

No. J-12011/57/2009-IA.I
Government of India
Ministry of Environment, Forests & Climate Change
[IA.I – Division]

Indira Paryavaran Bhavan
3rd Floor, Vayu Wing
Jor Bagh, Aliganj
New Delhi – 110 003

Dated: 10th November, 2015

To,

The Director
M/s Heo Hydro Power Pvt. Ltd
G-77, Sujan Singh Park
New Delhi – 110 003

Subject : Heo HEP (240 MW) Project in District West Siang Arunachal Pradesh by M/s. Heo Hydro Power Pvt. Ltd – for Environmental Clearance (EC) – regarding.

Sir,

This has reference to your letter No.HHPPL/2013 dated 2.6.2014 and subsequent letter No.HHPPL/2014 dated 17.7.2014 and 30.10.2015 on the above mentioned subject.

2. The above referred proposal was appraised by the Environment Appraisal Committee (EAC) for River Valley and Hydro Electric Power Projects (RV&HEP) in its meeting held on 3-4th July, 2014 and 11th August, 2014. The comments and observations of EAC of this project may be seen in the Minutes of these two meetings are available on the web-site of this Ministry.

3. It was noted that the project is proposed on the Yarjep Chu River (tributary of Siyom River) between Puring and Meying villages in West Siang District of Arunachal Pradesh. The project envisages construction of a 16 m high barrage from the foundation level across river Yarjep to generate 240 MW of hydropower. The catchment area of the project is 1065 Sq.km. Total land requirement for the project is 55.7 ha, out of which 47.1 ha is the area of surface land being unclassified State Forest, 5.9 ha is the area of river bed & 2.7 ha for underground structures. The total submergence area is about 8.4 ha. A surface powerhouse is proposed on the left bank of the river near Meying village with 3 units of 80 MW capacity each. 66 families are likely to be affected due to this project. No national park/wildlife sanctuary/biosphere reserve/historical monuments etc., exists within 10 Km radius of the project. The total estimated cost of the project is about Rs. 2001 Crores and likely to be completed in 48 months.

4. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and clarification furnished in response to its observations, have recommended for grant of Environmental Clearance for the project mentioned above. Accordingly, the Ministry of Environment, Forest & Climate Change hereby accords necessary environmental clearance for the above project as per the provisions of Environment



Impact assessment Notification, 2006 and its subsequent amendment in 2009, subject to compliance of following conditions:

Part-A: Specific conditions

- i. The Catchment Area Treatment (CAT) Plan as has been proposed in the EMP shall be implemented in consultation with the Arunachal Pradesh State Forest Department. Major works shall be completed before impounding of reservoir. The year-wise details of CAT plan is given below:

Treatment Measures	I Year	II Year	III Year	IV Year	Total
Biological Measures					
Afforestation (ha)	74.34	71.78	56.4	53.84	256.36
Assisted Natural Regeneration(ha)	22.34	21.57	16.95	16.17	77.03
Pasture Development (ha)	36.45	35.20	27.65	26.40	125.70
NTFP Regeneration (ha)	26.95	26.02	20.44	19.51	92.92
Engineering Measures					
Brushwood check dams (Nos)	34	33	26	25	118
DRSM check dams (Cum)	42	41	32	30	145
Contour Bunding (ha)	48.13	46.47	36.51	34.86	165.97
Bench Terracing (ha)	60.69	58.60	46.04	43.95	209.29

- ii. The R&R benefits for the land losing households will be have to comply with The Right to Fair Compensation and Transparency in land acquisition, Rehabilitation & Resettlement Act, 2013 which has come into force on 1.1.2014. Adequate publicity of the compensation package should be circulated in the affected villages. All R&R issues shall be completed before commissioning of the project.
- iii. A Monitoring Committee for R&R shall be constituted which shall include representatives of project affected persons including representative from SC/ST category and a woman beneficiary.
- iv. All commitment made during the public hearing should be fulfilled completely by the project proponent and record maintained.
- v. Equipments likely to generate high noise levels during construction period or otherwise shall have to meet the ambient noise standards as notified under the Noise Pollution (Regulation and Control) Rules, 2000, as amended in 2010 under the Environment Protection Act (EPA), 1986. This shall be strictly complied.
- vi. A minimum environmental flow of 2.70 cumec shall be released during lean months, 8.78 cumec during intermediate season and 19.90 cumec during monsoon season of the year. Continuous monitoring system for the flow measurement shall be installed and data be displayed at appropriate site for civil society and stake holders. Six monthly results shall be submitted to the Regional Office of the Ministry.
- vii. Consolidation and compaction of the generated muck should be carried-out in the muck dumping sites and the dumping sites shall be above high flood level and horizontally 30 m from the tip of the level during high flood. Out of 13,38,355 m³ muck to be generated, 3,84,800 m³ is proposed to be utilized for construction purpose and the remaining

