

Environment Monitoring Report

Bi-annual Environment Monitoring Report
August 2016

PAK: MFF – Power Transmission Enhancement Investment Program (Tranche 3)

Prepared by Multan Electric Power Company, Punjab for the Asian Development Bank.

NOTES

- (i) The fiscal year (FY) of the Government of the Islamic Republic of Pakistan and its agencies ends on 30 June.
- (ii) In this report “\$” refer to US dollars.

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Re: L2972 PDEIP: BAEMRs (Jan-Jun 2016) of GEPCO, HESCO, IESCO, LESCO approved for disclosure

Safia Shafiq

to:

Liaqat Ali

01/09/2016 02:11 PM

Cc:

Zhang Lei, Ehtesham Z. Khattak, Zehra Abbas, "Jeffrey Bowyer"

Hide Details

From: Safia Shafiq/Consultants/ADB

To: Liaqat Ali/PRM/ADB@ADB

Cc: Zhang Lei/CWRD/ADB@ADB, Ehtesham Z. Khattak/PRM/ADB@ADB, Zehra Abbas/CWRD/ADB, "Jeffrey Bowyer" <jeffreybowyer@outlook.com>

3 Attachments



L2972 QESCO BAEMR (Jan-Jun 2016).doc L2972 PESCO BAEMR (Jan-Jun 2016).doc



L2972 MEPCO BAEMR (Jan-Jun 2016).docx

Dear Liaqat Sb.,

My apologies for the miscommunication. Please disclose the BAEMRs attached with my first email (GEPCO, HESCO, IESCO and LESCO). I am attaching some others (MEPCO, PESCO and QESCO) with this email. Please disclose these as well. FESCO remains, I will forward that shortly.

Thanks and regards,

Safia Shafiq

Environment Specialist (Consultant)

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-----Liaqat Ali/PRM/ADB wrote: -----

To: Safia Shafiq/Consultants/ADB@ADB

From: Liaqat Ali/PRM/ADB

Date: 09/01/2016 01:19PM

Cc: Zhang Lei/CWRD/ADB@ADB, Ehtesham Z. Khattak/PRM/ADB@ADB, Zehra Abbas/CWRD/ADB@ADB, "Jeffrey Bowyer" <jeffreybowyer@outlook.com>

Subject: Re: L2972 PDEIP: BAEMRs (Jan-Jun 2016) of GEPCO, HESCO, IESCO, LESCO approved for disclosure

Dear Safia:

Your approval for disclosure is for GEPCO, HESCO, IESCO and LESCO.

The attachments to the email are: PESCO, MEPCO, HESCO, IESCO and LESCO. The approved GEPCO EMR is missing. Can I also disclose PESCO and MEPCO not listed in your email.

Regards,
Liaqat Ali, Project Analyst, Pakistan Resident Mission
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email: lali@adb.org.

* Safia Shafiq---01/09/2016 12:48:22 PM---Dear Liaqat Sb., The attached BAEMRs (Jan-Jun 2016) of GEPCO, HESCO, IESCO and LESCO under L2972 PDE

From: Safia Shafiq/Consultants/ADB
To: Liaqat Ali/PRM/ADB@ADB
Cc: Zhang Lei/CWRD/ADB@ADB, Ehtesham Z. Khattak/PRM/ADB@ADB, Zehra Abbas/CWRD/ADB@ADB, "Jeffrey Bowyer" <jeffreybowyer@outlook.com>
Date: 01/09/2016 12:48 PM
Subject: L2972 PDEIP: BAEMRs (Jan-Jun 2016) of GEPCO, HESCO, IESCO, LESCO approved for disclosure

Dear Liaqat Sb.,

The attached BAEMRs (Jan-Jun 2016) of GEPCO, HESCO, IESCO and LESCO under L2972 PDEIP are approved for disclosure. Please have them uploaded on ADB website and share the weblinks with me.

Thanks and regards,

Safia Shafiq
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Bi-Annual Environmental Monitoring Report



**Islamic Republic of Pakistan: Power Distribution Enhancement Investment
Program, Multi-Tranche Finance Facility (PDEPMFF-TRANCHE-III)
(Financed by the Asian Development Bank (ADB))**

(January-June, 2016)

Prepared by: Syed Asif Riaz Shahid, Deputy Manager (Environment & Safeguard)
PMU, MEPCO
Multan, Pakistan
For Multan Electric Power Company (MEPCO)

This report does not necessarily reflect the views of ADB or the Government concerned, and ADB and the Government cannot be held liable for its contents.

Asian Development Bank

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1-Part I: Introduction

A. BASIC DATA OF TRANCHE-III PROJECT

1.	ADB Loan No.	2972-PAK
2.	Project Title	Power Distribution Enhancement Investment Project Tranche III
3.	Borrower	Islamic Republic of Pakistan
4.	Executing Agency	Pakistan Electric Power Company (PEPCO)
5.	Implementing Agency	Multan Electric Power Company Ltd. (MEPCO)
6.	Total Project Cost	US \$ 35.18 Million
7.	ADB Loan	Total US \$ 31.79 Million
8.	Loan Approval Date	-
9.	Loan Signing Date	September 09, 2013
10.	Date of Effectiveness	December 10, 2013
11.	Date of Closing	
	i) Original	June 2016
	ii) Revised	
12.	Date of Physical Completion	-
	i) Original	
	ii) Revised	
14.	Elapsed Loan Period	
	i) Original	11 Months
	ii) Revised	
15.	Date of Last ADB Review Mission	14.11.2015

MEPCO: Introduction

Multan Electric Power Company Ltd; MEPCO is a Public Limited Utility Company, established in 1998 under Companies Ordinance 1984 responsible for distribution of Electric Power within its territorial jurisdiction and presently serving more than five Million customers (Domestic, Commercial, Agricultural, Industrial and others) in thirteen districts of Punjab Province (Multan, Sahiwal, Bahawalpur, Bahawalnagar, Dera Ghazi Khan, Rajanpur, Rahim Yar Khan, Lodhran, Khanewal, Pakpattan, Muzaffargarh, Vehari and Layyah).

MEPCO through GoP has undergone a Project Financing agreement with Asian Development Bank for:

- Strengthening the capacity of Power Distribution and Transmission networks
- To meet the increasing electricity demand in the selected areas more efficiently
- To upgrade the existing power infrastructure.

