

Ref.No:JLHEP/F-5/15-16/765 .

To,  
The Joint Director,  
North-Eastern Regional office,  
Ministry of Environment & Forest,  
Government of India.

Dated: 23 /11/2015

**Subject: Six Monthly compliance Report on status of Environmental Safeguards of 96MW Jorethang Loop Hydro Electric Project.**

Dear Sir,

This has reference to Environmental Clearance to 96MW Jorethang Loop Hydro Electric Project vide MoEF letter No.J-12011/19/2006-IA-I dated 26.07.2006; followings are clarified for your kind perusal.

1. As per the Stage I Clearance the following amount is deposited to the Forest Env. & Wildlife management Deptt. Government of Sikkim, Gangtok.
  - i) **Compensatory afforestation:** Rs 60, 67,914=00 vide cheque No.000052 HDFC Bank dated 13/03/2008
  - ii) **Net Present Value:** Rs 2, 24, 35,420=00 vide cheque No.000053 HDFC Bank dated 13/03/2008
  - iii) **Crop Compensation:** Rs 53, 94,370=00 vide cheque No.000054 HDFC Bank dated 13/03/2008
  - iv) **CAT Plan:** Rs 1, 36, 96,000=00 vide cheque No.000055 HDFC Bank dated 13/03/2008.
  - v) **Biodiversity Conservation & Management Plan:** Rs 50, 48,000=00 vide cheque No.000056 HDFC Bank dated 13/03/2008.
2. Six Monthly compliance on the status of the Jorethang Loop Hydro Electric Project to the stipulated environmental conditions is enclosed as Annexure-A, and Monthly Progress report of the project as Annexure-C.

This is for your kind information that the project had been commissioned on 29<sup>th</sup> October 2015.

Thanking You.

Yours faithfully,



(Krishna Gurung)

Sr.A.G.M

For DANS Energy Pvt. Ltd.

Email.id: [krishna.gurung@dansenergy.com](mailto:krishna.gurung@dansenergy.com)

Copy to:

1. Additional Director, MoEF New Delhi, for kind information.
2. CCF-cum -Nodal Officer (FCA) Gangtok, for kind information.
3. Central Pollution Control Board, Govt. of India, for kind information.
4. Member Secretary, State pollution Control Board Gangtok, for kind information.

**96MW JORETHANG LOOP HYDRO ELECTRIC PROJECT**  
**DANS ENERGY Pvt. Ltd.**

**DATA SHEET**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Details</b>
1.	<b>Project Type</b>	<b>Run- of- River Scheme</b>
2.	<b>Name of the Project</b>	Jorethang Loop Hydro Electric Project
3.	<b>Clearance Letter</b> i) Environmental Clearance ii) Forest Clearance	No.J-12011/19/2006-IA-I dated 26.7.2006 MoEF GOI vide letter No.3-SK-C047/2006-SHI/496-97 dated 02.05.2008 Forest Env.& wildlife Management Deptt . GOS vide Letter No.281(986)/FCA/FEWMD Dated 12.5.2008
4.	<b>LOCATION:</b>	
	District	South & West District
	State	Sikkim
	Latitude	27°09'37"N
	Longitude	88°17'47"E
5.	<b>Address for Correspondence</b>	
	<b>a)Address of concerned Project Head(with pin code, Telephone/Fax)</b>  <b>b)Address of Project Incharge site office (With Pin code, Telephone/Fax)</b>	Shri. P.B.Praveen Kumar (Director), Dans Energy Pvt.Ltd 1 <sup>st</sup> Floor. Rabdenling, annex-II, adjoining Royal Plaza, Upper Shyari, Gangtok. Telefax-: 03592-280703 e-mail: praveenpb@dansenergy.com Mr. C.L. Thakur (Vice President), Housing Colony, Jorethang, South Sikkim, Telephone:03595-276658, (M) 8348691932 e-mail: cl.thakur@dansenergy.com

6	Breakup of the Project Area	
	a) Forest Land Total	32.0506Ha (Surface:29.5433Ha+Underground:2.5073 Ha)
	South District	25.7406 Ha in South Sikkim
	West District	6.3100Ha in West Sikkim
7.	Break-up of the Project affected Population.	Project affected families: 7 Landless affected families: Nil
8.	Financial Details	
	a) Project cost as originally planned.	475.00 Crores.
9.	Forest Land Requirement	
	The Status of approval diversion of forest land for non forestry use.	The Ministry of Environment & Forest Government of India vides its letter No.3-SK-C047/2006-SHI/496-97 dated 2nd May 2008 Forest Management Deptt. Government of Sikkim vide letter No.281 (986)/FCA/FEWMD dated 12/5/2008 has approved diversion of 32.0506Ha (Surface:29.5433Ha+Underground:2.5073Ha)

