Environment Monitoring Report

Bi-annual Environment Monitoring Report August 2016

PAK: MFF – Power Transmission Enhancement Investment Program (Tranche 2)

Prepared by Hyderabad Electric Supply Company, Sindh 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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L2727 PDEIP: BAEMRs (Jan-Jun 2016) of GEPCO, HESCO, IESCO, LESCO and MEPCO approved

for disclosure Safia Shafiq

to:

Liaqat Ali

12/08/2016 01:50 PM

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5 Attachments





L2727 MEPCO BAEMR (Jan-Jun 2016).docx L2727 LESCO BAEMR (Jan-Jun 2016).docx





L2727 IESCO BAEMR (Jan - Jun 2016).pdf L2727 HESCO BAEMR (Jan-Jun 2016).pdf



L2727 GEPCO BAEMR (Jan-Jun 2016).pdf

Dear Liaquat Sb.,

The attached BAEMRs (Jan-Jun 2016) of GEPCO, HESCO, IESCO, LESCO and MEPCO under L2727 PDEIP are approved for disclosure. Kindly have them posted on ADB website and share the weblink with me.

Thanks and regards,

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Bi – Annual Environmental Monitoring Report

Project Number:

2727 – PK, Tranche – II

[January - June, 2016]

Islamic Republic of Pakistan

Power Distribution Enhancement Investment Project (PDEIP) – Tranche – II Multi – Tranche Financing Facility (MFF)

Financed by the ASIAN DEVELOPMENT BANK

Prepared By:

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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.

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ABBREVIATIONS

ADB Asian Development Bank

BPI British Power International

E&SS Environmental and Social Safeguard

EA Executing Agency

EIA Environmental Impact Assessment

EPA Environmental Protection Agency

EPD Environmental Protection Department

GMD General Management Development

GOP Government of Pakistan

GS Grid Substation

IA Implementing Agency

IEE Initial Environmental Examination

HESCO Hyderabad Electric Supply Company

kV Kilo – Volt

MOW&P Ministry of Water and Power

MFF Multi – Tranche Financing Facility

NOC No Objection Certificate

PDEIP Power Distribution Enhancement Investment Program / Project

PEPA Pakistan Environmental Protection Act

PEPCO Pakistan Electric Power Company

PMU Project Management Unit

TL Transmission Line

Part I INTRODUCTION

1.1 HESCO

1. Area Electricity Board (AEB) Hyderabad was one of the eight AEB's constituted through amendments in WAPDA Act during 1981. Later on Government of Pakistan approved revamping of WAPDA power sector in April 1998, resultantly twelve corporate entities were formed, Eight Distribution Companies (DISCOs), one National Transmission and Distribution Company (NTDC) and three Generation Companies (GENCOs). Now one more GENCO has been established. All these companies have been incorporated under Companies Ordinance 1984. Hyderabad Electric Supply Company (HESCO) was formed to take over/acquire all the properties, assets and liabilities of Hyderabad Area Electricity Board owned by Pakistan Water and Power Development Authority (WAPDA). The company was incorporated on 23rd April 1998 and certificate for commencement of business was obtained on 1st July 1998 from NEPRA under section 146(2) of Companies Ordinance 1984. HESCO jurisdiction map is placed as below.



Figure 1: HESCO Jurisdiction Map.

1.2 Directorate of CE(Development) / Project Management Unit (PMU)

- 2. To carry out and handle investment projects, HESCO has established Project Management Unit (PMU) under the supervision of Chief Engineer (Development). The PMU comprises of 4 sections.
 - i. Planning Scheduling & Coordination: To take the responsibilities for (i) identifying and proposing the subprojects to PEPCO / Donor Agency for approval and financing, (ii) Scheduling and Monitoring (iii) preparing the necessary documentation in line with the statutory, corporate and Donor policies including quarterly reports (iv) coordinate with the consultants.
 - ii. **Procurement:** To take care of all responsibilities and tasks related to procurement (goods, works and services) and for the activities related to material planning, preparation of bidding documents according to the requirement of the Donors, getting the evaluation done and for placing the orders after approval of the Donors, inspection and then transportation to the site. Arrange release of material thru CRR Karachi and final delivery to the site.
 - iii. **Project Finance:** They are responsible for taking care of counterpart financing, funds flow arrangements, payments, recording and monitoring of both ADB & WB funds. Also, will establish, monitor and manage the impress account and statement of expenditure (SOE) procedures. Furthermore ensure timely preparation of the annual audited project accounts.
 - iv. **Environment & Social Safeguard:** To take care of all the responsibilities and tasks related to environment, land, and social (including involuntary resettlement and indigenous people) and provide oversight on occupational health, safety and environment safeguards in the working environment.
- 3. The organizational structure of PMU HESCO is given below in Figure-2

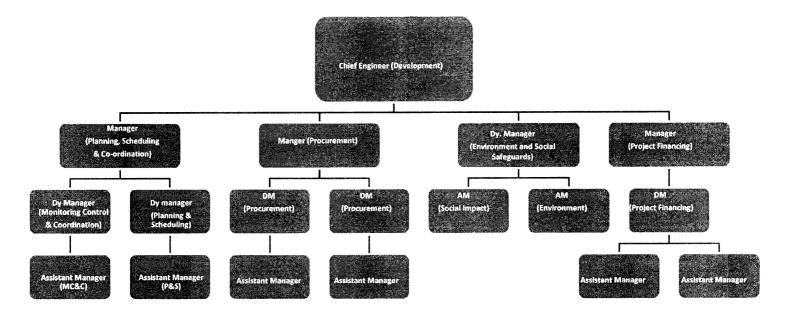


Figure 2: Organizational Structure of PMU – HESCO.

1.3 Environmental & Social Safeguard Section-Project Management Unit

- 4. The Environmental & Social Safeguard (E&SS) Section of PMU, HESCO provides an overall supervision and advisory services during the Pre Construction phase, Construction phase & Post Construction phase of the project. The E&SS also assists and advises GSC Directorate, Construction Directorate and other HESCO departments on overall environmental and social matters. Presently, the E&SS Section has one Environmental and one Social Impact expert under the supervision of a Deputy Manager Environmental and Social Safeguard (E&SS).
- 5. The organizational structure of E&SS PMU HESCO is attached as below.

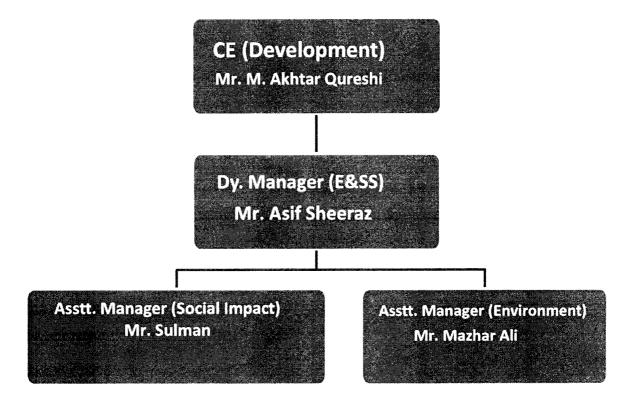


Figure 3: Management Structure of E&SS - PMU - HESCO.

