

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 220/MP/2011**

Subject: Petition for relaxation of NAPAF for the period 1.4.2010 to 31.3.2011 of Tehri HPP (1000 MW)

Date of Hearing: 22.1.2013

Coram: Shri S. Jayaraman, Member  
Shri V. S. Verma, Member  
Shri M. Deena Dayalan, Member

Petitioner: THDC

Respondent: PSPCL and 11 others

Parties present: Shri M. G. Ramachandran, Advocate, THDC  
Shri Anand K Ganesan, Advocate, THDC  
Shri M. K. Tyagi, THDC  
Shri J. K. Hatwal, THDC  
Shri Ajay K Mathur, THDC  
Shri A.K. Singh, THDC  
Shri M K. Aggarwal, THDC  
Shri Padamjit Singh, PSPCL  
Shri Parveen Singla, UHBVN & DHBVNL  
Shri R. B Sharma, Advocate, BRPL

**RECORD OF PROCEEDINGS**

The learned counsel for the petitioner submitted that additional information sought for by the Commission based on the proceedings held on 22.11.2012 has been furnished *vide* affidavit dated 29.12.2012 along with the details of the measures / precautions taken up during construction of the diversion tunnel. In addition, rejoinder to the replies filed by the respondents has been filed and copies served on the respondents. The learned counsel also submitted that due to collapse of diversion tunnel of Koteshwar Hydro electric Project (Koteshwar HEP) in its downstream, the work at Tehri Hydro Power Project was shut down for 41 days and only a NAPAF of 74.4% could be achieved during 2010-11 as against the NAPAF of 77%. He further submitted that the petition may be allowed as prayed for by the petitioner.

2. The representative for respondent no. 1, PSPCL submitted as under:

(a) The actual NAPAF as per Regional Energy Accounts of NRPC exceeded the norms by 6.976% in 2009-10 and by 8.671% in 2011-12 with profits which was retained by the petitioner. Hence, the loss corresponding to a shortfall of 2.592% NAPAF in 2010-11 should be borne by the petitioner.

(b) Due to gross operational errors on the part of the petitioner in opening the flood gates of Tehri dam during September, resulted in the spillage of Tehri reservoir. This caused the flooding of the Koteshwar dam/project and as a direct consequence, the Koteshwar dam and spillway system was not functional. Due to this, when the divergent tunnel collapsed on 17.12.2010, there was no outlet to release water and no option except to shut down the Tehri Project for a period from December, 2010 to January, 2011.

(c) The petitioner was fully aware that the spillways at Koteshwar project were incomplete and it was necessary to adopt a reservoir operation strategy by keeping high generation and reducing the rate of filling of reservoir during the filling cycle. Instead, during July, 2010 Tehri project was operated at a very low average mega watt load of 177 MW with the result that the reservoir level shot up from 743 metre on 1st July 2010 to 784.85 metre on 31st July 2010. Further, this low generation continued upto 8.8.2010 resulting in reservoir level being shot up to 805 metre and only on 9.8.2010, the generation was increased to 1000 MW but however, he reservoir level reached its full level of 830 metre on 20.9.2010.

(d) The submission of the petitioner that *"the collapse of diversion tunnel at Koteshwar is largely due to unique geological formation which got activated due to excessive rain fall in the region in the monsoon of the year 2010"* is not acceptable since 'rainfall' cannot be considered as 'force majeure' condition.

(e) The petitioner, in its rejoinder dated 17.1.2013 has submitted that *"the standard operation plan is prepared on the basis of inflow series of 90% dependable year."* This means that there is 90% chance of actual inflow. Based on this and keeping in view the monsoon report for the year 2010, the petitioner should have anticipated and eliminated the chance of spillage.

(f) The flooding of Koteshwar project took place during September, 2010 because of the non commissioning of spillway of the dam and also because the draft tube gates of the power house were not commissioned and in open condition.

(g) The full reservoir level of Tehri project is 830 metre and during the year 2010, the petitioner had obtained the permission of the Hon'ble Supreme Court to temporarily raise the reservoir to a FRL of 830 metre. As per the status report, FRL level of 830 metre is yet to be achieved as on October 2012. The beneficiaries have been denied the full operational and economic benefits from the Tehri dam from 2006-07 to 2012 since the filling of the dam has been restricted to 820 metre as against design FRL of 830 metre. The petitioner may bring the dam to its full operational capability upto 830

metre and the claim of additional NAPAF is not justified in view of incomplete status of dam.