## *Annexure-A*

### Compliance Status on Environmental Clearance.

#### **Part –A: Specific Conditions**

Sl.No.	Stipulated Conditions	Compliance Status
(i)	Controlled blasting with very low charge and mild explosives should be used under close supervision. The quantity of explosive per delay to be used should be informed within one month from the date of issue of this letter.	Blasting is carried out under the supervision of Sikkim police. A fortnightly blasting report is also submitted to the District Collector & Superintendent of Police.
(ii)	Catchment Area Treatment Plan as has been proposed should be completed in Five Years.	We have deposited Rs. 1, 36, 96,000/- with State Forest Department Govt. of Sikkim Gangtok, for implementation of Catchment Area Treatment Plan.

#### **Part-B: General Conditions**

Sl.No.	Stipulated Conditions	Compliance status
(i)	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.	Sufficient free fuel (kerosene Oil & LPG) has been arranged for the labour forces engaged in the construction work. A mess has been set up to cut down the usage of fuel. Also, the fuel used in the mess is LPG.
(ii)	Fuel depot may be opened at the site to provide the fuel (kerosene/wood/LPG). Medical facilities as well as recreational facilities should also be provided to the labourers.	The fuel Depot has been opened at Chisopani, Jorethang.  We have established a medical clinic at the barrage site with one doctor and two nurses to provide medical facilities to the labourers.
(iii)	All the labourers to be engaged for construction works should be thoroughly examined by health personal and adequately treated before issuing them work permit.	Labourers engaged at construction work are examined by MBBS Doctors. Thereafter, the regular checkup is a carried out at site.
(iv)	Restoration of Construction area including dumping site of excavated materials should be ensured by leveling, filling up of burrow pits, landscaping etc. The area should be properly treated with suitable plantation.	The project is in completion stage, We have already started the plantation around the dumping areas.
(v)	Financial provision should be made in the total budget of the project for implementation of the above suggested safeguard measures.	Yes, we have kept aside a financial provision to implement the above mentioned safeguard measures and the implementation of Environmental activities is under process.
(vi)	A Multidisciplinary committee should be constituted with representative from various disciplines of	A Multidisciplinary Committee is already constituted with approval letter from MoEF, New Delhi vide letter

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  - 1.1. Infrastructure Works
  - 1.2. Contractor's Mobilization and Facilities
  - 1.3. Planning
  - 1.4. Head Race Tunnel
  - 1.5. Power Intake and Cut & Cover Conduit

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	forestry, ecology, wildlife, soil conservation, NGO etc, to oversee the effective implementation of the safeguard measures.	No.J-12011/19/2006-IA-A dated 12.7.2010
(vii)	Six monthly monitoring reports should be submitted to the Ministry and its Regional Office, Shillong for review.	We have been submitting the Six monthly monitoring reports to the Ministry and its Regional Office, Shillong for review.
4.	Officials from Regional Office MoEF, Shillong 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.	We have given full cooperation and will continue to do so by providing facilities and documents/data during the inspection by the officials from Regional Office MOEF, Shillong.
5.	The responsibility of implementation of environmental safeguards rests fully with the DANS Energy Pvt.Ltd. & Govt. of Sikkim.	We have been strictly complying with all the conditions set for the safeguards of the environment with the cooperation of Forest Env. & Wildlife Management Department, Government of Sikkim.
6.	In case of change in the Scope of the Project, Project would require a fresh appraisal.	There is no change in scope of project. However, in case of any change we will inform the concern department and take the fresh appraisal.
7.	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary and take action including revoking of the clearance under the provision of the suggested safeguard measures in a time bound and satisfactory manner.	Agreed.
8.	This clearance letter is valid for a period of five years from the date of issue of this for commencement of construction work.	Construction work was duly started within the said period.
9.	A copy of the clearance letter will be marked to concerned Panchayat / local NGO, if any from whom any suggestion / representation has been received while processing the proposal.	Till date we have not received the suggestion / representation while processing the proposal. However, we will mark the concerned authorities a copy if the need arises.
10.	State Pollution Control Board / Committee should display a copy of the clearance letter at the Regional Officer, District Industries Center and Collector's office / Tehsildar's office for 30 days.	State Pollution Control Board has already displayed a copy of the clearance letter at the SPCB Office, District Industries Center, and Collector's Office for 30 days.
11.	The project proponent should advertise within seven days atleast in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environment clearance.	We have advertised in two Local Newspapers widely circulated in the region around the Project "Hamro Prajashakti" in Nepali and "NOW" in English dated: 2nd August 2006, informing that Project has been accorded environmental clearance.

