



# Environmental and Social Quarterly Monitoring Report

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Project Number: 43903 (Loan 2722)  
September 2012

## PAKISTAN: Uch-II Power Project Environmental and Social Development Quarterly Monitoring Report (Q3 2012)

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Asian Development Bank

## ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Q3 - 2012

A	Project/Business Name and Summary Information	
	<b>Development of 404 MW Gas Fired Combined Cycle Power Plant by Uch-II Power (Private) Limited</b>	
(i)	<i>Location of project/business</i>	Dera Murad Jamali, Baluchistan, Pakistan
(ii)	<i>Nature</i>	Construction, commissioning and operation of gas fired combined cycle power plant
(iii)	<i>Scale/size</i>	404 MW (ISO Gross Rating) 2 Gas Turbines x 01 Steam Turbine
(iv)	<i>Date of construction/operation commencement</i>	Construction activities commenced in July 2011.
(v)	<i>Name, designation and signature of person responsible for preparing/reviewing the report</i>	Fida Muhammad Khan, Manager HSE Uch-II / Babar Saeed Khan, Construction Manager Uch-II
B	Relevant Environmental Permits or Compliance Certificates	
(i)	<i>Summary of permit conditions &amp; media(s) covered</i>	No Objection Certificate
(ii)	<i>Issue by which government Agency</i>	Baluchistan Environmental Protection Agency (BEPA)
(iii)	<i>Issuance date and duration of validity</i>	December 9, 2010 (one time issuance with no requirement for revalidation)
(iv)	<i>Renewal requirements</i>	None in Q3-2012
C	Incidents of Violations or Non-Compliance	
(i)	<i>Recorded date and responsible agencies</i>	None in Q3-2012
(ii)	<i>Nature of non-compliance</i>	No reportable incident to authorities recorded during Q3-2012.
(iii)	<i>Violation or non-compliance based on what environmental standards and regulations</i>	None
(iv)	<i>Recorded dates and authorities</i>	During Q3-2012, EHS related observations of minor nature recorded during routine site monitoring. Log with corrective actions attached as Appendix A.
(v)	<i>Media or community reactions (if any)</i>	None in Q3-2012
(vi)	<i>Corrective actions, deadlines, identification of responsible parties</i>	Short term corrective actions identified thru regular site walks. Please refer to Appendix-A.
	<i>(a) short-term: remedial action</i>	Please refer to Appendix-A.
	<i>(b) long-term: preventative measures</i>	None in Q3-2012
D	Incidents of Environmental and Safety Accidents	
(i)	<i>Incident recorded dates and responsible agencies,</i>	None in Q3-2012
(ii)	<i>Scale of damage and injury (if any)</i>	None in Q3-2012
(iii)	<i>Authorities in charge of investigation/recording</i>	EPC contractors site management and HSE team is responsible for reporting and investigating the incidents
(iv)	<i>Media or community reactions (if any)</i>	None in Q3-2012
(v)	<i>Corrective actions, deadlines, identification of responsible parties</i>	None in Q3-2012
	<i>(a) short-term: remedial action</i>	None in Q3-2012
	<i>(b) long-term: preventative measures</i>	None in Q3-2012
E	Labour Relations and Conditions	
(i)	<i>Nature of labour dispute or grievance</i>	None reported by EPC in Q3-2012
(ii)	<i>Legal requirements, Permit conditions and renewal requirements</i>	None in Q3-2012
(iii)	<i>Authorities in charge of investigation/recording</i>	EPC contractor responsible for managing its labour relations and conditions