Scope of Work

There are 10 Nos. of projects under ADB TRANCHE-III. Detail is here as under:

- i. Construction of 02 No. of New 132KV Grid Stations and allied Transmission Lines
- ii. Conversion of 05 Nos. of Grid Substations from 66kV to 132kV & allied Transmission Lines. One (01 No.) Conversion from 66KV to 132KV of Yazman Grid Station has been added in tranche-3 as one of the savings subproject.
- iii. 03 Nos. of Augmentations

Overall the proposed MFF has been designed to address both investment and institutional aspects in electric power sector. Development Objectives/ Project Purpose will be fully achieved after completion of the proposed Sub-projects.

Part II Environmental Monitoring

GSC and Contractor(s) are continuously being apprised to monitor Environmental aspects during the implementation of TRANCHE-III subprojects. Civil works are under progress at all subproject site.

All of the Augmentation subprojects require no civil works or minor civil works for replacement of Power Transformers.

Contractor(s) are bound for Environmental Management Plans for monitoring of following parameters during execution and implementation of subproject works according bidding documents & contract.

- Soil Quality
- Noise and Vibration
- Water Quality
- Air Quality
- Flora and fauna monitoring

Contractor(s) have been directed to provided soil and water quality tests at subproject sites. Copies of tests reports should show any concerns regarding deterioration or degradation of environment during execution of subprojects. Contractor(s) have also been instructed to provide air quality and noise measurements records.

Part III Environmental Management

Submission of EIA /IEE Reports

- Initial Environmental Examination (IEE) Reports were prepared by PEPCO Consultant (M/S SMEC) and submitted to PEPCO. These IEE Reports were received from SMEC through PEPCO.
- These reports were reviewed, converted from Initial Environmental Examination (IEE) format to Environmental Impact Assessment (EIA) Report format to meet/ comply with the local statutory requirements/ law.
- Approval of these EIA Reports was accorded by the worthy C.E.O (MEPCO). These Reports have also been uploaded/ posted on MEPCO official website (www.mepco.com.pk).
- EIA/IEE reports were submitted to EPA Punjab for obtaining Environmental Approval and subsequently Public Hearings were conducted 06th June, 2014 at Bahawalpur.
- The Environmental Monitoring and Management Plan (EMMP) enlisted in EIA Reports have been made part of the bidding documents of civil works (Turnkey Project) and uploaded on MEPCO website. (www.mepco.com.pk)
- MEPCO has obtained Environmental Approval from Government of the Punjab for New and Conversion subprojects of TRANCHE-III. **(Annex-A)**

Project Sites Visited

11- ESC PMU alongwith FMC (SMEC) visited all subproject sites. Detail is as under:

- i. New 132kV Mubarakpur Grid Station
Date:26-01-16, 16-02-16, 09-03-16, 29-03-16, 24-05-16
- ii. New 132 KV Chunnawala Grid Station
Date:22-01-16, 26-05-16.
- iii. Conversion of 66KV to 132 KV Fort Abbas Grid Station and allied Transmission Line
Date: 23-01-16, 28-05-16

- iv. Conversion of 66KV to 132 KV Faqirwali Grid Station and allied Transmission Line
Date: 23-01-16, 28-05-16
- v. Conversion of 66KV to 132 KV Dharanwala Grid Station and allied Transmission Line
Date: 24-01-16, 27-05-16,
- vi. Conversion of 66KV to 132 KV Chak 83/12-L Grid Station and allied Transmission Line
Date: 17-02-16, 11-03-16, 01-04-16, 09-05-16,
- vii. Conversion of 66KV to 132 KV Shah Sadar Din Grid Station and allied Transmission Line
Date: 28-03-16, 20-04-16, 23-05-16,
- viii. 132 KV Bahawalpur Augumentation subproject
- ix. 132 KV Lodhran Augumentation subproject
- x. 132 KV Burewala Augumentation subproject
- xi. Conversion of 66KV to 132 KV Yazman Grid Station and allied Transmission Line

Findings/ Observations

Findings/ Observations noted during the site visit. Its detail is as follows:

- Land for 132 KV Mubarakpur & 132 KV Chunhawala new grid stations has been purchased on willing-seller, willing-buyer basis.
- Construction activities have been completed at Chak 83/12-L, Dharanwala, Fort Abbas and Faqirwali subprojects on 21-10-2015 and works are under progress at, S.S.Din, New 132 KV Mubarakpur & New 132 KV Chunhawala grid station sites.
- Status of TRANCHE-III subprojects is enclosed. **(Annex-A)**
- Deputy Manager (Environment & Safeguard) & Assistant Manager (Social) are working in Environment & Social Cell (ESC) under Chief Engineer (Development) MEPCO Multan in Project Management Unit (PMU)
- PD (GSC), Contractor(s) and other related staff has been provided orientation on Environmental Management & Implementation of ADB Safeguard Policy Statement (2009) guideline and rules/regulations of Government of Pakistan.

- SSEMP has been provided by M/S PEL and submitted to ADB. EHS officers at New 132KV Mubarakpur Grid Station has resigned. No Water, air, noise and soil quality reports have been submitted by contractor despite approval from GEL Lahore was granted by CE(Development) for all tests.
- M/s PEL has been communicated to start Tree Plantation at subproject sites.
- M/S CCCE-ETRN has not engaged any Environmentalist for Chunnawala grid station as HSE Officer. Sites Specific Environmental Management Plan has been prepared by contractor and submitted to ADB. Water, air, noise and soil quality & monitoring report has been submitted by contractor at Chunnawala Grid Station.
- Copies of these letters are enclosed for information. EMP Implementation monitoring report has been provided by contractor, which is made part of this BAEMR.
- There are no potential significant environmental impacts associated with the subprojects where no new land is acquired. Minor environmental impacts during execution of new & conversion subprojects are being catered for as per environmental management plan.
- Suitable control measures are being adopted at project area partially to minimize/ mitigate environmental impacts, disruption, contamination of surroundings arising out due to construction material/ chemicals handling/ storage and disposal of construction waste.
- Neither permanent land acquisition, nor resettlement or property acquisition will be required for augmentation subprojects.
- No major/potential damages to water channel, land, construction nuisance/ noise/ air/ waste water pollution will likely to be occurred in subprojects area.

Corrective action plans

Monitoring Checklists to be filled and returned to ESC have been provided to contractor(s). For improved coordination with sharing of information/record is required for better monitoring and implementation of Environmental Safeguards.

M/S PEL and M/S ICC were directed to take corrective actions. PEL has complied by providing name of Environmental & Social Monitors at each subproject. Whereas, CE (Development) MEPCO has granted approval to PEL to hire GEL as Lab for noise measurement, water, air and soil tests as per BOQ (Copies of relevant attached for information).