**ANNEXURE-B**

SEPTEMBER 2015

# **JORETHANG LOOP HEP (96 MW), SIKKIM**

MONTHLY PROGRESS REPORT



**DANS ENERGY PVT LTD**

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- 1. Progress of Civil Work During The Month
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## 1. EXECUTIVE SUMMARY

Owner	: DANS Energy Pvt. Ltd
Civil and HM Works Contractor	: SEW Infrastructure Ltd
Electro-Mechanical Contractor	: Alstom India Ltd
Design Consultant	: SMEC India Pvt. Ltd
Owner's Engineer	: Energy Infratech Pvt. Ltd

The project construction was taken up in the month of March/ April 2010 and since then all civil works of Barrage & Power Intake including installation and wet testing of gates and hoists; Cut & Cover Conduit; excavation and overt lining of entire 6,867 m length of HRT, adit plugging; Surge Shaft excavation, concrete lining, orifice slab and gate installation; Pressure Shaft excavation, ferrule erection work and concrete backfilling; Power House construction including installation of draft tube gates & hoists; tail race channel, transformer & switch yard, transmission line works up to the interconnection point with the PGCIL line have been completed. All Electro-Mechanical erection works including commissioning of all equipment in Power House have also been completed. Thus, entire Civil, HM and E&M works for the project have been completed. All transmission line works up to interconnection point has been completed.

Both the units are now commissioned and synchronized with the grid, 15% over-load testing and 12-hour trial run completed.

COD for Unit 1 was declared w.e.f. 00.00 hrs of 26.09.2015 and for Unit 2 w.e.f. 00.00 hrs of 01.10.2015.

## **2. Project Status**

### **2.1. Clearances**

DEPL obtained all clearances, which were required for construction of the Jorethang Loop HEP.

### **2.2. Financial Closure**

The financial closure for the Project was achieved in the month of March 2010.

## **3. PROGRESS OF WORK AT SITE**

### **3.1. Infrastructure Works**

Maintenance of access roads to barrage, powerhouse and Adits is continuing and all the access roads are operational.

### **3.2. Contractor's Mobilization and Facilities**

All equipment required for construction has been available at site.

### **3.3. Planning**

All Civil and HM Construction Drawings were released for construction to the Civil & HM Contractor.

## **4. PROGRESS OF CIVIL WORKS DURING THE MONTH**

### **4.1. Head Race Tunnel**

On 20<sup>th</sup> of April 2014 HRT day-lighting was achieved.

#### **a) Invert Excavation, Leveling Concrete and Kicker Wall**

Invert excavation, leveling concrete and kicker walls are completed for the entire HRT.

#### **b) HRT Overt Concreting**

Overt concreting is completed for the entire length of HRT (i.e. 6867 m).

#### **c) HRT Grouting**

Grouting (both Contact and Consolidation) has been completed for the entire length of HRT.

#### **d) HRT Invert Concreting**

Invert Concreting has been completed for the entire length of HRT.

#### **e) HRT Adit Plugging**

The plug of the Adit 2 with an opening of 2.5 m x 2.5 m for inspection access during maintenance incorporates a water tight door. The same is completed. Adit 1 plugging is also completed.

## **4.2. Power Intake and Cut & Cover Conduit**

The Power Intake and Cut & Cover Conduit structures along with the connection block at the portal end of the Inlet Tunnel are completed.

Erection of the trash rack cleaning machine is also completed. Construction of the control room for remote control of the gates was completed.

Installation of the stop log gates in the power intake is completed and testing also completed by filling reservoir up to El 344.00 m.

## **4.3. Barrage**

All Civil and HM works for Barrage are completed.

## **4.4. Surge Shaft**

All Surge shaft works both Civil and HM including consolidation grouting are completed.

## **4.5. Power House Complex**

The structural Civil Works in powerhouse, switchyard, transformer foundations etc. are completed. The brickwork, plastering and all finishing works are also completed.

## **4.6. Pressure Shaft**

Excavation of the total pressure shaft; erection, alignment and NDT of all the ferrules including bottom horizontal shaft, top horizontal shaft as well as drop has been completed.