(iv)	Media or community reactions (if any)	None
(v)	Corrective actions, deadlines, identification of responsible parties	N/A
(vi)	Labour relations and living conditions for construction labour force	<p>No Labor related issues recorded during Q3-2012. Majority of labor residing at site in dormitories with satisfactory living conditions. Basic Medical facility with a qualified Doctor and nurse also available at site.</p> <p>EPC contractor's labour policies are in compliance with ILO core labour standards.</p> <p>EPC contractor use to revisit payrolls of labour as per requirement of Government policies (GOP minimum wages applicable in each cadre and local market). EPC workers also insured (group life insurance) as per national law.</p> <p>As per contractor's procedure "Camp and Security Management" In-charge Personal &amp; Administration dept. at project site is responsible for maintenance of working and living conditions at site. Regular housekeeping inspections, hygiene inspections for messing facilities, toilet facilities in labour housing compound are performed by site HSE team.</p> <p>A mechanism for registering of complaints is available for labor. Workers complaint register and complaint drop boxes available at site and camp. No labor union exists at project site.</p>
<b>F</b>	<b>Environmental Capacity</b>	
(i)	Staff capacities in environmental management (as relevant)	<p>(i) <a href="#">EPC</a> HSE Manager, HSE Engineers &amp; Supervisors (a team of 09 HSE staff members are available on construction site looking after HSE functions)</p> <p>(ii) <a href="#">Uch-II</a> HSE Manager and HSE Officer supported by UPL O&amp;M Team</p> <p>(iii) <a href="#">Owners Engineer</a> Independent H&amp;S Auditor</p>
(ii)	Degree of awareness of: (i) environmental management, (ii) health and safety, (iii) environmental laws and regulations	All relevant EPC, OE and Uch-II staff aware about the Project EMP & H&S Mgt plan and all other Environmental applicable & relevant Laws and regulations.
(iii)	Training programs carried out	<p>EPC contractor carrying out regular site HSE induction as per their procedure for its entire staff as well as subcontractors. Specific in house trainings regarding environmental awareness, job safety analysis, fire fighting, incident investigation, first aid, confined spaces, heavy lifting, site emergency mustering, work at height, defensive driving, hot work and other relevant topics carried out by EPC Health &amp; Safety management team.</p> <p>Altogether a total of 924 workers trained on different EHS topics during the reporting quarter.</p> <p>HIV/AIDS/STD orientation is not covered yet under the In-house HSE Training program.</p> <p><a href="#">Appendix B (EPC In house Training Statistics – Q3- 2012)</a></p>
(iv)	Needs assessment of environmental management capacity (as relevant)	None
(v)	Compliance audits carried out	<p>Corrective actions recommended in Project biannual EMP audit has been closed out by EPC.</p> <p><a href="#">Appendix C (Corrective Action Plan Matrix) EMP Biannual Audit - updated September 2012)</a></p>
<b>G</b>	<b>Stakeholder Consultation/CSR Activities</b>	
(i)	Details of consultations, if any, with local communities, nongovernmental organizations, civil society groups, and other stakeholders, including affected people	None has been conducted in Q3-2012
(ii)	Describe efforts to promote community	Local manpower employed in project by EPC contractor and subsequently trained unskilled workers.

