

No. CH/AERB/AFR-KKNPP-3&4/2022/४९

September 16, 2022

Consent for Construction of Away From Reactor (AFR) Spent Fuel Storage Facility for KKNPP 3&4 at Kudankulam Site

References

1. Application for Construction Consent for Away From Reactor (AFR) Spent Fuel Storage Facility for KKNPP-3&4 vide NPCIL/Engg-LWR/KK/AFR/2021/M/2066 dated June 03, 2021.
2. Review Plan for Construction Consent of AFR Facility for KKNPP Units-3&4 vide AERB/NPSD/CN/CN/SR/622110/2021/00414 dated June 16, 2021.
3. Application (Revised) for Construction Consent for Away From Reactor Spent Fuel Storage Facility for KKNPP-3&4 vide NPCIL/EnggLWR/KK/2022/M/2730 dated August 08, 2022.

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| Consent No. | AFR-KKNPP-3&4/CN/0/0/16092022 |
| Stage of Consent | Construction |
| Consent issued by | Chairman, AERB Competent Authority to enforce safety related rules issued under Atomic Energy Act, 1962 |
| Applicant | Nuclear Power Corporation of India Limited (NPCIL) Project Director, KKNPP 5&6, submitted an application for Construction Consent for Away From Reactor (AFR) Spent Fuel Storage Facility for KKNPP-3&4 at Kudankulam Site [Ref.3]. |
| Brief description | Name: Away From Reactor (AFR) Spent Fuel Storage Facility for KKNPP-3&4 Type: Interim Spent Fuel Storage Facility. Two number of Spent Fuel Storage Facilities are located at TAPS-1&2 (AFR & AAFR) and One Spent Fuel Storage Facility is located at RAPS-1&2. Location: Kudankulam, Radhapuram Taluk, Tirunelveli District, Tamil Nadu-627106 Site: Existing Site with KKNPP-1&2 operation and KKNPP-3&4 and KKNPP-5&6 under construction. Present Status: Siting Consent was issued on August 23, 2021. Site activities pertaining to Confirmatory Geotechnical Investigation have been completed. |

(Signature)

परमाणु ऊर्जा नियामक परिषद
Atomic Energy Regulatory Board

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| Basis of issuing the Consent | AERB regulatory requirements as per AERB Safety Code on (i) Regulation of Nuclear and Radiation Facilities, AERB/SC/G (ii) Safety Guides on Consenting process for Nuclear Fuel Cycle Facilities, AERB/NF/SG/G-2 (iii) Design of Fuel Handling & Storage Systems for PHWRs, AERB/SG/D-24 (iv) Safety Standard on Civil Engineering Structures important to Safety of Nuclear Facilities, AERB/SS/CSE and related AERB Safety Standards and Guides. Compliance to the Review Plan for Construction Consent of AFR facility for KKNPP-3&4 (Ref.2). |
| Safety Review | Safety review has been carried out by Nuclear Projects Safety Division (NPSD), Directorate of Radiation Protection & Environment (DRP&E) of AERB and Project Design Safety Committee (PDSC-LWRs) towards the issuance of Consent. The proposed activities of construction can be carried out in compliance with this consent without undue risk to workers, the public and the environment. |
| Responsibility of Safety | The Prime responsibility for safety of the facility or activity lies with the Licensee. It is also the responsibility of Licensee to comply with safety requirements as specified in Regulations. |
| Other Statutory requirements | Licensee shall ensure that all other necessary statutory clearances are obtained and are valid for present stage of Consent, i.e. Construction Consent |
| AERB Stipulations and Conditions | AERB Stipulations and conditions for Construction Consent, to enable effective regulatory control are appended as Appendix. |

Based on satisfactory review as brought out above, Consent for Construction of Away From Reactor (AFR) Spent Fuel Storage Facility for KKNPP-3&4 is hereby accorded, subject to satisfactory compliance to the Stipulations and Conditions, as brought out in Appendix. The Consent will be subject to review for any non-compliance to the Stipulations and Conditions.

This Consent is valid till September 30, 2026. The Construction activity shall be completed within the validity period, else extension shall be sought with justification.

This consent shall be suspended or revoked, if any declaration made or information given in the application and associated submissions is found to be false, or if any undertaking given in the application is not complied with.

Hindi version follows.

