



# DASU HYDROPOWER CONSULTANTS

## Dasu Hydropower Project

Joint Venture of



With sub-consultants



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Date: 31<sup>st</sup> of August 2022

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General Manager/ Project Director,  
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**Subject: Dasu HPP –30<sup>TH</sup> Environmental Progress Report for the Period from April to June 2022**

Please find enclosed 30<sup>th</sup> Environmental progress report for the period from April to June 2022.  
This report is submitted for your further necessary action please.

Sincerely Yours,

  
Project Manager DHC

Encl: As above

Copy to:

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PAKISTAN WATER AND POWER DEVELOPMENT  
AUTHORITY

Dasu Hydropower Project

Environmental Quarterly Progress  
Report

Report Number : 30  
Reporting Period : April to June 2022

August 2022

Project Management Unit &  
Dasu Hydropower Consultants

## ACRONYMS

CEAP	Construction Environmental Action Plan
CGGC	China Gezhouba Group Co. Ltd.
DHP	Dasu Hydropower Project
WAPDA	Water and power development authority
ESA	Environmental and social assessment
DHP-I	Dasu Hydropower project Stage-1
DHC	Dasu Hydropower Consultants
WTEIR	Walkthrough Environmental Inspection Report
ECP	Environmental codes of practice
PC-02	Project Colony-Phase2
MW	Main works
CEAP	Construction Environmental Action Project
ROW	Right of Way
EOT	Extension of time
NEQS	National Environmental quality standards
pH	Power of hydrogen and Hydroxyl Ion
DO	Dissolved oxygen

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## EXECUTIVE SUMMARY

This report presents the progress of the environmental performance of the Stage-I implementation of the Dasu Hydropower Project (DHP or the Project) from April to June 2022 and activities conducted during the period by the Project Management Unit (PMU) of the Pakistan Water and Power Development Authority (WAPDA or the Employer) and Construction Supervision Consultant (Dasu Hydropower Consultant or DHC or the Engineer). This quarterly progress report has been prepared to meet the World Bank-approved Environmental and Social Assessment (ESA) requirements of DHP. The progress on OHS and Social issues of the Project are covered under separate reports.

### Key Construction Activities

Details of various contracts in the Stage-I of DHP (DHP-I) and a summary of major construction activities conducted under each contract during the reporting period are given in below Table.

#### Details of major construction activities carried out in DHP during the current quarter

S. No.	Contract Name	Contractor	Major activities during this quarter
<b>A.</b>	<b>Main Works Contracts</b>		
1	MW-01: Main Hydraulic Structure, Spillway, Low Level Outlets, River Diversion and Hydraulic Steel Structures	China Ghezouba Group Company Limited (CGGC)	<ul style="list-style-type: none"> <li>• Underground excavation and concreting at Diversion Tunnel A</li> <li>• Underground excavation and concreting at Diversion Tunnel B</li> <li>• Underground excavation for left bank traffic diversion tunnel</li> <li>• Temporary access road construction to the right bank of the Dam</li> <li>• Excavation for the second layer of CR-5 road (access to left bank cable crane platform)</li> </ul>
2	MW-02: Under Ground Power Complex, Tunnels and Hydraulic Steel Structure	CGGC	<ul style="list-style-type: none"> <li>• Excavation of Surge chamber, STA, GIS room, Underground powerhouse crown portion, underground transformer cavern, drain tunnel and penstock Adit tunnel 1</li> <li>• Switchyard preparatory works</li> </ul>
3	EM-01	GE Hydro China Co. Ltd. and Power China Engineering Ltd (GE-PC)	<ul style="list-style-type: none"> <li>• Backfilling, levelling, excavation, and retaining wall construction work for the worker's camp</li> </ul>
<b>B</b>	<b>Preparatory Works</b>		
<b>I</b>	<b>Road Contracts</b>		
1	KKH-01 Relocation of Karakoram Highway from KM 0+000 to 25+200 (preparatory works)	China Civil Engineering Construction Company (CCECC)	<ul style="list-style-type: none"> <li>• Seismic reinforcement wall construction at the K-3 tunnel area and</li> <li>• Construction of retaining wall at Khoshe (K5, K6, K7 and K8)</li> <li>• Development of camp and batching plant at K6</li> </ul>
2	RAR-01 Construction of Right Bank Access Road from Komila to Seo Dam Site (preparatory works)	CCECC	<ul style="list-style-type: none"> <li>• Excavation, drilling and blasting work around 0+500-K1+000 and K2+280 at Komila bypass.</li> <li>• Formwork for breast wall at Komila bypass start section</li> <li>• Concrete edge protection barrier around K11+200 to K11+300 is in progress.</li> </ul>
3	KKH-02: Relocation of Karakoram Highway from RD 25+200 to 62+213	CGGC	<ul style="list-style-type: none"> <li>• Excavation and blasting work at K28, K31 and K37</li> </ul>
4	RAR-02: Construction of Right Bank Access Road from Dam Site to Uttar Gah	CGGC	<ul style="list-style-type: none"> <li>• Excavation and blasting at K12+500 to K13+250</li> <li>• Foundation work at Largani K20+590 for cableway transportation system</li> </ul>
5	RAR-03: Construction of Right Bank Access Road from Uttar Gah to Shatial		<ul style="list-style-type: none"> <li>• Procurement is in progress</li> </ul>
<b>II</b>	<b>Electrification Contracts</b>		
1	TL-01 Procurement, Design, Supply, Installation, Testing and Commissioning of 132 kV Single Circuit Transmission Line and Grid Station (From Switchyard Dubair Khwar to proposed Grid Station Dasu)	Power China Corporation Company (PCCC)	<ul style="list-style-type: none"> <li>• Formwork installation steel fixing of top beam and roof slab concrete of Column of Control House Building at grid station</li> <li>• Excavation/cutting for access road transformer and transmission line T111-A</li> </ul>

