



KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Companies Act, 1956) CIN: U40100KL2011SGC027424

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Abstract

Committee on Public Undertakings (2019-21)- 91st Report – Recommendation on para 7 (C& AG Report on 31.03.2013) – Neriamangalam Extension Scheme – Decision - Sanctioned - Orders issued.

Corporate Office (SBU-G/E)

B.O (FTD)No. 248 /2021 (DGE/G1/Audit/CoPU 91st /2021-22) Thiruvananthapuram. Dated: 12 -04- 2021

- Read:
1. Letter No.PWR-A2/278/2019-POWER dated 02-09-2019 of the Secretary to Government, Power Department.
 2. Note No.DGE/G1/Audit/CoPU 91st /2020-21 dated 30-06-2020 of the Director (GE&SCM) to the Full Time Directors (Agenda item No. 11/7/20).
 3. Note No. No. CIA/ARI/CoPU/91st Report/ 2020/6 dated 24-03-2021 of the Chief Internal Auditor.
 4. Letter No.CEG/AEE-3/Audit/PUC/2020-21/2107 dated 31-03-2021 of the Chief Engineer (Generation & PED),Moolamattom.
 5. Note No.DGE/G1/ Audit/CoPU 91st /2021-22 dated 07-04-2021 of the Director (GE&SCM) to the Full Time Directors (Agenda Item No.12/4/21).

ORDER

Neriamangalam Extension Scheme (NES) is envisaged to utilize the part of spill water from Kallarkutty reservoir to generate power. Before commissioning of the NES project, there was frequent spillage from the Kallarkutty reservoir due to the low capacity of the reservoir. The NES project utilize only 40% of the available spill water and hence there can be spillage every year, during the peak of monsoon even when all the four generators of Neriamangalam scheme are in operation.

As per the letter read as 1st above, the Government sought the action taken report on Para 7 to 10 of the 91st report of the Committee on Public Undertakings (2019-21). As per Para 7 of the recommendations, the Committee criticized the Board for giving undue favour to the contractor of Neriamangalam Extension Scheme by not levying penalty amounting to Rs.0.56 Crore, for violating the tender conditions regarding the guaranteed repair/ rectification of the defects within the stipulated time. The Committee opined that KSEBL incurred an extra expenditure of Rs.7.26 Crore during 2011-12 towards purchase of electricity from outside sources due to generation loss occurred by forced shutdown of the machinery. The Committee recommended to take stringent disciplinary action against the defaulted officials and to realize the penalty amount with interest from the accused contractor.

Subsequently, the remarks of the Chief Engineer (Generation & PED) was obtained in this regard. The Chief Engineer (Generation & PED) reported that the contract agreement for NES was executed on 22-05-2003 between the Chief Engineer Civil Construction (South) and M/s V. A Tech Escher Wyss Flovell Ltd (Now M/s Andritz Hydro) with the Provisional Acceptance Certificate on 17-09-2008. Hence the guarantee period of 3 years was up to 17-9-2011. During the period from 6-9-2011 to 23-2-2012 (169 days), the unit was under shut down due to water leakage through shaft seal and for the subsequent rectification works. The Audit admitted only 58 days (38 + 20) as reasonable time for the repair and

observed that 111 days (169-58) as the delay and hence penalty should have been imposed on the contractor @ Rs 50,000/ day amounting to Rs 0.56 Crores (111 days x Rs 50,000/-) as per conditions of Agreement. This was interpreted as an undue favour to the contractor by the Board.

The Chief Engineer (Generation &PED) also reported that emergency shut down was taken for the machine of Neriamangalam Extension Scheme on 26-8-2011 due to leakage of water through shaft seal and the firm M/s Andritz Hydro carried out the rectification work and synchronized the machine on 04-09-2011. The machine was again forced to shut down on 6-9-2011 due to the same problem. But this time, M/s Andritz Hydro demanded a payment of Rs.52 Lakhs for replacing the damaged components within a time frame of 3-4 months even though the machines were under the performance warranty period. Since the warranty period was about to expire, KSEB insisted M/s Andritz Hydro to rectify the faults free of cost and took the matter with the Board. In the meeting held by the Chairman, KSEBL on 14.10.2011 (after 38 days from 06.09.2011 to 14.10.2011), after detailed deliberation on various aspects, M/s Andritz Hydro, the firm, finally agreed to complete the replacement work within 20 days without any modification and started the replacement of the damaged shaft seal. The 20 days, the firm agreed, was for the rectification work with the same design and available spares.

