



Environmental and Social Quarterly Monitoring Report

Project Number: 38928 (Loan 2198)
June 2013

PAKISTAN: New Bong Escape Hydropower Project Environmental and Social Issues Compliance Report (April to June 2013)

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Asian Development Bank



New Bong Escape Hydroelectric Power Project

Environmental and Social Issues Compliance Report

Quarterly Report

April 01, 2013 – Jun 30, 2013

Laraib Energy Limited

Islamabad

ENVIRONMENTAL AND SOCIAL COMPLIANCE

1. Incidents of Violations or Non-Compliance

1. The following information regarding incidents of violations or non-compliance has been recorded
 - (i) Nature of non-compliance
 - (ii) Violation or non-compliance based on environmental standards and regulations
 - (iii) Recorded dates and authorities
 - (iv) Media or community reactions (if any)
 - (v) Corrective actions, deadlines, identification of responsible parties

2. Incidents of violation and non compliance along with its corrective actions in the form of ESOHS Corrective Action Plan (ESOHS CAP) are attached as **“Exhibit-27”**. The following is the status of ESOHS CAP as of Jun 30, 2013.
 - Total number of observations 16
 - Number of Issues closed 09
 - Number of Issues In Progress 02
 - Number of Issues open 05

2.1. Incidents of Environmental and Safety Accidents

2.1. Environmental Accidents and Mitigation

1. No Environmental accident has been reported in this quarter.

2.2. Health and Safety Accidents and Mitigation

1. The summary of accidents encountered from March to Jun 2013, are as follows;

Safe Man Hours	First Aid (FA)	Incidents	Medical Treatment (MT)	Restricted Work Injury (RWI)	Lost Work Injury (LTI)	Near Miss	UA/UC
78096	07	00	00	00	00	00	10

2.3. Near Miss:

1. Heap of solid waste observed at 270 elevations as corrective action supervisor was advised to collect the garbage and supply to recycling contractor.
2. Lubricant drums placed on the ground with a potential of soil contamination as a corrective action polyethylene sheets laid under the drums.

3. Two workers observed working on electric pylon without safety harness as a corrective action work supervisor was advised to temporarily stop the activity and arrange the safety harness before further proceeding of activity.
4. Flammable material observed in warehouse along with other items as corrective action flammable materials have been removed and shifted to designated places. A safety sign board for flammable items is now installed there.
5. A worker was observed grinding the concrete wall of stop log storage area without safety goggles and dust mask as a corrective action he was advised to ensure the use of mandatory PPE's before the commencement of such activities.
6. A maintenance crew was busy in the maintenance of NBE gates without any kind of guard railing, safety harness and life jackets as a corrective action work activity stopped and was asked to adopt all safety measures before resumption of the work.
7. A naked wire observed directly plugged in the socket, as a corrective action a proper plug was arranged to minimize the electric shock hazard.
8. Over speeding was observed in front of office area, as a corrective action driver was advised to follow the safe driving procedure.
9. Cover of Manhole of oil collection pit was found missing with a clear danger of falling in the pit, as a corrective action manhole was covered with the permanent steel cover.
10. A worker was observed working at height wearing the safety harness but not hooked. He was asked to avoid such unsafe acts that put life in danger.

2.4. Incident Property damage

1. No accident occurred during this quarter.

2.5. Report of Unsafe Acts/Unsafe Conditions

Seven unsafe acts/ unsafe conditions (UA/UC) are reported in this quarter.

1. A stone flew from the underneath of the tire of car and went across very close to the gardeners working near headrace.
2. 3 ft. long scaffolding pipe fell from Elevation (El.) 245 to El. 227 during cleaning of El. 227. Luckily no one was injured.
3. A worker slipped from stairs of power house due to slippery surface. He held the railing and protected himself from falling.
4. A construction worker while moving in office hall was struck with electrical cord on the way. He was able to maintain his balance and remained safe.
5. During cutting of metal piece with gas cutter in work shop, the hose pipe caught fire. The Operator squeezed pipe immediately and extinguished the fire. No loss occurred.
6. A large electric spark was produced due to metal struck the conductor just 6-7 meter away from the workers but all workers remained safe.
7. A scaffolding pipe fell from a 10-12 ft height during dismantling of scaffolding structure. Luckily no one was working near the structure.