9,33,555 m³ muck shall be disposed at the 4 (four) designated site in 8.3 ha earmarked for this purpose. The dumping site shall be more than 30 m away from the HFL of the river and the Toe walls for Muck disposal sites shall be constructed at least 30 m away from the HFL of River. Allocated grant of Rs. 359.17 lakhs shall be fully utilized and not to be diverted for any other purpose.

- viii. Proposed compensatory afforestation programme in 106 ha of land at Chisi Village shall be undertaken in consultation with State Forest Department. Allocated grant of Rs.1,88,148 lakhs shall be fully utilized and not to be diverted for any other purpose.
- (ix) Proposed Biodiversity and Wildlife Conservation & Management Plan should be implemented in consultation with the State Forest Department. An allocated budget of Rs. 182 lakhs provided for the Biodiversity and Wildlife Conservation & Management Plan should be fully utilized and not to be diverted for any other purpose.
- (x) To enhance the environment of project site, greenbelt, as proposed in the EIA/EMP Report, shall be developed. The proposed greenbelt along the periphery of reservoir and project appurtenances shall be undertaken on approximately 29.54 ha. The same shall be strictly adhered and the allocated budget of Rs.29.76 lakhs shall be fully utilized and not to be diverted to any other purpose.
- (xi) The project proponents of Heo, Tato-I and Pauk HEPs in consultation with the Arunachal Pradesh State Forest department, the local communities and other project proponents planning the HEPs on Yarjep river to identify large intact forest patches within the Yarjep catchment and get them declared as "Conservation Reserves" or "Community Reserves" under the Indian Wildlife (Protection) Act. This effort along with an intensive conservation education in this region would help in biodiversity conservation. **NBWL clearance is to be obtained, if so required.**
- (xii) The fishery conservation and management plan as proposed in the EMP shall be implemented completely with the Fisheries Department, Government of Arunachal Pradesh. The development fish hatchery should also taken-up and should also cater to Pauk and Tato-I HEPs. As proposed, a suitable fish ladder/pass should be provided in the barrage to enable fish movement. A budget of Rs. 212 lakhs provided for fishery conservation and management plan should not be diverted for any other purpose.
- (xiii) Any other clearance required from any other organization/department should be obtained before commencement of works and commissioning of the project, as applicable.
- (xiv) A proper & adequate longitudinal connectivity through river bed level at an appropriate location of the dam is to be provided to ensure release of adequate e-flow, smooth movement of biota and non-disruptive sediment transportation.
- (xv) The quantum of e-flow may be later enhanced and mode of release may be further elaborated to ensure ecological integrity of the river and that shall be binding on the Developer to comply.

Part-B: General Conditions

- (i) Adequate arrangements for providing free fuel like kerosene/wood/LPG shall be made at the project cost for the consumption of laborers to be engaged in the construction work so that indiscriminate felling of trees is prevented.
- (ii) Medical facilities as well as recreational facilities shall also be provided to the labourers.



- (iii) The labourers to be engaged for construction works shall be thoroughly examined by health personnel and adequately treated before issuing them work permit. Periodic health check-up during construction period may also be taken up.
- (iv) Water sprinkling arrangements shall be made to suppress the fugitive emissions/dust.
- (v) Potable drinking water and proper sanitary facilities shall be provided for the labour force. Also proper disposal facilities for solid waste is to be ensured.
- (vi) Restoration of construction area including dumping sites of excavated materials shall be ensured by leveling, filling up of borrow pits, landscaping etc. The area should be properly treated with suitable plantation.
- (vii) Environmental parameters shall be monitored and "six monthly monitoring reports" shall be submitted to the Ministry of Environment, Forest & Climate Change, New Delhi including its Regional Office for their review.
- (viii) Solid waste management & sanitation facility will have to be provided for the labour.

