

Ref.No:JLHEP/F-5/14-15/807

Nijehil
12 SW
*25/11*To,
The Joint Director,
North-Eastern Regional office,
Ministry of Environment & Forest,
Government of India.
Shillong-793021

Dated: 18/11/2014

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 have been 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, Environmental activities and Corporate Social Responsibilities as Annexure-B and Progress report of the project as Annexure-C.

This is for your kind information.

Thanking You.

Yours faithfully,

-Sd-

(Krishna Gurung)

Sr.A.G.M

For DANS Energy Pvt. Ltd.

Email.id: 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.
5. Office file.

(Sr.A.G.M)

For DANS Energy Pvt.Ltd.



Site Office

Housing Complex, Jorethang, South Sikkim - 737121

Tel: +91-9233503372 Fax : +91-3595-276408

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

DATA SHEET

Sl. No.	Particulars	Details
1.	Project Type	Run- of- River Scheme
2.	Name of the Project	Jorethang Loop Hydro Electric Project
3.	Clearance Letter 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.	LOCATION:	
	District	South & West District
	State	Sikkim
	Latitude	27°09'37"N
	Longitude	88°17'47"E
5.	Address for Correspondence	
	a)Address of concerned Project Head(with pin code, Telephone/Fax)	Shri. P.B.Praveen Kumar (Director), Dans Energy Pvt.Ltd 1 st Floor. Rabdenling, annex-II, adjoining Royal Plaza, Upper Shyari, Gangtok. Telefax: 03592-280703 e-mail: praveenpb@dansenergy.com
	b)Address of Project Incharge site office (With Pin code,	Mr. C.L. Thakur (Vice President), Housing Colony, Jorethang, South Sikkim, Telephone:03595-276658, (M) 8348691932 e-mail: cl.thakur@dansenergy.com

	Telephone/Fax	
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.

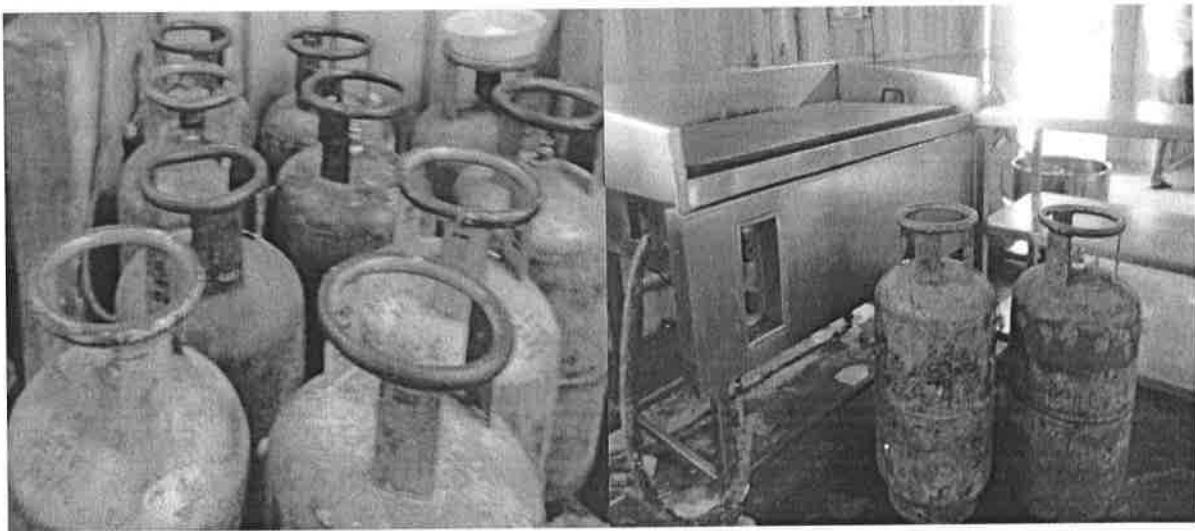
Part-B: General Conditions

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. (Photo attached)
(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. (Photo attached)
(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 and treated before issuing the work permit. 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 dumping area at barrage area has been cleaned up by using the material to fill “cut n cover” portion and right bank of barrage and remaining dumping site are being taken care as per directions.
(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 progress.

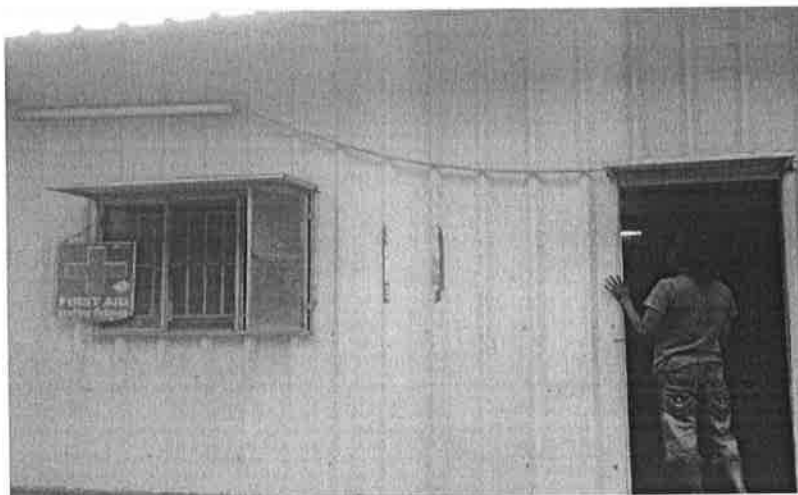
(vi)	A Multidisciplinary committee should be constituted with representative from various disciplines of forestry, ecology, wildlife, soil conservation, NGO etc, to oversee the effective implementation of the safeguard measures.	We had constituted the Multidisciplinary Committee with approval letter from MoEF, New Delhi vide letter No.J-12011/19/2006-IA-A dated 12.7.2010 and site visit and meeting of the Multidisciplinary Committee took place in January'2013. The next meeting is awaited due to non-availability of Chairman SEIAA, who is the chairman of the Committee.
(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 in time.
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	We had 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

in the vernacular language of the locality concerned informing that the project has been accorded environment clearance.

been accorded environmental clearance.



LPG DEPOT FOR THE LABOURERS

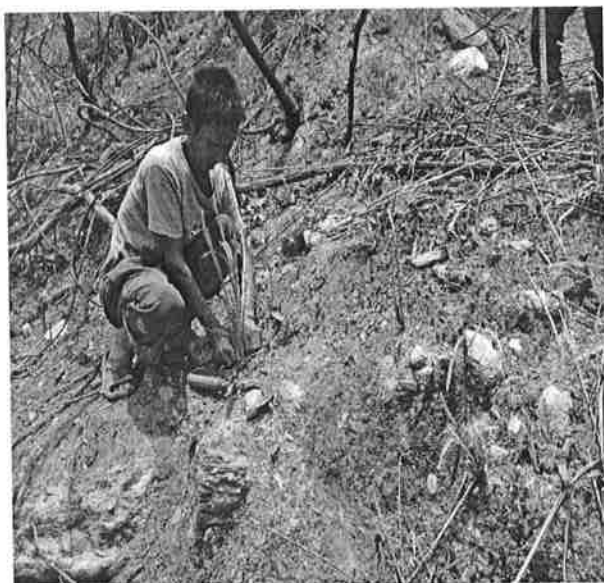
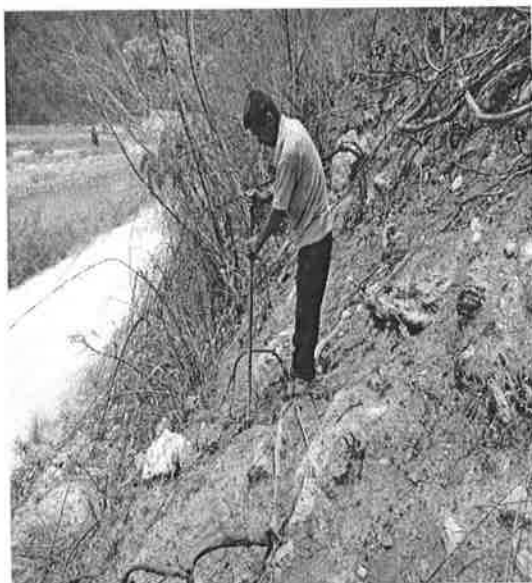