2. Trainings:

1.1. Fire Fighting Training

A training session regarding firefighting was conducted on 2nd April.

1. Trainer : Abdul Aleem from Consult iB
2. Venue : NBE HPP
3. Participants : Selected employees from all departments

1.2. First Aid / CPR Training

External First Aid / CPR Training for TNBRP AJK staff is to be conducted at NBE HPP. Necessary arrangements are being made to consult a certified third party for the training.

1.3. In-House EHS Trainings:

Following EHS Trainings were conducted for employees in this quarter;

- Basic Fire Safety
- Use of Portable Fire Extinguishers
- Basic First Aid
- Permit To Work
- Confined Space Entry
- Housekeeping

1.4. Other Trainings

Training on manual operation of NBE Gates was conducted on 27th of June. Muhammad Abbas, Charge man Mech. conducted the training. Six security personnel including security manager attended the training.

1.5. Toolbox Talks:

The Contractor delivered a total of 28 toolbox talks to staff. The distribution is described below.

Safety Tool Box talks are being held before every Maintenance activity. Charge men (Electrical, Mechanical and C&I) are holding these talks.

1.6. ERP Drill

ERP drill for all on-site staff has been re-scheduled due to extensive maintenance activities and shall be held in the coming month.

3. Safety Awareness Programs

3.1. H&S Information Leaflet

A Health & Safety Information Leaflet for staff, contractors and visitors has been developed. Some of the topics covered are as under;

- Personal Safety and Security
- Fire Safety and Emergency response in case of fire (alarms)

- First Aid
- Incident Reporting
- Manual Handling Guidance
- Safety Signs
- Smoking
- Electrical Equipment
- Contractor Specific Information
 - Permit to Work
 - Method Statement
 - Hazardous areas or substances

3.2. EHS Bulletin

Safety and Health Bulletins is one of OSHA's tool used to inform internal staff and the public of significant occupational health and safety issues concerning hazard recognition, evaluation, and control in the workplace and at emergency response sites.

Legislation:

- OSHA Instruction CPL 02-00-065
- OSHA 29 CFR 1926
- OHSAS 18001:2007 Best Practices

EHS Department issues monthly bulletin to all departments along with display on notice boards as well.

3.3. Safety Dialogue

Safety dialogue on topics like importance of PPEs while working on the plant site, hearing protection, proper use of safety gears is being carried out frequently with the staff

3.4. Classification of the Powerhouse

The powerhouse is a multi-story building inclusive of the Admin office control room etc. Red and Green zones have, therefore, been identified in the powerhouse. Notices, as shown, have been pasted on all elevations.

- Red Zone – PPEs (As per the Job) are mandatory
- Green Zone – PPEs are not mandatory



3.5. Contractor EHS Compliance:

All contractors' personnel are being provided with safety induction. Mandatory PPEs are also being emphasized-on for all contractors' personnel. Main observations during different site visits regarding activities performed by Contractors like Sambu, Andritz are given as under;

- Fall Hazard – Stop log area & Machine Hall
- Electrical Hazard
- PPEs (Safety shoes in most cases)

The concerned have been informed and necessary remedial actions are being taken.

3.6. Monthly EHS Walk Downs

Several EHS walk down were conducted by Plant General Manager accompanied by HSE Inspector in this quarter. Issues observed during the walk down regarding contractor activities were communicated to respective authorities of Andritz and Sambu.

They were requested to follow safe work practices with special emphasis on electrical safety issues and PPEs compliance. They were also requested to keep Good Housekeeping Practices during and after completion of their daily work.

3.7. Weekly Pictorial Reports

A weekly pictorial report is being submitted by the HSE Department since the last month (June). The report's format is such that it contains observations as well as necessary recommendations to rectify / mitigate the observation.

4. EHS Audits / Inspections:

Regular EHS audit of the plant area is conducted to ensure the procedural compliances. Shortcomings observed during the audit are conveyed to the concerned.

Following inspections/ audits were carried out during the last quarter.