S. No.	Contract Name	Contractor	Major activities during this quarter
2	TL-02: 11kV Distribution Line to Resettlement Villages		<ul style="list-style-type: none"> <li>Procurement is in progress</li> </ul>
<b>III</b>	<b>Colony Works</b>		
1	PCI-01R: Project Colony & Infrastructure	China Gansu International Corporation for Economic and Technical Cooperation (CGIC)	<ul style="list-style-type: none"> <li>Grinding and polishing of marble tile. Internal electrification, plaster, dome work and paint work are in progress at project office.</li> <li>Plaster work is in progress at cat 2C and 2D</li> <li>Boundary wall, roof treatment, safety railing, skirting, window installation and paint work at Cat-1 units</li> <li>External boundary wall construction</li> </ul>
2	PCI-02: Project Colony and Infrastructure		<ul style="list-style-type: none"> <li>Procurement is in progress</li> </ul>
<b>IV</b>	<b>Resettlement Villages Contracts</b>		
1	Resettlement of Villages Left Bank of Indus River LBRV-11	Zhongmei Engineering Group Limited (Zhongmei)	<ul style="list-style-type: none"> <li>PCC on permanent access road at Khoshi-1</li> </ul>
2	Resettlement of Villages Left Bank of Indus River LBRV-12	Zhongmei	<ul style="list-style-type: none"> <li>Water supply pipeline at Nasirabad-1</li> <li>Slope protection and sewerage work at Nasirabad-2</li> </ul>
3	RV: Resettlement of Village Chuchang & Construction of Shatyal Museum	Khyber Grace (Pvt.) Limited (KGL)	<ul style="list-style-type: none"> <li>Stone masonry retaining wall, sewerage works, water supply and plot levelling at Chuchang Site 1</li> <li>Retaining wall work at Kuz Chuchang Site</li> <li>Work has been stopped by locals at Shatial rock carving site since 20-11-2020.</li> </ul>
4	Resettlement of Villages Right Bank of Indus River RBRV-11	China Railway 17 <sup>th</sup> Bureau Group Co. Ltd. (CR17B)	<ul style="list-style-type: none"> <li>Commencement letter not yet issued/Land issue</li> </ul>
5	Resettlement of Villages Left Bank of Indus River LBRV-13- Right Bank of Indus River RBRV-12		<ul style="list-style-type: none"> <li>The works are yet to be designed (subject to agreement with the affected communities)</li> </ul>
6	Resettlement of Villages RV-01 & RV-02		<ul style="list-style-type: none"> <li>The works are yet to be finalized</li> </ul>
<b>V</b>	<b>Other Works</b>		
1	VTC-01: Vocational Training Centre for Men and Women		<ul style="list-style-type: none"> <li>Procurement is in progress</li> </ul>

## Site Inspections and Meetings

The Environment Team of PMU WAPDA and DHC daily visits the construction sites and completes the monitoring checklists. In addition, the Senior Environmental Specialists of DHC and AD Environment PMU WAPDA randomly conducted regular inspections to ensure environmental compliances and issued Walk Through Environmental Inspection Reports (WTEIR) for any non-compliances. Further, the team also conducts regular progress review meetings with the contractors.