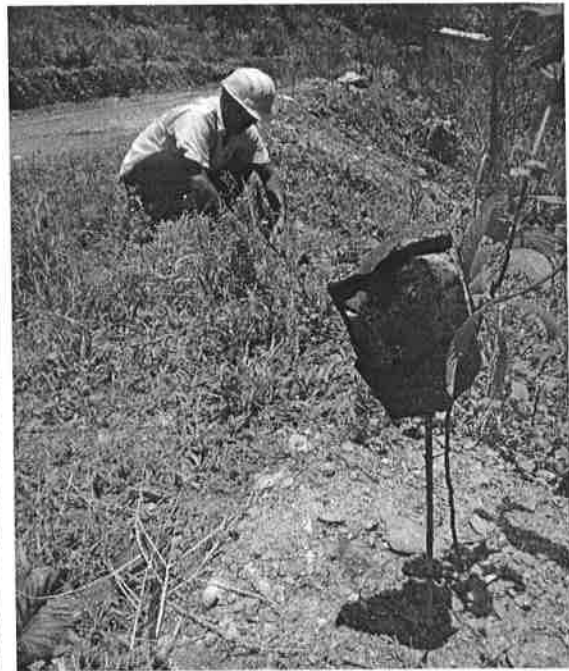
DISPENSARY FOR THE LABOURERS'

ANNEXURE-B
Environmental Activities and Corporate Social Responsibilities

PLANTATION

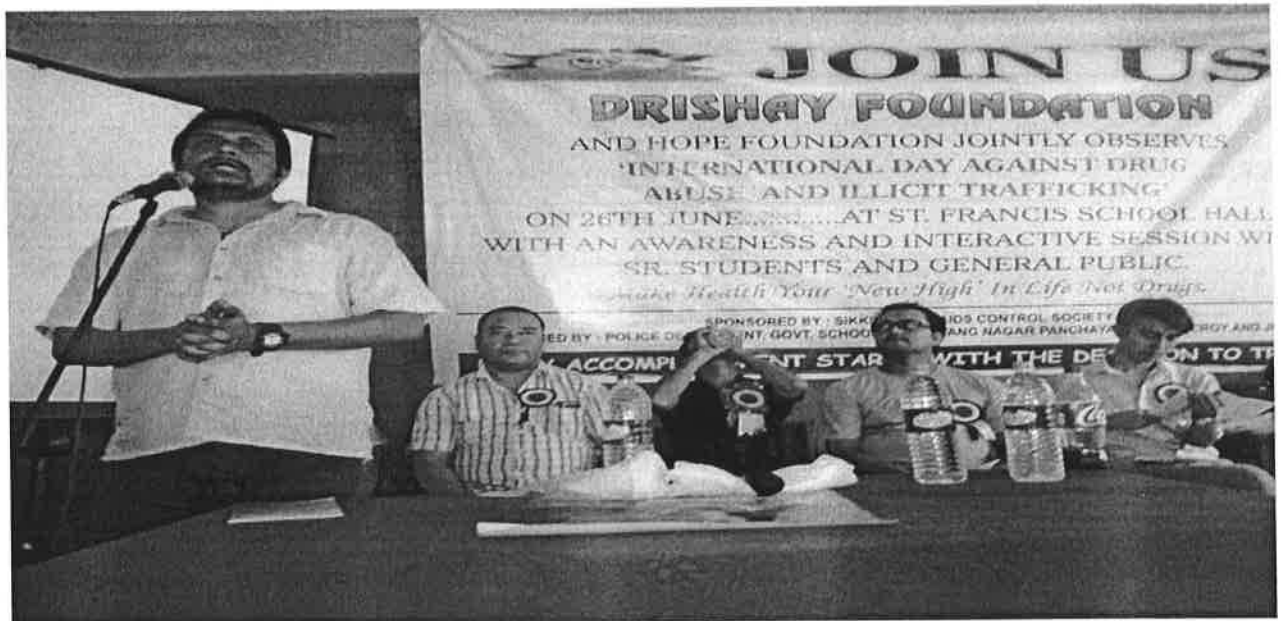
On the occasion of 10 minutes to earth, Plantation was carried out along Approach Road to Adit-II & approach Road to Power House, on 25th June 2014. Around 140 Nos. saplings of various species were planted.





INTERNATIONAL DAY AGAINST DRUG ABUSE AND ILLICT TRAFFICKING

A programme was held on 26th June 2014 at St.Francis School, Jorethang on the occasion of "International Day against Drug Abuse And Illicit Trafficking" organized by the Drishay Foundation attended by the Nagar Panchayats, S.H.O. Jorethang, P.S, Teachers and almost 150nos. of students from various schools in and around Jorethang. The Programme was sponsored by DANS Energy Pvt.Ltd.





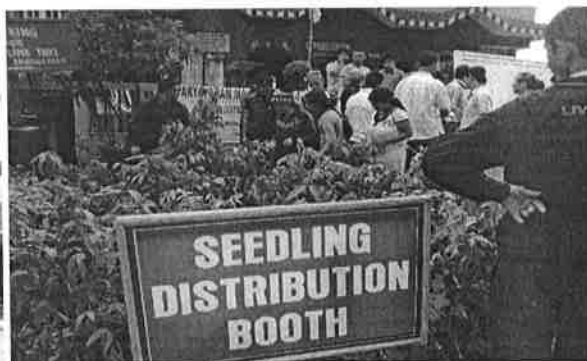
ENVIRONMENT AWARENESS CAMPAIGN

An Awareness Campaign regarding environment and its role in our life was held on 4/07/2014, within the office staff of DANS Energy Pvt.Ltd (Admin Deptt.) attended by ACF (T) Rabong Forest Deptt. Government of Sikkim Mr. T.B. Subba. Where he delivered a lecture about how each individual can contribute to Mother Nature & environment, how to keep our surroundings & environment clean, Global warming and its effect, he also discussed about how we can minimize our carbon foot prints.



PARYAVARAN MAHAOTSAV 2014

15th June to 30th was observed as “Paryavarana Mahotsav” in the state, DANS Energy Pvt.Ltd. actively participated in the Event, which began with a flag Off event followed by signature campaign on Environment , Cleanliness drive and Tree Plantation. More than 500 saplings were planted, the programme were participated by SDM Rabong, Forest officials Rabong and the Local People.



Event: Signature campaign

Independence Day Celebrations

Independence Day celebrations were held in Jorethang on 15th August, 2014. During the celebrations football tournament and many cultural events were held, in which local schools participated enthusiastically. Among other dignitaries, the celebrations were attended by Area MLA cum Minister (Health) Shri A.K.Ghatani. DANS Energy played a major role in organizing the event. DEPL also sponsored prizes presented to winners of various events.



Eye Testing Camp:

An Eye Testing Camp was organized on 20th Sept 2014 at Jorethang Senior Secondary School for the students with the doctors from Namchi Govt Hospital by DANS Energy Pvt. Ltd. More than 200 hundred Students were checked for vision during the camp.

