



KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Companies Act, 1956)

CIN:U40100KL2011SGC027424

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ABSTRACT

DRIP Phase II- Preparation of Detailed Project Report (DPR) for the construction of additional spillway at Poringalkuthu as recommended by CPMU/CWC – Completing the task in time bound manner with inhouse expertise – Constitution of a dedicated team for the preparation of DPR with members from Investigation, Dam Safety and Design Wing – Sanctioned-orders issued.

CORPORATE OFFICE (SBU-G/C)

BO(FTD)No. 333/2020(DGC/AEE-II/DRIP/General/2018)Thiruvananthapuram,dated,18.05.2020

- Read:- 1) BO(FTD)No.801/2019(DGC-AEE-I/DRIP/General/2018)dated 31.10.2019
2) Note No.CE(C-DS&DRIP)//EAP-RM/DRIP-II/Poringalkuthu dated 11-05-2020 of the Chief Engineer (Civil-Dam Safety & DRIP)
3) Note No.DGC/AEE-II/DRIP/General/2018 dtd.13.05.2020 of the Director(Generation-Civil)(Agenda Item No.34/5/20)

ORDER

The Chief Engineer(Civil-Dam Safety &DRIP) as per note read as 2nd above has reported that , in the backdrop of the flood occurred in August 2018, the Hydrological Studies Organization, Hydrology (S) Directorate, Central Water Commission has reviewed the design flood of Poringalkuthu during May 2019 and it was found that the revised design flood has exceeded the original design flood by a margin of 252%. It is also reported that the excess flood consequent to the revision can be managed only by providing additional outlet arrangements.

The World Bank has launched the 2nd Phase of Dam Rehabilitation and Improvement Project(DRIP) for the rehabilitation of dams in our country and being a Partner Agency of DRIP II, as part of the preparatory activities of DRIP II, KSEBL has constituted the Dam Safety Review Panel (DSRP), as per BO read as 1st above, for the inspection of KSEBL dams.

Priority was given for the rehabilitation of Poringalkuthu Dam under DRIP Phase II. In the inspection report, DSRP had recommended to examine the techno- economical viability of using Non overflow Block No.13 as overflow spillway for accommodating the revised design flood and thereby to ensure the hydrological safety of the dam.

It is also reported that the Project Screening Template(PST) of Poringalkuthu dam was prepared incorporating all the rehabilitation works suggested by DSRP

including provision for construction of additional spillway based on a preliminary design and submitted to CPMU on 20.02.2020. The document was reviewed by the CWC as well as the World Bank. The World Bank accorded No Objection Letter(NOL) for the PST on 21st April 2020 and suggested to subdivide the PST in two parts; Part A & Part B. Part A shall include all the works except the construction of additional spillway and Part B for the construction of additional spillway. The NOL was issued for the works under Part A with the sanction for inviting bid for the works under Part A. The Chief Engineer(Civil-Dam Safety &DRIP) has reported that the draft bid document for the strengthening of Poringalkuthu Dam, one of the major works under Part A, was prepared and submitted to CPMU on 20.04.2020 for review and the preparation of the bid document for other works in Part A is progressing.

The World Bank suggested that, in order to undertake the work of construction of additional spillway, it is essential to carry out the requisite geological investigations, model studies, preparation of detailed designs and drawings of the civil works and the hydro-mechanical works/equipment followed by the preparation of detailed cost estimate. The CWC may also have to review the designs / drawings and offer suggestions. As detailed study and more time is required to finalize the proposal of the additional spillway it was insisted to prepare the PST for Part B separately. The World Bank suggested to include all the works including the provision for various studies required for finalization of the proposal of additional spillway also, in Part A.

The Chief Engineer(Civil-Dam Safety &DRIP) has reported that, Part A of the PST was prepared after incorporating all the suggestions of the CPMU/WB and submitted to the CPMU on 4th May 2020. In the virtual meetings conducted by the World Bank /CPMU to review the progress of DRIP Phase II pre- activities on 18th April & 7th May 2020, the World Bank has requested to expedite the preparatory works for the construction of additional spillway at Poringalkuthu and to submit a Detailed Project Report to CPMU at the earliest for their review and approval.

