



(A Maharatna Company)

एन टी पी सी लिमिटेड

(भारत सरकार का उद्यम)

**NTPC Limited**

(A Govt. of India Enterprise)

तपोवन विष्णुगाड़ / Tapovan Vishnugad

Ref : TVHPP/EMG/2016-17/II

Date : 02.05.2017

To,

**Additional Principal Chief Conservator of Forest (PCCF)  
Regional MoEF, Central Zone,  
Forest Research Institute (FRI) Campus,  
Pierson Road, New Forest  
Dehradun - 248 006**

Dear Sir,

SUB : Submission of six monthly Compliance Report for Tapovan Vishnugad HEP-reg

Please find enclosed herewith the six monthly compliance report for the period of 01.10.2016 to 31.03.2017, in line with conditions stipulated in Environmental clearance (No:J-12011/36/2004-IA.I dated 08.02.2005) accorded to Tapovan Vishanugad Hydro Electric Project of NTPC Limited. Hope you will find above in order.

With regards.

Thanking you,

Yours Sincerely,

  
02.05.17

**( B.S. MEENA )  
Sr. MANAGER (EMG)  
For NTPC Limited**



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**Six Monthly Compliance Report of Environmental Clearance**

Name of the Project : Tapovan Vishnugad Hydro Electric Power Project  
 MoEF & CC Letter No. : J-12011/36/2004-IA.I dated 08.02.2005.  
 Period of Compliance Report : 01.10.2016 to 31.03.2017

S.No	Recommendation	Compliance Status
1	The proposal of Environmental Clearance of Tapovan Vishnugad Hydro Electric Project (TVHEPP) was considered by the Expert Committee for River Valley & Hydroelectric projects at its meeting held on 25.10.2004 & reconsidered on 09.12.2004. The Tapovan Vishnugad Hydro Electric Project 520 MW (4x130 MW) is a run of the river scheme across river Dhauliganga, a tributary to River Alaknanda & involves construction of a barrage near village Tapovan, Joshimath. The underground Power House is located near village Shelang, Joshimath (Chamoli). The capital cost of the project is Rs. 2,978.48 Crores.	The Environmental Clearance of Tapovan Vishnugad Hydro Electric Power Project (TVHEPP) was accorded by Ministry of Environment Forests & Climate Change (MOEF&CC) on 08.02.2005 vide letter No: J-12011/36/2004-IA.I.
2	The Environmental Management Plans - submitted by NTPC has been examined. The Ministry of Environment & Forests hereby accords Environmental Clearance of TVHEPP as per the provisions of Environmental Impact Assessment Notification, 1994, subject to strict compliance of the terms and conditions as follows:-	

**Part A: Specific Conditions:**

(i)	Catchment Area Treatment Plan as has been proposed should be completed in three years.	<p><b>CAT PLAN</b></p> <p>CAT Plan approved by MoEF&amp;CC was not accepted by the State Forest Department of Uttarakhand (UK). Accordingly Forest Department, UK has prepared CAT Plan for TVHEPP for a period of 10 years.</p> <p>The CAT Plan preparation charges of Rs. 3.0 lakhs were deposited by NTPC to the Forest Department. State Forest Department prepared and submitted the CAT Plan and as per the</p>
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Tapovan Vishnugad Hydro Power Project, Badrinath Road, Ravigram Township, PO-Joshimath, District-Chamoli, Uttarakhand-246443, Phone- 01389 222192, Fax- 01389 222435.

