

F. No. J-14011/2/2014-IA.I (N)
Government of India
Ministry of Environment, Forest and Climate Change
(IA Division)

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Dated: 19th May, 2025

To,

Shri Saroj Kumar Verma
Project Director, MBRAPP
Nuclear Power Corporation of India Ltd.
MBRAPP, Tehsil Choti Sarvan,
District Banswara, Rajasthan
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Subject: ENVIRONMENTAL CLEARANCE FOR MAHI BANSWARA RAJASTHAN ATOMIC POWER PROJECT (MBRAPP) (4x700 NW PHWR) AT DISTRICT BANSWARA, RAJASTHAN BY NUCLEAR POWER CORPORATION OF INDIA LTD (NPCIL). Reg

This has reference to your communication no. NPCIL/HS&E/MBRAPP/2025/M dated 08.05.2025 regarding proposal for grant of Environmental Clearance for 'Proposed 4x700 MWe PHWR (Pressurised Heavy Water Reactor) Mahi-Banswara Rajasthan Atomic Power Plant (MBRAPP), Tehsil-Choti Sarvan, District-Banswara, State, Rajasthan.

2. The proposal was earlier considered during 63rd EAC (N&D) meeting held on 07.08.2024, wherein due to lack of requisite information/documents the project was recommended for deferment. After receipt of the pending information/documents, the proposal was re-considered in the extant 64th EAC (N&D) meeting held on 20.09.2024, however, due to various observations of the Committee and clarification sought from the PP, the proposal was again deferred. Upon receipt of the requisite clarification from the PP, the proposal was again considered during the 70th EAC (N&D) Meeting held on 13th May 2025.



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3. The PP submitted following information about the Nuclear Power plant through the presentation and various other documents to the EAC (N&D):

- i. The project is new
- ii. **Location:** The project site is located in Village - Adibhit (Plant Site) and Khandiadeo (Residential Complex), Bari, Katumbhi, Sajwaniya and Rel, District Banswara, Rajasthan.
- iii. **Coordinates:**

Longitude	Latitude
74°35'26"E	23°31'46"N

- iv. **Proposed Size of the Project:** 4X700 MWe Pressurized Heavy Water Reactor (PHWRs) Units
- v. **Benefits of the project:** Benefits of the project includes generation of 2800 MW clean power (from MBRAPP 1- 4), meeting growing energy demand of the country, and associated benefits like industrial growth, direct & indirect employment, infrastructure development of the local area, etc.
- vi. **Land area and Land Use:** The total land required for the project (**Plant site & Township**) is 660.15ha. The land requirement for plant site is 602.72 Ha, which includes 14 Ha of land for CISF township at plant site and 33.10 Ha of land for water pipeline corridor connecting the plant site with Mahi-Bajajsagar Dam reservoir. The land required for the project (660.15 Ha) comprises of 434.605 Ha. private land, 120.995 Ha. of government land, 100.05 Ha of forest land and 4.5 Ha. of Mahi Bajasagar land. The land requirement of township is 57.43 Ha.
- vii. **Alternate Sites considered:** NA
- viii. **Details of strategic nature of the project:** The project is non-strategic.
- ix. **EIA Notification, 2006:** As per the schedule of EIA Notification 2006, the project falls under item No. 1 (e) "Nuclear Power Project and Processing of Nuclear Fuel" of Category "A".
- x. **Public Consultation, if applicable:** The public hearing was conducted on 24.05.2018. Further, based on the directions of MoEFCC vide letter J-14011/2/2014-IA.1(N) dated 03.06.2022, the Public Consultation in the form of stakeholders comments were organized through RSPCB for a period of 30 days from 05.06.2024 to 04.07.2024.
- xi. **Issues Raised in PH:** Employment, Improvement in Healthcare & Educational facilities, Skill development training, Radiation effect on health, Compensation under R&R Plan, Water requirement for the operation of project.
- xii. **CRZ Notification, 2011:** NA.
- xiii. **Forest Clearance:** 100.05 ha Forest land under diversion. Stage -I FC obtained vide letter dated 12.05.2023 and Stage-II FC obtained vide MoEFCC's FC division letter no. 8-10/2022-FC dated 06.05.2024.