It is also reported that Part B works of the Poringalkuthu Dam can be prepared only after getting concurrence to the DPR from the CPMU, CWC and hence urgent action is needed to prepare a quality DPR and to submit the DPR for the appraisal of the CPMU. Investigations, if any required, shall also to be conducted for the preparation of DPR. The DPR shall be prepared as per the standard guide lines of the CWC/CEA with detailed estimate and supporting drawings. Environmental aspects are also to be covered in the report. Sanction may have to be obtained from the Forest Department for felling of trees standing in the river course & adjacent to the banks, needed for the smooth flow of spill water.

As the work is of urgent nature and is to be completed in a time bound manner, the Chief Engineer has proposed to constitute a dedicated team with the following members for a minimum period of two months for the preparation of a Detailed Project Report for the construction of outlet arrangements to take care of the revised design flood in excess of the existing spillway capacity of outlet structures of Poringalkuthu Dam.

Team Leader

Sri. Biju V Jose, Executive Engineer, R&DSO, Pallom.

Field Unit

1. Sri. Sureshkumar P., Assistant Executive Engineer, Dam Safety Sub Division, Poringalkuthu.
2. Sri. Sunny C.D, Assistant Engineer, Investigation Circle, Thrissur.
3. Sri. Rajeev M.G., Sub Engineer, Dam Safety Sub Division, Poringalkuthu.
4. Sri. Dileepkumar. K.C, Sub Engineer, Investigation Circle, Thrissur.

Design Unit

1. Sri. Vijayakumar S, Executive Engineer (Design), Office of the Chief Engineer(Civil Construction –South)
2. Sri. Modi M.T, Assistant Engineer (Design), Office of the Chief Engineer(Civil Construction –South)

It is also proposed that the team under Field unit shall conduct investigation, if any required, in addition to the details available with the Dam Safety Wing which was collected as part of the investigation conducted for the Panel of Experts constituted for evaluating the safety of dam. Alternate options shall be considered in the preliminary studies and best option which can be technically & economically viable shall be considered for detailed study. The proposal shall be formulated as per the latest guide lines of the CWC/CEA for the preparation of DPR of the project which need Techno Economic Clearance from GOI. All the relevant documents available with the dam safety wing such as design flood review report prepared by the CWC, Minutes of meeting convened by Panel of experts(POE), DSRP Report prepared during December 2019, recent Geotechnical reports, legible drawings of existing structures etc. are to be reviewed by the team. Sanction if any required from competent authorities, are also to be included in the DPR. The DPR shall get appraised from CWC. Reply to the queries if any needed during the appraisal stage shall also be provided by the team. The Team Leader shall report to the Chief Engineer (Civil- Dam safety & DRIP).

Also to provide necessary support to the above team for the detailed hydraulic and structural design & preparation of detailed drawings, it is proposed by the Chief Engineer to entrust the task with Sri. Vijayakumar S, Executive Engineer and

Sri.Modi M.T, Assistant Engineer, Office of the Chief Engineer(Civil Construction – South). The drawings in the DPR shall contain necessary details required for the preparation of BoQ and to proceed for bidding once the concurrence is obtained from the CWC. It is also reported that the detailed drawings in the DPR help to prepare a realistic cost estimate and to avoid wide variation in cost during the execution of work.

The matter was placed before the Full Time Directors as per note read as 3rd above. Having considered the matter in detail, the Full Time Directors in the meeting held on 15.05.2020 resolved to accord sanction to constitute a dedicated team as above for the preparation of Detailed Project Report for the 'Construction of an additional outlet structure to take care of revised design flood in excess of the existing spillway capacity of outlet structures of Poringalkuthu Dam' with the above members as proposed by the Chief Engineer (Civil- Dam safety & DRIP).

Further resolved that the dedicated team shall submit Detailed Project Report within 2 months. The Chief Engineer(Civil- Dam Safety & DRIP) shall take further necessary action.

Orders are issued accordingly.

By Order of the Full Time Directors

Sd/-

Lekha .G

Company Secretary i/c

- To ✓ 1.The Chief Engineer (Civil- Dam Safety & DRIP)
✓ 2.The Chief Engineer (Civil -Construction South)
✓ 3.The Chief Engineer (Civil -I&CC)

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&REES) / Dir(D,IT&HRM)
- ✓ 6. PA to Dir (F) / Company Secretary i/c
7. FC Supt/ Librarian
- ✓ 8. Stock file / File

Forwarded / By Order



Assistant Executive Engineer