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	<p>CAT Plan implementation status (Forest Department, Alaknanda Soil Conservation, Gopeshwar (the executing department)).</p>	<p>approved CAT Plan, Rs.48.50 Cr has to be deposited by NTPC to the Forest Deptt. The details of the payments made by NTPC towards CAT Plan are as below:</p> <p>[i] Rs 2.50 Crore on 25.03.2006 by DD No. 225166 dated 24.03.2006 as advance amount against CAT Plan.</p> <p>[ii] Rs. 7,31,09,000/- by DD No. 789860 dated 18.09.2007 paid against 1<sup>st</sup> year CAT Plan.</p> <p>[iii] Rs 37,93,91,000/- by DD No 305724 dated 24.06.2008 against total balance amount of the said CAT Plan vide letter No: TVHPP/P&amp;S/F-18/2008-09/31 dated 11.07.2009</p> <p>(iv) Rs. 75.00 lakhs has been retained on their request for purchasing of vehicles &amp; equipment's (out of it worth Rs 62,13,981/- equipment's &amp; vehicle has already been purchased and handed over to the Authorities and balance amount Rs. 12,86,019/- is still with NTPC).</p> <p><b><u>Compensatory Afforestation:</u></b></p> <p>Amount deposited towards Compensatory Afforestation:</p> <p>Total: Rs. 2,15,84,364/- has been deposited.</p> <p>(2.692Ha) Rs. 10,73,721/- on 17.05.2005</p> <p>(2.888Ha) Rs. 10,92,439/- on 17.05.2005</p> <p>(75.999Ha) Rs. 1,85,11,719/- in Sep' 2005</p> <p>(1.15Ha) Rs. 3,24,800/- on 19.09.2007</p> <p>(4.706Ha) Rs. 5,81,685/- on 12.08.2009.</p> <p>The said CAT Plan is being implemented by Forest Department, Govt. of Uttarakhand in ten years.</p> <p>CAT Plan implementation work is in full swing in 84 Gram Panchayats and an expenditure of Rs 15.68 Cr has been incurred till 31.03.2017 by the Forest Department, Alaknanda Soil Conservation, Gopeshwar (the executing department) on execution of CAT plan.</p>
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(ii)	A study should be initiated on the long-term sustainability of water to be received from the glaciers, as there are several reports on the receding of glaciers. The study should be funded by NTPC and the Terms of Reference (ToR) should be decided in consultation with the MOEF.	Study of Glacier Contribution in the stream flow of Dhauliganga River at TVHEPP site and its influence on long term water sustainability was conducted by National Institute of Hydrology, Roorkee on 17.10.2006.
(iii)	The R&R Plan for the Project Affected Persons (PAPs) should be prepared in consultation with the State Government and submitted within three months from the date of issue of this letter.	<p>The Socio-Economic Survey (SES) was carried out by Indian Council of Forestry Research &amp; Education (ICFRE), Dehradun.</p> <p>One time settlement with Land Owners has been done. Lump-sum cash compensation paid in consultation with Village Development Advisory Committee (VDAC) constituted by District Magistrate of District Chamoli vide letter No. MEMO /ST/2005-2006 dated 03.09.2005 and representatives from Eight project affected Villages, District Administration, Public Representatives &amp; NTPC.</p>
(iv)	Forest Clearance may be obtained for acquiring forest land and submitted to this Ministry.	<p>(a) 75.999 Ha vide letter No.: FNO:8-69/2005-FC dated 08.08.2005 and subsequent GO issued by Government of Uttarakhand vide letter No: GI-1093/7-1-2006-300 (1137)/2005 dated 22.04.2006.</p> <p>(b) 2.692 Ha vide letter No. : GI-904/7-1-2005-600(1045)/2005 dated 05.07.2005</p> <p>(c) 2.888 Ha vide letter No. : GI-905/7-1-2005-600(1045)/2005 dated 05.07.2005</p> <p>(d) 1.15 Ha vide letter No.: GI-1552A/7-1-2007-800(1944)/2007 dated 29.10.2007.</p>
(v)	Twenty Two (22) conditions mentioned in the proceeding of Public Hearing should be followed in toto.	Being complied.
(vi)	Minimum water flow in the downstream of barrage should be maintained during lean season.	This condition has been modified by MOEF&CC vide their letter dated 01.04.2005 mentioning that a minimum water flow of 30 cusecs will be ensured in the river during lean

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		<p>season. This will be complied during operation phase of the project.</p> <p>To ensure the releasing of said environmental flow, a pipe of 750mm diameter has been provided in the pier below Minimum Draw Down Level (MDDL) level to ensure uninterrupted water flow.</p>
(vii)	<p>Seismic Zoning has been revised in 2002. The design of the main structure should be based on the 2002 guideline. Earthquake resistance design should be followed for all civil structures.</p>	<p>The Project falls under seismic Zone-IV and the site Seismic Study for TVHEPP was carried out by Department of Earthquake Engineering, IIT Roorkee and the report has been submitted on 24.04.2007.</p> <p>Further, all the structures of the project have been designed in line with the recommendations of the above said report and the same are being carried under the guidance of Central Water Commission (CWC).</p>

