

Ref.No.JLHEP/F-5/12-13/635

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

Dated: 22.11.2012

**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 following 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 20/03/2008
 - ii) **Net Present Value:** Rs 2, 24, 35,420=00 vide cheque No.000053 HDFC Bank dated 20/03/2008
 - iii) **Crop Compensation:** Rs 53, 94,370=00 vide cheque No.000054 HDFC Bank dated 20/03/2008
 - iv) **CAT Plan:** Rs 1, 36, 96,000=00 vide cheque No.000055 HDFC Bank.
 - v) **Biodiversity Conservation & Management Plan:** Rs50, 48,000=00 vide cheque No.000056 HDFC Bank dated 20/03/2008.
2. Public Notification Published as per the Para 11 of the Environmental Clearance. We have advertised in two Local Newspaper 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. Enclosed herewith as Annexure E
3. 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 as Annexure B, Corporate Social Responsibilities as Annexure C and Monthly Progress report of the project as Annexure D.

This is for your kind information.

Thanking You.

Yours faithfully,



Karma Norden Lachungpa,
Environment Officer,
For, DANS Energy Pvt. Ltd.

- Copy to: 1) Additional Director, MoEF New Delhi, for kind information..
2) CCF-cum -Nodal Officer (FCA) Gangtok, for kind information.
3) Corporate Office, Gurgaon



Site Office

Housing Complex, Jorethang, South Sikkim - 737121

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

**96 MW 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 2 nd May 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) b)Address of Project Incharge site office (With Pin code, Telephone/Fax)	Shri. P.B.Praveen Kumar(Director), Dans Energy Pvt.Ltd. Rabdenling, annex-II, adjoining Royal Plaza,Upper Shyari, Gangtok. Telefax: 03592-280703 e-mail: praveenpb@dansenergy.com Mr. C.L. Thakur(General Manager), Housing Colony, Jorethang, South Sikkim, Telephone:03595-276658 Fax-03595-276408, e-mail: cl.thakur@dansenergy.com

6.	Breakup of the Project Area Forest Land Total a) South District b) West District	32.0506Ha(Surface:29.5433Ha+Underground:2.5073 Ha) 25.7406 Ha in South Sikkim 6.3100Ha in West Sikkim
7.	Break-up of the Project affected Population.	Project affected families:9 Landless affected families: Nil
8.	Financial Details	
	a) Project cost as originally planned.	403.00Crores.
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. The usage details of explosive is submitted Quarterly to the Chief controller of explosive Kolkata Details for quantity of explosives per delay used have been attached for your kind perusal.
(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. Till now we have received an investment plan of 60 lacs from the Forest Deptt. Govt. of Sikkim.