## **4.7. Tail Race Channel**

All Tail Race channel works are completed.

## **5. TRANSMISSION SYSTEM**

DEPL has signed the Bulk Power Transmission Agreement (BPTA) with Powergrid Corporation of India Ltd (PGCIL) on 24<sup>th</sup> Feb 2010 for transmission of power.

For the 220 kV Line from JLHEP switch yard to interconnection point of PGCIL line from substation at New Melli (Tokal), all works including erection of towers, stringing and interconnection has been completed.

## **6. PROGRESS OF ELECTRO-MECHANICAL WORK**

**6.1** All E&M Supply and erection works are completed.

**6.2** Commercial operation has been achieved for both Units 1 and 2 on dates as mentioned below:

- **Unit-I**
  - Synchronization: 20<sup>th</sup> Sep 2015

- Achievement of Rated Load: 22<sup>nd</sup> Sep 2015
- Trial Run completed on: 21:40 hrs of 25<sup>th</sup> Sep 2015
- COD w.e.f. : 00:00 hrs of 26<sup>th</sup> Sep 2015

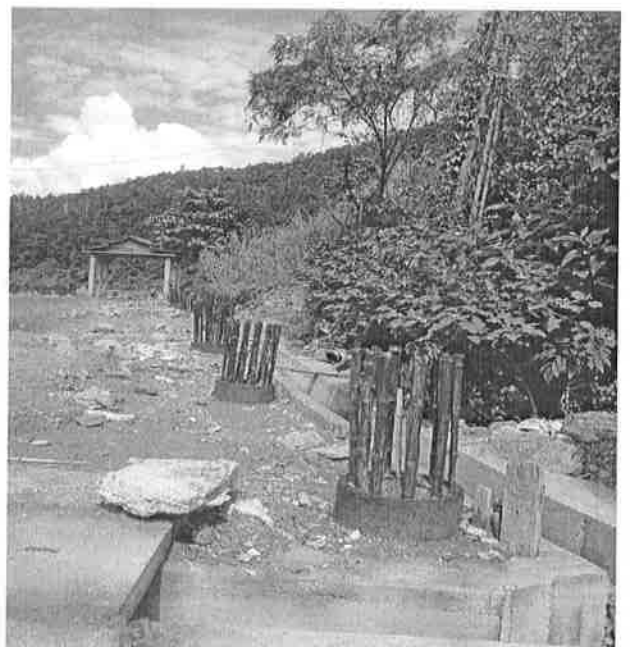
- **Unit-II**

- Synchronization: 20<sup>th</sup> Sep 2015
- Achievement of Rated Load: 23<sup>rd</sup> Sep 2015
- Trial Run completed on: 16:40 hrs of 30<sup>th</sup> Sep 2015
- COD w.e.f. : 00:00 hrs of 01<sup>st</sup> Oct 2015

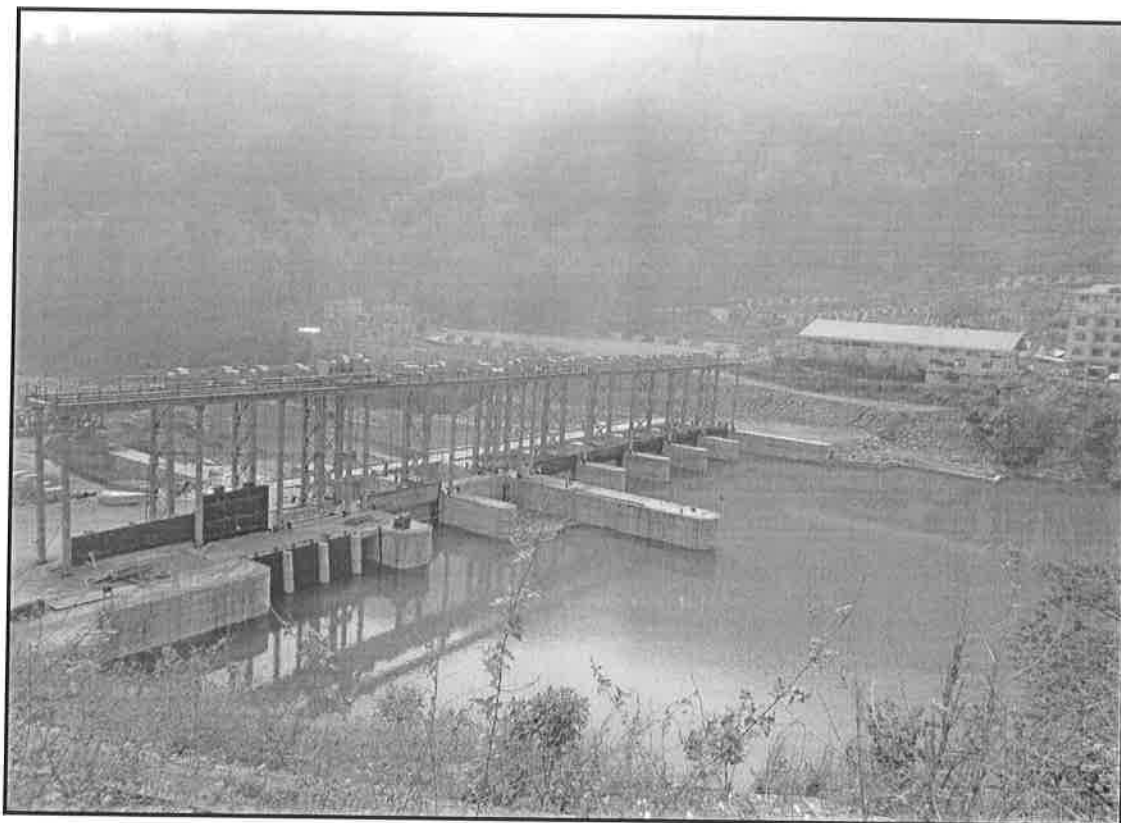
## 7. Social and Environmental Activities

