

**No. J-12011/67/2008-IA-I**  
Ministry of Environment & Forests  
Government of India  
(IA-I Division)

Paryavan Bhavan  
CGO Complex, Lodi Road  
New Delhi – 110 003

**Date: 9<sup>th</sup> January, 2014**

To

**The Executive Director (Planning)**

NHPC Ltd.,  
NHPC Office Complex,  
Sector -33,  
Faridabad -121003 (Haryana)

**Subject: Teesta-IV HEP (520 MW) project in North Sikkim District of Sikkim by M/s. NHPC Ltd- for Environmental Clearance - regarding.**

Sir,

This has reference to your letter no. NH/PD/Env.136/1387 dated 11.5.12 and subsequent letters dated 18.10.2012, 26.10.2012, 11.1.2013, 21.1.2013 and 11.2.2013 on the above mentioned subject.

2. It is noted that the project is proposed on the Teesta River near Chandey village on left bank and near Hee Gyathang village on the right bank in North District of Sikkim. The project envisages construction of a 65 m. high concrete gravity dam across Teesta River in down-stream of confluence of Runchu with Teesta for the generation of 520 MW hydropower. This is a run-of-river scheme project. The total land requirement is about 324 ha. Out of which 143.49 ha is Government/ Forest Land (including 31.5 ha river bed and 14.40 ha for underground works) and 180.58 ha. is private land. Total submergence area is 105.37 ha. (Government/forest land - 68.82 ha + private land- 36.55 ha). The total catchment area of the project is 3910 Sq.km. An Underground powerhouse is proposed near Phedang village on right bank of river with 4 units of 130 MW each. A total of 256 families are likely to be affected due to the project. There is no displacement due to the project. The project falls within 10 km of Kanchendzonga National Park (KNP) and Fambong Lho Wildlife Sanctuary (FLWS). The total cost of the project is Rs. 3594.74 Crores and the project will be completed in 74 months.

3. The project was considered by the Expert Appraisal Committee (EAC) for River-Valley & Hydroelectric Projects in its meetings held on 7-8<sup>th</sup> September 2012, 23-24<sup>th</sup> November 2012 and 1-2<sup>nd</sup> February 2013. The Public Hearing was conducted on 29.3.2012 at Namprikdang Mela Ground in Dzongu area of North Sikkim District.



4. The Expert Appraisal Committee (EAC), after due consideration of the relevant documents submitted by the project proponent and clarifications furnished in response to its observations, have recommended for grant of Environmental Clearance for the project mentioned above. Accordingly, the Ministry of Environment and Forests hereby accords necessary Environmental Clearance for the above project as per the provisions of Environmental Impact Assessment Notification, 2006 and its amendment in 2009, subject to compliance of the following conditions:

**Part A: Specific Conditions**

- (i) The Catchment Area Treatment (CAT) plan, as proposed in EIA/EMP Report shall be undertaken in consultation with State Forest Department and major works shall be completed before impounding of reservoir. The year-wise details of CAT plan is as follows:

Treatment Measures	I Year	II Year	III Year	IV Year	V Year	VI Year	Total
<b>Biological Measures</b>							
Afforestation (ha)	110	157	105	108	58	9.5	547.5
Assisted Natural Regeneration(ha)	90	80	80	80	40	5	375
Pasture Development (ha)	70	60	80	70	20	4	304
NTFP Regeneration (ha)	70	69.7	55	50	30	5	279.7
Nursery (Creation & maintenance)	2	1	1	1	-	-	5
<b>Engineering Measures</b>							
Sausage Wall (Cum)	2550	2050	1550	1550	1600	1150	10450
CCM Wall (Cum)	2230	1420	1020	1020	1020	740	7450
Catch water Drain (Rmt)	1250	1050	490	362	140	140	3432
Dry Stone Wall (Cum)	2100	1900	1600	1080	1080	842	8602
Brushwood check dams (Nos)	90	50	20	20	20	5	205
DRSM check dams (Cum)	200	181.5	100	100	50	10	641.5
Contour Bunding (ha)	20	20	20	20	20	20	120
Bench Terracing (ha)	20	20	20	20	20	20	120

- (ii) The details of land holding of the project affected persons whose land is being acquired shall be submitted to this Ministry including Regional Office. The R&R benefits for the land losing households will be as per the National Rehabilitation and Resettlement Policy, 2007 (NRRP-2007) or as per the State Rehabilitation and Resettlement Policy, whichever is more beneficial to project affected persons (PAFs). Adequate publicity of the compensation package of NRRP 2007 shall be given in the affected villages.
- (iii) A Monitoring Committee for R&R shall be constituted which must include representatives of project affected persons including from SC/ST category and a woman beneficiary.