3. The learned counsel for respondent no. 5, BRPL submitted as under:

(i) The submissions of the respondent, PSPCL as regards technical issues raised above were adopted by this respondent.

(ii) As per provision in the PPA governing 'Force Majeure' "*....the onus of satisfying the other party of the existence of such an event(s) shall be on the party invoking this cause who will give a written notice within a reasonable time to the other party to this effect.*" This procedure prescribed in the PPA as regards written notices has not been adopted by the petitioner in the instant case. The submission of the petitioner that '*intimation of such an exigency and its subsequent impact on generation from Tehri HPP was given to all the concerned departments of Govt. of India including the NRLDC*' is not acceptable.

(iii) The claim of the petitioner for reduction of NAPAF due to under recovery has to be considered in the context of "Force Majeure" in the PPA between the parties and other contracts entered into in respect of the Koteshwar project. The intention of Force Majeure is to save the performing party from the consequences of anything over which it has no control. The claim of the petitioner for reduction of NAPAF due to under recovery is contrary to Force Majeure condition.

4. The representative of respondent no. 2, DHBVNL & UHBVNL adopted that submissions made by the respondent, PSPCL.

5. In response to the submissions above, the learned counsel for petitioner clarified as under:

(i) The petitioner has approached the Commission with the said prayer for the genuine reason that the project could not be operated for 41 days. Moreover, the provision as regards existence of Force Majeure condition was invoked by giving notice to the NRLDC.

(ii) The details/information as sought for by the respondent, BRPL has been submitted and issues raised by them were discussed in the concerned committee meetings. Therefore, the points raised by the respondent, BRPL are of hypothetical nature.

(i) The relaxation is claimed relate to a period of 41 days (17.12.2010 to 28.1.2011) when water could not be discharged from the Tehri Dam and not for any other period.

(ii) There has been no negligence in the construction as alleged by the respondent PSPCL since rock mechanics is a very complex dimension of Civil

engineering. Moreover, geological surprises are zone specific and do not depend on the length of the tunnels. The collapse of diversion tunnel at Koteshwar is largely due to unique geological formation which got activated due to excessive rainfall in the region during the year 2010.

(iii) The project is 90 meter head live storage project with full reservoir level of 830 M, which varies from 740 M to 830 M every year; The permission for filling up the reservoir is given only till 820 M on consideration of rehabilitation measures on the upstream side by the State Govt. The reservoir filling schedule is approved by the Central Water Commission and the filling schedule always has a safety margin which has been designed based on the 90% dependable year, so that enough safety margins in the reservoir are in place in the event of any flooding.

(iv) During the year 2010, the rainfall was very heavy and realizing that the reservoir would be filled much faster than the filling schedule envisaged, the petitioner obtained the permission of the Hon'ble Supreme Court to allow the filling beyond 820 meters based on the approval, the dam was filled till 831.2 meters. In the process, there has been some automatic spillways and since there are no gates, the water submerged the Koteswhwar project during September, 2010. The submergence of Koteshwar power house was clearly the result of natural disaster which was beyond the control of the petitioner.

(v) Though the monsoon forecast is taken into account, the same has no relevance to the flooding, since 102% monsoon rainfall generates only 1445 millimeters of additional water, which works out to 2% of the total capacity.

(vi) The rehabilitation work required for clearance upto EL 830 M has been completed. However, an administrative decision is to be taken by State Govt. of Uttarakhand.

(vii) As regards the flooding of the power house, a high level enquiry was conducted jointly by the Central Water Commission and the Central Electricity Authority and official report has been submitted.

6. The Commission after hearing the parties directed the petitioner to file the 'Report of the Central Water Commission and the Central Electricity Authority as regards flooding, on affidavit, with advance copies to the respondents on or before 12.2.2013. Subject to this, order in the petition was reserved.

By order of the Commission

**Sd/-**  
(T. Rout)  
Joint Chief (Law)