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अथ हिन्द

सचिव, पऊनिप
एवं
निदेशक, सूचना एवं तकनीकी सेवाएं प्रभाग
एवं
निदेशक, औद्योगिक संयंत्र संरक्षा प्रभाग

SECRETARY, AERB
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Director, Information & Technical Services Division
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PRESS RELEASE

Quality Checks during Commissioning of Kudankulam Nuclear Power Plant-Unit 1

A section of press has recently raised the issue of quality of components at the upcoming Kudankulam Nuclear Power Project (KKNPP) in Tamil Nadu.

Atomic Energy Regulatory Board (AERB) has been reviewing the safety of this project over the years, and it is pertinent that AERB's perspective on the matter be brought out, which is being done through this communication.

The media reports have specially cast doubts about quality of items originating from a particular Russian supplier. AERB would like to emphasise that the system of quality checks, testing and reviews specified and enforced by it has the necessary depth to intercept and correct any such deviations in quality before the plant goes into operation. The system is elaborated below.

Multi-level checks are in place for ensuring conformance with the quality requirements. The Quality Assurance Programme for the project as approved by AERB, requires formulation of detailed quality assurance plans specifying the sequence of activities and identifying the quality control points at which physical inspection/verifications are performed by the Quality Assurance Groups of contractors/manufacturers as well as independently by utility (NPCIL). After completion of construction/erection, final physical verification is done, which is followed by integrity tests as applicable. Auditing by plant management team is done periodically to verify the effectiveness of the quality assurance program. In addition, periodic regulatory inspections by AERB at various stages of construction, erection as well as commissioning are carried out to check the effective implementation of the QA program. AERB also performs audit checking of equipment QA documents. Finally, the commissioning tests and reports are being subjected to multi-tier safety review at AERB.

AERB had granted the clearance for 'initial fuel loading' in KKNPP- Unit 1 in September 2012 as part of its ongoing commissioning activities. The purpose of commissioning is to ensure that the plant is capable of achieving the design objectives, meeting the safety requirements. A thorough performance testing at component and system level is carried



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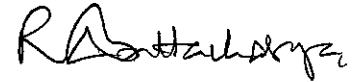
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out to ensure satisfactory performance of the overall plant. The tests conducted during commissioning process finally provide the data on the performance of various components and systems, under actual conditions of pressure, temperature, flow etc. Satisfactory demonstrations of functional capability are a prerequisite for considering the Nuclear Power Plant to be suitable for operating phase.

In general, several thousand components are installed in a Nuclear Power Plant and as is normal for all complex engineering systems, occasional variation in their performances during their commissioning trials is expected. The very intent of such commissioning trials is to identify non-conformances, if any, and take corrective actions. The commissioning tests and results, including the corrective actions taken are reviewed by AERB.

As culmination of above process, during commissioning of KKNPP-Unit 1, the test results at current stage of commissioning for various systems are seen to be within the acceptable limits. However, during testing of thousands of valves installed in the plant, the performances of four valves of a particular type were found deficient. As corrective measures, the valve components are being replaced by NPCIL and their performance is further being subjected to regulatory review. Subsequent clearances will be granted by AERB only after a satisfactory review.



(R. Bhattacharya)