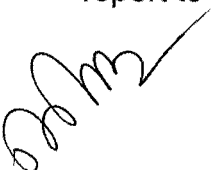
- (iv) All the commitment made during the public hearing shall be fulfilled completely by the developer.
- (v) Dumping and consolidation/compilation of the muck shall be carried out only in the designated muck dumping sites as submitted in the EIA/EMP report. As per the proposed muck disposal plan given in your EIA/EMP, out of the 37.5 lakh m<sup>3</sup> of muck to be generated 14.5 lakh m<sup>3</sup> will be utilized for construction purpose and remaining 23 lakh m<sup>3</sup> will be dumped at 4 designated disposal sites in an allocated area of 32.03 ha. Allocated grant of Rs.707.41 lakhs shall be fully utilized and not to be diverted for any other purpose
- (vi) A minimum environmental flow of 15 cumec shall be released during lean and non-lean/non-monsoon months of the year. For the monsoon months (June-September), environmental flow of 20 cumec shall be released for sustenance of the aquatic life in the downstream. 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 and SPCB.
- (viii) 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 shall be undertaken on approximately 20 ha of blank patches within 100 m width of FRL. The same shall be strictly adhered and the allocated budget of Rs.96.50 lakhs shall be fully utilized and not to be diverted to any other purpose.
- (ix) The Biodiversity Conservation and Wildlife Management Plan shall be taken-up as outlined in the EMP and as submitted vide letter no. NH/ PD/ Env. 136/2953 dated 18.10.2012 and implemented in consultation with the State Forest Department without any diversion of funds. The allocated budget of Rs.526.50 lakhs for this purpose shall be fully utilized and not to be diverted for any other purpose. A report of implementation shall be included in the six monthly progress and compliance report to be submitted to the Ministry including its Regional Office.
- (x) 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. For this necessary insulation arrangements etc. to be ensured.
- (xi) A separate provision under R&R Plan for bearing full expenses including tuition fees of at least 2 students of the project affected family (PAF) is selected on merit in a Government Engineering/Medical college. The maximum scholarship shall be limit to 2 students every year for five years. An additional provision of Rs.25 lakhs allocated for this purpose shall be fully utilized and not to be diverted for any other purpose.
- (xii) The water supply connection should be made available in each house in the project affected area based on their requirement in the Community and Social Development Plan.



- (xiii) The project proponent shall ensure construction of 8 sets of good quality of community toilets and their maintenance. An allocated grant of Rs.30 lakhs shall be fully utilized for the purpose and not be diverted for any other purpose.
- (xiv) In addition to the solid waste management in the project colony, the proponent should also contribute towards solid waste management plan in the project affected area. An allocated provision of Rs. 25 lakhs for this purpose shall be fully utilized and not to be diverted for any other purpose.
- (xv) The project proponent shall take-up fuel & energy conservation measures in the project affected area. For this, the project proponent shall ensure installation of solar street lights in the project affected area with a grant of Rs.20 lakhs for this purpose. Allocated provision shall be fully utilized for the same purpose and not be diverted for any other purpose.

**Part B: General Conditions**

- (i) Adequate arrangements for providing free fuel like kerosene/wood/LPG shall be made at the project cost for the labour 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.
- (iv) 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.
- (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 concerned Regional Office of the Ministry and to Ministry of Environment and Forests, New Delhi for their review.
- (viii) Disaster Management Plan shall be prepared in consultation with the District Authorities and early warning telemetric system shall be installed.
- (ix) A Multi-Disciplinary Committee (MDC) to monitor environmental safeguards during the construction phase shall be constituted by the project proponent in consultation with the Ministry as early as possible. The proponent shall suggest the members and their profile for approval of the Ministry. The project proponent shall organize annual meetings of the committee and submit the monitoring report to the Ministry.



(vii) As proposed in the EMP, a Environment Management Cell (EMC) shall be established at the project level with sufficient manpower. The head of the EMC shall report directly to the head of the Project for speedy implementation of EMP & related issues.

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.

6. The responsibility of implementation of environmental safeguards rests fully with the M/s. NHPC Ltd and Government of Sikkim.

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 Sikkim 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. 84.76 Crores, the budgetary provisions for implementation of EMP shall be fully utilized and not to be diverted for any other purpose. In case of revision of the project cost due to price level change, the cost of EMP shall also be updated proportionately.

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. 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. The Kanchendzonga National Park & Fambong Lho Wildlife Sanctuary are within 10 Km of the project site. Clearance from the Standing Committee of NBWL shall have to be obtained as per Supreme Court Order. The EC would become operational only after obtaining approval from Standing Committee of NBWL. Construction activity associated with the project can commence only after Wild Life and Forest clearance is obtained.

13. 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.

14. 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.



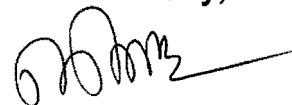
15. The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters are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

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, decided in consultation with the Ministry.

17. 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 and Zonal Office of CPCB and SPCB.

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.

Yours faithfully,



(B. B. Barman)  
Director

**Copy to:**

1. Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi -1.
2. The Advisor (Power), Planning Commission, Yojna Bhawan, New Delhi -1.
3. The Secretary (Power & Energy), Government of Sikkim, Gangtok-737101
4. The Principal Secretary (Forests), Forest, Env. & Wildlife Management Deptt., Government of Sikkim, Gangtok-737 101
5. The Chief Engineer, Project Appraisal Directorate, Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi -110 066.
6. The Additional PCCF, Regional Office (NEZ), Ministry of Environment & Forests, Law-U-Sib, Lumbatngen, Near MTC Workshop, Shillong- 793 021, Meghalaya.
7. The Member Secretary, State Pollution Control Board, Govt. of Sikkim, Annexe Building, Forest Secretariat, Gangtok-737 101, Sikkim
8. EI-Division, Ministry of Environment & Forests, New Delhi -110003.
9. PS to JS(AT)/Director(BB)/PVS Rao(SC-B)
10. NIC Cell, MOEF – to kindly upload soft copy in MOEF Website.
11. Guard File.



(B. B. Barman)  
Director