To appreciate our efforts, the school provided DANS with an appreciation certificate.



PH : 03595 - 257286

GOVT. SENIOR SECONDARY SCHOOL

JORETHANG, SOUTH SIKKIM - 737121


Ref. No. /GSSS/

Date..... 22.9.2014

To,
The President
DANS Energy Pvt. Ltd.
Jorethang, South Sikkim
Sir,

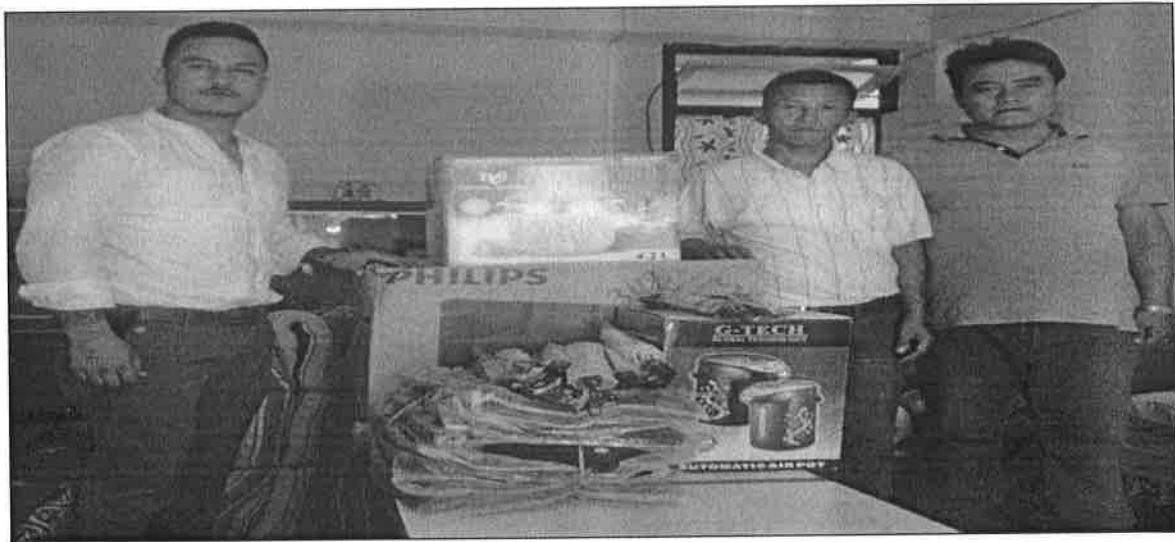
Your love and help tendered to this school is always remembered and the Health program which you have lunched in our school is highly appreciable. We are really 'thankful' to you as well as your company. Our school always wish you and your company all the best.

Thanking you


22.9.2014
Principal In charge
PRINCIPAL
Govt. Sr. Sec. School
Jorethang
Govt. Sr. Sec. School
Jorethang South

Donation to Orphanage

DANS Energy Pvt. Ltd. provided to Mayal Lyang Missionary society, which runs an orphanage in Singtham, Namchi South Sikkim many daily use appliances, school bag and other items.



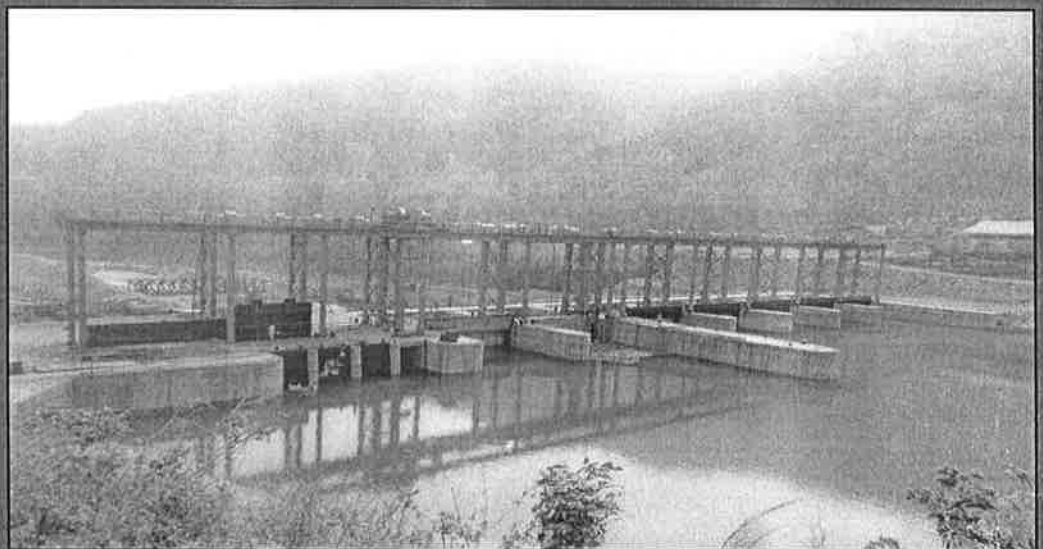
ANNEXURE -C

PROGRESS REPORT

SEPTEMBER 2014

JORETHANG LOOP HEP (96 MW), SIKKIM

MONTHLY PROGRESS REPORT



DANS ENERGY PVT LTD

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 - 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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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

On 20th of April 2014 breakthrough between Face 1 and Face 2 was achieved and with this, the daylight of entire HRT is achieved.

1533.0m of Invert excavation and leveling concrete were done in HRT Face 1-2 in September 2014.

561.0m Kicker wall was concreted during this month making a total of 2553.0m on both sides by the end of this month.

During the month of September 2014 a total of 39 no's overt and 691.0m length was concreted making a total length of 2031.0m.

Both sets of gantries (four skins) are operational.

In Barrage, civil works are completed. Both Under Sluice service gates are erected and dogged on the dogging beam. Erection of all five service spillway gates has been completed. The reservoir was filled in May 2014 up to final FRL EI-344.00. Wet testing of all spillways and under sluice gates was performed at FRL.

Power Intake service gates were erected and tested and are in closed position.

In Surge Shaft, excavation and lining up to EI-366.00 (55m) was completed.

The structural civil works in Powerhouse are completed inclusive of roof installation.

In Pressure Shaft, erection and concreting of all 40 no's bottom horizontal ferrules (6m dia.) is completed.

The erection and concreting of all 58 no's top horizontal ferrules (6m. dia.) is completed.

The breakthrough in-between Drop shaft and horizontal tunnel from Power house side was achieved on December 2013. Erection, alignment and welding of the 19 nos. ferrules out of 42 nos. have been completed.

Hydrostatic test of the Y-piece has been completed. The backfill concrete around the Y-piece was completed earlier and compacted backfill is completed up to the switchyard foundation level in this month.

In Tail Race Channel, all works were completed.

For Electromechanical, all components of Turbine, Governor, MIV and Generator have been received at site and erection work is nearing completion. **Boxing up of both Unit-1 and Unit-2 is complete.**

For transmission line, initial lot of towers and stub materials has been received at site. Foundation excavation of 11 towers has been completed. Stub setting along with foundation concreting is completed at 9 tower location.

2. Project Status

2.1. Clearances

DEPL has obtained all clearances, which are 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 and repairing of access roads to barrage, powerhouse and Adit 2 is continuing on all access roads and all the access roads are operational.

3.2. Contractor's Mobilization and Facilities

The equipment required for construction is available at site. An additional batching plant was procured for concreting of the tunnel lining and the batching plant is operational.

3.3. Planning

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

All shop drawings for the hydro mechanical works at Barrage and Powerhouse were approved and released for fabrication to the HM Contractor.