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- xiv. **Details of tree cutting:** Approximately 656 trees will have to be cleared for the project. Additional trees will be planted as part of green belt development within the project area.
- xv. **Distance of proposed project from ESA/Wildlife Sanctuary/ national Park/ Marine Park (if any):** NA
- xvi. **Status of Wildlife Clearance:** NA
- xvii. **Details of critically polluted area:** NA
- xviii. **Details of Schedule-I Species:** As certified by the Dy. Conservator of Forests, Banswara:
7. **Mammals:** Jackal, Common Palm Civet, Indian Fox, Small Indian Civet, Wild Cat, Striped Hyaena, Smooth Indian Otter, Leopard
 8. **Reptiles:** Indian Python, Russell's Viper, Cobra, Yellow Rat Snake, Indian Starred Tortoise, Monitor Lizard
 9. **Birds:** Peafowl, River Tern, Cotton Teal, Greenshank, Sarus crane
- xix. **Cost of the project:** Rs. 42000 Crores.
- xx. **Dredging and disposal:** NA
- xxi. **Funds Allocated for Environment Management Plan (Capital) (in Lakhs):** Rs.4,270 crores (Rs. 4200 crores will be used for Radiological Safety & Radiological Protection Aspects while Rs 70 crores has been earmarked for EMP)
- xxii. **Funds Allocated for Environment Management Plan (EMP) (Recurring per Annum) (in Lakhs):** Rs.213 Lakhs
- xxiii. **Rehabilitation and Resettlement (R&R) :**
- No. of Villages – 08
 - No. of Households – 128.
 - No. of PDFs (Project Displaced Families): 1701
 - No. of PAFs (Project Affected Families): 1764
 - Funds Allocated for R&R: 281 Cr. for land & landed assets and 100 Cr. for R&R package
 - Status of R&R (Completed / In-progress / Yet to start): In progress
- xxiv. **Employment Generation:** Maximum of about 8000 persons will be deployed during Peak construction stage and about 1700 persons will be employed during operation. The project will provide direct and indirect employment opportunities.
- xxv. **Water requirement:** MBRAPP will be utilizing about 180cusec of water, which will be drawn from Mahi Bajajsagar Reservoir, out of which 126 cusec (plant site) + 1 cusecs (township) = 127 cusecs water will be towards consumptive use and rest of the 53 cusec water flow will be returned to reservoir. **No ground water will be used during construction and operation phases of the project.** Government of Rajasthan has assured the supply of 180 cusec water required.
- xxvi. **Details of Water Bodies nearby:** Project Site is situated close to Mahi Bajaj Sagar reservoir.



xxvii. **Details of Water treatment and Recycling:** Total sewage generated from township will be about 1030 KLD and from plant will be 100 KLD. A STP of 1.03MLD will be made to treat the sewage water, recycled and shall be used for Plantation and Horticulture.

xxviii. **Details of Rainwater Harvesting:**

Plant Site

Rooftop rain water of buildings will be collected in one /two RWH tanks in project area for harvesting after filtration.

Township

Rooftop rain water of buildings will be collected in one /two RWH tanks in township area for harvesting after filtration.

xxix. **Facilities for treatment or disposal of solid waste and liquid effluents:**

Radioactive waste: A radioactive solid waste storage facility will be developed for storage of solid radioactive waste within the project site area conforming to AERB stipulations. The estimated net volume of radioactive solid waste generated after due processing would be disposed-off in Near Surface Disposal Facility (NSDF) is around 257 m³/year/twin unit.

Sewage: Total sewage generated from township will be about 1030 KLD and from plant will be 100 KLD. A STP of 1.03MLD will be made to treat the sewage water, recycled and shall be used for Plantation and Horticulture.

Domestic (Municipal) Solid Waste: The domestic waste generation from township normally constitutes about 50% organic matter. The material can be composted which will be used for plantations and gardens. The non-compostable material will be segregated from the Township solid waste and it will be disposed of by using sanitary land filling. The domestic waste generated at plant site will be composted and will be used for plantations and gardens at plant site.

Hazardous Waste: Hazardous waste (like used oil) generated in the plant will be disposed to authorized vendors as per Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016 and amendments thereupon.