## Key Non-Compliances

The details of non-compliances noticed during the implementation of various site visits are given in below Table. The Contractors are instructed to address these non-compliances through the issue of WTEIRs and letters.

### Major non-compliances and number of WTEIRs Issued during this quarter

Contract	No. of WTEIRs			Number of Letters			Main Non-Compliances
	April	May	June	April	May	June	
MW-01& MW-02	2	2	4	3	2	5	Minor oil spills, Dust, high pH of waste water, Status of Environmental officer, Reply on calibration certificates of analyzers, logistic support plan, Prior information for haulage of oversized vehicles
KKH-01	0	0	1	2	0	0	Prior information for haulage of oversized vehicles, Environmental incident report, Sand extraction at Khushi
RAR-01	1	0	1	0	0	0	Improper spoil dumping
LBRV-11&12	1	1	1	0	0	0	Oil spill
PCI-01R	2	0	0			1	Prior information for haulage of oversized vehicles
KKH-02	0	0	2	0	1	2	
RAR-02	0	1	0	2	0	1	

Contractors have conducted corrective actions to the issues raised by the Engineer, and these actions were reviewed in the monthly progress review meetings. A summary of issues raised during this quarter and their status is given in below Table.



**Number of environmental issues and status of their compliance during this quarter**

Contract	No. of Issues Raised			Issues Closed			Issues Still Open			Issues Partially Closed		
	April	May	June	April	May	June	April	May	June	April	May	June
MW-01&-02	6		5	2		5	3		3	1		2
KKH-01	1		2	1		0	0		0	1		2
RAR-01	1		3	1		2	1		0	1		0
TL-01	7		1	0		7	0		1	2		0
PCI-01R	2		2	3		2	0		0	1		1
LBRV-11&12	1		2	0		0	3		3	0		1
KKH-02	-		5	-		0	-		0	-		0
RAR-02	4		0	0		0	0		3	0		1

### Monitoring of Air, Noise, Water and Wastewater

During the quarter, the Contractors conducted no quarterly environmental monitoring as they are in negotiations with a new third-party environmental laboratory to conduct the monitoring.

The monthly environmental spot monitoring was conducted during the quarter. The results of the spot monitoring are given below:

#### Spot monitoring of Surface Water compliance with NEQS

Contractor	Upstream and downstream of the construction area from River Indus												Remarks
	Turbidity			pH			Conductivity			DO			
	April	May	June	April	May	June	April	May	June	April	May	June	
<b>MW-01</b>	209	408	806	8.6	8.4	8.1	324	143.7	199	0.9	0.5	3.2	
<b>MW-02</b>	259	416	666	8.3	8.1	8	204	131.4	152.9	0.6	0.7	1.6	

*Locations at MW-01 is: Upstream of Uchaar crush plant in River Indus,*

*Locations at MW-02 is: Downstream near Khushi Batching plant,*

#### Spot monitoring of wastewater compliance with NEQS

		April	May	June	April	May	June	April	May	June	April	May	June	Remarks
		Turbidity			pH			Conductivity			DO			
<b>MW-01</b>	<b>1</b>	1000	*	*	10.3	*	*	143	*	*	0.7	*	*	The Contractor was instructed to increase the freshwater addition to lower the pH value and turbidity.
	<b>2</b>	145.8	182	156.3	11.2	10.9	11.2	830	847	691	0.7	0.8	2.4	
	<b>3</b>	42.2	57.6	-	8.9	9.2	-	192.9	216	-	0.6	0.5	-	
<b>MW-02</b>	<b>1</b>	324	355	186.9	10.7	10.6	11.1	323	355	726	0.6	0.6	2.8	
	<b>2</b>	329	196.7	497	11	11	10.4	431	471	289	0.6	0.8	3.1	
<b>Standard</b>		<b>200 NTU</b>			<b>6-9</b>			<b>µs/cm</b>			<b>ppm</b>			

*\* The spot monitoring of Uchaar crushing plant was not conducted as the sedimentation pond was full of sludge. The contractor was instructed to clean the tanks and dispose the waste at the disposal site.*

*Locations at MW-01 are: 1. Sedimentation pond of Uchaar crush plant, 2. Sedimentation pond at Uchaar Batching plant, 3. Sedimentation pond near Adit-1).*

*Locations at MW-2 are: 1. Sedimentation Pond at Main Access Tunnel (MAT) 2. Sedimentation Pond at Khushi Batching Plant*

### Other Activities and Outstanding Issues

The outstanding issues in the Project and other key activities conducted by the environmental team of DHC during this quarter are given in below Table.