4. PROGRESS OF CIVIL WORKS DURING THE MONTH

4.1. Head Race Tunnel

On 25th of December 2013, breakthrough between Face 3 and Face 4 was achieved.

On 20th of April 2014 breakthrough between Face 1 and Face 2 was achieved and with this, the daylight of entire HRT is achieved.

a) HRT Face 1 and Face 2

1533.0m invert excavation and leveling concrete was done during this month making a total progress of 3287.0m between Face 1 & Face 2.

b) HRT Face 3 and Face 4

Benching excavation completed. To avoid the seepage water from travelling in the downstream section of the HRT, the balance 58.0 mtr will be completed later.

561.0m Kicker wall was concreted during this month making a total of 2553.0m on both sides by the end of this month.

During the month of September 2014 a total of 39 no's overt with 691.0m length was concreted making a total length of 2031.0m.

The Cut & Cover gantry (6mtr length) was shifted to power house area for adjustments and mock erection to be used for concreting the three curved portions of the HRT.

4.2. Power Intake and Cut & Cover Conduit:

The Power Intake and Cut & Cover structures are completed, with the exception of the connection block at the portal of the Inlet Tunnel. This block will be concreted after all excavation and concreting activities of the HRT from this face are completed.

4.3. Barrage

The reservoir was filled in the month of May 2014 up to final FRL EI-344.00.

Wet testing of all spillways and under sluice gates was performed at FRL 344.00 m during the month of May 2014.

4.4. Surge Shaft:

Concrete lining was completed up to El. 366.00 (55m) in July 2012. Chipping of gate grooves was completed.

Side guides and roller tracks are erected up to final El. 366.0m and 3.0m second stage concreting was done during this month making a total of 7.0m.

Transition from square (6x6m) to horseshoe, upstream of the Surge Shaft gates is fabricated and concreted and 9mtr upstream part of surge shaft slab were also concreted. Now orifice installation is under progress.

Preparation for concreting of orifice ring and the balance bottom slab of Surge Shaft are in progress.

Balance works:

- Installation of Surge Shaft gate.

4.5. Power House:

The structural Civil Works in powerhouse are completed inclusive of roof installation.

The brickwork and outside plastering are completed. The backfill concrete around the Y-piece is completed. Soil backfilling was completed up to switchyard and transformer foundation level.

In Switchyard, complete concreting of all the 12 no's big tower foundation. Cable trenches and small tower foundations concreting are under progress.

Balance works:

- Switch yard, transformer foundation and ventilation room building.

4.6. Pressure Shaft:

The excavation of the total pressure shaft is completed.

a) Bottom horizontal Shaft

The erection and concreting of total 40 no's bottom horizontal ferrules (6m. dia.) is completed out of 40 ferrules.

Erection, alignment, welding & NDT of all branch ferrules has been completed. Erection, alignment and NDT of the closure ferrules after removal of the bulkhead have been done.

b) Top horizontal Shaft

The erection and concreting of 58 no's top horizontal ferrules (6m. dia.) is completed out of 58 ferrules.

4.7. Drop Shaft:

On 14th of Dec 2013, breakthrough in-between Drop shaft and horizontal tunnel from Power house side was achieved. Erection, alignment and welding of 19 nos. ferrules out of 42 nos. have been completed so far.

4.8. Tail Race Channel:

Tail Race channel works are completed. Draft tube gates for the both units were lowered, installed and erection of the hoisting is also completed.

5. PROGRESS OF HYDROMECHANICAL WORKS

5.1 Fabrication

- **Barrage Area**

- Fabrication of all gates and associated components is completed.

- **Power House Area**

- Fabrication of all the penstock ferrules for Top, Bottom, Vertical and Branch portion has been completed.
- Fabrication of Transition at the bottom of surge shaft has been completed.
- Fabrication of orifice is completed.

5.2 Erection

- **Barrage Area**

- Wet testing of all the spillways and under sluice gates was performed in May'14 at FRL 344 m.

- **Power House Area**

Penstock:

- **Branch Ferrules (4.25 m dia.):** Erection, alignment, welding & NDT of all branch ferrules has been completed.
- **Bottom Horizontal Ferrules (6 m dia.):** Erection, alignment, welding & NDT of 40 nos. ferrules out of 40 nos. ferrules have been completed.
- **Top Horizontal Ferrules (6 m dia.):** Out of 58 ferrules, erection, alignment, welding and NDT of all 58 nos. ferrules have been completed.
- **Vertical Shaft (6 m dia.):** Erection, alignment and welding of the 19 nos. ferrules out of 42 nos. have been completed so far.
- **Transition:** Erection of the transition at the downstream of the surge shaft gate has been completed.
- **Bifurcation:** NDT after welding of the bifurcation ferrules has been completed. Hydrostatic test of the Y-piece has been completed. Removal of the bulkhead at the 6 m and 4.25 m side has been done. Erection, alignment and NDT of the closure ferrule has been completed.
- **Draft Tube Gate:** Dry testing of the gates for both the units has been completed.

Surge Shaft:

- Installation of 2nd stage embedded parts is completed.

6. PROGRESS OF ELECTRO-MECHANICAL WORK

The E&M works are progressing well. The detailed status of E&M works is given below:

6.1 Supply

- **Turbine, Governor and MIV:** Manufacturing of all the components of Turbine, Governor and MIV like DT liner, DT cone, Stay Ring, Spiral Case, Distributor, Runner, Shaft, Bearings, etc. is completed and these have been received at site.
- **Generator and Excitation system:** All generator components like Stator, Rotor spider, Rotor laminations, Rotor poles, Shafts and lower and upper brackets, bearings, Excitation system etc. for both Unit I and II have been received at site.
- **Balance of Plant (BOP):** 11KV switchgear panels, UAT & SST, 800KVA DG set, 220KV Circuit Breakers, Isolators, LA, Wave trap, CVT, Control & relay panels, Condition monitoring system, Protection system, Power & control cables, Cable trays, PLCC

equipment, Inverter, LP compressor, Oil handling system, 163/30 T EOT crane, HVAC system material, GSU transformers, Cooling Water, Drainage & Dewatering valves, pumps, Bus Ducts, NG Cubicle, 220 kv switchyard material, control room furniture, DE & NDE fans, Piping support material, Fire-fighting system pumps. Duplex filter, Illumination system and communication system material have been received at site.

6.2 Erection

- **Turbine and Generator:** Erection and concrete of Draft tube for U-1 and U-2 is completed. Installation of Anchor pins & Base plates of Spiral case for U-1 & U-2 has been completed. Erection of Staring, Spiral case segment of U-1 and U-2 has been completed. Hydraulic pressure testing of Spiral case of U-1 and U-2 was completed successfully and its concreting has been completed. Turbine system HP oil injection system stator box, temperature gauge panel, breaking and jacking installation has been completed. Generator stator winding and core junction box and space heater terminal box for U-1 and U-2 installation has been completed.

Unit-1: Lower bracket foundation embedment sleeves have been completed. Bottom ring, wicket gates, Runner, Bearing oil sump, Head Cover, Operating Ring, Turbine Shaft installation has been completed. Turbine shaft main assembly completed and declared "shaft free" for generator assembly. Lower bracket installation and Turbine guide bearing installation has been completed. Machine run out has also been completed. MIV upstream and downstream erection is in progress. Stator HV test has been successfully completed. Stator lowered in the pit successfully. Generator lower shaft installation has been completed. Rotor has been placed in position. Generator thrust bearing, upper shaft, upper bracket, breaking and jacking has been completed. With all the above activities, **Unit-1 has been boxed up.** Instrumentation with cabling and final pipeline connection with components has been completed.

