment by the officers of Accounts Wing. After receipt of the passed bill, voucher no. and date are given in Bank Payment Register. Thereafter the cheque and the passed bill are submitted to the cheque signing authority for issuing the cheque and making payment to the contractor.

However, instances of irregular release of payment during the period from August to October 2011 at Bokaro Thermal Power Station (BTPS), a unit of the Corporation, were noticed by audit which was in violation of the existing procedure for sanction and release of payments. A total sum of ₹ 39.03 lakh was released by the Accounts Section in five

instances against which no work orders were issued, no jobs were executed and vouchers were missing, indicating violation of the existing procedure to be followed before releasing payments.

In additional five instances a total payment of ₹ 19.92 lakh was released against bills for which payments were already released earlier. It was observed that after making payment, the existing practice of recording such payment on the back side of the Agreement/work order was not followed and no contractor-wise ledger was maintained. It was also noticed that most of these bills were either photocopies or scanned copies of previous bills and there were instances of manipulation like overwriting, changing the date of the work done etc. In all the above five cases, the bills were passed for payment by the head of the Accounts Section violating the existing procedures.

During the course of audit during May 2012, management contacted (May 2012) the concerned parties for refunding irregular/ double payment of ₹ 58.95 lakh (₹ 39.03 lakh + ₹ 19.92 lakh) as stated above. Thereafter, five parties refunded a sum of ₹ 33.40 lakh while audit was in progress. Earlier, CBI has filed (April 2012) an FIR of criminal conspiracy against a party to whom an amount of ₹ 8.27 lakh were released without any service being provided by the party. The case is under investigation till January 2013.

Thus due to non-observance of the existing system, payments were released to the parties for no work/job. It was further observed that important accounts and records/documents were not kept under lock and key and were stored in open public places. Bank payment books for the period September and October 2011 were burnt and severely damaged in April 2012 by chemical burning as detected by the inspection team of the management.

Thus, non-observance of proper procedure, absence of security and other safety measures led to irregular / double payment of ₹ 58.95 lakh (₹ 39.03 lakh + ₹ 19.92 lakh). Although such irregular payments were made from August 2011 onwards, action was initiated by the management to recover the loss only after commencement of audit in May 2012. While accepting the above irregularities, the management stated (November 2012) that no disciplinary action could be taken till receipt of advice from CVC to whom the case was referred.

The matter was reported to the Ministry in October 2012; their reply was awaited (March 2013).

NHPC Limited

11.3 Irregular encashment of casual leave and optional holidays

NHPC Limited made irregular payment of ₹ 20.32 crore to its employees on account of encashment of casual leave/optional holidays during 2001-10.

As per instructions of Department of Public Enterprises (DPE), leave rules are framed by CPSEs with the approval of their Board of Directors keeping in view the broad parameters of the policy/guidelines laid down by the Government of India. DPE has not issued any specific instructions/guidelines permitting encashment of casual leave and optional holidays. Other CPSEs like NTPC Limited, Power Grid Corporation of India Limited, Power Finance Corporation Limited, Rural Electrification Corporation Limited and SJVN Limited are also not providing facility for encashment of casual leave/optional holidays to their personnel.

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Though there were no guidelines of DPE and no practice in other CPSEs indicated above for encashment of casual leave and optional holidays, a proposal was put up (December 2000) by the Management of NHPC to their Board of Directors (Board) to allow encashment of casual leave and optional holidays. The proposal was justified to curb tendency amongst employees to avail casual leave/optional holidays during the last quarter of the year leading to absenteeism which adversely affected the office work. Board approved the proposal in December 2000 and the scheme was extended to employees and executives from calendar year 2001. The Government nominee director who attended the meeting of the Board did not express any disagreement to the proposal, as noticed from the minutes of the meeting.

It is pertinent to mention that while clarifying on the issues raised by Ministry of Shipping, Government of India, DPE stated (October 2010) that casual leave must not be encashed at all and unavailed casual leave must lapse at the end of the calendar year. In compliance of this clarification of DPE, NHPC discontinued the scheme for encashment of casual leave/optional holidays with effect from January 2011 with approval of Chairman and Managing Director, NHPC. But the amount of ₹ 20.32 crore paid to its employees on account of casual leave/ optional holidays encashed during January 2001 to December 2010 was however, not recovered.

The Management stated (October/November 2012) that the benefit of encashment of casual leave and optional holidays was allowed to arrest the trend of absenteeism during the months of October-December which adversely affected the office work.

The reply is not tenable as casual leave/optional holidays were neither encashable under any instructions/policy of the Government nor NHPC obtained specific approval of DPE in this regard.

Thus, payment of ₹ 20.32 crore to employees on account of encashment of casual leave/optional holidays during the years 2001 to 2010 was irregular.

The matter was reported to the Ministry in November 2012; their reply was awaited (March 2013).

Power Finance Corporation Limited

11.4 Performance related payments and perquisites to employees in excess of DPE norms

PFC made performance related payments and allowed perquisites aggregating to ₹ 21.63 crore to its executives during April 2007 to March 2012 in excess of the ceilings prescribed by the Department of Public Enterprises.

Department of Public Enterprises (DPE) issues instructions *inter alia* for regulating pay, allowances, perquisites and performance related payments by Central Public Sector Enterprises (CPSEs) to their personnel from time to time. Decision of Government to revise pay and allowances of executives of CPSEs with effect from 1 January 2007 was conveyed (26 November 2008) by DPE. This was followed by a Presidential directive (30 April 2009) by Ministry of Power to Power Finance Corporation Limited (PFC) to revise the pay and allowances of their personnel strictly as per DPE guidelines.