Bio-Medical Waste: Bio-medical waste generation from Hospital at Township will be managed and disposed as per Bio Medical Waste Management & Handling Rules, 2016 and amendments thereupon.

xxx. **Energy requirement and source:** During construction & commissioning Max 10 MWe will be required which will be sourced from State Grid as follows:

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- Construction power supply will be drawn from the existing 33 KV/ 11 KV sub-station nearby.
 - Start-up / commissioning power from 220 KV sub-station. This sub-station will connect to nearby 220 KV sub-station.
- xxxi. **Environmental Consultant:** MECON India Limited (Certificate No. NABET/EIA/2023/RA 0195 (Rev. 02).
- xxxii. **Whether there is any Court Cases pending against the project:** There is no court case pending against the project

4. During the 70th EAC (N&D) meeting, the PP made a point-wise presentation addressing the observations made by the Committee during the 64th EAC (N&D) Meeting. The Committee deliberated on each point in detail and recommended the proposal for Environmental Clearance w.r.t. the Nuclear Power Plant covered under Schedule 1(e) of EIA Notification, 2006. The excerpts of the minutes of the said meeting in this regard are **enclosed**.

5. On the basis of recommendation of the EAC (N&D), the Ministry of Environment, Forest and Climate Change (MoEF&CC) hereby accords Environmental Clearance to Mahi-Banswara Rajasthan Atomic Power Plant (MBRAPP) 4x700 MWe PHWR (Pressurised Heavy Water Reactor) District-Banswara, State-Rajasthan by NPCIL w.r.t. the Nuclear Power Plant covered under Schedule 1(e) of EIA Notification, 2006 subject to following specific conditions in addition to General conditions:

A. SPECIFIC CONDITIONS:

- i. The Project Proponent shall strictly comply with the conditions stipulated in Stage -I and Stage - II FC, and subsequent amendments sought, if any.
- ii. The project proponent shall obtain the necessary permission/clearances from the AERB before commencement of the project.
- iii. An Emergency Preparedness Plan which includes roles of all related agencies at District, State and National level shall be prepared and put up in place as per the norms of AERB. Regular mock drills shall be undertaken and based on the same, any modification required, if any, shall also be incorporated.
- iv. PP shall submit certificate from DAE/CMG, within 3 months of commissioning of the project and every 10 years thereafter, to the Ministry on satisfactory compliance to commitments made by the PP at the EC stage with reference to Emergency preparedness plan.
- v. A radiological baseline survey within the radiological surveillance zone around the plant as specified by AERB for the specific project shall be conducted with the report to be submitted to both the Ministry and the Region Office (RO) before start of commissioning of first unit.

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- vi. PP shall submit certificate from AERB, within 3 months of the commissioning of the project, to the Ministry about compliance of commitments made by the PP at the EC stage with reference to management of radioactive releases through both air and aquatic pathways.
- vii. The radioactive wastes, emanating from the plant shall be treated and managed as per the regulatory documents of Atomic Energy Regulatory Board (AERB) issued under Rule 16 of Atomic Energy (Radiation Protection) Rules, 2004 and related AERB authorisation for release/transfer issued for the project under Rule 3 of Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987.
- viii. The ventilation gaseous discharges shall be released into the atmosphere after necessary control and at adequate height and liquid waste be discharged into the aquatic environment after proper dilution and processing as stipulated by AERB so that the radiation release rate as well as the increase in radiation in the surrounding area above the background levels are within the permissible limits as prescribed by the regulatory agency.
- ix. Potentially contaminated inorganic/organic solid waste disposal at the specified locations shall be as per the release/disposal limits authorised by AERB for the project.
- x. As proposed, Cycles of Concentration (CoC) shall not be more than three.
- xi. The project proponent shall provide compliance of the stipulated environment clearance conditions with respect to and submit six-monthly reports to RO-MoEF&CC, CPCB and SPCB/PCC along with the following details :
 - a. The radionuclides release as radioactive waste products from the processes in a facility at site, in relation to authorised levels by AERB for these for air, water and terrestrial routes.
 - b. Estimate of the annual radiation dose to public from integrated releases of radioactive waste products from the facility, vis-a-vis corresponding dose limit by AERB.
 - c. Radioactivity levels monitoring report in the different matrices of environment including food chain, air, water, wastewater, and soil up to a distance as specified for the site by AERB.
- xii. The implementation of the approved Site-Specific Conservation Plan & Wildlife Management Plan in consultation with the State Forest Department. (In case of the presence of schedule-I species in the study area).