Unit-2: Lower bracket foundation embedment sleeves have been completed. Bottom ring, wicket gates, Runner, Bearing oil sump, head cover, Operating Ring, Turbine Shaft installation has been completed. Turbine shaft main assembly completed and declared "shaft free" for generator assembly. Lower bracket and turbine guide bearing installation has been completed. Machine run out has been completed. MIV upstream and downstream erection is in progress. Stator HV test has been successfully completed. Stator lowered in the pit successfully. Generator lower shaft, thrust bearing installation has been completed. Rotor has been placed in position. Generator thrust bearing, breaking and jacking, upper shaft, upper bracket has been completed. **Unit-2 has been boxed up.** Instrumentation with cabling and final pipeline connection with components has been completed.

- **BOP Electrical:** Installation of UAT U-1 and U-2, LAVT U-1 and U-2, 220V and 48V battery charger, DC distribution board at Machine hall floor has been completed. Service station transformer, panel installation in LT room, machine hall floor, MIV floor and generator floor has been completed. Cable tray installation at MIV floor, Turbine floor and Generator floor has been completed. Excitation transformer U-1 and U-2 installation has been completed. Battery bank installation is completed. Cable laying is in progress. Panel erection at various floors has been completed. Illumination is under progress. Bus ducts erection for U-1 and U-2 is completed except last piece of GT connection. Switchyard foundation work is in progress. GSU transformers have been shifted to Service Bay in Power House.

- **BOP Mechanical:** The erection, testing and commissioning of Power House EOT Crane area has been completed. LP compressed air system piping in turbine and MIV floor, cooling water system pumps, Cooling water duplex filters and cyclone separators, Shaft seal pumps and filters, firefighting pumps, OPU governing system and duplex filters installation has been completed. Installation of LP compressed air system, cooling water system and fire-fighting system has been completed. Installation of drainage and dewatering piping, oil handling system and HVAC is in progress.

6.3 Testing and Commissioning

- **Completed**

Dry commissioning tests on LAVT U#2, MIV U#1, 48V and 220V Battery bank and charger, SST, Drainage system pumps, LP Compressed air system, Excitation system U#01 & 02, Protection system panels U#01 & 02, Governing system U#01 have been completed

- **Under Progress**

Dry commissioning tests on LAVT U#1, Dewatering system pumps and Governing system U#02 are in progress.

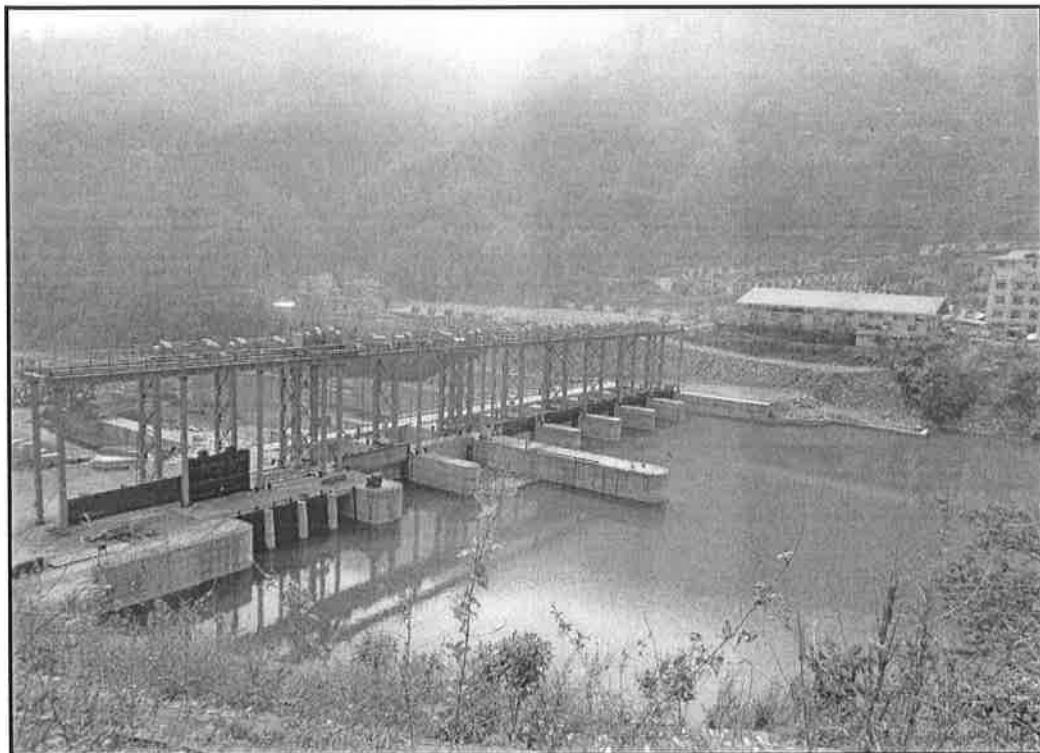
7. TRANSMISSION SYSTEM

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

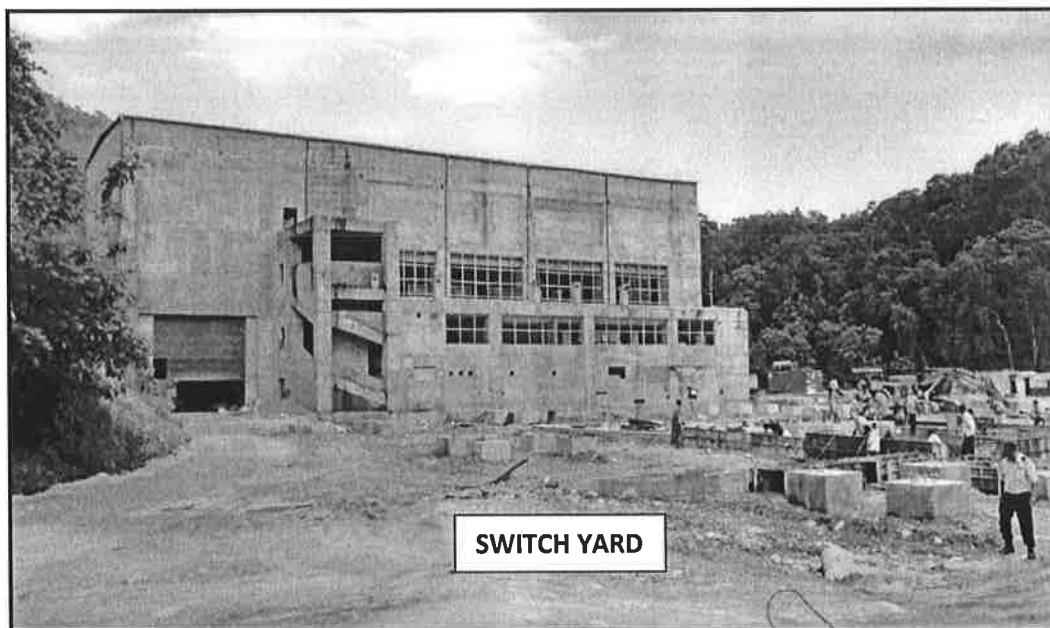
For the 220 kV Line from JLHEP switch yard to PGCIL substation at New Melli (Tokal), the Contract has been signed for both Supply and Service works and for Civil Foundations of the towers. Initial lot of towers and stub materials has been received at site. The status of line construction is as below:-

- Foundation peg marking of the tower footing has been completed up to tower No. 13.
- Foundation concreting and stub setting in location No. 02, 03, 04, 05, 06, 07, 08, 09 and 10 has been completed.
- Foundation stub setting and concreting in location No. 11 and 12 are under progress.
- Foundation excavation in location No.13 & 14 is in progress.