Audit examined implementation of these instructions by PFC and observed that following payments were made by PFC in excess of the prescribed guidelines:

Performance related payments

DPE guidelines of 26 November 2008 *ibid* permitted performance related payments (PRP) by CPSEs subject to a maximum ceiling of 5 *per cent* of distributable profits of an enterprise. In terms of these guidelines, PFC, with approval of their Board of Directors (Board), was paying PRP and annual reward to their executives at varying rates from time to time subject to ceiling of 5 *per cent* of distributable profits.

DPE guidelines of November 2008 *ibid*, however, introduced maximum ceiling slabs ranging from 40 to 70 *per cent* of basic pay of executives below Board level and 100 *per cent* to 200 *per cent* of the basic pay for Board level executives for PRP. These ceilings were in addition to the overall maximum ceiling of 5 *per cent* of distributable profits of an enterprise.

A Remuneration Committee was constituted (January 2010) by the Board to look into the issues pertaining to PRP and annual bonus. Remuneration Committee observed that different levels of executives up to Board level were being paid PRP (including annual reward) at the rates ranging from 121 *per cent* to 130 *per cent* of basic pay and would be adversely affected by implementation of revised guidelines of DPE which restricted PRP to maximum of 40 to 70 *per cent*. Remuneration Committee recommended payment of an additional component in the form of 'Baseline Compensation' subject to a ceiling of 66 *per cent* of the basic pay as well as 5 *per cent* of distributable profits of PFC to partially compensate the executives against fall in the revised PRP *vis a vis* pre revised PRP. The recommendations of Remuneration Committee were accepted by the Board (March 2010) and were also approved for Board level executives. The government nominee directors on the Board who attended the Board meeting where the recommendations of Remuneration Committee were approved did not express disagreement on the issue, as was evident from the minutes of the meeting.

In October 2011, Ministry of Power sought details of PRP payments and 'Baseline Compensation' disbursed/proposed to be disbursed by PFC after the applicability of revised DPE guidelines. In response, PFC informed (November 2011) Ministry that as DPE guidelines led to an overall loss with regard to PRP to personnel, a 'Baseline Compensation' was approved by the Board which had been empowered by DPE OM dated 26 November 2008 to decide on annual bonus and policy of its distribution across the executive and non-unionised supervisors within the prescribed limits of 5 *per cent* of profit before tax. Ministry forwarded the letter of PFC to DPE for information and necessary action. Response of DPE was awaited (March 2012) by the Ministry. Meanwhile PFC paid 'Baseline Compensation' amounting to ₹ 20.52 crore to its personnel during 2009-10 and 2010-11* on the basis of approval of their Board.

The Management stated (August 2012) that 'Baseline Compensation' was introduced based on incremental growth and also keeping in view the fact that the employees had been put to financial loss on account of payment of PRP and 'Baseline Compensation' was within the overall ceiling of 5 *per cent* of distributable profits. As every employee

* *Payments for 2011-12 were yet to be made (December 2012)*

contributed to incremental growth of the corporation, 'Baseline Compensation' was extended uniformly across all levels including Board level functionaries.

The reply is not tenable as DPE guidelines did not prescribe protection of PRP drawn earlier by the employees and hence the rationale of financial loss to employees put forward by the Remuneration Committee and approved by the Board was flawed. Further, gradewise ceilings were fixed by DPE in addition to overall ceiling of 5 per cent of distributable profits and Board was not empowered under DPE instructions to approve PRP in excess of these gradewise ceilings.

Thus, PFC made payments of PRP/'Baseline Compensation' in violation of the guidelines of DPE.

Payments towards perquisites in excess of DPE ceilings

Instead of prescribing a fixed set of allowances and perquisites, DPE permitted (November 2008) CPSEs to follow 'Cafeteria approach' allowing executives to choose from a set of perquisites and allowances (other than house rent allowance and leased accommodation which were regulated separately) subject to a maximum ceiling of 50 per cent of basic pay. Accordingly, PFC identified (November 2009) 15 perks and allowances to be included in the basket forming part of the cafeteria out of which executives were permitted to choose perks and allowances subject to their aggregate being limited to 49.9 per cent of their basic pay. Balance 0.1 per cent of the basic pay was meant for monetization of operational expenses for running of canteen.

Audit observed that in addition to the identified perks and allowances aggregating to 50 per cent of basic pay, PFC has been providing interest subsidy on housing loans to employees. The benefit in respect of interest subsidy on housing loans to executives which was beyond the maximum ceiling of 50 per cent of basic pay of executives as fixed by DPE, aggregated to ₹ 1.11 crore during 2007-12.

Management stated (August 2012) that interest subsidy on housing loan had not been included in the 50 per cent cap because housing as a perquisite has been kept out of the ceiling of 50 per cent by DPE in their instructions of November 2008.

The reply is not convincing as DPE guidelines had laid down that all perks and allowances except four specified allowances *viz.* North-East allowance limited to 12.5 per cent of basic pay, allowance for underground mines limited to 15 per cent of basic pay, Special allowance up to 10 per cent of basic pay for serving in the difficult and far flung areas and Non practicing allowance limited to 25 per cent of basic pay for medical officers, were to be within the overall ceiling of 50 per cent of basic pay. This was further clarified by DPE (June 2011) on questions raised by some Ministries that no other allowance or perk would be kept outside the 50 per cent ceiling. Further, housing in the form of house rent allowance and leased accommodation are not comparable to interest subsidy on housing loan.

The matter was reported to the Ministry in October 2012; their reply was awaited (March 2013).