



KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Companies Act, 1956)
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ABSTRACT

Lower Periyar HEP (180 MW) – Flood damages to the trash rack –Administrative sanction for urgent restoration work and ratification of actions taken– sanctioned-Orders issued.

CORPORATE OFFICE (SBU-G/C)

BO(FTD) No.719/2019 (DGC/AEE-II/ Dam Safety/2019)Thiruvananthapuram, dtd.01-10-2019

Read:- 1.Letter No.LPHEP/GL/2018/dated 18-09-2019 of the Chief Engineer(Civil –Dam Safety & DRIP)

2.No.DGC/AEE-II/Dam Safety /2019 dtd.25-09-2019 of the Director (Generation Civil) (Agenda Item No.47/9/2019)

ORDER

The Chief Engineer(Civil –Dam Safety & DRIP) as per letter read as 1st above has reported that, a forced shutdown of unit # 2 machine of the Lower Periyar Power house was occurred on 01.09.2019 at 16:47 hrs and while conducting the spiral casing inspection, heavy wooden logs were found struck in the Guide vanes. The divers were arranged for the inspection of trash rack system at Power Tunnel Intake on 07.09.2019 & 08.09.2019. On inspection it was informed by the divers that, the bottom most trash rack (No.07) of third column from the dam body is seen bent at middle about 35cm inward and there is a horizontal gap at the bottom. More over some of the trash racks were covered with debris and wooden logs, and hence they were not able to inspect further down. Then the Lower Periyar Power House is in total shutdown position.

In the meeting convened by the Director (Generation Civil) at Pambala IB on 09.09.2019 with the Chief Engineer (Generation) Moolamattom and officers from Generation and Dam Safety wing, the following decisions were taken:

- i) to inspect the Tunnel,surge and trash rack system after depleting the tunnel and additionally releasing 250 cumecs of water from the reservoir to drain the reservoir.
- ii) partial removal of ridge weir to facilitate inspection of the damaged trash rack panel
- iii) cleaning the tunnel, surge etc.if required.
- iv) arranging repair/ replacement of damaged trash rack panel or blinding the damaged panel if repairing /replacing of the trash rack panel is time consuming, to start generation.

Accordingly water level in the reservoir was lowered after taking permission from the District Collector,Idukki for releasing of water. Action was initiated to empty the tunnel to inspect the trash rack panel ,for the removal of silt and wooden logs deposited in the trash rack chamber, for the cleaning of surge pit etc. for restoring the generation at the LP power house. On detailed underwater inspection, it was found that the bottom most trash rack panel was damaged and found to be beyond repair and has to be replaced.

Considering the urgency of the works and based on the directions during the meeting on 09.09.2019, quotations were collected by the Executive Engineer, Dam Safety Division No. IV, Pambla and based on the quotation, estimates were prepared for various allied works so that, the generation at the Power House can be resumed within the shortest time.

The Chief Engineer(Civil –Dam Safety & DRIP) reported that the trash rack panels were installed during 1997 and during the shutdown works in September 2018 one panel only was replaced. As replacing of the panel is time consuming, it was decided to provide a blinding panel at the bottom most portion of one bay for the time being for immediate restoration of generation. It is also reported that cost of providing a blinding panel is justifiable considering daily generation of about 3.5 to 4 Mu during rainy season.

Accordingly the Executive Engineer, Dam Safety Division, Pambla has arranged the work based on decisions taken during the meeting on 09.09.2019 to minimize generation loss. The details of works involved and its financial commitment is as follows:

Expected Expenditure for Flood Related works connected with Lower Periyar HEP for immediate restoration of the Project		
Sl.No	Description	Amount (including 18% GST) (Rs)
1	Under water inspection and under water cleaning of trash rack	95,000.00
2	Urgent jungle clearing of approach roads and premises ADITs and surge area	2,77,000.00
3	ADIT lighting, ADIT gate operation, Tunnel inspection etc.	2,05,000.00
4	Cleaning and removal of deposits from surge pit	1,05,000.00
5	Removal of rubble and steel net from ridge weir for complete depletion of reservoir	1,77,000.00
6	Cleaning and removal of silt deposit and other rubbish from Desilting chamber	8,50,000.00
7	Blinding of damaged trash rack panel and tying the existing damaged trash rack panel to the RCC column with cargo strap of 5MT capacity	17,70,000.00
8	Miscellaneous expenses	21,000.00
	Total Amount	35,00,000.00
(Rupees Thirty Five lakhs only)		

The work is arranged on war footing basis by waiving E-tender formalities , waiver of tender calls ,without tender cost and security deposit, to minimize the generation loss. Now, all the works have been completed and all the three units put back in service on 21.09.2019.

The Chief Engineer(Civil –Dam Safety & DRIP) requested administrative Sanction for an amount of Rs.35 lakh for the execution of the above works on a war footing basis by waiving tender calls, Security Deposit and E-Tendering process to minimise huge generation losses and for speedy completion . Also requested to ratify the actions taken in this regard for early

The matter was placed before the Full Time Directors as per note read as 2nd above. Having considered the matter in detail, the FTD in the meeting held on 27.09.2019 resolved to accord Administrative Sanction for an amount of Rs.35 lakh for arranging the urgent works explained above at Lower Periyar HEP for restoration of generation. Also resolved to ratify the action taken by the Chief Engineer(Civil –Dam Safety & DRIP) for the restoration of power generation at LP Power house by arranging the above works by waiving tender call, security deposits and E-tendering formalities.

The Chief Engineer(Civil- DRIP&Dam Safety) shall take further necessary action.

Orders are issued accordingly.

By Order of the Full Time Directors

Sd/-

Lekha .G
Company Secretary i/c

To:

The Chief Engineer (Civil- Dam Safety & DRIP)

Copy to:

1. The Dy. Chief Engineer (Research & Dam Safety Organisation), Pallom
2. Financial Adviser/ The Chief Internal Auditor
3. The RCAO/RAO
4. The Deputy Chief Engineer(IT)
5. TA to CMD / TA to Dir(GC) / Dir(GE&SCM) / Dir(T,SO&S) / Dir(D,IT&HRM)
6. PA to Dir (F) / Secretary(Administration)
7. FC Supt/ Librarian
8. Stock file / File

Forwarded / By Order


Assistant Executive Engineer

DESPATCHED
ON 4.65.3.10.2019