	<i>relations and local development for inhabitants of the project area.</i>	EPC contractor assisted community and flood victims by providing food stuff, tents, blankets and clean drinking water during devastated flood in year 2012. No migration / movement of communities residing in the vicinity of project site.	
(iii)	<i>Project procedures for (a) hiring and (b) acquisition of goods and services</i>	EPC labour hiring procedure in place. Historical data of the labor hired in construction activities is presented in attached Appendix-D.	
(iv)	<i>Provide List of grievances and status of grievance resolution</i>	None in Q-3 2012. Grievance redress mechanism and LPU & GRTG available and in place.	
H	<b>Issues, Status of Implementation of Mitigating Measures in the Environmental and Social Management Plan and Compliance with Environmental Qualities and Standards (national and international, as relevant) and Environmental and Social Requirements</b>		
	<b>Parameter</b>	<b>Issue</b>	<b>Status</b>
1	<i>Air</i>	None	Dust monitoring and suppression with water sprinkling ongoing on the dumpers / trucks movement tracks / roads both on & offsite.
2	<i>Water (surface and ground water)</i>	None	Overall compliance with EMP (as applicable against specific parameters) in place.
3	<i>Waste generation and management</i>	None	Waste generated at site is being collected, segregated and quantified. Construction site sewage water disposal arranged to DMJ municipal area.
4	<i>Noise and vibration</i>	None	EPC contractor monitoring ambient & occupational noise levels on monthly basis.
5	<i>Occupational health and safety</i>	None	Monitoring of Health & Safety Key performance Indicators done by EPC. Site medical centre / officer maintaining workers health records for reported cases.
6	<i>Community safety and security</i>	None	Community safety and security are ensured at project site through effective implementation of mitigation measures proposed by project environmental management plan. The mitigation measures include; development of traffic management plan to minimize disturbances to local communities, established a grievance redress management system to handle and resolve any community complaints that arise during construction and operation phase, limiting the non-local staff within the boundary wall of power plant to avoid project workforce and community interaction. EPC contractors SOP for security arrangements is also in place.
7	<i>CO<sub>2</sub> emissions by the Project</i>		890.0 tons of CO <sub>2</sub> for site Diesel Gens sets and vehicular CO <sub>2</sub> emissions for construction site reported during Q-3 year 2012 by EPC contractor. Calculations based upon total Diesel fuel used for the same purpose by EPC and its subcontractors.
8	<i>Environmental and Social Management Plan, including IFC E&amp;S Action Plan (September 29, 2010)</i>		Project H&S plan and EMP implementation and monitoring in place by EPC contractor. ESAP Update: OGDCL and NTDC's EIA has been completed and submitted for obtaining NOC from BEPA.
I	<b>Summary Assessment of Client Performance and Recommendations</b>		
The construction activities comprising formwork & steel rebar of super structure in cooling tower, PAT feeder pipe line & canal intake structure work, fabrication of Fire water tank, Potable water tank and Demin water tank remained in progress during the reporting quarter. GT-I, GT-II, HRSG-I, HRSG-II, steam turbine, HSD unloading pump, cooling water pump, fire & service			

water pump, main & auxiliary water pump foundations have been completed in the period under review.

Since the inception of Uch-II project, EPC successfully completed a total of two million man hours without Lost Time Incident in August 2012. No significant safety incidents occurred during the period under review. The close out of corrective action plan of EHS June 2012 biannual audit has been completed by EPC. A noticeable improvement observed in areas of PPEs compliance and implementation of "No Smoking Policy". To motivate the workers toward adopting safe work practices and attitudes, EPC initiated an EHS reward system for employees by gauging the EHS performance of individuals.

EPC contractors' activities were closely monitored by Uch-II HSE management to ensure compliance with Project EMP and H&S procedures. Areas of weaknesses, mainly unsafe conditions and unsafe acts, falling hazards, use of non-certified lifting equipment, electrical hazards, oil / chemical spill hazards, housekeeping and issues related to hygienic conditions & biological hazards highlighted and corrective actions suggested for compliance.

No other significant Environmental & Social issues to report.