1.4 Power Distribution Enhancement Investment Program (PDEIP) – Tranche – II

6. Government of the Islamic Republic of Pakistan (GoP) through Ministry of Water and Power (MOW&P) with assistance of Asian Development Bank (ADB) is implementing the Power Distribution Enhancement Investment Program (PDEIP) under Multi Tranche Financing Facility (MFF). This Program is part of the GoP long term energy security strategy. Pakistan Electric Power Company (PEPCO) has been nominated by Ministry of Water and Power (MOW&P) to act as the Executing Agency (EA) while Hyderabad Electric Supply Company (HESCO) is the Implementing Agency (IA) for execution work in its service area. Program basic information is provided in **Table 1**.

Table 1: Program Basic Information.

The Program	Power Distribution Enhancement Investment Program (PDEIP). Multi – Tranche Financing Facility (MFF).
Subproject	Tranche – II subproject.
Sponsoring Agency	Government of Pakistan. Ministry of Water & Power (MoW&P).
Executing Agency	Pakistan Electric Power Company (PEPCO).
Implement Agency	Hyderabad Electric Supply Company (HESCO).
Type of Financing	Loan amount US \$ 35.35 Million. Loan No. 2727 – PK ; Tranche – II Subproject.
Loan Signing Date	January 28, 2011.
Loan Effectiveness Date	October 05, 2011.
Closing Date	September 30, 2016.

Last ADB Review Mission	May, 2016
Focal Person	Chief Engineer (Development), Project Management Unit, Hyderabad Electric Supply Company (HESCO).
Focal Person for Environment & Social Safeguards	Deputy Manager (E&SS), Management Unit, Hyderabad Electric Supply Company (HESCO).

7. The Power Distribution Enhancement Investment Program (PDEIP) – Tranche-II is designed to provide grid-connected customers with adequate and reliable supply of electricity. The rehabilitation, augmentation, and expansion of power distribution infrastructure will increase the reliability of supply to residential, agricultural, commercial, and industrial customers across Pakistan. A reliable electricity supply will lead to social and economic benefits and improved conditions for schools, hospitals, and social services, among others.

The main components of the program are given as under:

- Conversion / Up-gradation of Grid Stations
- New Transmission Lines
- Second Circuit Stringing of Transmission Lines
- New Grid Station

1.5 Objective of the Program (PDEIP)

8. The main objectives of this Investment Program are; (i) improve power distribution infrastructure through system rehabilitation, augmentation and expansion; and relieve the power system from distribution bottlenecks and constraints; (ii) enable

continued operation and maintenance in accordance with best international practices; and (iii) the system will be capable of meeting peak demand, with electricity outages significantly reduced.

1.6 Scope of the Work

9. HESCO Tranche – II subproject includes 03 No. Conversion of Grid Stations (from 66 kilo Voltage Level to 132 kilo Voltage Level) along with associated transmission lines, 01 No. Construction of New Transmission Line, 01 No. Construction of new Grid station. The detail scope of work of Tranche - II subproject is reproduced below in **Table - 2**.

Table 2: Detail Scope of Work

No.	Project Component		Amount (Us \$ Mill)	
	Conversion of Grid stations & transmission lines	03 Nos.	7.879	
01.	i. Sukkur City ii. Larkana Old iii. Talhar			
00	New Grid Station	01 No.	2.045	
02.	i. Jacobabad II	•	2.017	
	Second Circuit Straining			
03	i. Shikarpur-Larkana		0.861	
	ii. Sanghar-Kandiari-Mirpurkhas			
04.	New transmission Line		9.43	
	i. Dadu-Mehar-Larkana			
	Total		20.187	

1.7 Present Status of the Project

10. The civil works of Tranche – II Subprojects have been awarded; the detail of work awarded is as below:

Sr. No.	Description of Work	Length of T/L (KM)	Completion Date
1.	Construction of New 132 kV Grid station Jacobabad-II.	0.5	September, 2014
2.	Conversion of 66 kV Larkana Grid Station into 132 kV Grid Station	1.97	September, 2014
3.	Conversion of 66 kV Sukkur City Grid Station into 132 kV Grid Station and allied 132 kV	7	June, 2014
4.	Conversion of 66 kV Talhar Grid Station into 132 kV Grid Station and allied 132 kV Transmission Line	0.9	July, 2014
5.	Second Circuit Stringing of Sanghar-Kandiari-Mirpurkhas 132 kV Transmission Line	64.38	April, 2016
6.	Second Circuit Stringing of Shikarpur-Larkana 132 kV Transmission Line	65.10	April, 2016
7.	Construction of Larkana-Mehar- Dadu 132 kV SDT Transmission Line (New)	127.72	December, 2016 (Expected)

- 11. Meetings with Environment Staff of contractors are arranged by E&SS section on regular basis for their capacity building and improvement in EMP compliance.
 - 12. Following monitoring checklist, proforma and documents handed over to the contractors; EMP check lists are filled during the construction activities and submitted to E&SS Section PMU HESCO,
 - Documentation Requirement as per Contract,
 - Training Plan to be executed by contractor for awareness of its staff,
 - Grievance Redressal Mechanism,
 - Format of On Site Complaint Register,
 - Environment & Social Monitoring Checklists for;
 - a) Contractor Mobilization and Demobilization,
 - b) Contractor's Construction Camp Establishment and Operation,
 - c) Transportation of Equipments and Construction Materials,
 - d) Construction of Grid Station,
 - e) Construction of Transmission Line,
 - f) Social Monitoring and;
 - g) Monitoring Performa.
 - 13. The contractors are carrying-out implementation of environmental aspects as an integral part of the project which comprises of;
 - Monitoring by Environmental staff of contractor appointed on each active site (s) (Analysis of environmental parameters, checklist filling) and reporting to PMU HESCO.
 - Supervision / Monitoring by Supervision Consultants.
 - Random field visit by PMU (E&SS staff) and reporting.