- Monthly housekeeping Inspection conducted.
- Weekly EHS Inspection – followed by a Pictorial Report
- PPEs Compliance Survey.
- First Aid Boxes.

5. Development of Environmental Management System (EMS)

New Bong Escape Hydroelectric Power Complex Environmental Management System is based on the requirements of ISO 14001:2004.

5.1. ISO 14001 Level 1 (Environmental Manual)

- The drafts that were prepared are being reviewed as ESMP has been approved by LEL as well as TNBRP's Management.
- These drafts, after review, shall be discussed with the management during EMC meeting and then finalized after the EMC's approval.

5.2. ISO 14001 Level 2 (Environmental Procedures)

- The drafts that were prepared earlier have been reviewed and necessary amendments are being made.
- These draft procedures are also being provided to LEL ESOHS Manager for necessary comments.
- These updated drafts shall be discussed with the management during EMC meeting and then finalized after the EMC's approval.

5.3. Environment, Health, Safety and Social Issues Management Plan (EHSS MP)

- EHSS MP draft is comprised of two Parts namely
 - ❖ Part 1: Environmental and Social Issues Management Plan (ESMP)
 - ❖ Part 2: Occupational Health and Safety Management Plan (OHSMP)
- Part 1 of the above document, i.e, ESMP was provided to Environmental Protection Agency (EPA) of Azad Jammu & Kashmir after necessary amendments by ESOHS Manager Laraib

Energy Limited (LEL).

- ESMP has been approved by LEL and TNBRP's Management after verbal approval from EPA AJ&K.
- NOC for operation phase will be issued to LEL on the basis of approved ESMP.
- A copy of ESMP has also been provided to Lenders for necessary approval.

5.4. Development of Occupational Health and Safety Management System (OHSMS)

New Bong Escape Hydroelectric Power Complex Occupational Health and Safety Management System is to be based on the requirements of OHSAS 18001:2007.

5.5. OHSAS 18001 Level 1 (OH&S Manual)

- The drafts that were prepared are being reviewed as OHSMP has been approved by LEL as well as TNBRP's Management.

5.6. OHSAS 18001 Level 2 (OH&S Procedures)

- Drafts for the OH&S Procedures are being prepared and provided to LEL ESOHS Manager simultaneously for necessary comments.
- The updated drafts shall be reviewed after the approval of OH&S Manual.

6. Security Management

6.1. Security Management Plan

Security of New Bong Escape Hydroelectric Power Complex being one of the most important matters is at the top most priority. In this regard, a draft of Security Management Plan was developed by the EHS Department and submitted to LEL (Owner).

6.2. Deployment of Security Staff

Strength of 24 security guards including a Security Manager and two Security Supervisors has been deployed at NBE HPC. Two shifts starting from 6am – 6pm guard the Complex area 24/7.

