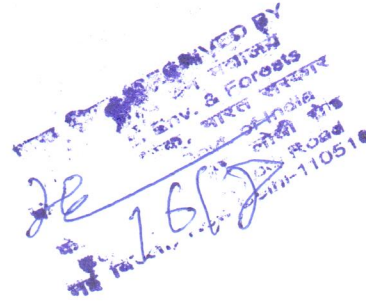


Ref. No: LMHEPL/EHS/2012/08/16

Date: August 16, 2012

To

The Director,
Ministry of Environment & Forest,
Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi – 110003.



Kind Attn: Dr. Sanchita Jindal

Subject: Submission of Six Monthly Environmental Monitoring Report for the period of December -2011 to June 2012 of Phata Byung HEP (76 MW)

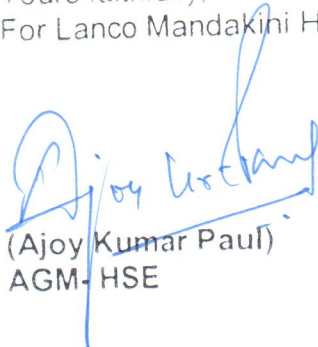
Dear Madam,

With reference to the above subject please find enclosed herewith Six Monthly Report for the period of December -2011 to June 2012 of Phata Byung HEP (76 MW) being executed by M/s Lanco Mandakini Hydro Energy Private Limited (LMHEPL).

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully,
For Lanco Mandakini Hydro Energy Private Limited


(Ajoy Kumar Paul)
AGM- HSE

Cc: Addl. Director, Regional Office – MOEF Lucknow

Lanco Mandakini Hydro Energy Pvt Ltd

Corporate Office : Plot # 404-405, Udyog Vihar, Phase-3, Gurgaon-122 016, New Delhi Region, India
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Registered Office: 14-H, Pushpanjali Enclave, General Mahadev Singh Road,
Dehradun - 248001 Uttarakhand

Site Office : Lanco Campus, Village - Rampur PO- Phata, Tehsil - Ukhimath
Distt: Rudraprayag, Uttarakhand - 246471

www.lancogroup.com

(SIX MONTHLY PROGRESS REPORT)

(December 2011 to June 2012)

Status of Environmental Management Plan

Phata Byung (76 MW) HEP

M/s *LANCO* MANDAKINI HYDRO ENERGY PVT. LTD.



***LANCO* Mandakini Hydro Energy Pvt. Ltd.**

(Formally Known as Lanco Hydro Energies Pvt. Ltd.)

Plot No.-404 & 405, Udyog Vihar, Phase No-III

Gurgaon, Haryana-122016

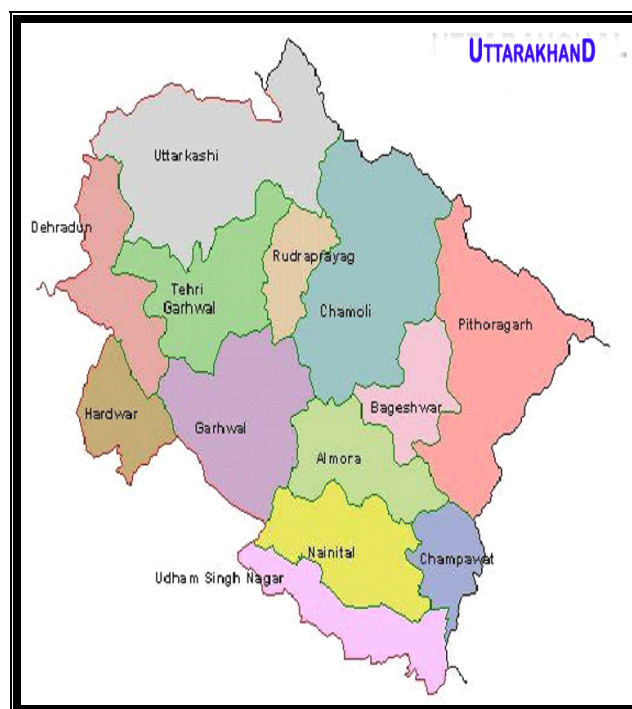
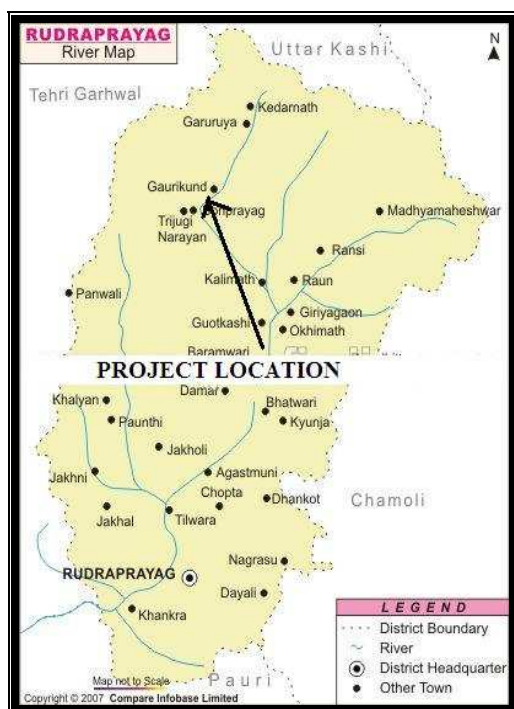
INDEX