14. The detailed of meetings held apropos Environment & Social aspects with following representatives of M/s LSN & SEAN (Contractor):

Name of Contractor.	Name of Person.	Designation.
M/s LSN & SEAN.	Mr. Fayaz Ahmed	Project Manager

14. The detailed meetings and training apropos Environment & Social aspects with following Environmental staff of contractor (M/s LSN & SEAN) held on-site and in the PMU HESCO:

Name o	of Contractor	Name of Person.	Designation.
M/s	LSN & SEAN.	Mr. Jateesh Kumar	ESM Dadu-Mehar T/L

1.8 Monitoring Indicator of Part - I

Desc	cription of Indicator.	Remarks.
1.	Construction activities and Project Progress during previous 6 months.	Presently the project is in execution phase. The civil works of Tranche – II Subprojects are in progress. The detail of progress is attached at Annex – IV.
2.	Project organization and Environmental Management Team.	One Deputy Manager (Environment & Social Safeguard), One Assistant Manager (Environment) and One Assistant Manager (Social Impact) are working since March, 2013 in PMU HESCO.
3.	Relationships with Contractors	Frequent meeting and telephonic discussions were conducted with Environmental staff of M/s LSN & SEAN, Karachi., regarding Environmental & Social Aspects. Project inception meetings have been conducted with contractors of 132 kV (New)Dadu-Mehar-Larkana Transmission Line i.e. M/s LSN & SEAN regarding their awareness to implement IEE and LARP during the project activities.

Part II ENVIRONMENTAL MONITORING

2.1 Monitoring

15. Environmental Monitoring of the projects is being carried out by the contractors under the supervision of Environmental and Social Safeguard (E&SS) section PMU, HESCO during the execution phase. Field visits are carried out by E&SS Section, PMU HESCO for the smooth and effective implementation of EMMP & Monitoring plan as prescribed in approved Environmental Assessment Report.

2.2 Monitoring Indicator of Part - II

Description of Indicator.	Remarks.
The monitoring of site on different timelines	Monitoring Checklist Annex – V.
Site Restoration of Completed Sub-Projects	The completed sub-project sites have been visited to monitor site restoration. It was observed that all the completed sites have been restored. It was also ensured that the locations under the transmission lines are used for agriculture purposes similar to pre- project conditions.

PartIII ENVIRONMENTAL MANAGEMENT

3.1 Compliance Status with Statuary Requirements

16. The loan agreement of the project requires the Implementing Agency (IA) to implement the project in compliance with statuary / regulatory requirements of the country and requirements of ADB Guidelines (May 2003). The detail of environmental & social compliance regarding statuary / regulatory requirements in accordance to ADB & National Law is tabulated below.

No.	Regulatory Requirements.	Status of Compliance.
01.	Preparation of Environmental Assessment Reports.	EIA Prepared.
02.	Clearance from ADB	Clearance given by ADB
03.	Clearance / Obtaining of No Objection Certificate (NOC) from the Provincial Environmental Protection Agency (EPA).	■ The Public Hearing for all the sub- projects under ADB Tranche-II was held on 03-04-2013 in the committee room of HESCO, Hyderabad.
		Approved in the light of Section 12, sub-
		section 4 of Pakistan Environmental
		Protection ACT (PEPA), 1997. Annex – IV.

3.2 Environment & Social Documents

- 17. HESCO PDEIP Tranche II Projects has been classified as *Category B Project* in accordance to ADB Environment Policy (2002) and ADB Environmental Assessment Guidelines (2003). The project falls under Schedule II of Pakistan Environmental Protection Act (PEPA), 1997, which requires Environmental Impact Assessment (EIA) to be carried out for the project.
- 18. Initial Environmental Examination (IEE) Reports were prepared by PEPCO through M/s British Power International (BPI), Lahore.
- 19. After the approval of ADB the IEE reports were received from BPI through PEPCO in November 2010. These reports are available on HESCO website.
- 20. Under the Pakistan Environmental Protection Act 1997, the project components required preparation of Environmental Impact Assessment (EIA) report instead of IEE. Hence to comply the regulations and on advice of EPA comprehensive EIA report was prepared by E&SS PMU HESCO.
- 21. Being the projects in Sindh province, the EIA report was submitted to Sindh EPA on December 29, 2010 for issuance of NOC after the approval of CEO, HESCO.
- 22. The Public Hearing for Tranche-2 Sub-Projects was held on 03-04-2013 in the committee room of HESCO, Hyderabad.
- 23. EIA Report is considered as approved in the light of Section 12, sub-section 4 of Pakistan Environmental Protection ACT (PEPA), 1997. Annex IV

3.3 Awareness & Trainings.

- 24. To develop the in-house capacity, HESCO arranged a numbers of training for different cadres / staff of GSC Directorate, who are responsible for supervision of development projects.
- 25. Orientation / pre construction meeting were arranged by E&SS section for the contractors and they have been made aware of their responsibilities as per the EMP.

26. Environmental Management Plan (EMP) of Tranche – II subproject has been translated into Urdu and both English & Urdu version are placed on sub-project sites and uploaded on HESCO website (www.hesco.gov.pk).

3.4 EMMP as a part of Bidding Documents.

27. Environmental Management & Mitigation Plan (EMMP) & Monitoring Plan of the approved EIA Reports have been made part of all the bidding documents of civil works of Tranche – II sub projects.

3.4 Clauses in the Bidding Documents.

- 28. The Clauses included in the bidding documents are;
- 1. The Initial Environmental Examination (IEE) and Land Acquisition & Resettlement Plan LARP (s) is the part of the Contract Agreement and the contractors will be responsible for the implementation of the same.
- 2. Contractor (s) should also ensure the implementation of Environmental Management Plan (EMP), Land Acquisition & Resettlement Framework (LARF); Land Acquisition & Resettlement Plan (LARPs) prepared for HESCO's Power Distribution Enhancement Investment Project under Asian Development Bank (ADB) financing.
- 3. Contractors will strictly follow & ensure the implementation of the works in-accordance with IEE, Land Acquisition & Resettlement Framework (LARF)/ Land Acquisition & Resettlement Plan LARP (s). The WAPDA's Safety Code will also be strictly followed by the Contractors.
- 4. Field data collection and their analysis (such as Laboratory [Physical, Chemical, Biological Analysis of Groundwater / Soil /, Surface water / Oil etc.]), will be responsibility of the contractor (s) and proper record should also be maintained & same will be provided to the client (HESCO) accordingly; for these analysis no extra payment will be paid by the client (HESCO) to the contractor (s).
- 5. Arranging the Environmental & Social Trainings will also be the responsibility of contractors for which no extra payment will be paid to the contractors. The documentary and photographic record of such trainings should be maintained & provided to the client (HESCO) from time to time.
- 6. Implementation of Grievance Redressal Mechanism will be made by the contractors.