- xiii. The project proponent shall take all precautionary measures during project operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
- xiv. A Disaster Management Plan and Emergency Preparedness Plan shall be prepared and put up in place as per the norms of AERB. Regular mock drills shall be undertaken and based on the same, any modification required, if any, shall also be incorporate.
- xv. PP shall submit the wildlife conservation plan to the state forest department and its implementation.

B. General Condition:

Effluent management:

- xv. The non-radioactive wastewater waste generated from the plant premises shall be suitably treated in sewage treatment plant (STP) and the treated effluents shall be recycled and reused within the plant premises for greenbelt etc.
- xvi. Installation of STP should be certified by concerned Pollution Control Board.

Noise Management:

- xvii. It shall be ensured that the noise levels in the work zone both during construction and operation phase are within permissible limits. For people working in high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided.
- xviii. Installation and operation of DG sets shall comply with notified guidelines

Waste management:

- xix. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016
- xx. Hazardous waste generated in the plant will be disposed of as per Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016 and electronic waste will be handled as per the provision of **E-Waste (Management) Rules, 2022.**
- xxi. The non-radioactive solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.

Green Belt

- xxii. The green belt shall be developed and maintained in an area equal to at least 33% of the total project area with native tree species as per the CPCB guidelines in consultation with the State Forest Department along with monitoring of the tree canopy through remote sensing app.
- xxiii. All trees must be planted with native forestry species only and exotics shall not be planted.
- xxiv. Topsoil shall be separately stored and used in the development of green belt.
- xxv. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the outer boundary of the plant and in the vacant areas, storage yards, loading/transfer points, major approach/ material transportation roads etc.
- xxvi. No tree can be felled/transplanted unless exigencies demand. Any tree felling may be required in the plant area shall be done only with the prior approval of concerned authority & State Forest Department.
- xxvii. Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e., planting of three trees for every one tree that is cut) shall be done and maintained.
- xxviii. The PP shall undertake plantation, in compliance to MoEFCC OM dated 24.07.2024, in the earmarked 33% or 40%, as the case may be, greenbelt area as a part of tree plantation campaign 'Ek Ped Maa Ke Naam' Campaign and the details of the same shall be uploaded on MeriLiFE portal at (<https://merilife.nic.in>). The action in this regard shall be submitted concerned RO in six monthly report.

Public Hearing and Rehabilitation & Resettlement

- xxix. Implementation of the time bound action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

Miscellaneous

- xxx. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.

- xxxi. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- xxxii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- xxxiii. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- xxxiv. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/ wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/ forest/wildlife norms/conditions and/or shareholders/stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- xxxv. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- xxxvi. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report
- xxxvii. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- xxxviii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- xxxix. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government, while issuing various clearances.

- xi. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the Expert Appraisal Committee.
- xli. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).
- xlii. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xliii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xliv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xlvi. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/information/ monitoring reports.
- xlvi. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter.
- xlvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

This issues with the approval of the Competent Authority


Dinesh Runiwal
 Scientist 'F'

Copy to:

1. The Chief Secretary, Government of Rajasthan, Government Secretariat, Jaipur-302005.
2. Secretary, Department of Atomic Energy, Anushakti Bhawan, CSM Marg, Mumbai-400001.

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3. Chairman, Atomic Energy Regulatory Board, Niyamak Bhawan, Anushakti Nagar, Mumbai-400094.
4. CMD, NPCIL, Nabhikiya Urja Bhawan, Anushakti Nagar, Mumbai-400094.
5. The Additional Chief Secretary (Forest and Environment) Department, Govt. of Rajasthan, Vaniki Path, Near Secretariat, Jaipur-302005.
6. Deputy Director General of Forests (C), Ministry of Env., Forest and Climate Change, Integrated Regional Office, A-209&218, Aranya Bhawan, Mahatma Gandhi Road, Jhalana Institutional Area, Jaipur - 302004, E-mail: iro.jaipur-mefcc@gov.in
7. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032. Email: ccb.cpcb@nic.in
8. The Chairman, Rajasthan State Pollution Control Board, 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur-302004. E-mail: chairperson@rpcb.nic.in
9. Guard File/ Monitoring Cell



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