**Uch-II Site Monitoring Summary Q3-2012****Appendix-A****Corrective Actions**

Monitoring Conducted by	HSE Uch-II
Corrective Actions By	EPC Descon

S. No	Findings	Corrective Actions
1	At Uch-II security building, safe access to work platform not available. Workers jump over and approach the work platform in a dangerous manner <ul style="list-style-type: none"><li>Falling Hazard</li></ul>	Access platform provided to Safely approach work platform
2	A live electrical panel found open and installed in the middle of walkway at water treatment area <ul style="list-style-type: none"><li>Unsafe Condition</li><li>Electrical Hazard</li></ul>	Panel door was closed immediately and electrical panel was relocated to a secured location
3	Diesel generator operator at power island found without wearing ear muffs <ul style="list-style-type: none"><li>Occupational Health Hazard (Hearing loss)</li></ul>	Counseling carried out with operator to communicate the hazards of high noise
4	At cooling tower area, a step ladder without having hand railings / guard rails and base supports is being used to approach scaffoldings <ul style="list-style-type: none"><li>Unsafe Condition</li><li>Unsafe Practice</li><li>Fall Hazard</li></ul>	Addressed the area supervisor to ensure scaffolding protocol and proper access needs to be provided along with hand rails / guard rails to avoid risk of falling
5	Electrical cable of pedestal fan found without plug and was inserted directly into the socket <ul style="list-style-type: none"><li>Electrical Hazard</li></ul>	Proper plug provided for pedestal fan cable
6	No hard barrication found around a ditch (5 feet deep approx.) near Clarifier. Scaffolding pipes found scattered around the clarifier area <ul style="list-style-type: none"><li>Falling Hazard</li><li>Tripping Hazard</li><li>Housekeeping Issue</li></ul>	Hard barriers installed around the pit to avoid falling of personnel moving around. Scattered scaffolding pipes removed from the location
7	A lot of debris found in area between STG and HRSG units <ul style="list-style-type: none"><li>Housekeeping Issue</li></ul>	Performed housekeeping of the area and disposed off debris as per waste management procedure
8	Manhole of under construction potable water tank is being used for ingress / egress purpose. However, sharp edge of manhole is posing severe hazard <ul style="list-style-type: none"><li>Unsafe Condition</li></ul>	The sharpness of the edges minimized by covering it with a double layer of adhesive / insulating tape
9	At cooling tower area, a scaffolder observed climbing over a structure without wearing safety helmet <ul style="list-style-type: none"><li>PPEs non compliance</li></ul>	Counseling with worker carried out to use complete PPEs and area supervisor advised to ensure the PPEs compliance

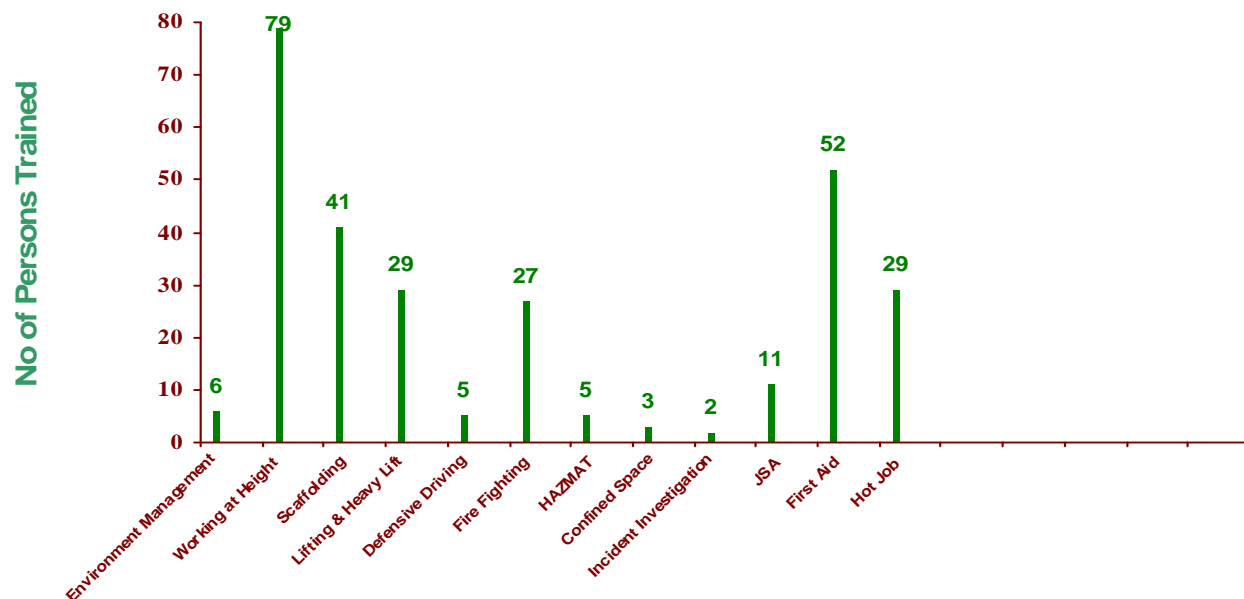
## EPC (Descon) In house HSE Training Record

Q-3 2012

Training Topics	Jul-12	Aug-12	Sep-12	Total
HSE induction	340	62	233	635
Environmental Management	6			6
Working at Height	52	13	14	79
Scaffolding		27	14	41
Lifting And Heavy Lift	12	17		29
Defensive Driving	3	2		5
Fire Fighting		27		27
HAZMAT		5		5
Confined Space		3		3
Incident Investigation			2	2
JSA		11		11
First Aid	18	21	13	52
Hot Job	29			29

Q-3 2012	924
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\* HIV/AIDS/STD orientation is not covered yet under the In-house HSE Training program.



