No.J-12011/1/98-IA-I Government of India Ministry of Environment and Forests

Paryavaran Bhavan, C.G.O.Complex, Lodi Road, New Delhi-110003

Dated the 19 May 1999

Subject: - **<u>Meestat-Hydroselectric-project-Stage-W33170 MW in East Sikkim</u></u> District, Sikkim– Environmental clearance reg.**

National Hydro-electric Power Corporation may refer to their letter No. NH/PD/Env.67/184 dated 20.2.98 and subsequent letters dated 15/16-7-98, 6.10.98 and 8.2.1999.

2. The Ministry of Environment & Forests has carefully considered your application. It is noted that the proposal envisages construction of a 55 m high (from river bed) dam on river Teesta and an underground power house on the left bank near Sirwani village. The dam site is located about 2 km. downstream of confluence of Teesta river and Dikchu nala. Total land involved for project construction is 326.662 hec. out of which 122.173 hec. is forest land. 10 blocks/villages consisting of 204 families will be affected. Out of this 72 families will be affected fully (land & house both) and 132 families partially (only land).

3. The Ministry of Environment and Forests hereby accords environmental clearance as per the provision of Environmental Impact Assessment Notification, 1994, subject to the strict compliance of the terms and conditions mentioned below -

Part-A: Specific Conditions-

- i) At present there is no breeding of mosquito in and around the Teesta river as the flow of river is very fast. But, once the project starts, a major portion of water will be drawn through head race tunnel (18 Km. Long) and therefore the flow of the river at this point will slow down substantially, which may give rise to breeding of mosquitoes. There are some malaria vectors which can breed in slow moving streams. Two approaches can be adopted to rectify this situation.
 - \checkmark (a) The rate of flow of water should be more than 60 cm/sec.
 - \checkmark (b) This part of the river should be properly channelised so that no small pools and poodles are allowed to be formed.

Even after taking precaution, due to unforeseen situations, breeding of mosquito and resultant malaria or mosquito borne diseases can increase. If such a situation arises, it will be the responsibility of project authorities to take all corrective steps i.e. residual insecticidal spray in all the project impact area and surrounding 3 Km. area, keeping the flight range of mosquitoes in consideration.

- In addition, project authorities should organise a training workshop for all engineers who will be posted in this project, once it is started, Deptt. Of National Malaria Eradication Programme can lend a helping hand by providing the faculty for this training course.
- iii)

ii)

Yearwise action plan for treatment of degraded catchment area should be strictly implemented as proposed i.e. -

	FOREST LAND (Hect.)		AGRICULTURE LAND (Hect.)		
Year	Biological	Engineering	Biological	Engineering	Total
1 st	550	300	-	100	950
2 nd	450	250	-	100	800
3 rd	1970	250	300	100	2620
4 th	1770	250	300	100	2420
5 th	1960	100	300	100	2460
6 th ,	1760	-	300	*	2060
7 th	1770	-	300	-	2070
8 th	30			-	30
9 th	70			-	70
10 th	70	-		-	70

YEARWISE DETAILS OF CAT WORKS OF TEESTA HE PROJECT

- iv) The faunal survey as reported in the EIA report was done for a shorter period. Merely listing of the species is inadequate. The impact of the proposed development on biodiversity and biohabitat must be thoroughly examined and remediation is to be proposed. The P.A. should submit the report within six months to this Ministry for approval. The complete plan giving details of the yearwise actions and yearwise fund allocation and agencies that will be involved in implementing the management plans must be spelt out.
- v) Butterfly species existing in the project area play an important role in maintenance of the ecosystem. A separate chapter should be kept in the biohabitat and biodiversity study report solely for butterflies indicating the impact due to the proposed project on the butterfly species and management plans proposed for the conservation of the species and their habitat.
- vi) The Ethnographic study report should be submitted within three months i.e. by 30th June, 1999.
- vii) From the dam site to power house site the river travels a distance of 23 Km. Due to diverting water for power generation, the flow of river at this stretch will be reduced. A study related to aquatic ecology should be taken up to know the impact of reduced water flow on aquatic ecology. The report should be submitted within six months i.e. by 31.7.99.

The labour camps should not be located in protected/ proscribed areas.