Contractor(s) (M/S PEL and M/S ICC) have been directed to start plantation to avail this season for growth of plants and trees. They are also directed to do proper site restoration and landscaping at each subproject site.

Concerns related to partial use of PPEs have been communicated to contractor(s) by this office while awareness sessions are being arranged at each subproject site.

Consultation and Complaints

Environmental Management Plan & Environmental Social Complaint Register in English and Urdu versions have already been communicated to PD (GSC) and contractor(s) are advised to place these registers on each active subproject site.

Environmental Awareness & Trainings

Several Environmental Training sessions are being organized at each subproject site for implementation of Environmental Management Plan. Awareness sessions with M/S PEL, M/S ICC and subcontractor(s) have conducted for environmental awareness and ADB's Environmental guidelines which need be implemented on subproject sites.

Date	Contents	Site	Participants	Trainer
26-01-16 16-02-16 09-03-16 29-03-16 24-05-16	<ul style="list-style-type: none"> • EMP Implementation • RP Implementation • Compensation payment procedure 	Mubarakpur	Contractor / GSC staff	<ul style="list-style-type: none"> • DM(E&S) • AM(Social)
22-01-16 26-05-16	<ul style="list-style-type: none"> • EMP Implementation • RP Implementation • Compensation payment procedure 	Chunnawala	Contractor / GSC staff	<ul style="list-style-type: none"> • DM(E&S) • AM(Social)
24-01-16 27-05-16	<ul style="list-style-type: none"> • EMP Implementation • RP Implementation • Compensation payment procedure 	Dharanwala Subproject Site	Contractor / GSC staff/GSO Staff	<ul style="list-style-type: none"> • DM(E&S) • AM(Social)
23-01-16 28-05-16	<ul style="list-style-type: none"> • EMP Implementation • RP Implementation • Compensation payment procedure 	Faqirwali Subproject Site	Contractor / GSC staff/GSO Staff	<ul style="list-style-type: none"> • DM(E&S) • AM(Social)
23-01-16 28-05-16	<ul style="list-style-type: none"> • EMP Implementation • RP Implementation • Compensation payment procedure 	Fort Abbas Subproject Site	Contractor / GSC staff	<ul style="list-style-type: none"> • DM(E&S) • AM(Social)
17-02-16 11-03-16 01-04-16 09-05-16	<ul style="list-style-type: none"> • EMP Implementation • RP Implementation • Compensation payment procedure 	Chak 83/12-L Subproject Site	Contractor / GSC staff	<ul style="list-style-type: none"> • DM(E&S) • AM(Social)
28-03-16 20-04-16 23-05-16	<ul style="list-style-type: none"> • EMP Implementation • RP Implementation • Compensation payment procedure 	S.S.Din Subproject site	Contractor / GSC staff/GSO Staff	<ul style="list-style-type: none"> • DM(E&S) • AM(Social)
	<ul style="list-style-type: none"> • EMP Implementation • RP Implementation • Compensation payment procedure 	Yazman Grid Station	GSC staff/GSO Staff	<ul style="list-style-type: none"> • DM(E&S) • AM(Social)