S.No	Item	Page No.
1	Introduction	2
2	Location Map	2
3	Brief note on the status of compliance of the conditions stipulated by MOEF for the period ending June 2012.	Annexure I (3-4)
4	Present status of the construction activities	5
	Status of implementation of EMP	
	a)Solid waste collection and disposal	6
	b)Muck Management and River Protection	6-8
	c)Air Pollution Management	8
	d)Water Quality Management	8
	e)Control of Pollution from Labour Camps	8-9
	f)Environment Management during Road Construction	9
	g)Public Health Delivery System	10
	h)Safety Measures	10-11
	i)Community Kitchens	12
	j)Forest Protection Plan	13
	k)Catchment Area Treatment Plan	14
	l)Employment Opportunities	14
	m)Economic Opportunities	15
	n)Social Welfare Activities	15-19
5	MOEF Compliance towards MOEF Environmental Clearance	Annexure II (20-24)

1. Introduction

Mandakani River is located in Sitapur village, tehshil Okhimath of Rudraprayag district in Uttarakhand .The dam site is connected by a metalled road to the nearest town of Okhimath situated about 43 km away. The 26 m high dam and a underground power house will be located about 10.20 km downstream on the right bank Mandakani river near Byung village. Okhimath is connected by metalled road (140 km) with Rishikesh, the nearest rail head.The head race tunnel of about 9.38 km.The project does not involve submergence of any village or any permanent structure of private or public ownership including any archaeological monument or site. There will be no displacement of any human population or their property as the diversion structure is small and located away from any village.

2. PROJECT LOCATION



3. 76 MW Phata Byung HEP of M/s LANCO Hydro Energy Private Limited
“Six Monthly Progress Report” for the period ending June 2012”

1	Name of the Project	Phata Byung Hydro Electric Project
2	Type of the Project	River Valley hydro Electric Project (Run off the River)
3	Clearance Letter (s) OM No. & Date a) Environment Clearance b) Forest Clearance	a. No. J-12011/64/2007-IA.1 dated 18th February 2008. b. 8B/UCP/01/59/2008/FC/191 dated 2nd May 2008.
4	Locations 1. District 2. State 3. Latitude 4. Longitude	Rudraprayag Uttarakhand 30° 37' 35"N 79° 00' 28"E
5	Address for correspondence 1. Address of concerned project head at Office (with pin code and telephone/fax nos.)	Mr. P V Prasad Babu SPV Head LANCO Mandakini Hydro Energy Pvt Ltd. 14 H, Pushpanjali Enclave, GMS Road, Dehradun-248001 Uttarakhand Ph-0135-2620413
6	Break-up of the project area (land details) a) Submergence area Forest Non Forest b) Others Forest Non Forest	 3.90 Ha 0.00 Ha 17.39 Ha 01.43 Ha

7	Break up of the project affected population with enumeration of those losing houses/ dwelling units only, agricultural land only. a) SC /ST /Adivasis b) Others	Nil Nil
8	Financial details 1. Project cost as originally planned and subsequent revised estimates and the years of price reference	Original Project Cost:- Rs. 484.047 Lacs
9	Forest land requirements Status of approval for diversion of forestland for non-forestry use	We already got approval from Forest Department regarding diversion of 21.29 Ha Forest land from Government of Uttarakhand. We had also signed lease deed with DFO Rudraprayag in the month of May 2010.
10	Status of construction a) Date of commencement (actual and/or planned) b) Date of completion (actual and/or planned)	06 October 2008 September 2012
11	Reasons for the delay, if the project is yet to be started	Not applicable
12	Construction activities and status of Implementation of EMP	The details of the present status of the construction activities and the status of implementation of EMP are attached as Annexure-I
13	Brief note on the status of compliance of the conditions stipulated by MoEF	Status of compliance of the conditions stipulated by MOEF is enclosed as Annexure- II
14	Visit from MOEF Officials	