- On completion of the project, the workers brought from outside by the construction ix) agencies should be sent out and not allowed to settle anywhere in Sikkim.
- x) Full efforts must be made to employ maximum number of local people in not only unskilled category but also in semi skilled and skilled categories by making provision for imparting skills through training to selected locals. The objective is to integrate locals in the developmental activity. Detailed plans regarding the above are to be furnished.
- 204 families will be affected due to this project. Out of this 72 families will be xi) affected fully (land and house both) and 132 families partially (only land). The affected families would be resettled at lower Samdong and Dhudhyadhara of Khamdung block. An amount of Rupees 545.51 lakh (Rs.99.51 cost of resettlement land) has been kept in the budget for R&R package. The package as proposed should be implemented in toto. In brief the package is given below-
 - Land for construction of house @ 0.02 hec. (200 sq.m) per family for 45 . i) families at lower Samdong and for 27 families at Khandong.
 - Land for agriculture @ 0.10 hec. (1000 sq.m) per family for 72 families. ii)
 - Special grant for house building for 72 families @ Rs.30, 000 per family. iii)
 - Special grant for SC/ST/OBC for 45 families @ Rs.10, 000 per family. iv)
 - Transportation charges for cattle and house hold items for 72 families @ v) Rs.10, 000 per family.
- No other project in Sikkim will be considered for environmental clearance till the xii) carrying capacity study is completed.
- Over and above the stipulated compensatory afforestation, additional 10 hec. area xiii) should also be afforested. Area should be identified in consultation with State Forestry department. Funds require for this purpose should be reflected in the project budget. 1% of the cost of the project to be spent on ecological conservation of the area for which the plans may be submitted to the Ministry within three months.

Part-B. General conditions.

- Adequate free fuel arrangement should be made to the labour force engaged in i) the construction work at project cost so that indiscriminate felling of trees is prevented.
- Fuel depot may be opend at the site to provide the fuel (kerosene/wood). ii) Medical facilities as well as recreational facilities should also be provided to the labourers.

Ste in

viii)

- All the labourers to be engaged for construction works should be thoroughly examined by health personnel and adequately treated before issuing them work permit.
- iv) Restoration of construction area including dumping site of excavated materials at dam site & intake tunnel, Adit site and power house site should be ensured by levelling, filling up of burrow pits, landscaping etc. The area should be properly afforested with suitable plantation.
- v) Downstream of the dam, flood zoning approach should be done. No settlement should be allowed within flood zone.
- vi) A multi-disciplinary committee should be constituted with representatives from various disciplines to oversee effective implementation of the suggested safeguard measures.
- vii) Six monthly monitoring reports should be submitted to the Ministry and its Regional Office for review.
- 2. Officials from Regional Office, Shillong, MOEF, who would be monitoring the implementation of environmental safeguard, should be given full co-operation, facilities and documents/data by project proponents during their inspection.
 - 3. The responsibility of implementation of environmental safeguards rests fully with the State Department/Project Authorities.
 - 4. Any change in the scope of the project will require a fresh appraisal.

5. The Ministry reserves the right to add additional safeguard measures, 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.

(SATISH C. GARKOTI)

Deputy Director (S)

The Chairman National Hydro-Electric Power Corporation Ltd. Sector-33 Faridabad-121003 Haryana

iii)

तार : Telegram : PARYAVARAN, NEW DELHI दूरमाष : Telephone : 436 1316 टेलेक्स : Telex : W-86185 DOE IN FAX : 4360678 भारत सरकार पर्याबरण एवं वन मं

पर्यावरण एवं वन्त मंत्रालय GOVERNMENT OF INDIA MINISTRY OF ENVIRONMENT & FORESTS पर्यावरण भवन, सी. जी. ओ. कॉम्पलेक्स PARYAVARAN BHAVAN, C.G.O. COMPLEX लोदी रोड, नई दिल्ली-110003 LODHI ROAD, NEW DELHI-110003

No.J-12011/1/98-IA-I

7.12.99.

26/11/

Subject:- Teesta hydroelectric project, Stage-V(3x170 MW) - dropping of condition stipulated in the environmental clearance letter dt. 19.5.99.

In continuation of our letter of even no. dated 19.5.99; it may be kindly noted that the condition No.(xiii) under part A of the above letter stands deleted.

This issues with the approval of competent authority.

Hhri Yogendra Prasae Chairman & Managing Directo NHPC Sector-33 Faridabad.

(Dr. S. Bhowmik)

13

Additional Director

Copy to:-

The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi.

Adviser(Power), Planning Commission, Yojana Bhawan, New Delhi.

The Chief engineer, Project Appraisal Directorate, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-66.

111 - 16 (12