5. The Project Proponent shall provide full cooperation and provide all required documents /data to the Officials from concerned Regional Office of the Ministry who would be monitoring the implementation of environmental safeguards and undertake inspection.

6. The responsibility of implementation of environmental safeguards rests fully with the M/s. Heo Hydro Power Pvt. Ltd and Government of Arunachal Pradesh. Therefore, these may be critically reviewed jointly & periodically.

7. Besides the above stated conditions, the Project Proponent shall also implement all other environmental safeguards, as proposed in the EIA/EMP report and other reports from time to time. The Government of Arunachal Pradesh may also like to monitor implementation of EMP at regular intervals.


8. The Environmental Management Plan (EMP) shall be strictly adhered to and a sum of Rs. 4002 lakhs the budgetary provisions for implementation of EMP shall be fully utilized and not to be diverted for any other purpose.

9. In case of change in the scope of the project, the same shall be intimated to the Ministry and fresh approval, if required, shall be taken from the Ministry.

10. Ministry reserves the right to add additional safeguard measures subsequently, if found necessary and to take action including revoking of the clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time-bound and satisfactory manner.

11. This clearance letter is valid for a period of 10 years from the date of issue of this letter for commissioning and generation of electricity.

12. A copy of the clearance letter shall be marked to concerned Panchayat/Zilla Parishad/Municipal Corporation, Urban local body and local NGO, if any, from whom any suggestion/representations were received while processing the proposal. The clearance letter shall also be put on website by the project proponent.



13. State Pollution Control Board / Committee shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's / Tehsildar's Office for 30 days.

14. The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment, Forest & Climate Change at <http://www.moef.nic.in>.

15. The project proponent shall also submit six monthly reports on the status of compliance of stipulated EC conditions including the results of monitored data (both in hard copies as well as by email) including the respective Regional Office of MOEF & CC.

16. After 5 years of the commissioning of the Project, a study shall be undertaken regarding impact of the project on the environment and downstream ecology. The study shall be undertaken by an independent agency to be decided in consultation with the Ministry.

17. A multi-disciplinary Committee (MDC) for monitoring the implementation of environmental safe guards during construction shall be constituted by the project proponent (PP) in consultation with the Ministry as early as possible. A panel may be proposed by the PP and submitted to Ministry and the Government of Arunachal Pradesh. The project proponent shall organize six monthly meetings of the Committee and submit the monitoring report to the Ministry.

The MDC will monitor specifically the stability and effectiveness of muck dumping site during all visits and monitor it & suggest remedial measures, if so required.

18. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days from the date of issue, as prescribed under Section-10 of the National Green Tribunal Act, 2010.

19. The Regional Office will monitor all environmental parameters encompassed in the EMP, specially effectiveness and stability of muck disposal sites and ensure release of environmental flow etc. These will be separately reported by Regional Office in their six monthly reports to be submitted to MoEF & CC, New Delhi.

20. Government of Arunachal Pradesh shall also ensure compliance and any violation of EC conditions during construction & commissioning shall be brought to the notice of MoEF by Government of Arunachal Pradesh immediately for necessary action.

Yours faithfully,



(B. B. Barman)
Director

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi -1.
2. The Advisor (Power), Planning Commission, Yojna Bhawan, New Delhi-110001.



3. The Secretary, Department of Power, Government of Arunachal Pradesh, Itanagar-791111, Arunachal Pradesh.
4. The Secretary, Department of Forest, Environment & Wildlife Management, Government of Arunachal Pradesh, Forest Secretariat, Itanagar-791111.
5. The Chief Engineer, Project Appraisal Directorate, Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delh-110066.
6. The CCF, Regional Office, Ministry of Environment & Forests, Upland Road, Laitumkhrah, Shillong-793003 (Meghalaya).
7. Member Secretary, Arunachal Pradesh State Pollution Control Board, Environment & Forest Office Complex, Sector-P, Itanagar-791111, Arunachal Pradesh.
8. EI-Division, Ministry of Environment & Forests, New Delhi-110003.
9. PS to JS (BS)/ Director (BB)/ PVS Rao (Sci.).
10. NIC Cell – uploading in MOEF's website.
11. Guard File.



(B. B. Barman)
Director