Annexure-I**I. Present status of Construction Activities**

S.No.	Task / Activity	Status
1	Formation of Roads	Completed
2	Bridges	Completed
3	Adits and Access Tunnels	completed
4	Power House excavation	95% Competed
5	Tail Race/ Cable Tunnel excavation	Not Started
6	Head Race Tunnel (HRT) excavation	60% Completed
8	Dam excavation	Completed
	Concreting of Dam	95% completed
9	Diversion Channel	Completed
7	Pressure shaft excavation	Not Started

Table-: Progress of Construction Activities

II. Status of Implementation of EMP as per the Progress of the Construction Activities

a) Solid waste collection and Disposal

Dustbins and solid waste collection vats, fixed at various project sites for collection and disposal of solid waste at appropriate site.

b) Muck Management and River Protection

- Total 9 Nos of Muck Disposal Sites have been identified.
- The Muck Disposal sites are situated at Dam site (M.D. No.-1 & 2), Adit-2 (M.D. No.-3), Face 5 & 6 (M.D. No.-5), Adit-3 (M.D. No.-6), Adit-4 & surge shaft (M.D. No.-7 & 8) and Power House site (M.D. No.-9) with 4.36 Ha of total dumping area.
- As the project is in construction phase, so most of the muck generated is being utilized for the levelling & bench development for crushers and contractor facilities, filling and levelling of the roads etc.
- We had constructed RCC wall for the protection of river in the dumping area near Dam & Power House.
- We are continuously strengthening the protection work along the river & in the Muck dumping area whenever it is required.
- Reclamation works for MDNo.-5 are in progress.



Reclamation of Muck Dumping Area

c) Air/Noise Pollution Management

- Water Sprinklers/Tankers are being used on regular basis in road construction to control the Fugitive emission (SPM) during dry period.
- DG Sets are acoustically treated and using machineries with new technology which provides noise level within the permissible limits.
- Environment Monitoring for Air & Noise on monthly basis is being done by M/s SGS Gurgaon The recent report is attached as **Annexure-III**



Air Monitoring

d) Water Quality Management

- The river water quality is good and its parameters are within the limits as per the monthly monitoring by SGS Gurgaon.
- The Major Parameters which will be analysed are pH, Total Suspended Solids, Total Solids and Total Dissolved Solids etc.
- Environment Monitoring for water on monthly basis is being done by M/s SGS Gurgaon The recent report is attached as **Annexure-IV**



Water sampling & Settling tank

e) Control of Pollution from Labour Camps

- Most of the lab our in the project site are residing in the rented accommodation with good sanitation facilities.
- Labours are using Kerosene Oil/LPG for their cooking purpose.
- Community Toilets are available with proper Septic Tanks for labourers and staff; construction of some more toilets are under progress.



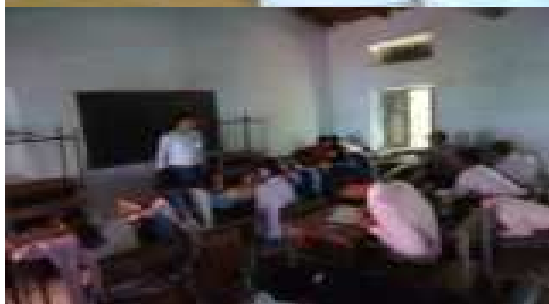
Staff Camp

f) Environmental Management during Road Construction

- Roads have been constructed using cut and fill method. The muck retaining structures like RCC wall and Crate walls have been constructed towards valley side and the RRM walls, Plumb walls or dry walls has constructed towards the hillside of the roads for protection purpose.
- The plantation is being done on both sides of constructed Road on the availability of place.

g) Public Health Delivery System

- LANCO Mobile Health Service (LMHS) provides medical facilities to the nearby villages on daily basis free of cost.
- Health Camp for School Children was organized.
- Complete health screening and periodic health checkup of laborers are carried out on regular basis. Free of cost medical facility is provided to project employees as well as villagers.
- Medical team of Lanco is engaged in providing medical facilities to project area villages as well as people from other nearby areas.
- Each village / Panchayat Head is provided with contact number of project medical team, so that villagers can call Medical Team to respective sites for consultation as and when required.