- **Photographs**

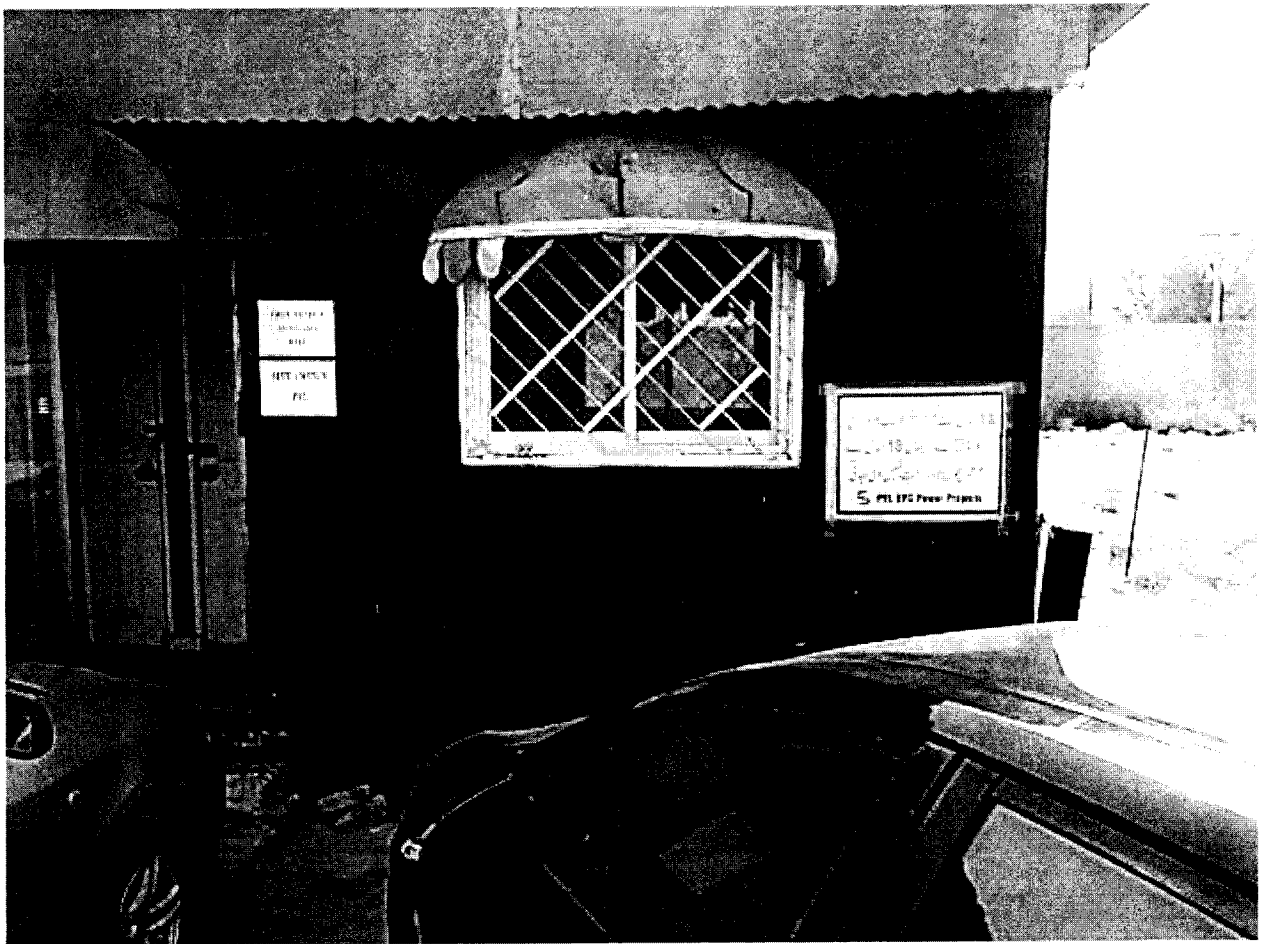


Figure 1: Display of safety signs at Chunnawala Grid Station



Figure 2: Display of safety signs at Mubarakpur Grid Station



Figure 3: Work in progress at Mubarakpu Grid Station

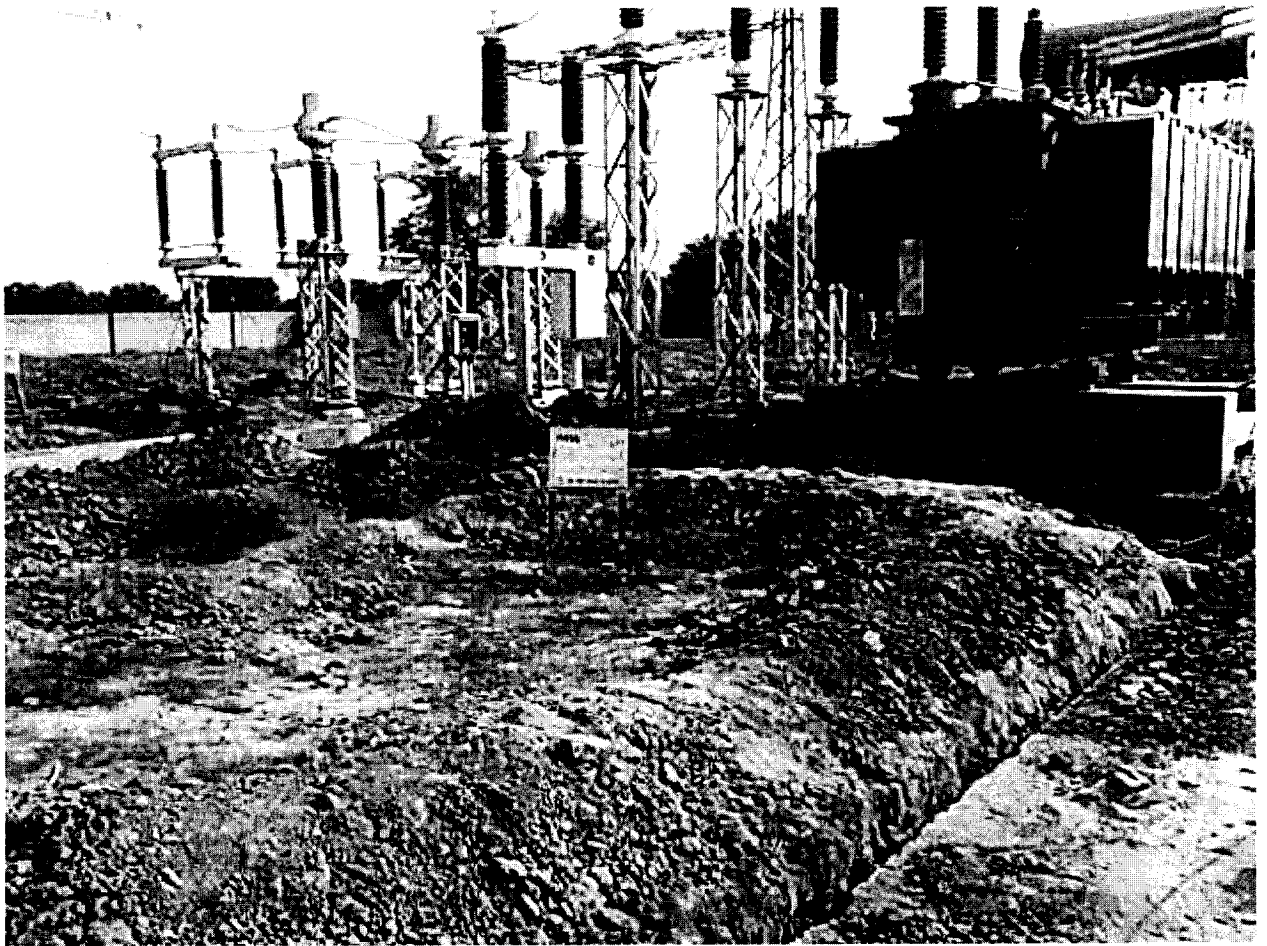


Figure 4: Work progress at Fort Abbas Grid Station



Figure 5: Work progress at Chunnawala Grid Station



Figure 6: Work progress at Chunnawala Grid Station

• **Implementation report on EIA/IEE mitigation requirements**

Reference	Requirement	Action to date	Action Required/ Comment
Compliance of Environment Monitoring & Management Plan during execution of Project Civil Work	Inclusion of EIA/ IEE Reports in Bidding documents	EIA/ IEE Reports have been included/ made part of the Bidding documents	DONE
	Inclusion of EMMP in Bidding documents	EMMP draft Documents have been included/ made part of the Bidding documents	DONE
Budget for EMMP Implementation	Allocation of budget by Contractor	Contractor(s) is bound to perform Environmental Management against the quoted amount in BOQ for Environmental Management Plan Implementation	DONE
Hydrology And Drainage Aspects	1. Consideration of weather conditions when particular construction activities are undertaken.	All relevant documents provided to contractors	Improvement in coordination is required
	2. Limitations on excavation depths in use of recharge areas for material exploitation or spoil disposal.		
	3. Use of landscaping as an integrated component of construction activity as an erosion control measure.		