#### Summary of other activities and outstanding issues

S. No.	Activity/Outstanding Issue	Progress in this Quarter
1	Solid Waste Disposal Site	A potential site at Chuchang was jointly visited by DHC and WAPDA but the site was rejected due to local disputes. Another site was identified at Kaigah which was topographically surveyed. This is 34.5 Kanals area which can accommodate the waste upto seven years during the construction phase. Geological investigation is underway, after that the site will be finalised and environmental screening report will be submitted to WAPDA in the next quarter.
2	Traffic Count survey	A 24hrs traffic count survey was conducted in June 2022. The number of vehicles decreased to 2103 from 4753 as compared to previous year count. The decreased might be due to increase in the fuel prices during the month.



# 1 Introduction

## 1.1 Background

Dasu Hydropower Project (DHP or the Project) is a World Bank-financed project in Pakistan and implemented by the Pakistan Water and Power Development Authority (WAPDA). The Project consists of a 242 m high concrete dam with an installed capacity of 4320 MW. The dam site is located 7 km north of Dasu km North of Dasu town in the Kohistan district of the Khyber Pakhtunkhwa Province and 350 km North of Islamabad, the capital city of Pakistan.

WAPDA has established a Project Management Unit (PMU) at Dasu to implement the Project and hired Dasu Hydropower Consultants (DHC) as the Engineer or Construction Supervision Consultant to oversee the implementation. Nippon Koei Ltd., Japan, is the lead consulting firm.

This report presents the progress of the environmental performance of the DHP from April to June 2022 and activities conducted during the period by the environmental staff of PMU and DHC. The progress of the Occupational Health and Safety (OHS) and the Project's social aspects are presented in separate standalone quarterly reports and hence are not covered in this report.

## 1.2 Environmental Compliance Requirements of DHP

The key documents that describe the environmental compliance requirements of DHP are:

1. An Environmental and Social Assessment (ESA) of DHP was prepared by WAPDA in 2014 through a team of independent consultants and submitted to World Bank. The World Bank has approved the ESA, and its successful implementation is a critical legal covenant of the financing agreement with WAPDA. Hence the environmental performance requirements of DHP should comply with the environmental management plan (EMP) in the ESA.
2. The environmental conditions and specifications in the bidding documents of the Contractors.
3. The Contractors must prepare Construction Environmental Action Plans (CEAPs) before mobilization with site-specific management plans to address various environmental risks and impacts. The CEAPs were reviewed and approved by the Engineer.

During the detailed design of DHP (2012-2013), the design consultant has prepared an Environmental Management Action Plan (EMAP), which consists of 8 volumes of documents<sup>1</sup>. These are the internal and background documents of WAPDA and the basis for preparing ESA by independent consultants of WAPDA for Word Bank approval.

During the implementation of DHP (2018-2019), WAPDA has prepared Detailed Ecological and Biodiversity Management Plans (DEBMP) consisting of 7 plans<sup>2</sup>. The Project's biodiversity aspects will be addressed by implementing these plans. WAPDA is yet to start implementing these plans, and once the implementation begins, their progress will be presented through a separate quarterly report.

## 1.3 Project Description

The DHP is planned to be implemented in two stages, with each stage consisting of two phases. Currently, Stage I of the DHP (DHP-I) is under implementation with the World Bank financing. The stage-wise proposed activities in the DHP are given in Table 1.1

**Table 1.1: Stage I and Stage II activities in DHP**

Stage	Phase	Description of Works
Stage I	Phase-1	Construction of the dam with full height including whole gate facilities for such as spillway, LLO and flushing tunnels; full construction of power intake; one waterway tunnel until the tailrace outlet; underground powerhouse complex for 3-unit generating equipment; control building with 1 bay of transmission line at switchyard.
	Phase-2	Second waterway tunnel until the tailrace outlet; underground powerhouse complex for another 3-unit generating equipment; 1 bay of transmission line at switchyard.

<sup>1</sup> The EMAP documents are Volume 1: Executive Summary, Volume 2: Environmental Impact Assessment, Volume 3: Terrestrial Ecology, Volume 4: Aquatic Ecology, Volume 5: Physical Cultural Resources, Volume 6: Environmental Baseline Quality, Volume 7: Cumulative and Induced Impact Assessment, and Volume 8: Environmental Management Plan.