## Trainings

## Appendix C

### Corrective Action Plan Matrix (EMP Biannual Audit June 2012)

No	EMP Action Item	Responsibility	Planned Finish Date	Status 08 August 2012	Remarks	Status 30 September 2012
<b>1</b>	<b>Environment Management system</b>					
1.1	<u>Environmental Policy Uch II Project construction site</u>					
	Environmental policy Uch-II to be communicated to all personnel approaching the site	EPC	15-08-2012	COMPL	Environmental policy is a part of HSE induction	Compliant
1.2	<u>Adequacy of HSE Induction in line with EMP</u>					
	All aspects of EMP must be part of HSE induction	EPC	15-08-2012	COMPL	All important features of EMP are included in induction along with visual effects	Compliant
<b>2</b>	<b>Environmental KPIs</b>					
2.1	<u>Environmental Incidents record since mobilization.</u>					
	Quality of incident investigations to be improved	EPC	20-09-2012	Action Awaited	Incident investigation techniques training of EPC HSE Engineers carried out	Compliant
<b>3</b>	<b>Emergency Planning and Preparedness</b>					
3.1	<u>Oil &amp; Chemical Spill control plan</u>					
	Oil & chemical spill recovery drills to be carried out on regular basis	EPC	30-08-2012	COMPL	Spill response exercises are being performed on monthly basis	Compliant
<b>4</b>	<b>Solid Waste management</b>					
4.1	<u>Solid waste management, inspection, segregation and disposal.</u>					
	Additional land fill area required for disposal of kitchen / food waste	EPC	05-09-2012	COMPL	Land fill area for food waste disposal is available	Compliant
<b>5</b>	<b>Machinery</b>					
5.1	<u>Machinery inspection certificates upon arrival for use.</u>					
	Vehicle Inspection certificates to be provided by EPC.	EPC	30-08-2012	COMPL	Third party certificates available. In-house inspection of cranes at site is in practice on monthly basis	Compliant
<b>6</b>	<b>Fuel and chemical handling</b>					



6.1	<u>MSDS of chemicals and notices at storage facility</u>					
	Simplified MSDS in Urdu language to be prepared and posted at respective locations	EPC	25-08-2012	COMPL	MSDS of all stored chemicals / oils are made available at storage area	Compliant
6.2	<u>Hazmat awareness TBTs</u>					
	Hazmat awareness TBTs to be provided to store staff	EPC	25-08-2012	COMPL	TBTs Provided to store staff	Compliant
<b>7</b>	<b>Housekeeping</b>					
7.1	<u>Waste collection, storage and disposal at site</u>					
	Hazardous waste generated from workshop needs to be recorded in monthly waste generation report	EPC	30-08-2012	COMPL	Hazardous Waste from workshop is being recorded	Compliant

**Appendix-D**

**Number of Workers Engaged in U**

Q1-2012						C	
	Local (Baluchistan Province)	Local (Rest of Pakistan)	Expatriate	Female Wokers	Total	Local (Baluchistan Province)	Local (Rest of Pakistan)
Skilled	8	616	17	0	641	12	703
Unskilled	71	35	0	0	106	102	99
Total	79	651	17	0	747	114	802

## **CH II Construction Activities**

<b>Q2-2012</b>			<b>Q3-2012</b>				
Expatriate	Female Wokers	Total	Local (Baluchistan Province)	Local (Rest of Pakistan)	Expatriate	Female Wokers	Total
17	0	732	19	648	17	0	684
0	0	201	130	138	0	0	268
17	0	<b>933</b>	149	786	17	0	<b>952</b>