- **Plantation Drive September 2015:**

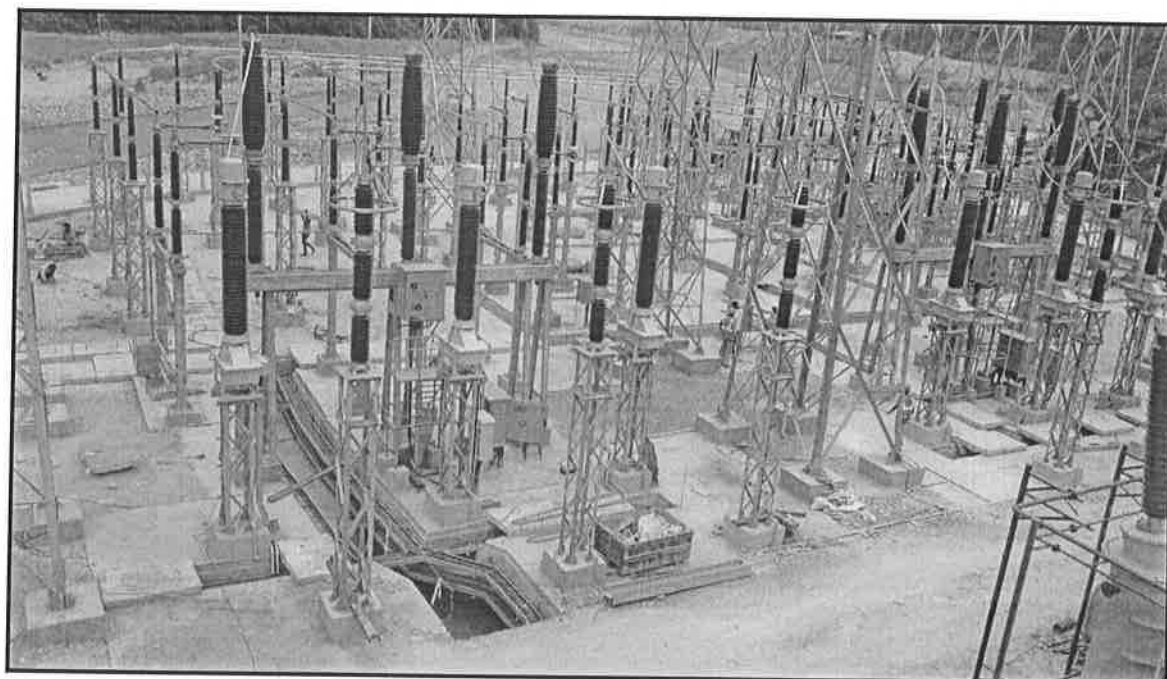
M/s. DANS Energy Pvt. Ltd carried out plantation drive on approach road to Power House. The trees were with the help of rings of hume Pipe (Coller) and to protect from animals the planted were surrounded by bamboo sticks with green painted. More than 450 different types of sapling were planted.



