



भारत सरकार
पर्यावरण एवं वन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS

BY SPEED POST

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F. No. J-12011/54/2006-IA-I

Date: 10th June, 2011

To

Shri A. K. Sarkar

Executive Director (Planning)
National Hydro Power Company Ltd.
NHPC Office Complex
Sector - 33, Faridabad - 121 003
Haryana

Subject: Tawang 800 MW HEP Stage-II in Tawang District of Arunachal Pradesh by M/s NHPC Ltd. - Environmental Clearance regarding.

Sir,

This has reference to your letter No. NH/PD/Env.139B/1752 dated 20.7.2010 and subsequent letters dated 26.10.2010, 29.11.2010, 6.1.2011 and 25.1.2011 on the above mentioned subject.

2. It is noted that the Project is proposed on the Tawang Chu River near Yusum/Kudung village, 15 km downstream of Fore bridge near Jang village in Tawang District of Arunachal Pradesh. The Project envisages construction of 28 m high barrage across Tawang Chu river to generate 800 MW hydropower. This is run-of-the river scheme. The total land requirement for the Project is 452.60 ha, out of which 376.60 ha is forest land having 312.60 ha of community forest land and 64 ha of unclassified forest land and the remaining 76 ha is private land. Total submergence is about 6.19 ha of land which is community forest. An underground power house is proposed on the right bank of the river with 4 units of 200 MW each. A total of 14 villages consisting of 62 households will be affected due to this project. No National Park/Sanctuary/Biosphere Reserve/Historical monument exists in the vicinity of the project area. The total project cost is Rs. 6367.96 Crores out of which Rs. 119.03 Crores shall be for EMP.

3. The Project proposal was considered by the Expert Appraisal Committee for River Valley & Hydroelectric Projects in its meetings held on 20-21st December, 2010 and 21-22nd January, 2011. The Public Hearing for the Project was conducted on 21.9.2010 at Lumla in Tawang District, Arunachal Pradesh.



जहाँ है हरियाली।
वहाँ है खुशहाली।।

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PARYAVARAN BHAWAN, C.G.O. COMPLEX, LODHI ROAD, NEW DELHI - 110 003
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4. After appraising the Project from environmental angle, the Ministry of Environment and Forests hereby accords environmental clearance as per the provisions of Environmental Impact Assessment Notification, 2006 and its subsequent amendment, 2009 subject to the following conditions:

Part A: Specific Conditions

(i) The following Catchment Area Treatment Plan, as proposed by you, shall be completed in 7 years:

Treatment Measures	I Year	II Year	III Year	IV Year	V Year	VI Year	VII Year	Total
Biological Measures								
Afforestation (ha)	82.90	108.74	54.23	19.13	27	5	38	335
Assisted Natural Regeneration (ha)	32	11.47	12.03	5	10	--	5	75.50
Pasture Improvement (ha)	95.54	9	71.10	2	8	1.77	9	196.41
NTFP Regeneration (ha)	72	18.04	48.84	3	15	2	8	166.88
Engineering Measures								
Brushwood checkdams (Nos)	19	10	20	33	11	5	7	105
DRSM Check dams (Nos)	11	14	15	24	5	10	6	85
Mulching (ha)	71.25	98	59.44	13.81	15	6	24	287.50
Contour Bunding (ha)	58	116	95.17	11.45	12.68	5	33.55	331.85
Bench Terracing (ha)	39	66	35.20	17	18	4	19.15	198.35

(ii) The details of the land holding of project affected persons whose land is being acquired shall be submitted to this Ministry. The R&R benefits for the land losing households will be as per the National Rehabilitation and Resettlement Policy, 2007 (NRRP, 2007) as well as R&R Policy, 2008 Government of Arunachal Pradesh , whichever is higher Adequate publicity of the compensation package of NRRP 2007/ State Policy shall be given 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 must include representatives of project affected persons from SC/ST category and a woman beneficiary.