School Children & Employee Health camp

Patients who benefitted by Medical facilities in last six Month		
Month	No. of Camp	No. of Patients
December 2011	53	2023
January 2012		
February 2012		
March 2012		
April 2012		
May 2012		

h) Safety Measures.

- All labourer and staffs are being provided with Safety instruments like Belts, Helmets, Safety shoes, Gloves, Gumboots, etc. as per work requirement.
- Safety measures are being followed strictly at work places.
- Work related Toolbox talk is given to all worker prior to start the work on daily basis by the line managers as well as by the qualified safety Supervisors.



Safety Tool Box talk to the Workers regarding Construction Safety

i) Community Kitchens

- LMHEPL & its Contractors covering staff of whole Project construction area have established seven No. of Community Kitchens
- Hostels are equipped with recreation facilities like Televisions etc.



Community Kitchen for staff

j) Forest Protection Plan

- To ensure the proper implementation of forest protection plan, Kerosene oil is being used by the labours to meet their fuel demands through contractors in order to avoid the felling/cutting of trees and any other forest produce.
- LPG connections have taken, which are being used in community kitchens, and by technical staff.



Sign Board & Plantation in the Project area for Forest Protection

k) Catchment Area Treatment Plan & Compensatory Afforestation Scheme

- Implementation of CAT Plan will be taken up by State Forest Department.
- Rs.939.64 Lakhs has been deposited towards the implementation of Compensatory Afforestation to the State Forest Department.
- We are in continuous touch with forest department regarding implementation of CAT Plan in toto.

l) Employment Opportunities

- LMHEPL & its contractors are providing Employment to the Local people on the basis of their education. The first priority is given to the project affected families (due to land transfer).on the basis of their education we had given employment in skilled, semiskilled & unskilled categories.
- Near about more than 328 local people are working as Employee with LANCO & its various contractors. On the basis of their educational qualification.

m) Economic Opportunities

- **Award of the petty contract-** The local people have been given contract of small activities like construction of drainage along the roads, protection works along new cuttings, plantation work, bush cleaning in the construction sites, etc. to benefit and facilitate economic opportunity.
- **Vehicle hiring-** More than 31 No. of vehicles from Project Area Peoples have been hired and being used in different works. It has given good opportunity to the Local villagers to multiply their economic status.
- Supply of Canteen Items is taken from Local shopkeepers.

n) Social Welfare Activities

M/s LMHEPL have done/undertaking the following activities on regular basis for local area development-

S.No.	Activities	Village
1	Construction of concrete Path from NH 109 TO Byung Village	Byung Village
2	Construction of Temple in Byung	Byung Village

3	Construction of path from CC korkhi village to Byung Village	Byung Village
4	Construction of water Tank & laying of Pipeline	Byung Village
5	Construction of CC path in byung village	Byung Village
6	Rehabilitation of Hanuman temple	Byung Village
7	Laying of Potable water pipe line	Byung Village
8	Financial aid to Mahila Mangal Dal	Byung Village
9	Distribution of School Uniform	In all the Primary Schools which come in the Project Area
10	Plantation along the Project Area by Van Panchayat & Mahila Mangal Dal	In all the Van Panchayat & Village Panchayat which come in the Project Area
11	Development of cremation path	Khumera Village
12	Development of cremation platform	Khumera Village
13	Rehabilitation of Khumera Temple	Khumera Village
14	Construction of temple	Khumera Village
15	Construction of C.C path for	Narayankoti Village
16	Renovation of Temple	Narayankoti Village
17	Construction of culvert	Narayankoti Village
18	Providing utensils for marriage ceremony and other purposes	Maikhanda Village
19	Rehabilitation of Maikhanda Temple	Maikhanda Village
20	Area development of maikhanda village temple	Maikhanda Village
21	Strengthening of Phata hospital Road	Phata Village
22	Construction of Phata Hospital Building	Phata Village
23	Construction of CC footpath at Khariya Village	Khariya Village