**8. PROGRESS PICTURES FOR THE MONTH**



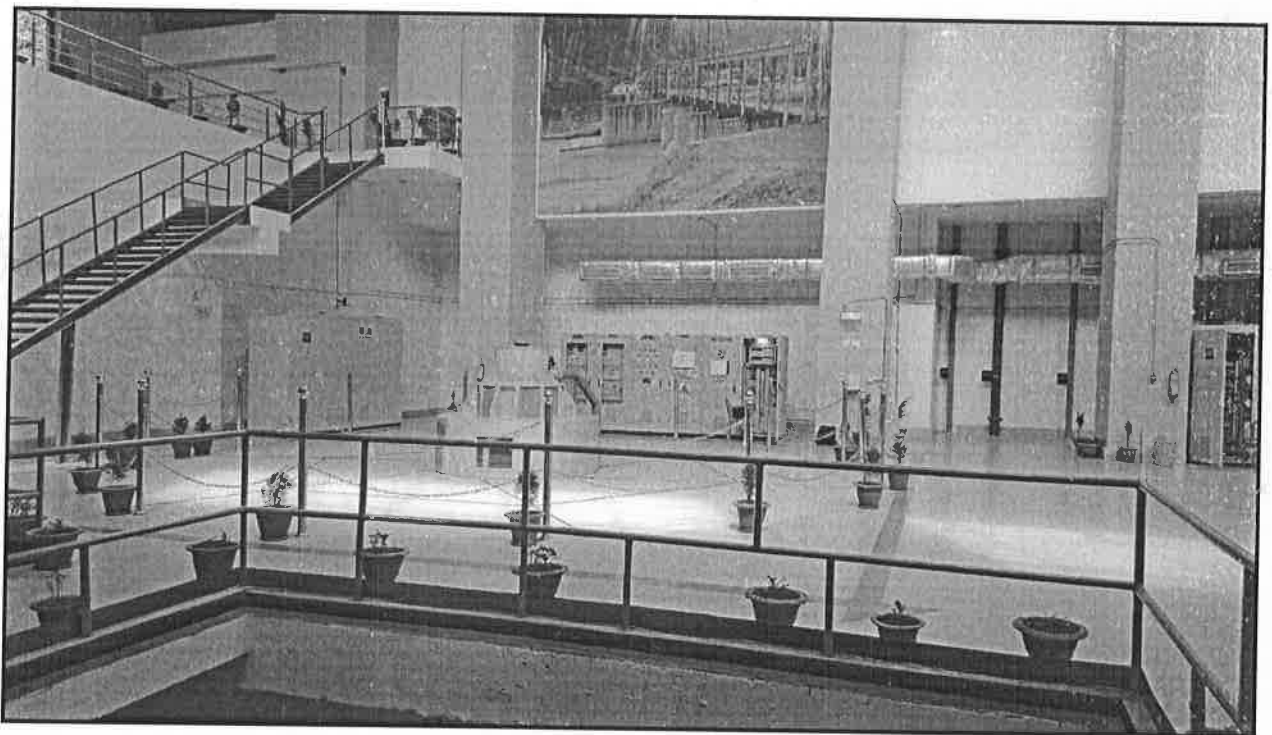
**Barrage Upstream view (During wet testing of the gates)**