Exhibit 27 – ESOHS CAP

ESOHS RECOMMENDED ACTION ITEMS/ CORRECTIVE ACTION PLAN

Source	No	Location	Finding	Reference/Date	Action Required	Target Date	Priority	Responsibility	Status	Remarks
LEL Comments	103C	Landscaping	Rain cuts and damage water trenches observed in different areas of landscaping	Inspection by LEL Feb 13,2013	ensure the good maintenance practice including repairing of rain cut, watering, trimming and repairing of water trenches.	On going Activity	High	Manager HSE	In-progress	Carry Forward
LEL Comments	2	Precurment	Some workers of TNBRP were found working without Life Jackets and Safety Harniss.	Inspection by LEL May 15,2013	Precurment of life jackets and safety harniss is mandatory.	15-Jun-13	High	Manager HSE	Close	-
LEL Comments	3	Outside Power House	This is observed that there is no sufficient arrangment for night shift security guards	Inspection by LEL May 16,2013	Provision of mosqioto repelent is very necessary in these wheather condition.	28-May-13	High	Manager HSE	Close	-
LEL Comments	4	Machine Hall	Naked wire of vaccume cleaner have plugged directly.	Inspection by LEL May 26,2013	Arrange the 2 pin shoes and the attached with vacume cleaner wire	Immediate	High	Manager HSE	Close	-
LEL Comments	5	Power House	Lock out /Tag out sytem are found missing	Inspection by LEL May 26,2013	Prepare a LOTO procedure and implement accordngly.	15-Jun-13	Medium	Manager HSE/Operation	in-progress	-
LEL Comments	6	Headrace area	A lot of trash accomulated at stoplog area.	Inspection by LEL Jun 17,2013	Clean up the entire area safely.	20-Jun-13	Medium	Manager HSE	Close	-
LEL Comments	7	Headrace area	Dead animals was floating at headrace and creating a lot bad smell.	Inspection by LEL Jun 17,2013	Arrange a crane and proper PPEs for the safe escape of dead animal from water surface of headrae.	21-Jun-13	High	Manager HSE	Close	-
LEL Comments	8	Overhead Crane	Oil leakage from slings of overhead canes.	Inspection by LEL Jun 17,2013	Identify the root cause and fix the issue as soon as possible.	21-Jun-13	Medium	Manager HSE	Close	-
LEL Comments	9	PPEs Non Compliance	A TNB's worker observed without safety shoes at 245 elevation.	Inspection by LEL Jun 26,2013	Arrange & provide safety shoes to him and ensure the 100 % PPEs compliance . Picture of this guy is already share with HSE department TNB	28-Jun-13	High	Manager HSE	Close	-
LEL Comments	10	245-Elevation	Safety railing of unit 3 found missing.	Inspection by LEL Jun 26,2013	This is an unsafe condition may leads to a major accident so portable raing is already available to secure the area. Ensure the compliance.	Immediate	High	Manager HSE	Open	-
LEL Comments	11	245-Elevation	Security guard is deputed at 245-elevation to check the PPEs of all contractors, sub contractors, consultants and client but during my today's survey it was observed that many employee were working at 245-elevation without PPEs.	Inspection by LEL Jun 26,2013	Keep the strict check and ensure the compliance and conduct daily inspection, surprize audits and training regading importance of PPEs and other safe work practices.	Immediate	High	Manager HSE	Close	-
TNBRP comments	12	Procedural Voilation	Some worker not of Andritz and Sambu observed working without PTW.	Inspection by LEL Jun 26,2013	This is a clear procdural voilation , all contractor must be follow the company procedure and this should be implemented immedialy.	Immediate	High	Management	Close	Panni sb circulate an email regarding compliance of PTW procedure to all concerns.
TNBRP comments	13	PPEs Non Compliance	A Contractor workers observed without safety shoes at 245 elevation.	Inspection by TNBRP July 02,2013	Arrange & provide safety shoes to all the contrator staff and Contractor / TNBRP ensure the 100 % PPEs compliance .	Immediate	High	EPC Representative / Manager EHS	Open	

ESOHs RECOMMENDED ACTION ITEMS/ CORRECTIVE ACTION PLAN

Source	No	Location	Finding	Reference/Date	Action Required	Target Date	Priority	Responsibility	Status	Remarks
TNBRP comments	14	Water Treatment Plant (El.245)	Stagnant water was observed in the water treatment plant section	Inspection by TNBRP July 02,2013	To stop the leakage (if any) Take measures to direct the water into the Drainage. (Impossible without a proper slope)	20-07-2013	Medium	EPC/TNBRP	Open	
TNBRP comments	15	WareHouse	Improper storage arrangements for oils / paints etc	Inspection by TNBRP July 02,2013	All such items in the warehouse need to be stored in a proper fashion as they are hazardous in nature	Immediate	High	TNBRP	Open	
TNBRP comments	16	Plant Main Entrance (Security)	Entry Pass System for Complex	Inspection by TNBRP July 02,2013	All Companies must be followed the entry pass and issue employment cards to all their employees working at NBE HPP	Immediate	High	EPC/OE/TNBRP	Open	

Summary

Source	Total Issues	Closed	In-progress	Pending
Recommendations from EP-AJK	-	-	-	-
Recommendations from MM	-	-	-	-
LEL Comments	11	8	2	1
TNBRP comments	5	1	-	4
Reported Accidents By Contractor	-	-	-	-
Reported Unsafe Acts/Unsafe Conditions (UA/UC)	-	-	-	-
Recommendations from IFC	-	-	-	-
Total	16	9	2	5