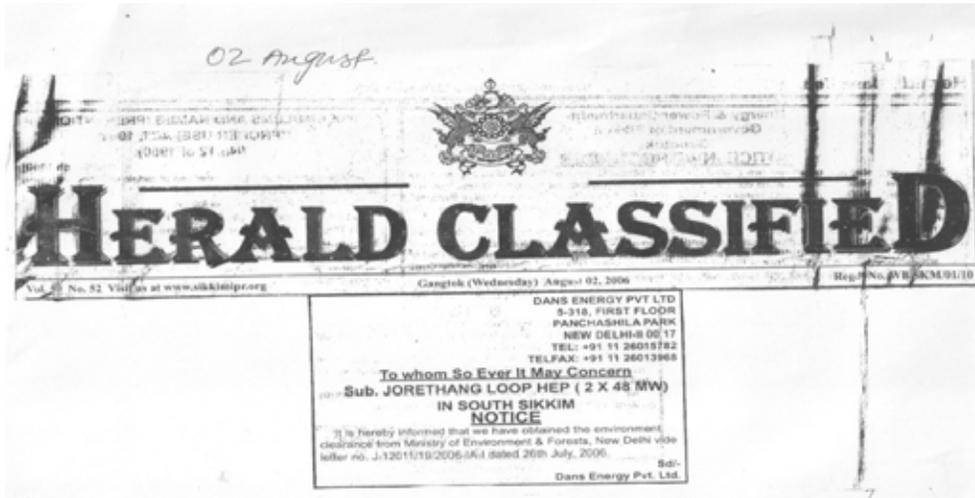
Part-B: General Conditions

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 labours.	The fuel Depot has been opened at Chisopani, Jorethang. We have established a medical clinic at the barrage site with two doctors and a nurse to provide medical facilities to the labours.
(iii)	All the labours to be engaged for construction works should be thoroughly examined by health personal and adequately treated before issuing them work permit.	Labours engaged at construction work were examined by MBBS Doctors and treated before issuing the work permit. Thereafter, the regular checkup is a continuous process at site.

		Thereafter the regular checkup is a continuous process at site. We have also started a quarterly HIV Test program at site for the labours.
(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.	Started cleaning the dumping area at Chisopani by using the material to fill “cut n cover” portion, remaining points shall be taken care at appropriate time.
(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 also have already stated the implementation of Environmental activities.
(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. The tentative date for the next Multi-Disciplinary Meeting is January, 2013.
(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.
(viii)	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.
(ix)	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.
(x)	In case of change in the Scope of the Project, Project would require a fresh appraisal.	No change for the scope of the project has been made till date. However, in case of a change, the proposal shall be submitted accordingly.
(xi)	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary and take action including revoking of the clearance	We agree.

	under the provision of the suggested safeguard measures in a time bound and satisfactory manner.	
(xii)	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.
(xiii)	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.
(xiv)	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 been displayed a copy of the clearance letter at the SPCB Office, District Industries Center, and Collector's Office for 30 days

Public Notification Published of the Environmental Clearance in Local Newspapers





LPG DEPOT FOR THE LABOURERS



DISPENSARY FOR THE LABOURERS



LABOUR COLONIES



RECREATION FOR THE LABOURERS

Annexure B
ENVIRONMENTAL ACTIVITIES
WORLD ENVIRONMENT DAY, 2012

GREEN ECONOMY: DOES IT INCLUDE YOU



SOLID WASTE MANAGEMENT PROGRAMME

DANS Energy Pvt. Ltd. under Solid Waste Management programme constructed Eco-friendly Concrete garbage bins in association with the Dept. of UD & HD, Jorethang, South Sikkim.



Government Primary School (Majhitar, South Sikkim, Jorethang)



DANS Energy Pvt. Ltd took the initiative to provide LPG Cylinder and Stove to Majhitar Primary School for their Mid-day Meal preparation. The initiative was mainly taken to avoid burning of firewood and to provide better environmental condition to the students in the school premises.

Annexure C

CORPORATE SOCIAL RESPONSIBILITY

CUTTING AND TAILORING SCHEME (JORETHANG)

This institute is functioning in full swing since December of 2011. This scheme has been introduced to provide benefit to non working women of the area. These women are trained in crafts like cutting and tailoring, doll and toll making, and fancy bag weaving. Women from Compound area spend around 2 hours every day learning these artworks. DANS ENERGY Pvt. Ltd. has hired an instructor who is trained in various artworks. We also assist these women with the raw materials for them to convert it into finished goods. In the near future depending upon the outcome we can provide these women with market linkages for marketing of items they prepare.



Bhanu Jayanti Celebration

Under the banner of "Manch Ek Sanskriti Anek", 196th Bhanu Jayanti was celebrated here at Capacity Building Hall, Jorethang on 13th July 2011. More than one thousand people and students were present to attend the program. DANS Energy took the responsibility to provide lunch to the guests and the students as well. DANS Energy complimented the evening with Cultural program.



RENOVATION OF GOVERNMENT PRIMARY SCHOOL (CHISOPANI, SOUTH SIKKIM)

At Government Primary School, at Chisopani, the whole School building has been repainted. The classrooms have been repainted. The corridors where the students used to have their daily mid-day meal has been plastered. All the broken planes have been replaced. Flooring of the mid-day kitchen has also been done. The comparisons of the school building, before and after renovation are given below:



(A) Before

(B) After



Meritorious Award to Junior High School, Naya Bazaar and Little Angel Academy

Cash prize of Rs. 1500, Rs. 1000 and Rs. 500 was awarded to the students who stood first second and third by DANS Energy Pvt. Ltd.