Reference	Requirement	Action to date	Action Required/ Comment
	4. Minimizing the removal of vegetative cover as much as possible and providing for it s restoration where construction sites have been cleared of such areas.		
Orientation for Contractor, and Workers	1. MEPCO ESC environmental specialist to monitor and progress all environmental statutory and recommended obligations.	Orientations have been carried out for contractor(s), workers and GSC officers/officials	Improvement in coordination is required
	2 Conduct special briefing for managers and / or on-site training for the contractors and workers on the environmental requirement of the project. Record attendance and achievement test for contractors site agents.		
	3. Agreement on critical areas to be considered and necessary mitigation measures, among all parties who are involved in project activities.		
	4. Continuous progress review and refresher sessions to be followed.		
Water quality	Compile temporary drainage management plan one month before commencement of works.	Necessary actions are being carried out and water quality test have been	Contractor(s) and GSC should take ownership of the environment & social

Reference	Requirement	Action to date	Action Required/ Comment
	1. Proper installation of temporary drainage and erosion control before works within 50m of water bodies.	performed. Contractor(s) are directed to conduct water test to assess the water quality during the subproject activities	implementation aspects
	2. Proper maintenance and management construction of TD and EC measures, including training of operators and other workers to avoid pollution of water bodies by the considerate operation of construction machinery and equipment.		
	3. Storage of lubricants, fuels and other hydrocarbons in self-contained dedicated enclosures >50m away from water bodies.		
	4. Proper disposal of solid waste from construction activities.		
	5. Cover the construction material and spoil stockpiles with a suitable material to reduce material loss and sedimentation and avoid stockpiling near to water bodies.		
	6. Topsoil stripped material shall not be stored where natural drainage will be disrupted.		
	7. Borrow sites (if required) should not be close to sources of drinking water.		

Reference	Requirement	Action to date	Action Required/ Comment
Air quality	CONTROL ALL DUSTY MATERIALS AT SOURCE.	Contractor(s) have been informed to hire EPA Approved LABs to carry out air quality tests, so far no test report has been provided by M/S PEL. Whereas M/S CCCE-ETRN at Chunnawala sites has provided Water and Air Quality reports (twice) prepared by GEL Lahore.	Ownership of Environmental managements is required from contractor(s) and GSC
	1. All heavy equipment and machinery shall be fitted in full compliance with the national and local regulations. (Relevant regulations are in the Motor vehicles fitness rules and Highway Act).		
	2. Stockpiled soil and sand shall be slightly wetted before loading, particularly in windy conditions.		
	3. Fuel-efficient and well-maintained haulage trucks shall be employed to minimize exhaust emissions.		
	4. Vehicles transporting soil, sand and other construction materials shall be covered. Limitations to speeds of such vehicles necessary. Transport through densely populated area should be avoided.	Measures related to avoid deteriorations of air quality are being carried out by sprinkling of water, fuel efficient vehicles etc.	

Reference	Requirement	Action to date	Action Required/ Comment
Ground Vibration	5. To plan to minimize the dust within the vicinity of orchards and fruit farms.		
	6. Spraying of bare areas with water.		
	7. Concrete plants. to be controlled in line with statutory requirements should not be close to sensitive receptors.		
	1. Review requirements for piling and use of powered mechanical equipment within 100m of SRs.	New grid stations are located away from local communities. Access roads are available for transport and all operations are being carried out in day light hours.	Contractor(s) should ask ESC before establishment of Camps
	2. Review conditions of buildings and conduct public consultation with SRs to establish less sensitive time for works involving piling and schedule works accordingly.		
	3. Non-percussive piling methods to be used wherever practicable.		
	4. Percussive piling shall be conducted in daylight hours. 5. Hammer- type percussive pile driving operations shall not be allowed at night time.		
Noise	1. Review requirements for use of powered mechanical equipment within 100m of SRs.	Necessary actions are being carried out and ESC have arranged noise	

Reference	Requirement	Action to date	Action Required/ Comment
	2. Conduct public consultation with SRs to establish less sensitive time for works and schedule works accordingly.	measurement equipment for monitoring	
	3. All heavy equipment and machinery shall be fitted in full compliance with the national and local regulations and with effective silencing apparatus to minimize noise.		
	4. Heavy equipment shall be operated only in daylight hours.		
	5. Construction equipment, which generates excessive noise, shall be enclosed or fitted with effective silencing apparatus to minimize noise.		
	7. Well-maintained haulage trucks will be used with speed controls.		
	8. Contractor shall take adequate measures to minimize noise nuisance in the vicinity of construction sites by way of adopting available acoustic methods.		
	SCHEDULE WORKS IN SENSITIVE AREAS (e.g. NEAR RIVERS) FOR DRY SEASON	Being carried out in coordination with GSC & ESC PMU	Improvement in coordination is required
Soil Erosion / Surface Run-off			

Reference	Requirement	Action to date	Action Required/ Comment
	1. In the short-term, temporary drainage and erosion control plan to be presented with tender. Temporary drainage and erosion control plan one month before commencement of works to protect all areas susceptible to erosion. (Permanent drainage works shall be in the final design).		
	2. Installation of TD and EC before works construction within 50m of water bodies.		
	3. Clearing of green surface cover to be minimized during site preparation.		
	5. Meaningful water quality monitoring up and downstream at any tower site during construction within a river or stream bed. Rapid reporting and feedback to CSC.		
	5. Back-fill should be compacted properly in accordance with MEPCO design standards and graded to original contours where possible.		
	6. Cut areas should be treated against flow acceleration while filled areas should be carefully designed to avoid improper drainage.		
	7. Stockpiles should not be formed within such distances behind excavated or natural slopes that		

Reference	Requirement	Action to date	Action Required/ Comment
	would reduce the stability of the slopes or cause slippage.		
	8. Measures shall be taken to prevent ponds of surface water and scouring of slopes. Newly eroded channels shall be backfilled and restored to natural contours.		
	9. Contractor should arrange to monitor and adjust working and adopt suitable measures to minimize soil erosion during the construction period. Contractor's TD and EC plan should be endorsed and monitored but CSC after consulting with concerned authorities.		
	10. Replanting trees to be done before the site is vacated and handed back to MEPCO with appropriate trees (other vegetation cover as appropriate) to ensure interception of rainwater and the deceleration of surface run-off.		
Exploitation, Handling, Transportation and Storage of Construction	(consider also for future trances if civil works)	Sufficient space available at existing and new grid stations for storage of materials, which are away from local communities.	Contractor(s) are directed to demark such areas where construction material is stored. Partial compliance has been observed at
	1. Use only EPA licensed sites for raw materials in order to minimize adverse environmental impacts.		