<sup>2</sup> The DEMBP plans are Plan 1: Aquatic Ecology – Fisheries Management Plan, Plan 2: Task 3: Terrestrial Ecology Management Plan, Plan 3: Avian Risk Management Plan, Plan 4: Wildlife Conservation Management Plan, Plan 5: Forestry Management Plan, Plan 6: Watershed Management Plan, and Plan 7: Physical Cultural Resources (PCR) Baseline and Management Plan

Stage II	Phase-3	Third waterway tunnel until the tailrace outlet; underground powerhouse complex for another 3-unit generating equipment; 1 bay of transmission line at switchyard.
	Phase-4	Fourth waterway tunnel until the tailrace outlet; underground powerhouse complex for another 3-unit generating equipment; 1 bay of transmission line at switchyard.

### 1.3.1 Procurement Status of Contracts

The DHP-I will be implemented under several construction contracts. These are grouped into two categories, (i) the Preparatory Works, which include the project colony, access roads, power lines and resettlement villages, and (ii) Main Works, which include the construction of the dam, underground powerhouse and related electromechanical works.

The Procurement Status of Contracts works, Resettlement Works and Main Works is presented in Table 1.2.

**Table 1.2: Procurement Status of Contracts**

S. No.	Contract No.	Date of Award	Date of Signing	Commencement Date	Original completion date	Updated Completion Date	Name of Contractor
1	MW-01: Main Hydraulic Structure, Spillway, Low-Level Outlets, River Diversion, and Hydraulic Steel Structures	29.12.2016	08.03.2017	23.06.2017	22-1-2023	NA	China Ghezouba Group Company Limited (CGGC)s
2	MW-02: Under Ground Power Complex, Tunnels and Hydraulic Steel Structure	29.12.2016	08.03.2017	23.06.2017	21-2-2023	NA	China Ghezouba Group Company Limited (CGGC)
3	EM-01: Procurement of Plant Design, Supply, Installation, Testing & Commissioning of Hydro-Mechanical and Electrical Equipment	22.10.2019	25.11.2019	20.5.2020	19-6-2025	NA	G.E. Hydro China Co. Ltd. & Power China Zhongmei Engineering Corporation Ltd. Joint Venture (GE-PC JV)
4	KKH-01: Relocation of Karakoram Highway from KM 0+000 to 25+200	09.02.2015	16.03.2015	24.08.2015	20-2-2017	22-7-2024	China Civil Engineering Construction Company (CCECC)
5	RAR-01: Construction of Right Bank Access Road from Komila to SEO Dam Site	09.02.2015	16.03.2015	24.08.2015	22-8-2016	31-8-2022	China Civil Engineering Construction Company (CCECC)
6	TL-01: Procurement, Design, Supply, Installation, Testing & Commissioning of 132 kV Single Circuit Transmission Line and Grid Station (From Switchyard Dubair Khwar to proposed Grid Station Dasu)	03.03.2015	24.04.2015	02.11.2015	18-6-2016	19-11-2022	Power China Corporation Company (PCCC)
7	Resettlement of Villages Left Bank of Indus River LBRV-11	27.02.2017	20.04.2017	26.12.2018	25-12-2019	31-8-2022	Zhongmei Engineering Group Limited
8	Resettlement of Villages Left Bank of Indus River LBRV-12	27.02.2017	20.04.2017	26.12.2018	25-12-2019	31-8-2022	Zhongmei Engineering Group Limited
9	RAR-02: Construction of Right Bank Access Road from Dam Site to Uttar Gah	22.06.2016	18.01.2017	20.12.2021	18-5-2023	18-5-2023	China Ghezouba Group Company Limited (CGGC)
10	KKH-02: Relocation of Karakoram Highway from KM 25+200 to 62+213	27.02.2017	25.04.2017	15-5-2022	31-12-2024	NA	China Ghezouba Group Company Limited (CGGC)
11	Right Bank of Indus River RBRV-11	27.02.2017	25.04.2017	Commencement Letter not yet issued/ Land Issue	-	NA	China Railway 17th Bureau Group Co. Ltd. (CR17B)
12	PCI-01R: Project Colony & Infrastructure (Rebid)	27.08.2017	18.10.2018	20.5.2019	17-5-2021	31-10-2022	China Gansu International Corporation for Economic and Technical Cooperation (CGICOP)
13	RV: Resettlement of Village Chuchang & Construction of Shatial Museum (Re-Bid)	23.04.2019	18.06.2019	18.06.2019	15-12-2020 & 16-10-2019	31-12-2022	Khyber Grace (Pvt.) Limited (KGL)

### 1.3.2 Status of Project Implementation

The overall construction progress of signed contracts up to the reporting period is given in Table 1.3.