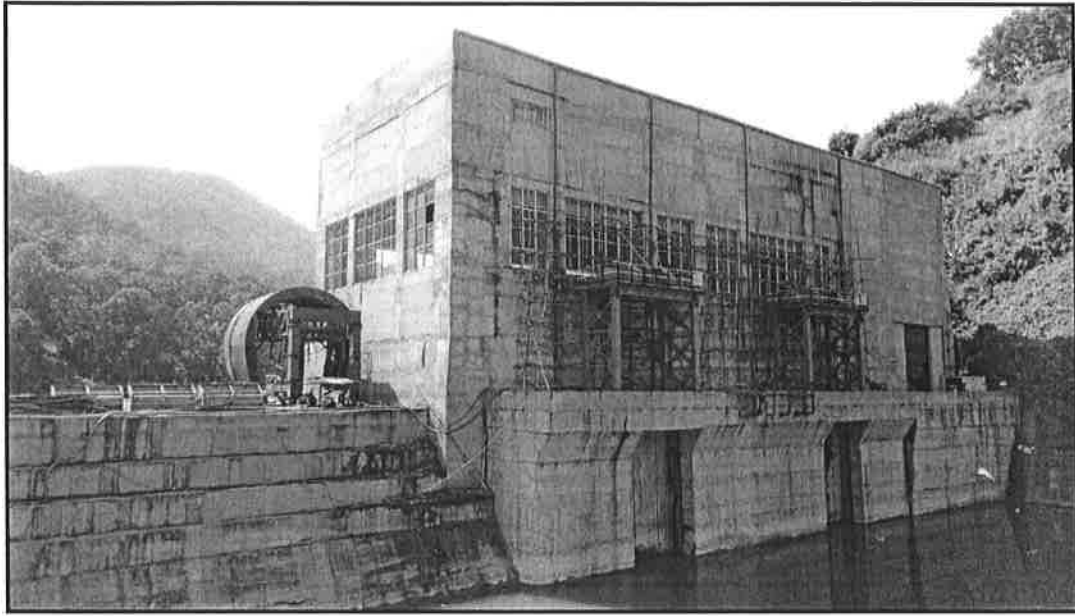
8. PROGRESS PICTURES FOR THE MONTH



Barrage Upstream view



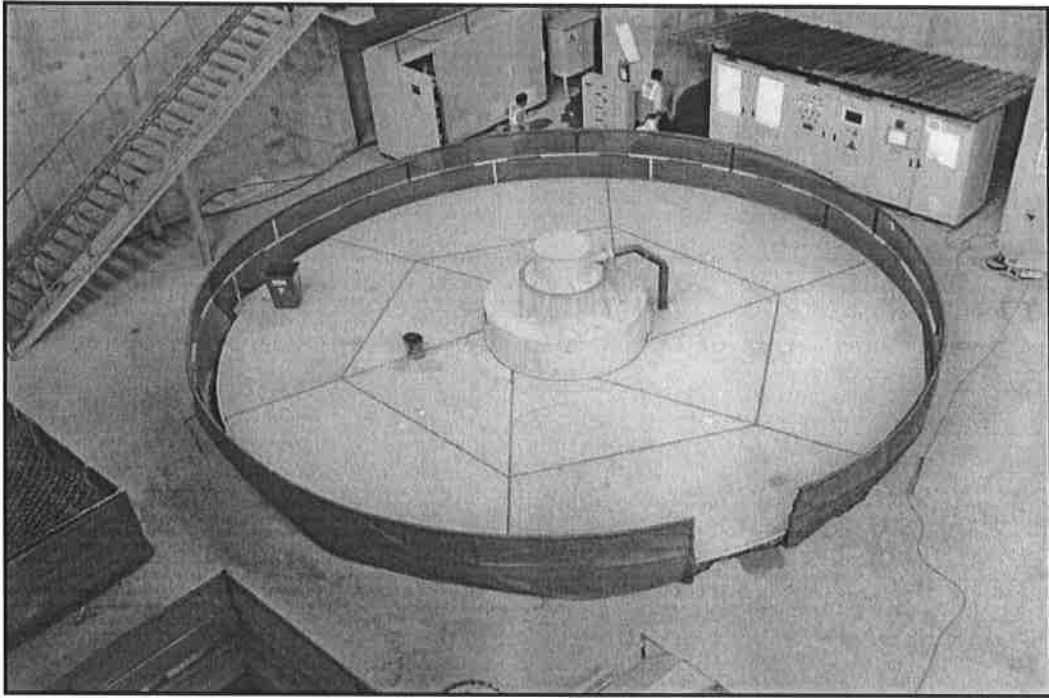
Power House – U/S View



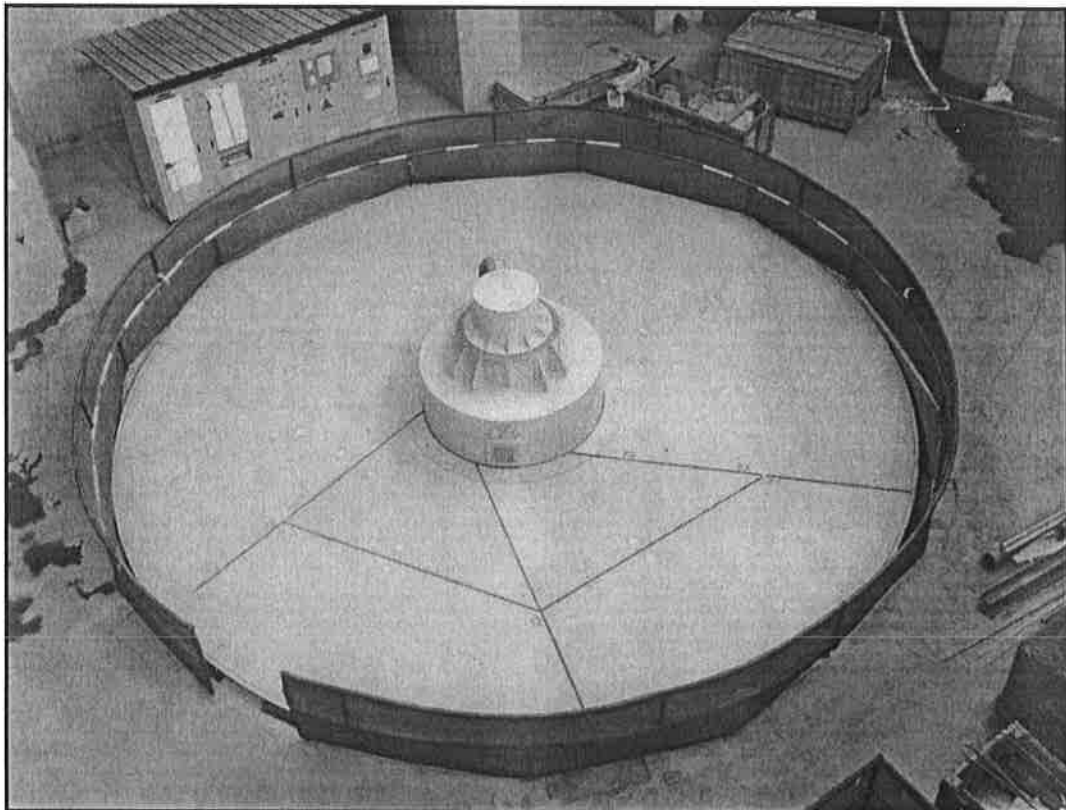
Power House – U/S View