As the same fault occurred twice, KSEBL carried out a detailed inspection on the condition of the seals as once the rectification was completed by the firm, and expiry of the guarantee period, further complaints have to be attended by KSEBL with own expense. On inspection it was found that there was a severe damage to the shaft seal and needs a major rectification and concluded to carry out this work by M/s Andritz Hydro, the OEM, within their period of contractual obligation with a modified design to limit the occurrence of faults in future. The design of a new item to suit the existing machine parts needs careful re-design, manufacturing of the new seal after studying the problem of failure, taking measurements of the existing equipment, designing a new one and got it approved from KSEBL, which are time consuming. Since the unit is envisaged to utilize the spill that would occur from Kallarkuty dam, the design modification was felt unavoidable as the unit can be put into service at the earliest if any break down of shaft seal assembly occurs in future. M/s Andritz Hydro agreed to carry out the rectification of shaft seal assembly with new design with in a revised schedule of 56 days. It was also reported that the delay in rectification of fault on the shaft seal was due to the design modification to avoid re occurrence of similar fault. The rectification period of 20 days as the contractor offered in the meeting convened by the Chairman KSEBL on 14.10.2011 was without considering the design change. The design of a new item to suit the existing machine parts needs careful re-design, manufacturing of the new seal after studying the problem of failure, taking measurements of the existing equipment, designing a new one and got it approved from KSEBL, are time consuming.

The Chief Engineer (Generation &PED) further reported that there was no overflow from the Kallarkuty reservoir from 1-12-2011. NES project utilizes only 40% of the available water and hence there can be spillage every year during peak of monsoon even when all the four generators of Neriamangalam scheme are in operation. So no extra expenditure was incurred during 2011-12 towards purchase of electricity.

The design modification served as a permanent solution to the repeating problems of shaft seal failure of NES machine. In subsequent years, no shut down of NES machine due to water leakage through shaft seal is reported. The contractor has carried out the rectification work with the new design free of cost even at the end of their guarantee period. KSEBL officials carried out the design change with a good intention keeping in mind to avoid the repeated failure of shaft seal of the NES machine there by reducing the loss to KSEBL. On viewing the above, considering the good aspects, the design change and time delay in carrying out the rectification work with the new design is neither an undue favour to the contractor or fault from the part of the concerned officials. Hence the Chief Engineer(Generation & PED) recommended to drop the recommendation on Audit Para and not to initiate any disciplinary action against KSEBL Engineers.

The matter was placed before the Full Time Directors meeting held on 02-07-2020 for a decision but the same was deferred.

Subsequently, the Chief Internal Auditor as per Note read as 3rd above requested to place the matter once again before the FTD for a decision. The remarks of the Chief Engineer (Generation & PED) was obtained in this regard. The Chief Engineer (Generation & PED) as per the letter read as 4th above reported that the replacement of shaft seal with the new design was carried out by the OEM without any additional cost to Board. It is also reported that the original design of shaft seal was of a single piece and the new design consisted of 2 semicircular rings. This split design has the long term advantage to KSEBL in terms of avoiding prolonged shutdown for shaft seal replacement necessitated with a single piece seal on account of dismantling of turbine runner, reassembly after replacement of single piece seal and balancing. The fact that design aspect cannot be projected to have any visible cost but it does have a cost on account of re-engineering and design adaptation. The split design ensured that support of OEM will not be necessitated in case of future replacement of shaft seal which would have caused a huge cost to KSEBL, considering the man day costs charged by OEM. The Chief Engineer (Generation) has requested for taking necessary steps to drop the para as well as the adverse comments to KSEBL Engineers.

The matter was placed before the FTD as per Note read as 5th above for a decision.

Having considered the matter in detail, the Full Time Directors in the meeting held on 08-04-2021 resolved to recommend to drop the recommendation on Audit Para 7 of the 91st report of CoPU(2019-21) ((C& AG Report on 31.03.2013) – Neriamangalam Extension Scheme) and not to initiate any disciplinary action against KSEBL Engineers.

Orders are issued accordingly.

By Order of the Full Time Directors,
Sd/-
Lekha G
Company Secretary (In charge)

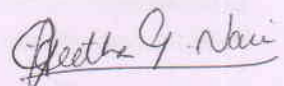
To

The Chief Engineer (Generation & PED), Moolamattom.
The Deputy Chief Engineer ,Generation Circle,Meencut.

Copy to:

The Financial Advisor/ The Chief Internal Auditor/The Company Secretary.
The Deputy Chief Engineer (IT)/ The RCAO/The RAO.
The TA to Chairman & MD/ Director (GE&SCM)/ Director(GC)/ Director
(Trans.& SO)/ Director (D,IT&HRM) /Director (Planning, Safety & REES).
The PA to Director (Finance).

Forwarded / By Order


Asst. Exe. Engineer

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13.04.21