← NABIL'S MEMORIAL SCHOOL

Cash prize to meritorious students of Nabil's Memorial School and Prashanti Vidyagiri, Jorethang

PRASHANTI VIDYAGIRI →



Financial assistance to a vision impaired person, Mr. Ravi Thapa to go for a training at Blind Relief Association, Delhi where he will be given various trainings by experts to make himself self reliant.

CONSTRUCTION OF NEW HOUSE FOR MR. RAJNEET KHALING

The house of Mr. Ranjeet Khalin (Tenant) residing at Plot No:103,Poklok - Chisopani, South Sikkim, belonging to Mr.Phurba Wangyal Kazi, Resident of Nam -Nang Road ,Gangtok, East Sikkim has been shifted from his present area to a safer place due to safety reasons. A new house has been constructed for him.



DANS Energy Self Employment Scheme

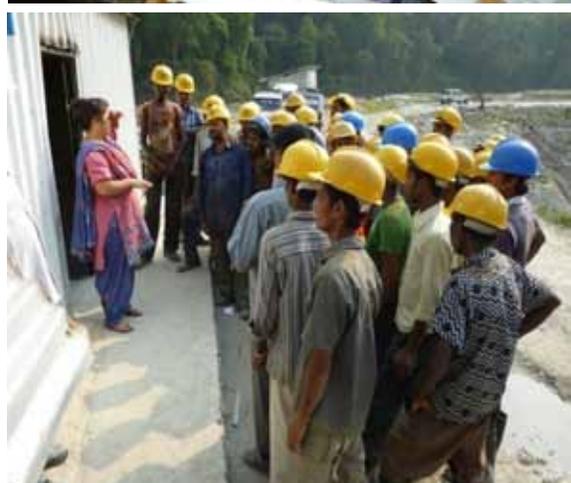
DAN Energy Pvt. Ltd. under its Self Employment Scheme provided financial assistance to Mr. Ritesh Darnal & group for poultry farming who were unemployed youths from the affected families.



HIV Test Programme

DANS Energy Pvt. Ltd. in association with Sikkim State AIDS Control Society conducted the HIV Test Programme on the 17th, 18th and 19th of May, 2012 at Jorethang covering all the project sites. Almost all the staffs and labourers underwent this test.

Before the test, HIV awareness counseling was given by the counselor of Mobile ICTC, Health Deptt., Ms. Sujata. After the counseling, HIV rapid test was performed by the laboratory technician Ms. Sonam Bhutia. This programme was attended by as many as 488 staffs and labourers located at various project sites.



FELICITATION OF RESCUE TEAM WHO HELPED DURING AN ACCIDENT AT RATOMATEY. THE RESCUE TEAM COMPRISED OF THE TRAINED SECURITY GUARDS OF DANS ENERGY PVT. LTD.



Mr. C.L. Thakur handing over the reward to the members of DANS Rescue Team.

DANS Energy Pvt. Ltd. has moved a step ahead in road safety by installing road safety delineators in accident prone areas of Jorethang-Melli road and Approach road to Animal husbandry at Chisopani.



Before



After

Annexure D
PROGRESS REPORT

OCTOBER 2012

JORETHANG LOOP HEP (96 MW), SIKKIM

MONTHLY PROGRESS REPORT



DANS ENERGY PVT LTD

Contents

1. EXECUTIVE SUMMARY	3
2. Project Status.....	4
2.1 Clearances	4
2.2 Financial Closure	4
3. PROGRESS OF WORK ON SITE	4
3.1 Infrastructure Works	4
3.2 Contractor's Mobilization and Facilities	4
3.3 Planning.....	4
4. PROGRESS OF CIVIL WORKS DURING THE MONTH.....	5
4.1 Head Race Tunnel:.....	5
4.2 Power Intake and Cut & Cover Conduit:	5
4.3 Barrage phase I:	5
4.4 Barrage phase II:	6
4.5 Surge Shaft:.....	6
4.6 Power House:.....	6
4.7 Pressure Shaft:	6
5. HYDROMECHANICAL WORKS	7
5.1 Fabrication Part	7
5.1.1 Spillway gates	7
5.1.2 Under sluice stop log	7
5.1.3 Penstock.....	7
5.2 Erection Part.....	7
5.2.1 Surge Shaft Gate	7
5.2.2 Spillway Gate.....	7
5.2.3 Under Sluice Gate	7
5.2.4 EOT Crane in Barrage	8
6. PROGRESS OF ELECTRO-MECHANICAL WORK	8
7. TRANSMISSION SYSTEM	9
8. PROGRESS PICTURES FOR THE MONTH	10