24	Construction of CC footpath at Khariya Village	Khariya Village
25	Construction of RCC culvert	Khariya Village
26	Construction of Toilets/bathrooms for Scholls	Khariya Village
27	Renovation works in Shiv Mandir	Khariya Village
28	Construction of cement concrete path for villagers at Adit III	Khat Village
29	Construction of Khat Temple	Khat Village
30	Construction of Bath room & toilet near Khat Temple	Khat Village
31	Construction of room adjacent to Khat temple.	Khat Village
32	Laying of water pipe line	Khat Village
33	Fencing of Play ground in Khat Village	Khat Village
34	Construction of boundary wall for khat village school	Khat Village
35	Construction for extention of existing boundry wall for khat village school	Khat Village
36	Construction of Boundary wall of Chandika temple	Jamu village
37	Laying of GI Pipe line in Jamu village	Jamu village
38	Construction of boundary wall for Jameshwar temple	Jamu village
39	Laying of new GI Pipe line in Jamu village	Jamu village
40	Construction of CC path for Panchayat Bhawan & Pri. School	Jamu village
41	Financial Aid to Mahila Mangal dal	Jamu village
42	Construction of Path for Ravigram Village	Ravigram Village
43	Development of Temple at Ravigram	Ravigram Village
44	Renovation of Panchayat Bhawan	Shersi Village
45	Renovation of Bhairavnath Temple	Shersi Village
46	Laying of Potable pipe line for shersi village	Shersi Village

47	Construction of concrete pavement footpath to sitapur village	Sitapur Village
48	Construction of CC path (450m length) in sitapur	Sitapur Village
49	Construction of CC path (350m length) in sitapur	Sitapur Village
50	Construction of RCC culverts in Sitapur	Sitapur Village
51	Repairing of CC Path in Sitapur	Sitapur Village
52	Construction of Road to Temple	Sitapur Village
53	Construction of Temporary school building in rampur Village	Rampur Village
54	Construction of temporary steel bridge in Rampur over Mandakini	Rampur Village
55	P/F hand railing in Rampur village	Rampur Village
56	Construction of Retaining wall for & Boundary wall for Durgamata temple	Rampur Village
57	Construction of RCC culvert for Jurani Village	Jurani Village
58	Construction of concrete path from existing NH109 to Tarsali village	Tarsali village
59	Laying of GI Pipe line in Tarsali village	Tarsali village
60	Financial Aid to Mahila Mangal dal	Tarsali village
61	Construction of Path to Kongarh Village	Kongarh Village
62	Construction of Tourist help center	Rudraprayag
63	Construction of Toilets & additional works for Tourist Help center st Rudraprayag	Rudraprayag

- **Medical facilities:**-In the project area we provide medical facilities to the local villagers by visiting around 15 villages and by conducting regular medical camps. Dedicated team of doctors, Pharmasists along with Mobile health vans (LANCO Mobile Health Service) is especially provided for local villagers.
- **Hospital Renovation:-** To provide better medical facilities Lanco proposed for the construction of Hospital with Facilities like Labour Room, Pathology, X ray facilities, the proposal was studied by Uttarakhand state Govt. & concerned Health Department & has approved for the said activities by LANCO i.e. pathology lab, X-Ray & Labour rooms.
- **World Environment day celebration:** - We have celebrated world Environment day 5th June in our Project area & done several awareness activities.



World Environment day celebration

- **Training:** We are providing technical training to local unemployed youth as well as our own employees by short term(15-30 days) training program at different technical institutes. We have send 10 local Employees to ITI Srinagar for the short term technical training so far.
- We had organized Team Building training for our Employees at site & planning various technical trainings in the coming months.

Annexure II**Conditions and Compliances towards MOEF Environmental Clearance**

Sl. No.	Conditions	Status
i)	Controlled blasting with very low charge and mild explosive should be used under close supervision.	Expert blasters under close supervision of experienced civil engineers are carrying out controlled Blasting. The same has been confirmed by Wadia Institute of Himalayan Geology, Dehradun – “ It has been observed that the peak velocity of the Longitudinal(L), Tranverse(T) and Vertical(V) components of the waves generated by the blasts are either negligible or much below the prescribed limit set by the Directorate General of Mines Safety(DGMS)” The quantity of explosive per delay used is ranging from 2.5 kg to 10.00 kg based on the location of blast.
ii)	For treating degraded catchment areas the following Catchment area treatment plan should be strictly implemented, co-terminus with project construction.	Rs. 939.64 lakhs deposited to CAMPA funds.
iii)	Commitment made during Public Hearing should be fulfilled	Being Complied
iv)	Biodiversity Conservation Plan as proposed in the EMP should be implemented in toto in the identified location.	An amount of Rs 225.50 lakhs has been deposited towards CAMPA Fund
v)	It must be insured that the land identified for solid waste is not common land in use by the local people for grazing or agricultural purpose.	Being complied as a part of EMP implementation.
vi)	For conservation & development of migratory	We have via our letter no. LMHEPL/Fishery/Phata/2011/04/11