- 7. In-order to ensure the compliance with proposed mitigation and monitoring measures required under EMP, the contractors will close liaise and coordinate with HESCO Environmental and Social Safeguard Cell.
- 8. In case of non-compliance with IEE, EMP & LARF/LARP, the work will be stopped and contractors will be liable to pay penalty to be determined/finalized by the Competent Authority of HESCO. Moreover if the Project is being delayed as a result of stoppage due to non observance of EMP & LARF/LARP, the penalty for Liquidated Damages will also be recovered from the contractors along-with aforesaid penalty.
- 9. The contractors will ensure that all the formalities and compensation necessary for the fulfillment of Land Acquisition and Resettlement Framework (LARF)/ Land Acquisition and Resettlement Plan (LARP) has been fully met before the commencement of physical work at any site of construction.
- 10. Environmental and Social Monitors (ESM) (at least qualified Graduate Engineer with relevant experience) as per field requirement will be appointed by the contractors.
- 11. Soft Copy and Hard Copy of the periodic reports regarding compliance of EMP, Land Acquisition and Resettlement Framework (LARF) / Land Acquisition and Resettlement Plan (LARP) on monthly basis or as and when required by the client (HESCO) will be furnished by the contractors.
- 12. Contractors will ensure compliance with Labor Laws of borrower and pertinent Occupational Health and Safety Regulation.
- 13. All contractor (s) will,
 - a. Use their best efforts to employ women living in the vicinity of the Project area,
 - b. Disseminate information at worksites on the risks of sexually transmitted diseases and HIV/AIDS for those employed during construction and take measures to protect workers from potential exposure to sexually transmitted diseases,
 - c. Do not differentiate between men and women's wages or benefits for work of equal value,
 - d. Abstain from child labor and
 - e. Contractors are also bound to follow and implement the approval / NOC, issued by Sindh Environmental Protection Agency (SEPA), Karachi.

Note: Any other Environmental and Social Safeguard clause (s), related with Environmental & Social Safeguard / Aspects can be included / inserted by the client (HESCO) without any notice and / or information to the contactor, after the issuance of this Bidding Document and before finalization / signing of the Contract Agreement.

3.5 Monitoring Indicators of Part - III set by ADB.

Description of Indicator.	Remarks.
EMP and work plans. Report on delivery of documents, required amendments etc.	EMP prepared. No amendments are required.
Site Inspections and audits – Summarizes the number and type of site visits.	Site Inspections is being carried out during execution phase of the project.
Non-compliance notices – summarizes the details on the number of notices given out and the issues covered. Summaries the ranking of issues.	Nil.
Corrective action plans - report on timeliness of preparation and completion	Nil.
Consultation and complaints – report on any consultation undertaken and list any complaints received.	Consultation carried out during preparation of Environmental Assessment reports and on regular basis during field visits.
	 Complaint Registers have been placed all work site / camp site.
	No complaints received yet.

Annex – I.

MONITORING DATA

No.	Description	Status of Compliance
01.	Establishment of PMU in HESCO.	Yes.
02.	Induction of E&SS Section and Staff in PMU.	Yes.
03.	Preparation of Environmental Assessment Reports (EIA Reports).	Yes.
04.	Clearance & approval of IEE / EIA Reports from ADB.	Yes.
05.	Approval of IEE / EIA Reports from CEO, HESCO.	Yes.
06.	Uploading of EIA Reports on HESCO website.	Yes.
07.	Submission to Concerned EPA / EPD.	Yes.
08.	Public Hearing Session.	Public Hearing Session held on April, 03, 2013 at Committee Room HESCO, Hyderabad.
09.	Clearance/ obtaining No Objection Certificate (NOC) from the EPA.	Approved in the light of Section 12, sub-section 4 of Pakistan Environmental Protection ACT (PEPA), 1997.
10.	Training on Environment Issues.	Yes.
11.	Internal Monitoring & Field Visit.	On going.
12.	EMMP is made part of Bidding Documents	Yes.
13.	Provision made in BOQ of Bidding Documents for Environmental & Social Issues.	Yes.
14.	Status of implementation of EMMP & Monitoring Parameters.	On going.

Annex - II.

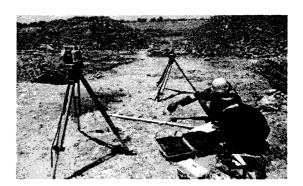
PHOTOGRAPHS



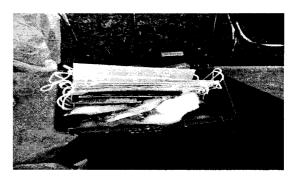
Public Consultation at 132 Kv Dadu-Mehar-Larkana site.



Usage of PPE'S during Construction Work at site.



132 kV Dadu-Mehar-Lakana T/L construction work.



First Aid Box available at 132 Kv Dadu-Mehar-Lakana T/L site.

SSS - PMU - HESCO

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Annex - III.

IMPLEMENTATION REPORT ON EIA / IEE MITIGATION REQUIREMENTS

Environmental Concern	Objectives	Mitigation Measures Recommended	Implementation Responsibility.	Remarks.
DESIGN / PRE - CO	NSTRUCTIN STAGE			
		Ensure proposed live diversions are agreed and included in contract.		■ Complied.
Review of EMP.	Ensure EMP sufficient to control impacts and compliance with	 Ensure final route to be built by contractor is as described in RRP with same land acquisition. 	Contractor	• Complied.
	statutory requirement of EPA.	 Review EIA and EMP & submit revised REA & environmental assessment in line with ADB Guidelines. Resubmit to Pak- EPA, If required. 		• Not Required.
	To ensure that the	To be completed prior to commencement of construction; Social preparation of the APs to be completed prior to commencement of construction.		■ Complied.
Social Impacts and	adverse impacts due to the property	 Acquisition of lands completed to minimize the uncertainty of people. 	UB240	Complied, Land acquired.
Resettlement.	acquisition and resettlement are mitigated according to the LARP.	 Completed implementation of LARP to provide compensation and assistance to the APs. 	HESCO	Being complied / ongoing as per the rule.
	to the Britt.	 All the payments/entitlements are paid according to the entitlement matrix, which was prepared according to the LARP. 		Being complied. Entitlement matrix is being revised as per the ground situation.
		 Ensure all changes to alignment are included in the revised EMP. 		■ N.A.
Environmentally Responsible Procurement.	Ensure environmentally responsible Procurement.	 Require in procurement specifications that transformers, transformer oil and other equipment are to be free from PCB and other petroleum fractions that may 	E&SS section.	■ Complied.

E&SS - PMU - HESCO

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Environmental Concern	Objectives	Mitigation Measures Recommended	lmplementation Responsibility.	Remarks.
		be injurious to environment or equipment.		
		 Contractual clauses included to tie the implementation of environmental mitigation measures. 		■ Complied.
Waste Disposal.	Ensure adequate disposal options for all waste including transformer oil,	Create waste management policy and plan to identify sufficient locations for, storage and reuse of transformers and Recycling of breaker oils and disposal of transformer oil, residually contaminated soils and scrap metal "cradle to grave".	E&SS section with the design	 Complied. Considered in the design / drawing of the grid station). HESCO has the policy of re-use of transformers and recycling of oils.
_	residually contaminated soils,	 Include in contracts for unit rates for re- measurement for disposal. 	consultant	Not Applicable.
	and scrap metal.	 After agreement with local authority, designate disposal sites in the contract and cost unit disposal rates accordingly. 		Not required.
Noise and Air Quality Mitigation in Design,	Plan and design to ensure noise impacts are acceptable in	Plan to prevent noise from GS in the operational phase and conduct consultation with affected	E&SS section	• Complied.