**Switchyard**

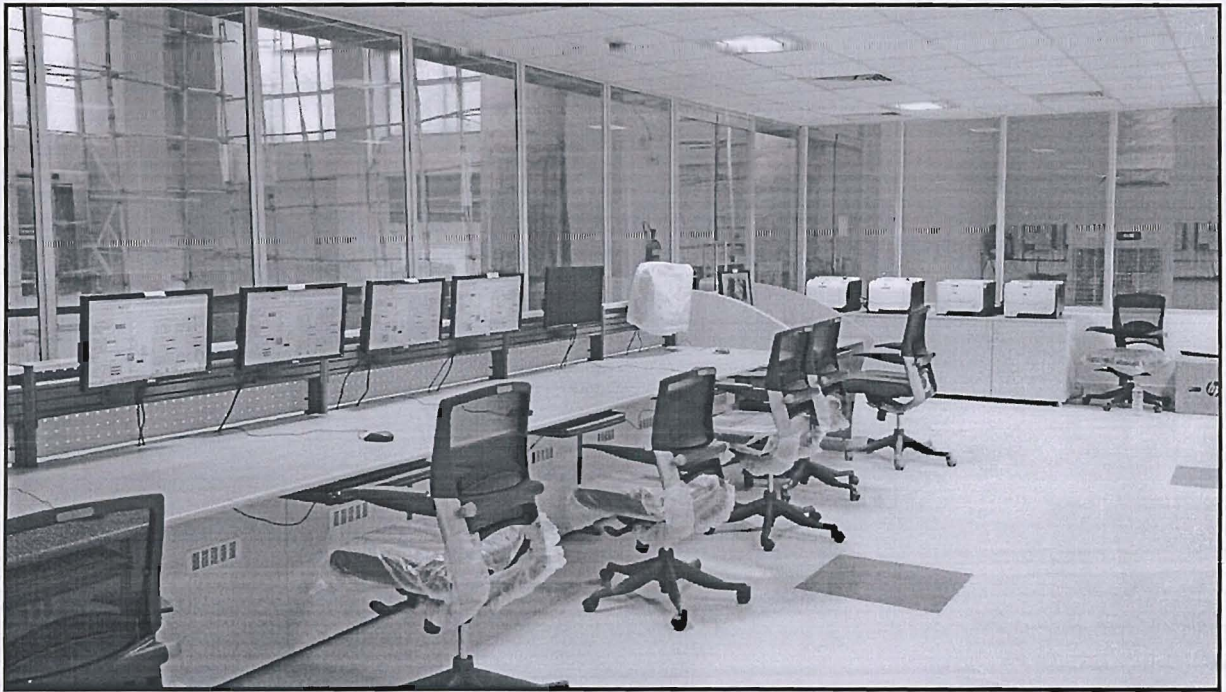


**Power House U/S View**

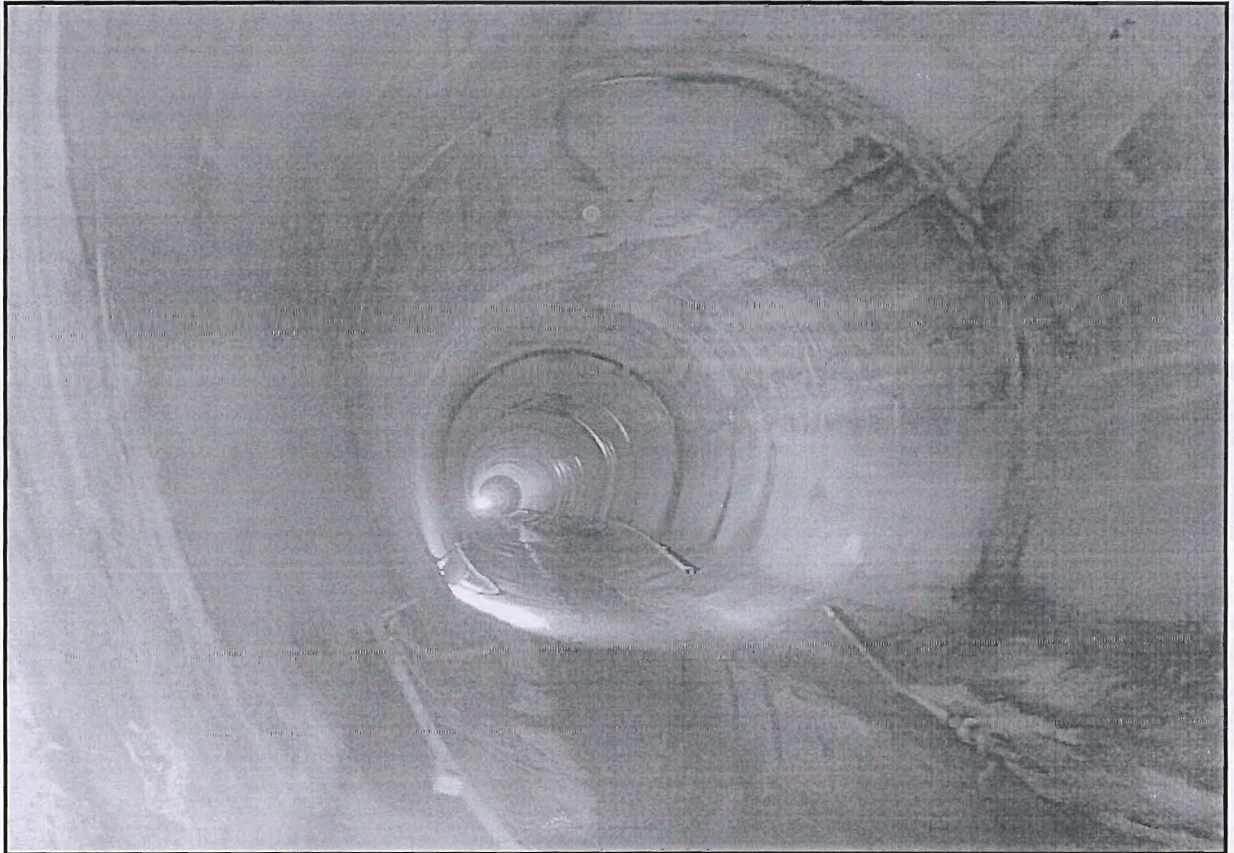