Sl. No.	Conditions	Status
	fishes a fish farm / hatchery shall be developed.	dated 11 th April 2011, already requested to State Fishery Department to submit the implementation plan for the fish farm. The Officials from State Fishery Department had visited the site & Matter is being pursued with concerned Authorities to expedite the implementation.
vii)	All the equipments which are likely to generate high noise levels are to be fully modified as Kedarnath Musk deer sanctuary is located nearby.	All DG sets deployed on the Project are Silent DG sets. & all the equipments are well maintained to keep the noise level within the permissible limit.
viii)	Clear felling of trees should be restricted 4 m below the FRL and a 50 m wide green belt should be created around the reservoir periphery	This activity is the part of CAT Plan & Shall be fully complied.
ix)	Conservation measures proposed for Schedule-I animals should be followed in totality	The same is part of CAT Plan and the required funds have been deposited in CAMPA Fund
x)	Environmental clearance is subject to obtaining clearance under wildlife Protection Act, 1972 from the competent authority(If applicable)	NA
PART-B		
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.	LPG is being supplied to the workers as main fuel
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	<ul style="list-style-type: none"> As adequate facilities are available locally for supply of Fuel, the same is being utilized. Dispensaries have been established at Dam Site, Power

Sl. No.	Conditions	Status
	provided to the labourers.	<p>House Site.</p> <ul style="list-style-type: none"> • Complete health screening and periodic health checkup of laborers is being done on regular basis. Medical facility is provided to project employees as well as villagers free of cost. • Two camps were organized for local people ,one is for General Medical check up & other is especially for the ladies . • The total health profiling of the villagers have been conducted and periodic medical camps at PAVs are also being conducted. • We are planning to set up additional medical facilities in the Phata PHC such as X –ray, Pathology facilities etc .
iii)	All the labourers to be engaged for construction works should also be thoroughly examined by health personnel and adequately treated before issuing them work permit.	Health check of labourers are conducted at site through periodical health camps
iv)	Restoration of construction area including dumping area with levelling, filling up of burrow pits, landscaping etc. area should be properly treated with suitable plantation.	<ul style="list-style-type: none"> ▪ The muck generated due to project execution is being dumped at the designated dump yards. ▪ Each dump yard is provided with adequate retaining structures such as crate wall etc as per requirement. ▪ The completed dump yards restoration works started with slope stabilization & covering with fertile soil. Indigenous plants of the area were planted
v)	Financial measure shall be	Being strictly adhered to

Sl. No.	Conditions	Status
	made in the total budget for safeguard measures	
vi)	A multidisciplinary committee should be constituted with representatives from various disciplines of forestry, ecology, wildlife, soil conservation, NGO etc. to oversee the effective implementation of the suggested safeguard measures.	The said committee has been constituted by MOEF & second meeting was held on 16 th May 2011 at Site.
vii)	Six monthly monitoring reports should be submitted to the Ministry and its regional Office, Lucknow for review.	Six monthly reports are being submitted regularly to MoEF and Regional MoEF.
4	Officials from Regional Office MoEF, Lucknow 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.	Agreed
5	The responsibility of implementation of environmental safeguards rests fully with the M/s Lanco Hydro Energies Private Limited & Government of Uttarakhand	Agreed
6	Project require fresh appraisal in case of change in the scope of the project	Agreed
7	Ministry reserve right to add additional safe guards and to ensure effective implementation of suggested safeguard in time bound and satisfactory manner	Agreed
8	Valid for 10 year from date of issue of this letter	Agreed
9	A copy of letter needs to mark	Complied

Sl. No.	Conditions	Status
	to concerned panchayat, Local NGO and those from whom any suggestion/representation has been received.	
10	SPCB shall display a copy clearance letter to regional office, District Industries Center and Collector's office/Tahsildar office for 30 days	Complied
11	With in seven days Project Proponent shall advertise in two local Newspaper circulated in vernacular language of the locality concerned	Complied