**Table 1.3: Overall Construction Progress**

S. No.	Contract	Elapsed Time		Work Progress up to reporting period		Reasons for Delay
		Month	%Age	Scheduled %	Actual %	
1	ICB No. DASU-KKH-01 <sup>(ii)</sup>	82.3	159.2	100	32	-K8+850 to K14+000 Stoppage of excavation at K9+200 due to design change on Logro tunnel option (Koshe to Uchaar). -Unfavorable Geological and Topographical conditions faced at KKH-01 from K17+100 to K17+600 -Re-location of the Uchaar Bridge. (Uchaar Nallah). -Stoppage of excavation at K20+500 due to additional land acquisition to remove the unstable rock slope. (Uchaar to Barseen). -Proposal of a new bridge to avoid the passing in the unstable slope area of the Dugah Nullah. (Barseen to Kaigah Sliding Area at Kaigah from K23+500 to K23+730
2	ICB No. DASU-RAR-01 <sup>(iii)</sup>	82.3	140	100	97.5	No Issues at RAR-01
3	ICB No. DASU-TL-01 <sup>(iv)</sup>	80	146.7	100	88.4	The Employer instructed the Contractor to carry out the design work for JKD towers (T-37 to T-42). However, the Contractor mobilized his team for subsoil investigation on the said towers, but the landowners stopped the work. Landowner wants to carry out the construction activities of T113B by themselves. The agreement between landowner & Contractor is almost done, but the access way to tower location has multiple landowners and they are also demanding the payments for access way. The work has been stopped by Landowners from T149A to T155B and demanding tree compensation payment. Work have been stopped by local committee of Pattan and Palas. (T-43B ~ T-143A)
4	ICB No. DASU-MW-01	60.3	56.6	26.6	17.9	- Urgent Need Land for Siglo Area for construction of Access Road to right cable crane foundation and RCC Batching plant
5	ICB No. DASU-MW-02	60.3	55.9	34.8	7.4	
6	ICB No. DASU-LBRV-11 <sup>(v)</sup>	42.2	181	100	37.3	
7	ICB No. DASU-LBRV-12	42.2	188.1	100	22.8	
8	ICB No. DASU-PCI-01R	37.4	90.3	80	58.4	
9	ICB No. DASU-RV <sup>(vi)</sup>	36.5	203.1	100	38.6	
10	ICB No. DASU-EM-01	25.4	41.6	6.1	3.9	
11	ICB No. DASU-RAR-02	13.6	56.7	55.9	1	
12	ICB No. DASU-KKH-02	1.5	6.5	1.7	0.7	

- i) Elapsed time of each contract/package is from commencement until the end of the reporting period.  
ii) Scheduled progress of KKH-01 is based on EOT-02. The Contractor is preparing revised schedule (EOT-03) for re-alignment (new tunnels & bridges)  
iii) The contractor is preparing revised schedule (EOT-4 for the remaining works of RAR-01 including VO of Komila bypass  
iv) The revised schedule of TL-01 (EOT-4) is under preparation with the contractor  
v) Revised schedules (EOT-02) of LBRV-11&12 is based on change in scope of non-handover sites is under process.  
vi) Revised schedule (EOT-1) of Dasu –RV based on change in scope is under progress.

#### 1.4 Environmental Staffing of PMU and DHC

The staff in the environmental unit of PMU and DHC are given in Table 1.4. The OHS staff of DHC are not included in this table.

**Table 1.4: Environmental Staff of PMU and DHC**

S. No.	Position	Staff
<b>A</b>	<b>PMU</b>	
1	Director	Vacant
2	Deputy Director	Imran Tariq
3	Assistant Director Environment	Muhammad Asim
4	Assistant Director Ecology	Liaqat Ali

S. No.	Position	Staff
5	Supervisor Ecology	Vacant
6	Supervisor Env &OHS	Junaid
7	Supervisor Env &OHS	Arsalan
	<b>DHC</b>	
1	Chief Environmentalist	Zafar Chaudhry
2	Sr. Environmental Specialist	Sardar Alam
3	Sr. Environmental Specialist	Awais Hassan
4	Jr. Environmental Specialist	Vacant
5	Supervisor	Nasir Khan
6	Supervisor	Hidayatullah
7	Supervisor	Mehmood Khan
8	Environmental Advisor	Venkata Nukala

### 1.5 Structure of this Report

This report is divided into various chapters, and the contents of each chapter are briefly given in Table 1.5.