Environmental Concern	Objectives	Mitigation Measures Recommended	Implementation Responsibility.	Remarks.
	Operational phase.	To determine acceptability criteria for noise,		
		 Follow up with detailed acoustic assessment for all residential, school, temple (other sensitive structures) within 50m of GS. Base on measurement of existing equipment noise. 		Operation phase requirement
		 If noise at sensitive receiver exceeds specific criterion [e.g. Leq55db (A)] include design and installation of acoustic insulation measures to control noise at SRs. 		Noise level with in NEQS limit. Not required.
		 Consider solid barrier to attenuate noise at schools and hospitals to below accepted criterion. 		Not required.
		 Assess expected hydrologic flow in all areas where it is sensitive, such as for irrigated lands taking into account changes due to climate change. 		■ Complied.
Hydrological Impacts.	To minimize hydrological and drainage impacts during constructions,	Ensure surface flows are controlled and facilitated through early re-provision of irrigation with appropriate drainage structures in the road base including bridges and culverts.	Contractor	■ Complied.
Temporary Drainage and	1. Prevent runoff and control erosion. 2. Include	 Identify locations for Erosion Control and Temporary Drainage along all of the line and around GS. 	Contractor	■ Complied.
Erosion Control.	preliminary designs for Erosion Control in	Include designs for EC and TD in contract(s)		• Complied.

Objectives	Mitigation Measures Recommended	Implementation Responsibility.	Remarks.
HESCO contract.			
	 Agree detailed EC and TD plan with HESCO / E&SS section at least one month prior to construction. 		■ Complied.
To plan to minimize the effect of the work camps on the surrounding environment and residents in the area.	 Plan sites for worker camps and back up areas for stockpiling materials and Equipment in advance. Consult local comity and locate to use waste/barren land and nonagricultural plots. Agree use of land before construction commences reconfirmed by the Contractor and agreed HESCO / E&SS section at least one month prior to construction. 	Contractor.	 Complied. Worker Camps are established with-in the existing grid stations of HESCO.
Plan to minimize disturbance of traffic.	 Avoiding blocking existing roads and other access near the works route during construction. 	E&SS section.	Properly ensured.
Prepare E&SS section for implementation of EMP.	Develop strengthening plan for the environmental management by E&SS Section the Project rolls out. Train E&SS section officials to apply the EMP and to evaluate the environmental requirements and contractors' mitigation measures.	HESCO	 HESCO is committed to be environment and customer friendly. Necessary trainings are provided to E&SS section PMU.
Full and effective implementation of environmental mitigation measures.	Prepare contractors to co-operate with the executing agency, project management, supervising consultants and local population in the mitigation of impacts. Include the approved EIA and the EMP in the contract documentation. Contractor to engage capable and	E&SS section.	■ Ongoing. ■ Ongoing.
	To plan to minimize the effect of the work camps on the surrounding environment and residents in the area. Plan to minimize disturbance of traffic. Prepare E&SS section for implementation of EMP. Full and effective implementation of	HESCO contract. Agree detailed EC and TD plan with HESCO / E&SS section at least one month prior to construction. Plan sites for worker camps and back up areas for stockpiling materials and Equipment in advance. Consult local comity and locate to use waste/barren land and non-agricultural plots. Agree use of land before construction commences reconfirmed by the Contractor and agreed HESCO / E&SS section at least one month prior to construction. Plan to minimize disturbance of traffic. Prepare E&SS section for implementation of EMP. Prepare E&SS section for implementation of environmental Full and effective implementation of environmental Full and effective implementation of environmental - Contractor to engage capable and the EMP in the contract documentation.	HESCO contract. - Agree detailed EC and TD plan with HESCO / E&SS section at least one month prior to construction. - Plan sites for worker camps and back up areas for stockpiling materials and Equipment in advance. - Consult local comity and locate to use waste/barren land and nonagricultural plots. - Agree use of land before construction commences reconfirmed by the Contractor and agreed HESCO / E&SS section at least one month prior to construction. - Plan to minimize disturbance of traffic. - Avoiding blocking existing roads and other access near the works route during construction. - Develop strengthening plan for the environmental management by E&SS section the Project rolls out. - Train E&SS section officials to apply the EMP and to evaluate the environmental requirements and contractors' mitigation measures. - Prepare contractors to co-operate with the executing agency, project management, supervising consultants and local population in the mitigation of impacts. Include the approved EIA and the EMP in the contract documentation. - Contractor to engage capable and

Environmental Concern	Objectives	Mitigation Measures Recommended	lmplementation Responsibility.	Remarks.
		review mitigation measures as project proceeds.		
		 The effective implementation of the EMP audited as part of the loan. 		■ Ongoing.
		 HESCO to prepare resources to fulfill the requirements of the EMP and EPA 		■ Ensured
CONSTRUCTION ST	AGE			
	To ensure that the Contractor, subcontractors and	 Conducting special briefing and / or on- site training for the contractors and workers on the environmental requirement of the project. Record attendance and achievement. 		Complied and ongoing.
Orientation for Contractor, and Workers.	workers understand and have the capacity to ensure that the environmental requirements for mitigation measures are implemented.	 Conducting special briefing and training for Contractor on the environmental requirement of the project. Record attendance and achievement. 	E&SS section and Contractor and record details	■ Ongoing
		 Agreement on critical areas to be considered and necessary mitigation measures, among all parties who are involved in project activities. 		Being ensured.
		Periodic progress review sessions to be conducted every six months		■ Ongoing.
		Drainage Management Plan.		■ Included in drawings
		 Temporary Pedestrian and Traffic Management Plan. 		Adopted where required.
Plans to Control	Avoid impacts from unplanned activities	 Erosion Control and Temporary Drainage Plan. 		• Ongoing.
Environmental	by penalizing	Materials Management Plan.		■ Ongoing.
Environmental and Associated	contractors for not	Waste Management Plan.	Contractor	Ongoing.
lmpacts.	committing to	Noise and Dust Control Plan.		• Ongoing.
	properly planning	■ Safety Plan.		■ Ongoing.
	works.	 Agreed schedule of costs for environmental mitigation measures 		Agreed in BOQ of Bidding Document.