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**

In HRT, implementation of an improvement program for power supply (grid and diesel generator power) and air supply at Face 1, 2 and 3 was completed in this month of October 2012. Access roads were also improved to all these faces and most of the old air ducts were replaced and re-aligned.

7.10m of tunnel was excavated at Face-1 of HRT during this month making a total advance of 1232.50m at this face.

94.00m of HRT was excavated from Face-2 making a total progress of 1479.00m.
28.30m of HRT was excavated from Face-3 making a total progress of 1071.00m
49.10m of HRT was excavated from Face-4 making a total progress of 500.20m.

Tunneling activities are the most critical activities of the project and measures have been taken to accelerate the work. One additional boomer was mobilized by the Contractor and is operational now at Face 1. One more boomer will be bought and dispatched to Site. Two wet shotcrete machines have been mobilized by the Contractor.

In Barrage, the main balance works in barrage – phase I are:

- Installation of trash racks panels is completed in three openings of the Power Intake with one more opening to be completed;
- Some hoisting columns on the Sluice Bays piers are still to be erected.
- Some repair and finishing of concrete is still to be finalized.

Following high water levels on the river on 17 June 2012, the rafts of the spillway bays were flooded and it was decided to discontinue dewatering and stop further concreting activities in barrage till end of the monsoon season.

Due to high flood on 14th July 2012 night the cofferdam of Barrage phase II was washed away.

The restoration of cofferdam as well as approach road from the Temporary Bridge to the Tower crane was started on 10th of October 2012 and is completed.

- The excavation works and cleaning for the concreting of right side middle block and abrasion resistance concrete are in progress.
- The chipping works for the installation of second stage embedment and concreting is completed in left vent and is in progress in the middle vent.
- Right side upstream block abutment was concreted up to elevation 334.50.

In Surge Shaft last lifts of lining was concreted on 12th July 2012 completing the lining up to El. 366.00 (55m). Chipping of gate grooves was completed during the month of September 2012.

In the Power House, concreting of the three lifts (El.257.00) of the barrels around the spiral cases for Unit 1 and 2 was completed.

The columns along the “D”, “E” and “06” lines were concreted up to elevation 257.00.

Formwork and reinforcement works are in advanced stage for concreting the slab above the main inlet valve floor (elevation 258.50). It is expected to concrete this slab by the end of the first week in November 2012.

The raft of the elevator shaft was concreted this month.

Concreting activities of the six columns of the Service Bay as well as of the hillside retaining wall are completed up to elevation 284.00 with the EOT crane beam also getting concreted up to El 285.50. Backfill concrete behind the retaining wall was poured up to elevation 278.00.

In the Pressure Shaft area, construction of the portal of the horizontal tunnel of the pressure shaft is under completion.

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 ON SITE

3.1 Infrastructure Works

Maintenance and repairing of access roads to barrage, powerhouse and Adit 2 is continuing after the monsoon season.

3.2 Contractor’s Mobilization and Facilities

Construction of camp facilities were finalized both in the barrage and powerhouse area.

The Contractor has mobilized one additional boomer and two additional wet shotcreting machine. One more boomer will be purchased by the contractor and dispatched to Site.

3.3 Planning

All Construction Drawings for the HRT, Barrage – Phase II and for the concreting of the Powerhouse up to elevation 262.00 were released for construction to the Civil Contractor.

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

Detailed design of the Electro-mechanical equipment by Alstom is in final stage and that of Hydro Mechanical equipment by BEKEM is under progress.