Reference materials	Requirement	Action to date	Action Required/ Comment
Construction Waste Disposal	2. Measures to be taken in line with any EPA license conditions, recommendations and approval to be applied to the subproject activities using the licensed source including:		subprojects this needs to be improved.
	(i) Conditions that apply for selecting sites for material exploitation.		
	(ii) Conditions that apply to timing and use of roads for material transport.		
	(iii) Conditions that apply for maintenance of vehicles used in material transport or construction.		
	(iv) Conditions that apply for selection of sites for material storage.		
	(v) Conditions that apply for aggregate production.		
	(vi) Conditions that apply for handling hazardous or dangerous materials such as oil, lubricants and toxic chemicals.		
	1. Waste management plan to be submitted to the CSC and approved by MEPCO ESC one month prior to starting of works. WMP shall estimate the amounts and types of construction waste to be generated by the project.	Materials are being re-used where necessary and lubricants which are to be used in Power Transformers are already being recycle at Power Transformer Reclamation Workshop of	Improvement in coordination is required as contractor(s) should ask ESC for such waste disposal but no communication on the same. ESC while visiting

Reference	Requirement	Action to date	Action Required/ Comment
	2. Investigating whether the waste can be reused in the project or by other interested parties without any residual environmental impact.	MEPCO as and when required. For These subproject new materials shall be used.	sites have directed both contractor(s) for proper waste disposals at subproject sites. But partial compliance is observed.
	3. Identifying potential safe disposal sites close to the project, or those designated sites in the contract.		
	4. Investigating the environmental conditions of the disposal sites and recommendation of most suitable and safest sites.		
	5. Piling up of loose material should be done in segregated areas to arrest washing out of soil. Debris shall not be left where it may be carried by water to downstream flood plains, dams, lagoons or other water bodies.		
	6. Used oil and lubricants shall be recovered and reused or removed from the site in full compliance with the national and local regulations.		
	7. Oily wastes must not be burned. Disposal location to be agreed with local authorities/EPA.		
	8. Waste breaker insulating oil to be recycled, reconditioned, or reused at DISCO's facility.		
	9. Machinery should be properly maintained to minimize oil spill during		

Reference	Requirement	Action to date	Action Required/ Comment
	the construction.		
	10. Machinery should be maintained in a dedicated area over drip trays to avoid soil contamination from residual oil spill during maintenance.		
	11. Solid waste should be disposed at an approved solid waste facility and not by open burning which is illegal and contrary to good environmental practice.		
Work Camp Operation and Location	1. Identify location of work camps in consultation with local authorities. The location shall be subject to approval by the MEPCO. If possible, camps shall not be located near settlements or near drinking water supply intakes.	Work Camps are location with in the boundary of subprojects sites	Improvement in coordination is required while establishment of camps and contractor(s) mobilization.
	2. Cutting of trees shall not be permitted and removal of vegetation shall be minimized.		
	3. Water and sanitary facilities (at least pit latrines) shall be provided for employees. Worker camp and latrine sites to be backfilled and marked upon vacation of the sites.		

Reference	Requirement	Action to date	Action Required/ Comment
	4. Solid waste and sewage shall be managed according to the national and local regulations. As a rule, solid waste must not be dumped, buried or burned at or near the project site, but shall be disposed of to the nearest sanitary landfill or site having complied with the necessary permits of local authority permission.		
	5. The Contractor shall organize and maintain a waste separation, collection and transport system.		
	6. The Contractor shall document that all liquid and solid hazardous and non-hazardous waste are separated, collected and disposed of according to the given requirements and regulations.		
	7. At the conclusion of the project, all debris and waste shall be removed. All temporary structures, including office buildings, shelters and toilets shall be removed.		
	8. Exposed areas shall be planted with suitable vegetation.		
	9. MEPCO and Construction Supervising Consultant shall inspect and report that the camp has been vacated and restored to pre-project conditions.		

Reference	Requirement	Action to date	Action Required/ Comment
Loss of Trees and Vegetation Cover of the Areas for Towers and Temporary Work-space	1. Tree location and condition survey to be completed one month before tender.	All necessary arrangements have been made while designing the route of transmission lines.	<p>Contractor(s) are partially complying with the restoration of subproject transmission line sites. Tree plantation is directed by PMU indicating that trees should be planted instead of saplings.</p> <p>Compensation for land purchased for grid stations have been paid. Whereas, compensation for crops, trees and other damages during transmission line work is not prepared yet.</p>
	2. The route for the distribution line should be selected so as to prevent the loss or damage to any orchard trees or other trees. Use of higher towers to be preferred to avoid trees cutting.	Contractor(s) is directed for restoration of sites of towers and ROW.	
	3. Clearing of green surface vegetation cover for construction, borrow of soil for development, cutting trees and other important vegetation during construction should be minimized by careful alignment. Written technical Justification for tree felling included in tree survey.	Compensation for AHs are being prepared.	
	4. At completion all debris and waste shall be removed and not burned.		
	5. The contractor's staff and labour will be strictly directed not to damage any vegetation such as trees or bushes outside immediate work areas. Trees shall not be cut for fuel or works timber.		

Reference	Requirement	Action to date	Action Required/ Comment
	6. Land holders will be paid compensation for their standing trees in accordance with prevailing market rates (LARP). The land holders will be allowed to salvage the wood of the affected trees.		
	7. The contractor will plant three (3) suitable new trees outside the 30 meter corridor of the transmission line in lieu of one (1) tree removed.		
	8. Landscaping and road verges to be re-installed on completion.		
	9. Compensatory planting of trees/shrubs/ornamental plants (at a rate of 3:1) in line with best international practice.		
	10. After work completion all temporary structures, including office buildings, shelters and toilets shall be removed.		
Safety Precautions for the Workers	1. Providing induction safety training for all staff adequate warning signs in health and safety matters, and require the workers to use the provided safety equipment.	Contractor have been directed to ensure the use of PPEs for workers and all the staff.	Partial compliance is observed at sites. Strict compliance is required

Reference	Requirement	Action to date	Action Required/ Comment
Traffic Condition	2. Providing workers with skull guard or hard hat and hard toe shoes.		
	1. Submit temporary haul and access routes plan one month prior to start of works. 2. Routes in vicinity of schools and hospitals to be avoided.	Paved road are available for transportation.	Improvement in coordination is required
Social Impacts	1. Potential for spread of vector borne and communicable diseases from labour camps shall be avoided (worker awareness orientation and appropriate sanitation should be maintained).	Public Consultations and Orientations regarding STDs and other diseases are being done regularly	ESC is continuously arranging awareness sessions to avoid and mitigate social issues. Improved coordination is required while subproject activities with ESC by contractor(s).
	2. Complaints of the people on construction nuisance / damage close to ROW to be considered and responded to promptly.		
	3. Contractor should make alternative arrangements to avoid local community impacts.		
Institutional Strengthening and Capacity Building	Capacity building activities were taken by Environmental Officer in Tranche-I. Environmental Management Unit (EMU) was setup within MEPCO under Director Operations in Tranche 1. Development of strengthening plan for the EMU should be taken up with resources.	Continuous process and trainings plan have been implemented.	More trainings are needed to be imparted to all concerned