Environmental Concern	Objectives	Mitigation Measures Recommended	Implementation Responsibility.	Remarks.
	To prevent adverse water quality impacts	Proper construction of TD and EC measures , maintenance and management including training of operators and other workers to avoid pollution of water bodies by the considerate operation of construction machinery and equipment and reporting and feedback by E&SS section.		■ Ongoing.
Water Quality.	due to negligence and ensure unavoidable impacts are managed effectively.	 Storage of lubricants, fuels and other hydrocarbons in self- contained dedicated enclosures >50m away from water bodies. 	Contractor	• Properly ensured.
		 No stockpiles next to water bodies. Proper disposal of solid waste from construction activities & worker camps. 		 Ensured. Ensured. Solid waste is disposed through Municipal administration.
		 Borrow sites should not be close to sources of drinking water. 		■ Ensured.
	To minimize impacts on local water supply caused by construction activities are minimized.	Availability of water will be assessed to evaluate the impact on community resources.		 Being ensured. Till now there has been no issue regarding un-availability of water due to the project activities.
		 Project water will be obtained without depleting local village supplies 		Properly ensured.
		 Camps will be located at least 100m away from the nearest local settlement. 	Contractor	 Camps are located within the existing grid stations of HESCO having separate boundary walls and away from settlements.
Water Resources.		 The contractors will be required to maintain close liaison with local communities to ensure that any potential conflicts related to common resource utilization for project purposes are resolved quickly. 		 Ensured both by the contractor and HESCO engineers.
		 Guidelines will be established to minimize the wastage of water during construction operations and at campsites. 		■ Care is done to minimize water wastage.
Spoil disposal and	To minimize the	■ Implement Waste Management Plan.	Contractor.	■ Implementation ensured.
construction	environmental	Confirm conditions and safety of	30114140011	■ Ensured.

Environmental Concern	Objectives	Mitigation Measures Recommended	Implementation Responsibility.	Remarks.
waste disposal	impacts arising from generation of spoil waste, reuse where possible and provide adequate disposal	proposed disposal sites. Confirm amounts of surplus rock based materials that can be reused in the project or by other interested parties for public projects.		Ongoing.
	options for unsuitable soils.	 Used oil and lubricants shall be recovered and reused or removed from the site in full compliance with the national and local regulations. 		Being ensured and complied.
		Waste oil must not be burned. – Oil and solid waste disposal location to be agreed with HESCO and local authority.		 Waste oil is not burned, stored in drums and recycled.
		 Open burning is contrary to good environmental practice and will not be allowed. 		Open burning is prohibited.
Noise	To minimize noise level increases and	 Install, maintain and monitor all requisite mitigation as per contract all transformers and machinery shall be fitted with acoustic insulation. 	Contractor	Ongoing and insured.
Noise	ground vibrations during construction operations.	 Hammer-type pile driving operations shall be avoided during night-time. 	Contractor.	No night time activities allowed.
		 Well-maintained haulage trucks will be used with speed controls. 		Ongoing.
	To minimize	Control all dusty materials at source. Stockpiled soil and sand shall be slightly wetted before loading, particularly in windy conditions.		Properly ensured. Ensured wherever and whenever required.
Air quality	effectively and avoid complaints due to the	 Fuel-efficient and well-maintained haulage trucks shall be employed to minimize exhaust emissions. 	Contractor.	■ Care is taken.
q	airborne particulate matter released to the atmosphere.	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.	35	■ Complied.

Environmental Concern	Objectives	Mitigation Measures Recommended	Implementation Responsibility.	Remarks.
		Spray bare ground areas with water.		 Dust generating bare grounds are sprayed with water.
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		 Contractors to instruct and train workforce in the storage and handling of materials and chemicals that can potentially cause soil contamination. 		• Necessary trainings to the workforce is given.
Soil Contamination	Avoid soil contamination	 Accidentally spills on open ground including the top 2cm of any contaminated soil shall be disposed of as chemical waste to a disposal site acceptable to the local authority / Community. 	Contractor	■ To be ensured in case of accidental spills.
Work Camp	To ensure that the operation of work camps does not	Confirm location of work camps in consultation with HESCO and local Authorities. Location subject to approval by the HESCO. If possible, camps shall not be located near settlements or near Water and sanitary facilities shall be provided for workers and employees. 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	Contractor	 Properly ensured and complied as perrequirement. Water is ensured to be available to workers as well as sanitation facilities. Solid waste is collected in drums and giver to municipal administrations for disposal. Sewage is carried through the available system within the grid stations, otherwise
Location and Operation	adversely affect the surrounding environment and residents in the area.	at or near the project site, but shall be disposed of to the nearest site approved by the local authority. Portable lavatories or at least pit latrines will be installed and HESCO and open defecation shall be discouraged and	Contractor	soakage pits and septic tanks have bee provided. • Ensured as elaborated above.
		prevented by keeping lavatory facilities 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.		■ Being ensured.

Environmental Concern	Objectives	Mitigation Measures Recommended	Implementation Responsibility.	Remarks.
		 At the conclusion of the project, all debris and waste shall be removed. All temporary structures, including shelters and toilets shall be removed. 		■ Agreed and will be ensured.
		 Exposed areas shall be planted with suitable vegetation. 		 Agreed and will be ensured.
		■ The E&SS section shall inspect and report that the camp has been vacated and restored to pre-project conditions as far as is reasonably practicable.		Agreed and will be ensured.
		Establish all relevant safety measures as required by law and good engineering practices. Providing adequate warning signs.		Contractors are bound to ensure safety of workers as per bid clauses and HESCO's safety policy. Warning signs are provided.
Safety Precautions for Workers	To ensure physical safety of workers.	Providing every worker with skull guard or hard hat and safety shoes.	Contractor	Ensured and ongoing
	·	 The Contractor shall instruct his workers in health and safety matters, and require the workers to use the provided safety equipment. 		Being ensured on routine basis.
		Use local labour as far as possible for manual work.		 The contractors have their own labour, however, when opportunity arises, local labour will be utilized.
	To engage local workforce and	 Use local educated people for clerical and office work where possible. 		■ Same as above.
	community in the HESCO Project.	 Encourage monitoring of the project by local village groups. 		■ To be encouraged.
Social Impacts	To encourage local support for the project. To ensure minimum impacts to people	 Claims/complaints of the people on construction nuisance/damages close to ROW to be considered and responded to promptly by the Contractor and monitored by HESCO. 	Contractor	 Complaint registers have been placed at project sites and also liaison is maintained with locals.
	living close to the ROW.	Set up or maintain local communication lines via landline or satellite phone.		Properly maintained.