4. PROGRESS OF CIVIL WORKS DURING THE MONTH

4.1 Head Race Tunnel:

a) HRT Face 1

7.10m of HRT was excavated in this face during this month making a total progress of 1232.50m. Excavation at this face was interrupted to allow improvement of the power supply by moving a transformer in the first turning niche. The ventilation duct was re-aligned and some damaged ventilation duct sections were replaced with new duct of 1.6m diameter. Removal of the bottom invert to final elevation was completed on the first 225m and Leveling concrete poured.

b) HRT Face 2

94.00m of HRT was excavated at this face making a total progress of 1479.00m.

c) HRT Face 3

28.30m of HRT was excavated at this face making a total progress of 1071.00m.

d) HRT Face 4

49.10m of HRT was excavated at this face making a total progress of 500.20m.

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 phase I:

Completion of all main critical works in the left bank structure of the barrage – phase I has allowed the diversion of the river through the sluice bays by construction of the upstream wing of phase II cofferdam on 19th of March 2012.

The following works are the only ones to be completed in barrage phase I structure:

- Installation of trash racks panels is completed in three openings of the Power Intake with one more opening to be completed;
- Some hoisting columns on the Sluice Bays piers are still to be erected.
- Some repair and finishing of concrete is still to be finalized.

High flows during the current monsoon season on the river have passed so far through the under sluice bays without creating any damages to the structures.

4.4 Barrage phase II:

Following high water levels on the river on 17 June 2012 the rafts of the spillway bays were flooded and it was decided to discontinue dewatering and stop further concreting activities in barrage till end of the monsoon season.

Due to high flood on 14th July 2012 night the cofferdam of Barrage phase II was washed away.

The restoration of cofferdam as well as approach road from the Temporary Bridge (D/S) to the Tower crane operation was restarted on 10th October 2012 and is completed.

- The excavation and cleaning work for the concreting of Right side Middle block and abrasion resistance concrete is under progress.
- The chipping works for the installation of second stage embedment and concreting is completed in left vent and is in progress in the middle vent.
- Right side upstream block abutment is completed up to elevation 334.50.

4.5 Surge Shaft:

Last lift of lining was concreted on July 2012 in Surge Shaft completing lining up to El. 366.00 (55m). Chipping of gate grooves was completed.

4.6 Power House:

Erection of stayring and spiral case of Unit-1 and Unit-2 has been completed including the successful hydraulic pressure testing.

Concreting of the three lifts (El.257.00) of the barrels around the spiral cases Unit 1 and 2 was completed.

The columns along the "D", "E" and "06" lines were concreted up to elevation 257.00 and formworks erection along with laying of reinforcement of the beams is completed. Formwork and reinforcement works are in advanced stage for concreting the slab above the main inlet valve floor (elevation 258.50). It is expected to concrete the slab by the end of the first week of November 2012.

Concreting activities of the six columns of the Service Bay as well as of the hillside retaining wall are completed up to elevation 284.00 with the EOT crane beam also getting concreted upto El 285.50. Backfill concrete behind the retaining wall was poured up to elevation 278.00.

4.7 Pressure Shaft:

Construction of the portal of the horizontal tunnel of the pressure shaft is under completed. An access road using the underpass under the Service Bay is providing access to the portal. The slope above the portal as well as on the cofferdam side had to be stabilized using SDRs, wiremesh and shotcrete. Installation of steel ribs (ISHB150x150) with concrete laggings and backfill concrete behind the laggings will be used for primary rock support of the tunnel section under the access road to the portal.

5. HYDROMECHANICAL WORKS

5.1 Fabrication Part

5.1.1 Spillway gates

- Fabrication of under sluice/spillway stoplog gate has been started and is under progress in which fit up of all 14 No's horizontal girder has been completed and welding of the same are in progress.
- Fabrication of all horizontal girders for 2 No's spillway service gates has been completed. Fabrication of the gates is in progress.
- Fabrication of 3 No's out of 5 No's hoist platform for spillway service gate is under progress.
- Fabrication of all hoist columns for spillway gates has been completed.
- Fabrication of dogging beam for spillway gates has been completed.