Encl.: Appendix


16-9-2022
(Chairman, AERB)

Chairman & Managing Director
Nuclear Power Corporation of India Limited
Nabhikiya Urja Bhavan (NUB)
Anushaktinagar, Mumbai-400094

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Atomic Energy Regulatory Board

Copy to:

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| AERB Executive Director Director, NFRG Head, NPSD Head, DRPE Head, LWR&FCF-PS, NPSD Head, S&SES, NPSD | AERB Committees Chairman & Member Secretary, ACPSR-NPP Chairman & Member Secretaries, PDSC-LWR Chairman & Member Secretary, CRSA |
| NPCIL Director (T-LWR) ED (P-LWR) ED (Engg-LWR) Regulatory Interface, Engg-LWR | KKNPP Site Director, KKNPP Project Director, KKNPP-5&6 Project Director, KKNPP-3&4 |

**AERB STIPULATIONS AND CONDITIONS FOR CONSTRUCTION CONSENT OF AWAY FROM REACTOR
(AFR) SPENT FUEL STORAGE FACILITY FOR KKNPP-3&4**

1.0 Specific Stipulations

- S.1 NPCIL shall ensure that the issues related to the approach for carrying out Seismic Margin Assessment (SMA) of AFR Civil structures and the action plan for implementing measures, if any, arising out of SMA should be satisfactorily resolved prior to start of Construction of inner pool.
- S.2 NPCIL shall submit EOT crane design details and compliance with the requirements of NUREG-0554 on single failure criteria for review by NPSD, AERB before start of Construction of the EOT crane bracket/Corbel structure.
- S.3 NPCIL shall submit the details of spent fuel rack design before start of Construction of inner Pool for review by NPSD, AERB.
- S.4 NPCIL shall submit detailed design of the leakage collection modules before start of Construction of inner Pool for review by NPSD, AERB.

2.0 General Stipulations

- a) NPCIL shall implement the Quality Assurance Programme laid down as per requirements of the Quality Assurance Code and any other requirements stipulated by AERB in this regard from time to time and adhere to commitments made as part of Licensee submissions to AERB.
- b) The Consent shall be subject to revocation, suspension, modification or amendment, for causes as provided in the Atomic Energy Act and rules made thereunder, in accordance with the procedures laid down in the Act.
- c) The terms and conditions of the Consent can be amended, revised, or modified as considered necessary by AERB in the interest of safety.
- d) NPCIL shall ensure provision for the development, revision, implementation, and maintenance of its emergency preparedness programme including adequate interfaces with state and local governments.
- e) This Consent shall be suspended or revoked, if any declaration made or information given in Form A of the application is found to be false or if any undertaking given in such application is not carried out.
- f) No activity or operation shall be carried out for purposes other than those mentioned in the application.
- g) Full access to facilities shall be accorded to any authorised representative of the AERB;
- h) Any changes in the authorised personnel shall be duly notified to AERB.
- i) NPCIL shall take such steps as may be necessary to prevent unauthorised persons from entering the site or such part thereof as AERB may stipulate.



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- j) NPCIL shall provide suitable access restrictions and/or fences on the site and shall ensure that these are properly maintained.
- k) NPCIL shall ensure compliance to all necessary statutory clearances and availability of land acquisition records.
- l) Application for extension of this Consent, if needed, shall reach AERB six months before expiry of validity period.
- m) No modification affecting plant safety shall be carried out without prior approval of the AERB.
- n) NPCIL may take reasonable action that departs from a Consent condition in an emergency if such action is immediately needed to protect the public health and safety and it is apparent that no action consistent with Consent conditions and technical specifications can provide adequate or equivalent protection. Such of these actions shall be reported to AERB as per reporting criteria.
- o) NPCIL shall appoint authorised persons who are qualified to perform functions under the License.
- p) All Industrial & Fire Safety requirements including prompt reporting of industrial accidents or fatalities as per the Atomic Energy (Factories) Rules, 1996/AERB notifications and Control of Works shall be strictly adhered to.
- q) Any abnormal occurrence, significant events, industrial accidents or fatalities during the activity shall be promptly reported to AERB. Significant Event or Change shall be reported as per SECRC (Significant Event/Change Reporting Criteria).
- r) NPCIL shall submit and make available in due time all information specified by AERB. It shall be the responsibility of NPCIL to make proper arrangements with vendor(s) and/or contractor(s) to ensure availability of all required information. It shall also be the responsibility of NPCIL to keep AERB constantly informed of all relevant additional information or changes in the information submitted earlier.
- s) The facility shall be designed and constructed in accordance with design basis reviewed by AERB for relevant site parameters provided in safety analysis reports; NPCIL shall not deviate from design provided in safety analysis reports in any way that might affect safety, without prior approval of AERB;
- t) Any nuclear or radioactive material shall not be brought to site without the authorisation of AERB;
- u) Activities under Construction Consent shall be carried out as per the approved construction procedures. Deviation, if any, shall be promptly informed to AERB. No changes shall be made to the programs & procedures, which have been approved by AERB, without prior intimation and review by AERB. NPCIL shall progressively augment the capacity and locations of Emergency Assembly Areas (EAAs) to commensurate with manpower expected to be involved during construction activities;
- v) Any deviations observed during construction shall be brought out through submissions and be verified during commissioning / operation.

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