HYDERABAD ELECTRIC SUPPLY COMPANY

Bungalow No.A-1 HESCO Power Wing Colony Hussainabad Hyderabad

www.hesco.gov.pk email: cedevhesco@gmail.com Phone No.022-9260070, Fax No. 022-9260525

No.CEO/HESCO/PMU/E&SS/

12-18-19

Dated: **0**√/08/2013

The Director General,

Sindh Environmental Protection Agency (SEPA) Plot No. St-2/1, Sector 23 Korangi Industrial Area, Karachi Fax No. 021-3506 5940

Subject:

APPROVAL NOC OF ENVIRONMENTAL ASIAN DEVELOPMENT ASSESSMENT (EIA) OF TRANCHE-II SUB-PROJECTS.

letter reference office This with to your 2011/01/03/EIA/55/1260/30 dated 27-02-2013 & this office letter No.CEO/HESCO/PMU/E&SS/7282-83 dated 20-05-2013, it is informed that HESCO held Public Hearing for sub-projects under ADB Tranche-II at Committee Room, Power Wing Colony Hussainabad Hyderabad on **03**-04-2013. However, no objection has been raised / communicated by Sindh EPA so-far, even though 04 months have lapsed.

Considering the time frame, this office assumes that the cited projects stand approved in light of sub-section (4) of Section 12 of Pakistan Environmental Protection Act (PEPA), 1997.

> Genera⊬Manager (Dev) **Project Management Unit HESCO** Hyderabad

CC to:

1. Mr. Liagat Ali, Project Analyst, ADB-Fakistan Resident Mission, Islamabad

2. Master File.

ENVIRONMENTAL MONITORING CHECKLIST

POWER DISTRIBUTION ENHANCEMENT INVESTMENT PROGRAM (PDEIP)

OCCUPATIONAL HEALTH & SAFETY MONITORING CHECKLIST

Sub Pro Date of Expects	Hyderes delection: Spect Type & Location: Commencement: ad date of completion: Grant Contractor: Hyderes delection of Electric of Ele	Suppl 16 13	t Co	npong. ne Doda-Meter.
Sr#	Description.	Yes	No	Remarks
Α.	General Overview of Occupational Health, Safety& Environment	ent (OH:	SE)	
1	Is there any First Aid facility available in the contractor sproject site?	163		
2	Are there basic facilities (i.e. dispensary, transport facility, health Physicians, etc.) available 2	Yes		(13 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
3	Is training provided to your workers in the field of health, safety and environment?	Yes		
~4	Has your facility encountered accidents from the last one year and their nature?		No	
5	Are accidents investigated to prevent recurrence?			N/A
6	Is there any housing society or local community around the project site?		NO	
. 7	is there any HSEPolicy of contractor/sub-contractorand does it clearly state over all health, safety and environmental objectives?	Yes		
8	Are the employees and workers made aware of the HSE Policy?	Yes		
9	Is there any responsible person for health, safety and environmental policy implementation? How to contact him/her?	Yes		Emprome all sould sould not site
В.	Activities undertaken by Workers			
10	Do the activities involve manual handling (heavy awkward loads)?		No	
11	Does the site involve works at height?		No	
12	Is repetitive manual work needed?		No	
13	Are emissions (i.e. dust, fume, spray or gas) generated during work?		No	
14	Do the construction activities create excessive noise?		No	
15	Is large amounts of flammable waste generated during construction work?		m	
16	Is monitoring of health, safety, environmental standards & conditions carried out in practice?	Yes		

17	Are the health, safety and environmental arrangements audited on frequent basis?	Yes		Em rometal, soid
18	Are there proper arrangements for workers to avoid weather stress conditions (if any)?			N/A
19	Has the Health, safety and environment risk assessment been carned out?	Yes		,
20	Has the contractor/sub-contractor produced a record of all significant findings?	Yes		
21	Is the effectiveness of safety management monitored and recorded?	Yes		
22	Is the risk assessment reviewed to take account of accidents/incidents?			NA
C.	Housekeeping			
23	Are construction materials stored properly?	Yes		
24	Are there surplus materials stored at the site?			NA
25	Are rubbish containers available?	400		
D.	Machinery			
.26	Is the machinery pre-use checklist completed?	Ye2		
27	Are the rotating equipment & drive belts guarded?			MA
28	Are the start & stop controls clearly signed?	Yes		
E.	Personal Protective Equipment (PPEs)			11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
29	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available?	¥€ 3		
30	Is Eye protection available?	105		
31	Is Ear protection available?		NO	
32	Is Dust mask available?	You		
33	WillAnyother PPEs (if required) be available?			All commences
F	Emergency Procedures			
34	Are Assembly Point locations displayed properly?	Yes		
35	Is Marshalling point (i.e. holding area for vehicles e.g. Tractors, Heavy lifting vehicles, etc.) identified?	Yes	*	· · · · · · · · · · · · · · · · · · ·
36	Are Fire extinguishers accessible/ identified?	Yes		
37	Is First aid box accessible?	Yes		
38	Are workers aware of emergency procedures?	700	75	
G. :	Excavation			
39	Is excavated material away from the edge?	YE 1	t ·	To the title and
40	Is there any safe access to the excavation area?	Yes		
41	Is shoring required?		:	MA
42	Are Sufficient hazards warning signs available?		:	6/1.3

Н.	Scaffolding			
43	Are the equipments Scaff tagged?			NA
44	Is there any Modification in scaffStructure?			N/ /A
. I.	Operational Procedures			and the second s
45	Is Work permit posted on site?			ATA
46	Is Compliance ensured with permit conditions?			NA
47	Is Tool box talk facility available?	yes		
J.	Electrical			wheeler is a recommendation of the second se
48	Are all the electrical equipment(s) color coded and properly insulated?	Yes		
49	Are there any damaged or broken wires?		No	
50	Is Earth Leakage Circuit Breaker (ELCB) fitted?		NO	
51	Is your portable electrical equipment (any appliances fitted with a plug) regularly maintained and tested?	Yes		

Name	of	Observer/Inspector:

Dated:

26-02-2016 for fri

OCCUPATIONAL HEALTH & SAFETY MONITORING CHECKLIST

Name of DISCO:	Contruction of 132KV T/L lokani- dedu Mehen
Sub Project Type & Location:	Construction of 132 KV T/L Corkani- dedu. Meher.
Date of Commencement:	30-11-2014
Expected date of completion:	31-12-2016
Name of Contractor:	LSN2. SEAN

#	Description (2-15)	Yes	-No⊹∗	Remarks
A.	General Overview of Occupational Health, Safety& Environment	ent (OH	SE)	
1	Is there any First Aid facility available in the contractor'sproject site?	Yes	-	a gayan saan ahara kalan kalan ah sa a
2	Are there basic facilities (i.e. dispensary, transport facility, health Physicians, etc.) available?	Yes		In near by city
3	Is training provided to your workers in the field of health, safety and environment?	Yes		
4	Has your facility encountered accidents from the last one year and their nature?		No	
5	Are accidents investigated to prevent recurrence?		ļ	N/A
6	Is there any housing society or local community around the project site?		No	
7	Is there any HSEPolicy of contractor/sub-contractorand does it clearly state over all health, safety and environmental objectives?	Yes		
8	Are the employees and workers made aware of the HSE Policy?	Yes		
9	Is there any responsible person for health, safety and environmental policy implementation? How to contact him/her?	Yes		Environmental social Monitor social Monitor
В.	Activities undertaken by Workers			
10	Do the activities involve manual handling (heavy awkward loads)?	Maria de la compania del compania del compania de la compania del la compania de	No	· · · · · · · · · · · · · · · · · · ·
11	Does the site involve works at height?		No	**************************************
12	Is repetitive manual work needed?	•	No	*
13	Are emissions (i.e. dust, fume, spray or gas) generated during work?		No	; ; ; . —
14	Do the construction activities create excessive noise?		No	2
15	Is large amounts of flammable waste generated during construction work?		No	
16	Is monitoring of health, safety, environmental standards & conditions carried out in practice?	Yes		

