

Pl. file MOEF

F. No. J-14011/2/2013-IA-I
Government of India
Ministry of Environment and Forests
(IA Division)

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Dated 27th December, 2013

To, ✓
Executive Director (Projects),
Nuclear Power Corporation of India Limited,
Directorate of Projects,
Entrance- 2, Nabhikiya Urja Bhawan,
Anushakti Nagar
Mumbai-400 094, Maharashtra
(E- mail: tra2009@gmail.com ; Fax No. : 0166-250004)

Subject: Gorakhpur Haryana Anu Vidyut Pariyojna (Formerly, Haryana Atomic Power Project (4X700 MWe) at Village Gorakhpur, District Fatehabad, Haryana by M/s Nuclear Power Corporation of India Ltd. (NPCIL) - reg.

Ref. : Your letter no. NPCIL/ED(P)/201/M dated 24th September, 2012.

Sir,

This has reference your letter no. NPCIL/ED(P)/201/M dated 24th September, 2012 alongwith Form-1. Prefeasibility report, draft 'Terms of References, EIA/EMP report, Public hearing report and further communications dated 6th February, 2013, 21st June, 2013, 23rd March, 2013 and 15th November, 2013 seeking environment clearance under EIA Notification, 2006 for the above mentioned project.

2. The Ministry of Environment and Forests has examined the proposal. It is noted that proposal of M/s Nuclear Power Corporation of India Ltd. (NPCIL) is for Gorakhpur Haryana Anu Vidyut Pariyojna (Formerly, Haryana Atomic Power Project (4X700 MWe), Pressurized Heavy Water Reactor (PHWR) type at Village Gorakhpur, District Fatehabad, Haryana. A residential township will also be constructed as part of this project. The land requirement for the project is 608.48 ha, which includes 533.5 ha for the project and 75.04 ha for township. Rehabilitation and Resettlement of project affected personal (PAP, Total 979) will be carried out as per R & R Policy of Haryana. No forestland is involved in the project. No national park, wildlife sanctuary, elephant/tiger reserve / migratory routes are present within 10 km radius of the site. Total cost of the project is revised from Rs. 14,500.00 Crores to Rs. 23,502.00 Crores. Rs. 2,399.5 Crores are kept for environmental protection measures including safety aspects.

3. In-principle approval of the Govt. of India for the project site for 4x700 MWe atomic power plant has been accorded vide letter no.1/5(1)/2007-Power/5-66 dated 8.10.2009. State of the art indigenous reactor technology will be used. Permission for the use of 320 cusecs water has been accorded by the Irrigation Department, Haryana vide letter dated 03.01.2006. No ground water will be used for the plant. Flue gases will be passed through ✓

scrubber and scrubbed water will be disposed in RCC trenches. Continuous monitoring of gaseous emissions will be carried out. Radiological dose limit will be kept within the standards prescribed by AERB. The liquid waste streams will be segregated at source through Liquid Effluent Segregation Systems (LESS) and collected in collection storage tanks. The cooling water discharge will be discharged in the Fatehabad Branch Canal after secondary dilution and monitored for radioactivity levels. Radioactive solid waste will be collected, segregated, treated at source and disposed off with the application of advanced technology as per AERB guidelines in Near Surface Disposal Facility (NSDF) which will be fenced and dose rate will not exceed 0.01 mGy/h. Spent fuel removed from the reactor will be stored in spent fuel storage bay (SFSB) till it cools down to dry storage levels (about 5 yrs.) and will be disposed as per the guidelines. Hazardous waste like oil, lubricant, scintillation liquids will be incinerated in the incinerator to be operated 2-3 days/month. Green belt will be developed in 35 % area.

4. All nuclear power projects and projects for processing of nuclear fuel are listed at S. No. 1(e) under EIA notification 2006 and are considered at the Central level for environmental clearance. The proposal was considered for 'Terms of Reference' in the 8th and 9th Expert Appraisal Committee (Nuclear) meeting held on 15th June, 2010 and 21st September, 2010 and were awarded on 13th October, 2010. The project was considered and discussed in 14th, 15th and 16th EAC (N) held on 18th November, 2012, 22nd-23rd March, 2013 and 19th November, 2013.

5. The public hearing meeting was held on 17.7.2012.

6. The Ministry of Environment and Forests hereby accords the environmental clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 subject to compliance of the following specific and general conditions:

A SPECIFIC CONDITIONS:

- i. Environmental clearance is subject to clearance from the Wildlife angle due to location of Schedule-I species of the animals in the close vicinity.
- ii. The State Government of Haryana shall prepare conservation plan of the township site area in consultation with all stakeholders. Till such conservation plan is prepared and approved, no construction activities shall be undertaken at the township site. In case the conservation plan suggests that the township cannot come at this site, the Project Proponent will come back again with a revised proposal for township for obtaining EC.
- iii. AERB clearance for the site shall be obtained before starting any construction work and a copy of the same shall be provided to the Ministry of Environment & Forests.
- iv. Regular monitoring of conventional gaseous pollutants, radioactive pollutants in the air as well as in the discharged water shall be monitored regularly as per the AERB standards.
- v. Regular monitoring of ambient air quality shall be carried out in and around the power plant and records maintained. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with Haryana State Pollution Control Board (HPCB). Flue gases shall pass through 2-stage water scrubber and scrubbed water after solidification/ embedment in cement shall be disposed in RCC trenches. Periodic reports shall be submitted to the Regional Office of this Ministry. Besides air quality, water, food samples and soil shall also be monitored regularly for radioactive levels in the surrounding areas and records maintained. ✓