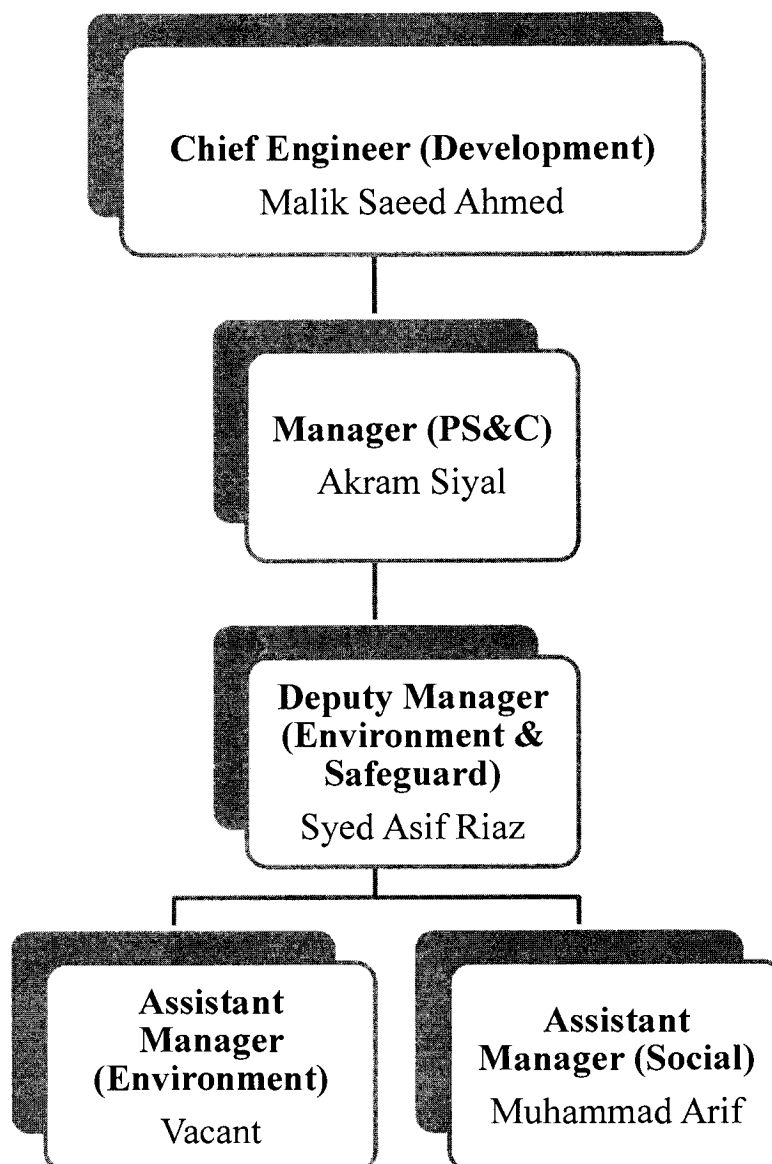
Annex-A

SR.NO.	NAME OF GRID STATION	SCOPE OF works	REMARKS / PROGRESS	GSC Division/ Contractor
1	132-KV Mubarak Pur with T/Line on turnkey basis (LOT-I, New)	2x26 MVA PTF Bays & 02-KM T/Line	Work Completed. Energized in June, 2016	(T&G)'C'
2	132-KV Chunawala G/S on turnkey basis (LOT-II (A), New)	1x26 MVA PTF Bay	Contracts signed on 31.03.2015 Contract Effective Date 10.08.2015 Completion Period 360 Days Completion Date 05.08.2016 Physical Progress A. Grid Station Civil work 100% Switch Yard foundations completed 80% Control House Building completed B. Transmission Line: (10% Completed) Foundations:- 87/100 Erection:- 58/100	GC
	132-KV SDT Hasil Pur – Chunawala T/Line on turnkey basis (LOT-II(B), New)	26-KM		
3	132-KV Chak 83/12-L (Conv)	2x26 MVA PTF/bays	Energized in 30-06- 2016	LOT-I GC / M/S PEL
	132-KV Dharanwala (Conv)	2x26 MVA PTF/bays	Work Completed on 21-10-2015	
4	132-KV Faqirwali (Conv)	2x26 MVA PTF/bays	Work Completed on 21-10-2015	LOT-II (T&G)'C' / M/S PEL
	132-KV Fort Abbas (Conv)	2x26 MVA PTF/bays	Work Completed on 21-10-2015	
	132-KV Shah Sadar (Conv)	2x26 MVA PTF/bays	Civil Work All Pile work of Switch Yard & Control House Building completed. Control House Building 96% completed	
5	132-KV SDT Khanewal – Kassowal Circuit to Chak 83/12-L	30KM	Energized in 30-06- 2016	GC / M/S ICC
	132-KV SDT Chishtian – Dharanwala	30KM	Physical Progress Foundation:- 92/92 Erection:- 85/92 Stringing:- 28/92	(T&G)'C' / M/S ICC



5A	132-KV SDT Haroon Abad - Faqir wali	25KM	<u>Physical Progress</u> Foundations: 86/87
	132-KV SDT Faqirwali - Fort Abbas	32KM	<u>Physical Progress</u> Foundations: 120/120
	132-KV SDT Shadan Lund - Shah Sadar Din	25KM	Revised Route Plan & profile has approved. Tower stacking of 141-No. towers completed. <u>Physical Progress</u> Foundations: 100/141

ADB'S FUNDING (TRANCHE - III) SAVINGS				
1	132-KV Yazman (Conv)	1x26 MVA PTF/bay	<ul style="list-style-type: none">BER of Yazman Line submitted to ADB on 11.05.2016.	
2	F/F Yazman Grid Station	Rail, D/C, 18KM		

Environment & Social Safeguard Section
PMU MEPCO



No Objection Certificate from Punjab EPD (Annex-C)