17	Are the health, safety and environmental arrangements audited on frequent basis?	Yes			
18	Are there proper arrangements for workers to avoid weather stress conditions (if any)?			NA	
19	Has the Health, safety and environment risk assessment been carried out?	Ye5	:		
20	Has the contractor/sub-contractor produced a record of all significant findings?	Yes			
21	Is the effectiveness of safety management monitored and recorded?	Yes		y	
22	Is the risk assessment reviewed to take account of accidents/incidents?			MA	
C.	Housekeeping		e de la companya de l	graning ()	
23	Are construction materials stored properly?	Yes			
24	Are there surplus materials stored at the site?	Yes		**************************************	
. 25	Are rubbish containers available?	Yes	:		
D,	Machinery				i
26	Is the machinery pre-use checklist completed?			MA	
27	Are the rotating equipment & drive belts guarded?			MA	
28	Are the start & stop controls clearly signed?	40		· · · · · · · · · · · · · · · · · · ·	
E.	Personal Protective Equipment (PPEs)				
E. 29	Personal Protective Equipment (PPEs) Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available?	Y0)			
	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes	Yes Yes			
29	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available?	Yes Yes	No		
29	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available?	Yes Yes Yes	No		
29 30 31	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available?	Yes Yes	No		
29 30 31 32	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available? Is Dust mask available?	Yes Yes Yes	No		
29 30 31 32 33	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available? Is Dust mask available? WillAnyother PPEs (if required) be available?	Yes Yes Yes	No		
29 30 31 32 33 F.	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available? Is Dust mask available? WillAnyother PPEs (if required) be available? Emergency Procedures	Yes	No		
29 30 31 32 33 F. 34	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available? Is Dust mask available? WillAnyother PPEs (if required) be available? Emergency Procedures Are Assembly Point locations displayed properly? Is Marshalling point (i.e. holding area for vehicles e.g. Tractors,	Yes Yes Yes	No		
29 30 31 32 33 F. 34 35	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available? Is Dust mask available? WillAnyother PPEs (if required) be available? Emergency Procedures Are Assembly Point locations displayed properly? Is Marshalling point (i.e. holding area for vehicles e.g. Tractors, Heavy lifting vehicles, etc.) identified?	Yes Yes Yes	No		
29 30 31 32 33 F. 34 35	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available? Is Dust mask available? WillAnyother PPEs (if required) be available? Emergency Procedures Are Assembly Point locations displayed properly? Is Marshalling point (i.e. holding area for vehicles e.g. Tractors, Heavy lifting vehicles, etc.) identified? Are Fire extinguishers accessible/ identified?	Yes Yes Yes Yes	No		
29 30 31 32 33 F. 34 35 36 37	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available? Is Dust mask available? WillAnyother PPEs (if required) be available? Emergency Procedures Are Assembly Point locations displayed properly? Is Marshalling point (i.e. holding area for vehicles e.g. Tractors, Heavy lifting vehicles, etc.) identified? Are Fire extinguishers accessible/ identified? Is First aid box accessible?	Yes Yes Yes Yes Yes	No		
29 30 31 32 33 F. 34 35 36 37 38	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available? Is Dust mask available? WillAnyother PPEs (if required) be available? Emergency Procedures Are Assembly Point locations displayed properly? Is Marshalling point (i.e. holding area for vehicles e.g. Tractors, Heavy lifting vehicles, etc.) identified? Are Fire extinguishers accessible/ identified? Is First aid box accessible? Are workers aware of emergency procedures?	Yes Yes Yes Yes Yes	No		
29 30 31 32 33 F. 34 35 36 37 38	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available? Is Dust mask available? WillAnyother PPEs (if required) be available? Emergency Procedures Are Assembly Point locations displayed properly? Is Marshalling point (i.e. holding area for vehicles e.g. Tractors, Heavy lifting vehicles, etc.) identified? Are Fire extinguishers accessible/ identified? Is First aid box accessible? Are workers aware of emergency procedures?	Yes Yes Yes Yes Yes Yes Yes Yes	No		
29 30 31 32 33 F. 34 35 36 37 38 G. 39	Are Helmet (Skullgard), Gloves, Coverall, Safety Shoes available? Is Eye protection available? Is Ear protection available? Is Dust mask available? WillAnyother PPEs (if required) be available? Emergency Procedures Are Assembly Point locations displayed properly? Is Marshalling point (i.e. holding area for vehicles e.g. Tractors, Heavy lifting vehicles, etc.) identified? Are Fire extinguishers accessible/ identified? Is First aid box accessible? Are workers aware of emergency procedures? Excavation Is excavated material away from the edge?	Yes Yes Yes Yes Yes Yes Yes Yes Yes	No	AV/A	

н.	Scaffolding		50	A SPECIAL SPEC
43	Are the equipments Scaff tagged?			N/A N/A
44	Is there any Modification in scaffStructure?		i :	MA
	Operational Procedures	11,19-1-1-1-1		obligation .
45	Is Work permit posted on site?			N/A N/A
46	Is Compliance ensured with permit conditions?		p.,,,	MA
47	Is Tool box talk facility available?	Yes		
Ĵ,	Electrical			The second secon
48	Are all the electrical equipment(s) color coded and properly insulated?	Yes		
49	Are there any damaged or broken wires?		NO	
50	Is Earth Leakage Circuit Breaker (ELCB) fitted?		No	
51	Is your portable electrical equipment (any appliances fitted with a plug) regularly maintained and tested?	Yo		

Name of Observer/Inspector:	Mezhen	
Dated:	26-04-2016	
	1/2.	

Annex - VI

LIST OF SITE INSPECTIONS and DATES

Sr. No.	Name of site Inspected	Designation of Staff visited the Site	Date
1	132 Kv Dadu- Mehar-Larkana	DM (E&SS)	26-02-2016
2	132 Kv Dadu-Mehar-Larkana	AM (Env)	26-02-2016
3	132 Kv Dadu-Mehar-Larkana	AM (Env)	26-04-2015

Construction of 132 kV Dadu-Mehar-Larkana (Physical Progress)

Sr. No.	Total No. Of Locations (Towers)	No. Foundations Concereted	No. of Towers erected
1	493	362	48