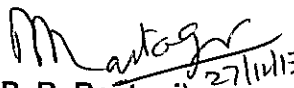
- vi. Water requirement shall not exceed 320 cusecs as per the permission accorded by the Irrigation Department, Haryana vide letter dated 03.01.2006. No groundwater shall be used in the project either during construction phase or during operation phase.
- vii. Soil and groundwater samples shall be tested to ascertain that there is no deterioration of groundwater quality by leaching heavy metals, radio nuclides and other toxic contaminants.
- viii. The non-radioactive waste water 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. The radioactive liquid waste emanating from the plant shall be treated and managed as per the guidelines of AERB/ICRP in this regard.
- ix. On-line continuous monitoring of the temperature of the discharged cooling water shall be carried out at the discharge point. It shall be ensured that the temperature differential of the discharged water w.r.t. the receiving water does not exceed 7° C at any given point of time.
- x. The radioactive levels in the different matrices of environment including food chain, air, water and soil shall be monitored regularly in the surrounding areas as per AERB standards and records maintained. The conventional pollutants shall also be monitored and records maintained.
- xi. The radioactive waste shall be managed as per the norms prescribed by AERB.
- xii. The radioactive dose apportionment from each unit shall be as per the limits prescribed by AERB.
- xiii. The necessary mitigation measures based on the drainage study shall be undertaken to ensure that there is no impact due to water logging in the area including the agricultural crops.
- xiv. Radioactive solid waste shall be collected, segregated, treated at source and disposed off with the application of advanced technology as per AERB guidelines in Near Surface Disposal Facility (NSDF) which shall be fenced and dose rate shall not exceed 0.01 mGy/h. Spent fuel removed from the reactor shall be stored in spent fuel storage bay (SFSB) till it cools down to dry storage levels (about 5 yrs.) and shall be disposed as per the guidelines and procedures prescribed by the AERB in this regard. The solid radioactive waste shall be stored above the ground elevation as per the standard EPR design after it is duly reviewed by AERB and in compliance with their requirements.
- xv. 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. Installation and operation of DG sets shall comply with notified guidelines.
- xvi. Green belt shall be developed in 35 % area around the project boundary with the native species of adequate density and width. In addition, plantation shall be raised in other vacant areas within the plant site. ✓

- xvii. 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 incorporated.
- xviii. Provision shall be made for the housing of construction labour with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project and shall be within project area.
- xix. Periodic health survey of the population residing within 5 km around the proposed plant site shall be undertaken and the report of the survey shall be submitted to the AERB and to the Ministry of Environment and Forests and its Regional office at Chandigarh.
- xx. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the environmental management and monitoring function for implementation of the stipulated environmental safeguards.
- xxi. Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These costs shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure shall be reported to the Regional Office of the Ministry at Chandigarh.
- xxii. All the issues raised during public hearing/consultation and commitments made to the public shall be ensured.

B. GENERAL CONDITIONS

- i. The project proponent shall obtain prior Consent to Establish and Consent to Operate from the Haryana State Pollution Control Board (HSPCB) and shall strictly adhere to the stipulations of the HSPCB and State Government or any other statutory body.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- iii. Ambient air quality monitoring stations shall be set up in the downwind direction as well as where maximum ground level concentration are anticipated in consultation with the HSPCB.
- iv. The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008. Authorization from the HSPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes.
- v. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the

- proposal. The clearance letter shall also be put on the web site of the company by the proponent.
- vi. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the HSPCB. The criteria pollutant levels or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
 - vii. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the HSPCB. The Regional Office of this Ministry / CPCB / HSPCB shall monitor the stipulated conditions.
 - viii. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.
 - ix. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the HSPCB and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.
 - x. Project authorities 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 and the date of commencing the land development work.
7. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
8. The Ministry reserves the right to stipulate additional conditions, if found necessary. The Company in a time bound manner shall implement these conditions.
9. 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 Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 alongwith their amendments and rules
10. Any appeal against this environmental clearance 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. ✓


(Dr. P. B. Rastogi)
Director

Copy to :

1. The Secretary, Department of Atomic Energy, Anushakti Bhawan, C.S.M. Marg, Mumbai-400 001, Maharashtra.
2. The Chairman, Atomic Energy Regulatory Board, Niyamak Bhawan, Anushakti Nagar, Mumbai-400 094, Maharashtra.
3. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-110 001
4. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110 066
5. The Principal Secretary, Environment Department, Government of Haryana, SCO 1-2-3, Sector 17-D (2nd Floor), Chandigarh.
6. The Chief Conservator of Forests (Central), Regional Office (Northern Zone), Bay No.24-25, Sector 31-A, Dakshim Marg, Chandigarh-160030.
7. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
8. The Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula, Haryana.
9. The Director (EI), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
10. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
11. Guard File
12. Monitoring File
13. Record File.



(Dr. P. B. Rastogi)
Director