**Table 1.5: Structure of this Report**

Chapter No.	Chapter Name	Contents of the Chapter
Chapter 1	Introduction	Introduction to the Project, description of project works and status of implementation
Chapter 2	Main Works Contracts	Progress of implementing MW-01 and MW-2 contracts, environmental inspections and monitoring conducted, and key environmental issues and non-compliances noticed during implementation.
Chapter 3	KKH-01 Contract	Progress of implementing the KKH-01 contract, environmental inspections and monitoring conducted, and key environmental issues and non-compliances noticed during implementation.
Chapter 4	RAR-01 Contract	Progress of implementing the RAR-01 contract, environmental inspections and monitoring conducted, and key environmental issues and non-compliances noticed during implementation.
Chapter 5	TL-01 (132 KV Transmission Line Contract)	Progress of implementing 132 KV Transmission Line contract, environmental inspections and monitoring conducted, and key environmental issues and non-compliances noticed during implementation.
Chapter 6	PCI-01R Contract	Progress of implementing PCI-01R contract, environmental inspections and monitoring conducted, and key environmental issues and non-compliances noticed during implementation.
Chapter 7	LBRV-11&12	Progress of implementing other contracts (LBRV11 and LBRV12), environmental inspections and monitoring carried out, and key environmental issues and non-compliances noticed during implementation.
Chapter 8	RAR-02	Progress of implementing other contracts (RAR-02), environmental inspections and monitoring carried out, and key environmental issues and non-compliances noticed during implementation.
Chapter 9	KKH-02	Progress of implementing other contracts (KKH-02), environmental inspections and monitoring carried out, and key environmental issues and non-compliances noticed during implementation. EM-01 status
Chapter 10	Other Environmental Aspects	Status of solid waste disposal site and 24hrs traffic count survey
Annex 1		Minutes of Environmental progress review meetings during the quarter
Annex 2		Results of Monthly Environmental Spot monitoring

## 2 Main Works Contracts (MW-01 and MW-02)

### 2.1 Overview of Contracts

A brief overview of the MW-01 and MW-02 contracts is given in Table 2.1. The MW-01 contract works are related to the dam construction, and MW-02 works are related to the powerhouse construction. CGGC is the Contractor for both MW-01 and MW-02 contracts.

**Table 2.1: Overview of MW-01 and MW-02 Contracts**

S. No.	Item	MW-01	MW-02
1	Contract Number	ICB No. Dasu-MW-01	ICB No. Dasu-MW-02
2	Contractor Name	Main Hydraulic Structure, Spill Way, Low-Level Outlets, River Diversions and Hydraulic Steel Structures	Underground Power Complex, Tunnels and Hydraulic Steel Structures
3	Contractor	China Gezhouba Group Co. Ltd (CGGC)	CGGC
4	Commencement Date	June 23, 2017	June 23, 2017
5	Contract Completion Date	Jan 22, 2023	Feb 21, 2023

### 2.2 Contractor Environmental Action Plan

The Contractor has submitted the Contractor Environmental Action Plan (CEAP) with the site-specific management plans to address the environmental impacts and risks of the construction activities. In addition, the Contractor has also prepared an Occupational Health and Safety Management Plan (OHSMP), and details of these plans are not covered in this report. The CEAP consists of 18 site-specific management plans. All these plans were approved by the Engineer except the plans on waste management and construction camp which were conditionally approved. Contractor has been instructed to submit the remaining plans.

### 2.3 Contractor's Facilities and ESHS Staff

The facilities established by the Contractor, such as workers' camps and construction yards, are given in Table 2.2. The Environmental Social Health and Safety (ESHS) Staff of the Contractor are given in Table 2.3.

**Table 2.2: Contractor's Facilities**

S. No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>			
1	Chinese Workers Camp	Barseen	About 179 workers live in this camp	
2	Pakistan Workers Camps	Barseen	About 880 workers live in this camp	
<b>B.</b>	<b>Crushing/Batching Plants</b>			
1	Crushing Plant	Uchaar	A small plant with 120 tons/hr capacity	
2	Crushing plant	Uchaar	250tons/hr	Under construction
3	Batching plant	Uchaar	60m3/hr capacity	
4	Batching plant	Khushi	240m3/hr capacity	
5	Pozzolan Plant	Gini	-Construction of Chillas Pozzolan milling plant- 98% completed -Equipment Installation of Chillas pozzolan milling plant- 70% completed	

**Table 2.3: Contractor's ESHS Staff**

S. No.	Position	MW-01 Contract	MW-02 Contract	Remarks
1	Manager HSE	Sun Kang	Sun Kang	The contractor has been instructed to fill the vacant positions
2	Environmental Officer	Zhan Kai	Zhan kai	
3	Environment supervisor	Israr	Israr	

### 2.4 Construction Activities

Details of construction activities conducted during the reporting period are shown in Table 2.4 and Table 2.5 for MW-01 and MW-02 Works, respectively.