**Part-B: General Conditions:**

(i)	<p>Adequate free fuel arrangement should be made for the labour force engaged in the construction work at project cost so that indiscriminate felling of trees is prevented.</p>	<p>Presently there are three labour camps exists, one at Power House site and two at Barrage site.</p> <p>M/s Patel Labour camp (Power House), Helang. M/s RITHWIK Labour Camp, Barrage area at village Tapovan. M/s HCC at village Belgarh.</p> <p>Food is being provided to the labour by the agencies which are being prepared in their mess where HSD/LPG/ Kerosene are being used for cooking. As there is no separate cooking is being done by labour therefore, there is no point of indiscriminate felling of trees by labour force in the project area for cooking.</p> <p>During the period of 01.10.2016 to 31.03.2017 the usage of LPG/HSD/Kerosene in their respective messes is as under:</p> <ul style="list-style-type: none"><li>• M/s Patel Engineering has used 420 litres of HSD Oil and 134 Nos. of LPG Cylinders.</li></ul>
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		<ul style="list-style-type: none"><li>• M/s RITHWIK has consumed 138 Nos. of LPG Cylinders and 6416 liters of diesel for cooking.</li><li>• M/s HCC has consumed 324 Nos. of LPG Cylinders.</li></ul>
(ii)	<p>Fuel depot may be opened at the site to provide the fuel (kerosene / wood / LPG).</p> <p>Medical facilities.</p> <p>Recreational facilities should also be provided to the labourers.</p>	<p>LPG gas Depot managed by M/s Indane Gas is located at Joshimath which is catering the requirement of the cooking gas of the locality.</p> <p>Medical/ First Aid facilities along with Ambulance are available at all the working sites for 24x7 for providing medical assistance in case any accident at site during construction. Regular health check-up of the staff and contractor's labour are being done by Contractor and the reports are being furnished to NTPC on monthly basis.</p> <p>Indoor gaming facilities, reading rooms and Colour Television have been provided by the agencies in the Labour Camps, Staff Rooms for recreation of labour force.</p>
(iii)	<p>A Monitoring Committee for R&amp;R should be constituted which must include representatives of project-affected persons from SC / ST category and a woman beneficiary.</p>	<p>Village Development Advisory Committee (VDAC) includes members from all the project affected villages, representatives of SC/ST and locals, which was constituted by District Magistrate of District Chamoli. The regular meeting of VDAC in presence of local administration is being held to review and monitoring of R&amp;R activities.</p> <p>In additional to above Rs. 37.18 Cr has been allocated for the Community Development (CD) works.</p> <p>Further, NTPC also funding worth of Rs.14.73 for setting up of two Polytechnic colleges in Uttarakhand. About 2.22 Cr. has already been paid to Govt. of Uttarakhand for setting up one Polytechnic at Kaladungi and another Polytechnic for women which is proposed to be</p>

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		<p>setup at Dhak village near Joshimath.</p> <p>NTPC also providing long term water supply scheme for Joshimath and for that a budgetary provision of Rs 10.00 Cr has been kept and out of it Rs 35.00 Lakhs has already been released for preparation of DPR.</p> <ul style="list-style-type: none"><li>➤ NTPC also provided 110 solar lights in the surrounding villages to provide better illumination.</li><li>➤ Tree plantation work and environmental protection nature type of jobs are being got done through the Samitis run by ladies of nearby villagers.</li><li>➤ 10 Nos. of Solar Water Heaters of 200 LPD capacities are also being procured and shall be installed on the roofs of schools of nearby villagers.</li></ul>
(iv)	<p>All the labourers to be engaged for construction works should be thoroughly examined by health personnel and adequately treated before issuing them work permit.</p>	<p>Thoroughly health check-up on regular basis is being done for all employees and labour of contractor and the reports are being furnished to NTPC by the agencies on monthly basis.</p> <p>Details of the health check up of labour/ employees done by the agencies during the period of 01.10.2016 to 31.03.2017:</p> <p>184 Nos. of Employees/ Workers was medically examined by M/s Patel Engineering during the period.</p> <p>265 Nos of Employees/ Workers was medically examined by M/s RITHWIK during the period.</p> <p>213 Nos of Employees/ Workers was medically examined by M/S HCC during this period.</p>
(v)	<p>Restoration of construction area including dumping site of excavated materials should be ensured by levelling, filling up of burrow pits, landscaping etc. The area should be properly treated with suitable plantation.</p>	<p>Presently the excavated material is being dumped in designated muck disposal areas only. Toe walls / Gabions walls are being constructed to avoid the spill over of the muck. The provisions of constructing such walls have already been kept in the contract itself under Environmental Protection works which is the responsibility of the agency and NTPC strictly</p>

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		<p>monitoring the same.</p> <p>The sites where quarry &amp; muck disposal work is over where the treatment of the surface is being done through Jute Geo Textile. NTPC has purchased 15000 sqm of jute for muck treatment and out of it 12000 sqm has already been laid over muck along the Chormi road and remaining quantity has been executed in the month of March, 2017 at Surge Shaft Top in Shelang village, to stabilize the slopes of the area, deteriorated naturally.</p> <p>Tree Plantation of 20,000 sapling on 18.2 Ha land during the coming monsoon season has been initiated through local forest department (Alaknanda Forest Division, Gopeshwar, Uttarkhand) on dated 31.03.2017 and for that Rs. 7.63 lacs has already been deposited as an advance for soil investigation and fencing the area.</p>
(vi)	Financial provision should be made in the total budget of the project for implementation of the above suggested safeguard measures.	As per the approved CAT Plan, Rs 48.50 Cr has been deposited with CAMPA account. Out of 48.50 Cr, Rs 10.98 Cr has been allocated for Environment & Ecological activities.
(vii)	A Multidisciplinary committee should be constituted with representatives from various disciplines of forestry, ecology, wildlife, soil conservation, NGO etc. to oversee the effective implementation of the suggested safeguard measures.	<p>One of the major components of mitigative measures for environment protection works at the Project is Catchment Area Treatment Plan. This is also having a multi disciplinary monitoring committee consisting of :</p> <p>PCCF – Chairman Secretary Agriculture or nominated representative – member Secretary Animal husbandry or nominated representative – member Chief Project Director Jalagam Prabandh Nidesalaya – Member Representative of Head of Project, Tapovan</p>

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