 ENVIRONMENT PROTECTION DEPARTMENT Government of the Punjab National Hockey Stadium, Ferozpur Road, Lahore		
		F. NO. DD(EIA)/EPA/F-01(EIA)/1906/2014/208 Dated: 15/07/2014
To	Mr. Shahbaz Ahmad Khan, Chief Engineer Development, Project Management Unit, M/s Multan Electric Supply Company, District Multan.	
Subject	DECISION OF EPA, PUNJAB FOR THE POWER DISTRIBUTION ENHANCEMENT INVESTMENT PROGRAM TRANCHE-III TO M/S MULTAN ELECTRIC SUPPLY COMPANY, DISTRICT MULTAN (Under Section 12 of PEPA, 1997 read with IEE/EIA Regulations, 2000)	
1. Description of Project:	(i) Augmentation of sub projects, Bahawalpur, Burewala old, & Lodhran Substations, (ii) Construction of new 132 KV Mubark Pur Grid Station along with 62-Km. Double Circuit Transmission Line Bahawalpur, (iii) Construction of new 132 KV Chunawala Grid Station along with associated single Circuit Transmission line from Haidpur to Chunawala, Bahawalpur, (iv) Conversion of 66 KV to 132 KV, Chak 83/12-L, Grid Station along with associated 132 KV SDI Transmission Line, Sahiwal, (v) Conversion of 66 KV to 132 KV Dalranwala Grid Station along with associated SDI Transmission Line from Chistian to Dalranwala, Bahawalpur, (vi) Conversion of 66 KV Faqirwali Grid Station to 132 KV along with associated Transmission Line from Haroonabad to Faqirwali, Bahawalpur, (vii) Conversion of 66 KV Faqirwali Grid Station to 132 KV Fort Abbas Grid Station and Faqirwali to Fortabbas 132 KV STD Transmission Line, Bahawalpur, (viii) Conversion of 66 KV Shah Sader Din Grid Station to 132 KV and 132 KV SDI Transmission Line from Shahdai Lund to Shah Sade, DG Khan	
2. Location of Project	The project site is located within MEPCO Territory Bahawalpur, Vehari, DG Khan, Lodhran, Bahawalnagar & Sahiwal	
3. Date of receiving	15.03.2014	
4.	After review of Environmental Impact Assessment (EIA) Report and other relevant record, the Environmental Protection Agency, Punjab accords approval for the above mentioned project at the aforementioned sites, to safeguard the Environmental aspect subject to the following conditions:	
	i. The proponent shall ensure compliance of National Environmental Quality Standards (NEQS). ii. Mitigation measures suggested in the EIA Report and Environmental Management and Monitoring Plan (EMMP) shall be strictly adhered to minimize any negative impacts on soil, ground water, air and biological resources of the project area. The proponent will deploy staff to monitor compliance of EMMP. iii. Monitoring shall be carried out during the entire period of the project execution. Monitoring reports shall be submitted to EPA, Punjab on monthly basis. iv. The proponent shall be responsible for adopting appropriate mitigation measures to safeguard environment. v. Camping sites shall be located at least 25 meters from any settlement or public distribution system.	

ENVIRONMENT PROTECTION DEPARTMENT

Government of Punjab
National Highway and Motor Vehicle Road Division

Ref: NO. DD (HAWRA) / 101 / 2014
Dated: 25/07/2014

Mr. Shahbaz Ahmed Khan,
Chief Engineer Development,
Project Management Unit,
M/s Multan Electric Supply Company,
District Multan.

DECISION OF EPA, PUNJAB FOR THE POWER DISTRIBUTION ENHANCEMENT INVESTMENT PROGRAM TRANCHE III TO M/S MULTAN ELECTRIC SUPPLY COMPANY, DISTRICT MULTAN

(Under Section 12 of PEPA, 1997 read with EIA Regulations, 2000)

Description of Project:



i) Augmentation of sub projects, Bahawalpur, Bahawal old & Lodhran Substations, ii) Construction of new 132 KV Mehrak Pur Grid Station along with 02-Km, Double Circuit Transmission Line Bahawalpur, iii) Construction of new 132 KV Chunawala Grid Station along with associated single Circuit Transmission line from Hasilpur to Chunawala, Bahawalpur, iv) Conversion of 66 KV to 132 KV, Chak 83/12-L, Grid Station along with associated 132 KV SDT Transmission Line, Sahiwal, v) Conversion of 66 KV to 132 KV Dahanwala Grid Station along with associated SDT Transmission Line from Chistian to Dahanwala, Bahawalpur, vi) Conversion of 66 KV Fajirwalli Grid Station to 132 KV along with associated Transmission Line from Haroonabad to Fajirwalli, Bahawalpur, vii) Conversion of 66 KV Fajirwalli Grid Station to 132 KV Fort Abbas Grid Station and Fajirwalli to Fort Abbas 132 KV SDT Transmission Line, Bahawalpur, viii) Conversion of 66 KV Shah Sader Din Grid Station to 132 KV and 132 KV SDT Transmission Line from Shahdun Land to Shah Sada, DG Khan.

Location of Project:

The project site is located within MEPCO Territory Bahawalpur, Vehari, DG Khan, Lodhran, Bahawalnagar & Sahiwal.

Date of receiving

15.05.2014

After review of Environmental Impact Assessment (EIA) Report and other relevant record, the Environmental Protection Agency, Punjab accords approval for the above mentioned project at the aforementioned site, to safeguard the Environmental issues subject to the following conditions:

- The proponent shall ensure compliance of National Environmental Quality Standards (NEQS).
- Mitigation measures suggested in the EIA Report and Environmental Management and Monitoring Plan (EMMP) shall be strictly adhered to minimize any negative impacts on soil, ground water, air and biological resources of the project area. The proponent will deposit cash to monitor compliance of EMMP.
- Monitoring shall be carried out during the entire period of the project activities. Monitoring reports shall be submitted to EPA, Punjab on monthly basis.
- The proponent shall be responsible for adopting appropriate mitigation measures for controlling anticipated environmental hazards.
- Camping sites shall be located at suitable distance from any settlement to avoid disturbance to the local people. Sewage generated from camping sites shall be treated in septic tanks and the local people. Sewage generated from camping sites shall be treated in septic tanks and the local people. Sewage generated from camping sites shall be treated in septic tanks and the local people.
- At least 90% unskilled and to the extent possible skilled jobs shall be given to the local people providing them proper training.
- Compensation shall be provided to inhabitants in case of loss of agricultural land, house, property, etc. in accordance with the rules that are agreed upon. All compensation including compensation, etc. should be settled satisfactorily before or during the project activities.
- The proponent shall not discharge treated/untreated wastewater in the local water body.
- Waste management shall be done in a proper manner and will be disposed off in a proper manner.