**Power House inside View**

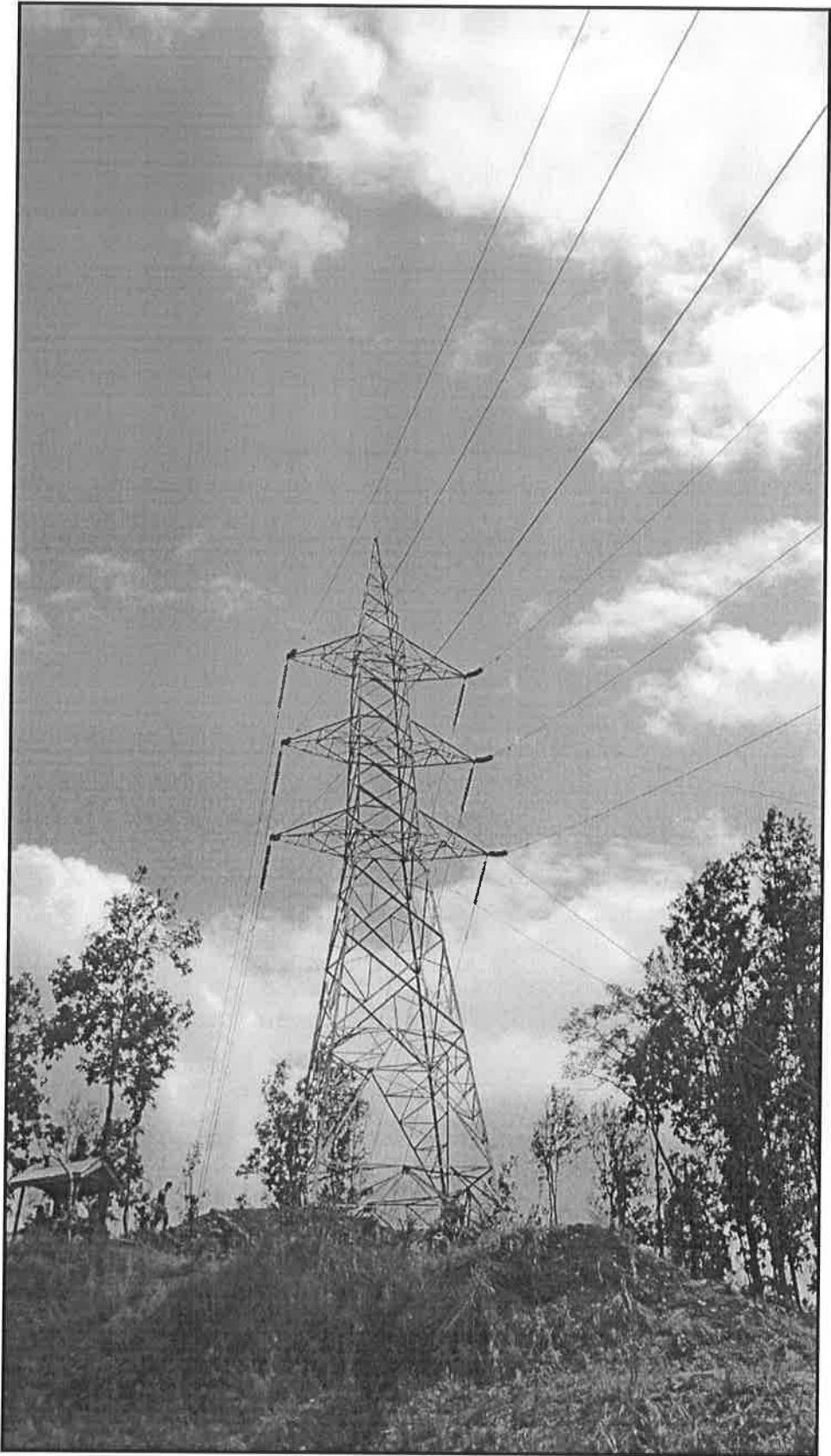




**Power House Main Control Room**



**Final HRT View**



**Transmission Line Tower**