- (iv) The commitment made during the public hearing shall be fulfilled completely.
- (v) Consolidation and compilation of the muck shall be carried-out only in the designated eight (8) muck dumping sites which are approved by the State Pollution Control Board. As per the proposed muck disposal plan given in your EIA/EMP, out of 44.65 lakh m³ of muck expected to be generated, 10.61 lakh m³ will be reutilized as construction material and remaining 24.76 lakh m³ will be dumped at 8 designated disposal site of 37.80 ha.. These sites shall be at least 30 m **horizontally away** from the high flood level of the river. The revised plan for restoration of muck disposal sites as submitted in your letter no.NH/PD/Env.139/227 dated 25.1.2011 shall be strictly implemented.
- (vi) The revised fish management plan submitted vide letter no. NH/PD/Env.139/227 dated 25.1.2011 for the project shall be implemented in totality in consultation with the State Fisheries Department. The allocated budget of Rs. 588.80 lakhs for the plan shall not be diverted for any other purpose.
- (vii) A minimum environmental flow of 10 m³/sec shall be maintained for the sustenance of aquatic life in the downstream. Continuous monitoring system for the flow measurement shall be installed and data be displaced at appropriate site for information of civil society and stake holders. Six monthly results shall be submitted to the concern Regional Office of the Ministry and SPCB.
- (viii) To enhance the environment of project site, greenbelt shall be developed in 14.48 ha of land, as proposed in the EIA/EMP Report. The proposed greenbelt along the periphery of reservoir shall be undertaken in 2 layers with 9 tree species. The same shall be strictly adhered-to.
- (ix) The proposed Wildlife Management & Development and Conservation of Biodiversity Plans at a cost of Rs. 764.50 lakhs shall be taken-up strictly as outlined in the EIA/EMP Report and implemented in consultation with the State Forest Department without any diversion of funds. A report of implementation shall be included in the sixth monthly compliance report to be submitted to the Ministry.
- (x) The equipment likely to generate high noise levels shall 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.
- (xi) Any other clearance from any other organization/department, if required, shall be obtained before commencing the project.

- (xii) About 1.5% of the total project cost shall be spent for the Local Area Development.

Part A: General Conditions

- (i) Adequate free fuel arrangement shall be made for the labour force engaged in the construction work at project cost so that indiscriminate felling of trees is prevented. Fuel depot/s may be opened at the site to provide the fuel (kerosene / LPG)
- (ii) Medical facilities as well as drinking water and recreational facilities shall also be provided to the labourers.
- (iii) All the labourers to be engaged for construction works shall be thoroughly examined by health personnel and adequately treated before issuing them work permit.
- (iv) No fugitive dust emissions should be observed at the construction sites. Water sprinkling arrangements shall be made to suppress the fugitive emissions.
- (v) Potable drinking water and proper sanitary facilities shall be provided for the labour force and the local area people.
- (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) The revised plan submitted vide letter no. NH/PD/Env.139/227 dated 25.1.2011 for additional welfare measures & community and social development plan shall be strictly implemented.
- (viii) The total budget of Rs. 11903.78 lakhs including fish management plan and community & social development plan including community welfare schemes mentioned vide letter no. NH/PD/Env.139/227 dated 9th June, 2011 in the budgetary provisions for implementation of environmental management plans shall be strictly adhered to.
- (ix) Separate financial provision shall be made in the total budget of the project for implementation of the above suggested safeguard measures. The same shall be informed to the Ministry.
- (x) A Multi-Disciplinary Committee (MDC) to monitor environmental safeguards during the construction shall be constituted by the Ministry on the suggestions of the Proponent. Six monthly monitoring report of this Committee shall be displayed on the web-site of the Proponent.

- (xi) Videography of the project area shall be carried out to ascertain that no damage occurs to the houses of the villagers/local people and in case any damage occurs, the PP shall pay compensation for the damages.
 - (xii) Environmental parameters shall be monitored and six monthly monitoring reports shall be submitted to the concerned Regional Office of the Ministry and the State Pollution Control Board for their review.
 - (xiii) Disaster Management Plan shall be prepared in consultation with the District Authorities and early warning telemetric system shall be installed.
5. The Project Proponent shall provide full cooperation and all required documents / data to the Officials from concerned Regional Office of the Ministry who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection.
6. The responsibility of implementation of environmental safeguards rests fully with the NHPC Ltd. and Government of Arunachal Pradesh.
7. In case of any change in the scope of the project, it shall be intimated to the Ministry and fresh approval if required, shall be taken from the Ministry
8. Besides the above stated conditions, the Project Proponent and Government of Arunachal Pradesh shall also implement all other environmental safeguards, as proposed in the EIA/EMP report and other reports from time to time.
9. The environmental management plan shall be strictly adhered to and a sum of Rs. 119.03 Crores, the budgetary provisions for implementation of EMP shall not to be diverted for any other purpose.
10. The 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 commencement of construction work.
12. A copy of the clearance letter shall be marked to concerned Panchayat/ local NGO, if any, from whom any suggestion/representation has been received/ while processing the proposal.

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 within 7 days 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 and Forests at <http://www.moef.nic.in>.

15. 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, decided in consultation with the Ministry.

Yours faithfully,


(Sanchita Jindal)
Director

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi - 1.
2. The Secretary (Environment & Forests), Government of Arunachal Pradesh, Itanagar- 791 111.
3. The Advisor (Power), Planning Commission, Yojna Bhawan, New Delhi - 1.
4. The Chief Engineer, Project Appraisal Directorate, Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi - 110 066.
5. The Regional Office, Ministry of Environment & Forests, Shillong.
6. The Member Secretary, Arunachal Pradesh State Pollution Control Board, Department of Environment & Forests, Zero Point, Tinali, Itanagar -791 111.
7. EI-Division, Ministry of Environment & Forests, New Delhi - 110 003.
8. Guard File.

(Sanchita Jindal)
Director