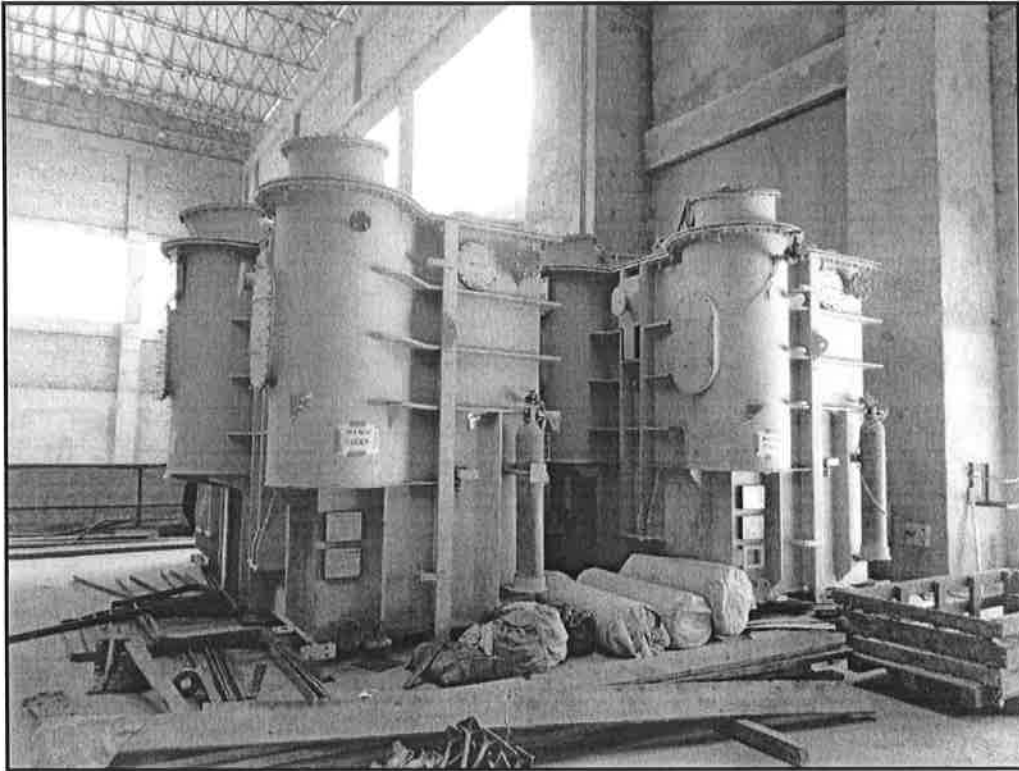
Switchyard



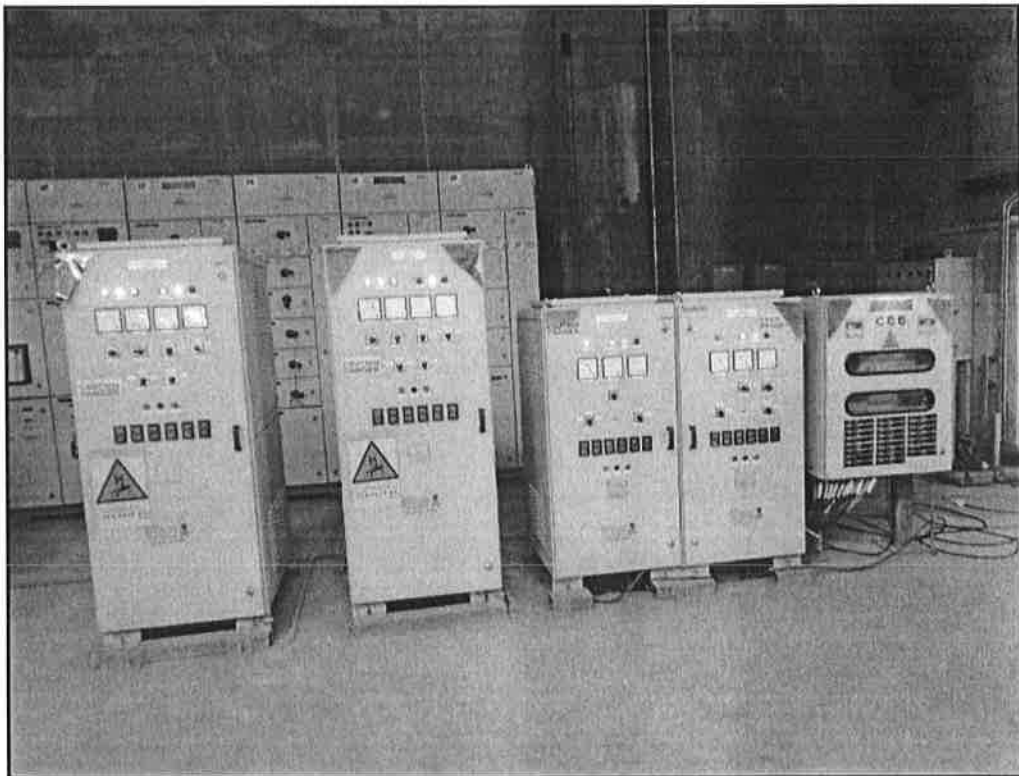
Power House Unit 1



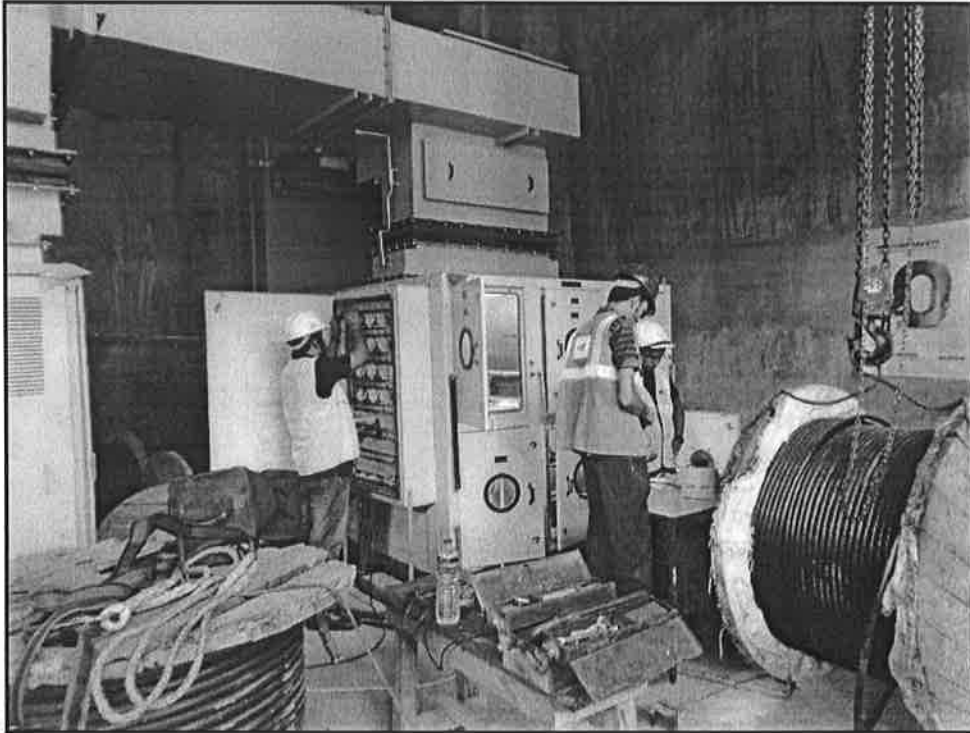
Power House Unit 2



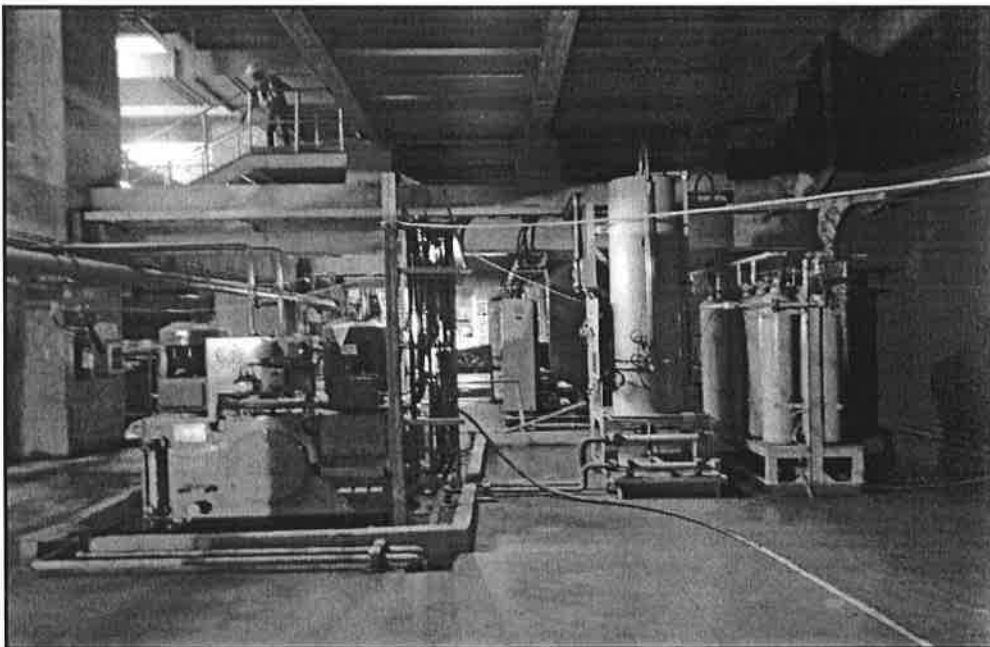
Transformers shifted to Service Bay