5.1.2 Under sluice stop log

- Welding of hoist bridge connection between under sluice and spillway has been completed.
- Fabrication of under sluice/spillway stoplog gate is in progress.

5.1.3 Penstock

- Marking and cutting of steel plates for the ferrules (from 'E' line to MIV sleeve) of both units has started and is in progress.
- Rolling of 2 No's of plate has been completed. Assembly of first ferrule is in progress with the setting of internal supports.

5.2 Erection Part

5.2.1 Surge Shaft Gate

- Installation of the 1st stage embedded part starting from the EL. 364.45m has been completed up to the level EL. 366.00m at both the left & right side block out of gate groove.
- Installation of foundation bolt and plate at upstream side has been completed and the same are embedded in concrete.

5.2.2 Spillway Gate

- Installation of base plates for spillway hoist columns in spillway pier one is in progress.
- Installation of embedded plates for the rail for erection trolley is spillway pier one is in progress.

5.2.3 Under Sluice Gate

- Installation of the rails for erection trolley for under sluice gates is in progress.
-

5.2.4 EOT Crane in Barrage

- Assembly of long travel and cross travel unit of the 30 tone EOT has been completed.
- Preparation for installation of the rail for 30 tonne EOT is under progress.

6. PROGRESS OF ELECTRO-MECHANICAL WORK

The E&M works are progressing well. Detailed engineering of the Turbine, Generator, MIV and Governing system are completed and that of BOP packages under final stage. All the raw materials for the Turbine, Generator and MIV like plates, castings, forgings, laminations and copper have been procured and manufacturing is completed or is in advanced stage. The detailed status of E&M works is given below:

- 1. Turbine, Governor and MIV:** Manufacturing of almost 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.
- 2. Generator and Excitation system:** Manufacturing of almost all generator components like Stator, Rotor spider, Rotor laminations, Rotor poles, Shafts and lower and upper brackets, bearings, etc. is completed and these have been dispatched to site. Excitation transformer has been received at site and Excitation panels are being manufactured.
- 3. 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, PLC equipment, Inverter, LP compressor, Oil handling system and 163/30 T EOT crane have been received at site. GSU Transformer, Cooling Water and Drainage & Dewatering valves and 220 kv switchyard part (except intermediate tower) have been dispatched. Manufacturing of remaining BOP items is completed or nearing completion.
- 4. Erection, Testing & Commissioning:** Earth mat and embedded pipes in 1st stage concrete has been completed. Erection and concrete of Draft tube for U-1 and U-2 is completed. Concreting of turbine floor U-1 and U-2 is completed up to El 258.50m. Installation of Anchor pins & Base plates of Spiral case for U-1 & U-2 has been completed. Erection of Stayring, 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 is under progress. Installation of inserts for transformer rails has been completed in the service bay floor. GV servomotor foundation frame and base plate have been properly aligned, checked and welded. GV servomotor anchor rods are installed for U-2. Service bay area concreting is under progress at the power house area. EOT base plate erection is also under progress. Installation of EOT Crane rail embedment at service bay area is under progress. Continuous support is being provided to the civil contractor in various fronts.

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), preliminary Survey & detailed Survey including preparation of profile drawings is completed. Total Length of the proposed line is 10 km. Joint inspection along the proposed route of the line with the representatives of Land & Revenue Dept., Forest Dept. and Project engineers is completed. Necessary clearance from the Forest Department for 4.6 hectares of forest land for the proposed transmission line has been received.

Tendering process for award of contract for construction of the Line has been completed after post bid meeting on technical issues. Final Price negotiation meeting was held on 11th September 2012 at Gurgaon office and the bidders have been advised to review their offers and to submit their revised offer shortly after site survey. Three bidders have submitted their revised offer in line with the decision made in the last post bid meeting. Based on the evaluation of revised offer, second round of meeting with the bidders took place in this month of October 2012 for final price negotiation and placement of formal order and the bidders have been given the another chance to submit their revised offer based on the scope of works.