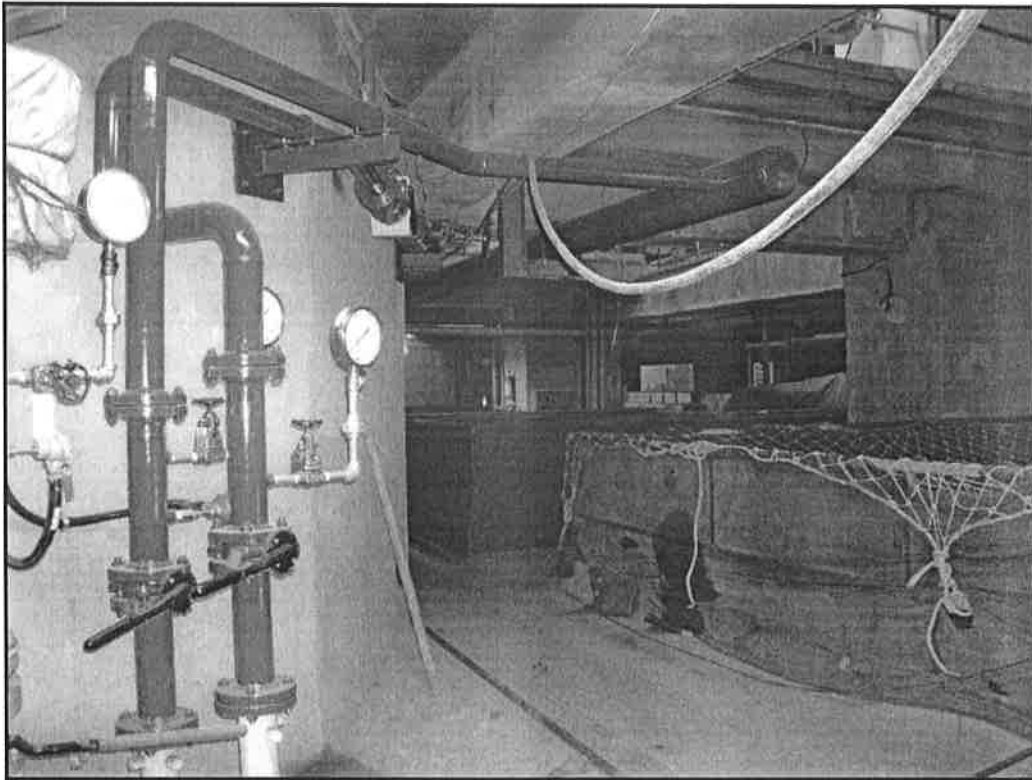
Charged Panels – Float cum Booster Charger



LAVT U#01 Dry Commissioning in Progress



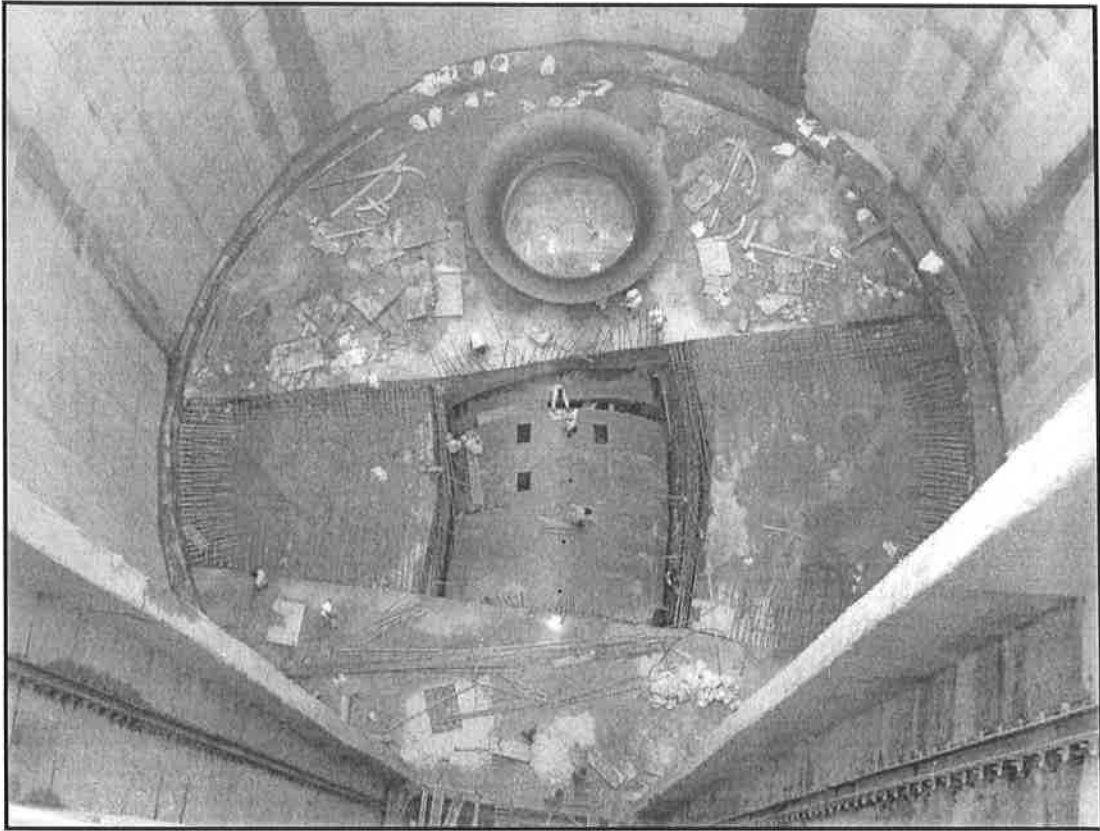
Governing System U#01



Cooling Water System Pipe Line



Gantry under concreting



Surge shaft