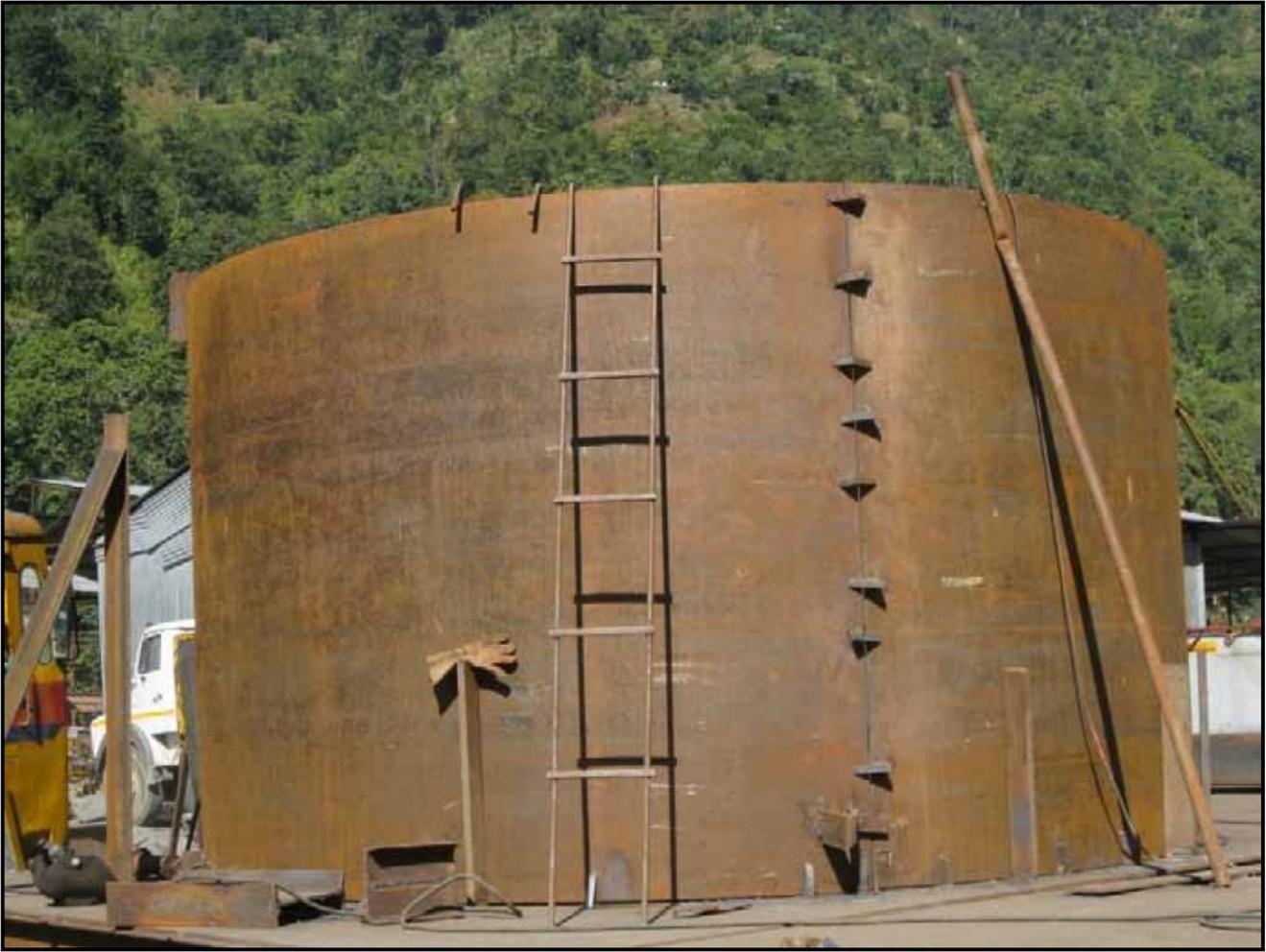
8. PROGRESS PICTURES FOR THE MONTH



Power house - Formwork & reinforcement work in advanced stage for concreting slab



Portal to horizontal tunnel of pressure shaft



Assembling of a ferrule connecting the MIV sleeve to penstock