**Table 2.4: Construction Activities in MW-01 Contract**

S. No.	Work Site	Details of Works	Remarks
1	Diversion Tunnel A	Excavation works	98% Completed
2	Adit Tunnels	Excavation works	100% completed
3	Diversion Tunnel B	Excavation works	97% completed
4	Left bank traffic diversion Tunnel	Excavation works	33%
5	Gini Pozzolan Plant	Equipment Installation	70% completed

**Table 2.5: Construction Activities in MW-02 Contract**

S. No.	Work Site	Details of Works	Remarks
1	Surge Chamber VAT	Excavation	97.7% completed
2	STA	Excavation	99.5 % completed
3	GIS Room access tunnel	Excavation	98.9% completed
4	Underground powerhouse Crown portion	Excavation	9.5% completed
5	Underground Transformer cavern Crown portion	Excavation	9.8% completed
6	Drain tunnel	Excavation	97.3% completed
7	Penstock Adit tunnel No.1	Excavation	95.4 % completed
8	Penstock Adit tunnel No.2	Excavation	100% completed
9	Gini Pozzolan Plant	Equipment Installation	Same plant will be used for both contracts




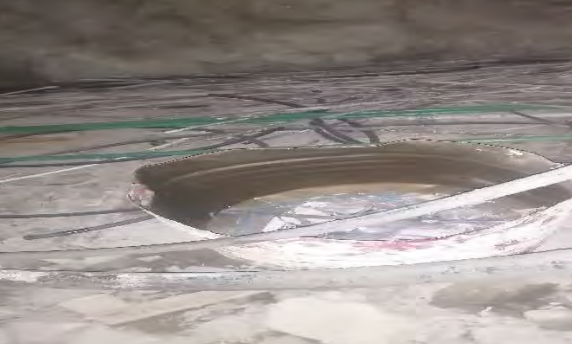
## **2.5 Construction Supervision and Environmental Compliances**

### **2.5.1 Site Inspections and WTEIRs**




Site visits to the construction areas are conducted daily by the environmental staff to supervise environmental compliance of the construction activities. Daily monitoring checklists are filled after the observations are noted at site. In addition, walk-through environmental inspections have also been conducted at all work sites regularly by the senior environmental staff of DHC and PMU to identify any environmental issues and non-compliance. The issues identified at the construction sites are communicated with the Contractor through Walk-Through Environmental Inspection Reports (WTEIRs). The Contractor has also been instructed to address these issues within a suggested timeframe. The Contractor has resolved the non-compliances and submitted rectification report. The WTEIRs, consisting of both non-compliances and rectifications, are given in the following tables.



**Table 2.6: Walk-Through Environmental Inspection Report 50**


Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Action Taken by the Contractor	Completion Date
50.1	09-04-2022 CR-09	Scattered waste at truss bridge site		The Contractor is instructed to clean the area and place waste bins for waste disposal	  	

**Table 2.7: Walk-Through Environmental Inspection Report 51**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
51.1	15-04-2022 Crush Plant Uchaar	Sedimentation tank full of Sludge		The contractor is consistently committing the noncompliance. The contractor is warned to abide by the contract and regularly clean the sedimentation tanks.	<b>Immediate</b>		
51.2	15-04-2022 Crush Plant Uchaar	Poor Housekeeping		The contractor is instructed to ensure good housekeeping	<b>immediate</b>		
51.3	15-04-2022 CR-9	Sedimentation Tank full from sludge		The contractor is consistently committing the noncompliance. The contractor is warned to abide by the contract and regularly clean the sedimentation tanks.	<b>Immediate</b>		



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
							
51.4	15-04-2022 Crushing Plant Uchaar	Oil Spill		The contractor is instructed to remove the oil spill	<b>immediate</b>		
51.5	15-04-2022 CR-9	Scattered waste at construction site		The contractor is instructed to place waste bins and use it for the waste generated at site for onward disposal	<b>immediate</b>		



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
			 <p>The top photograph shows a close-up of a concrete wall with a yellow-painted base. In the foreground, there is a pile of debris including a red and white plastic bag, a green bag, and some wooden planks. The bottom photograph shows a wider view of a construction site. A river is visible in the background. In the foreground, there is a small building with a red roof, a yellow structure, and various pieces of debris and plastic waste scattered on the ground.</p>				



**Table 2.8: Walk-Through Environmental Inspection Report 52**







Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
52.1	26-05-2022 CR-2	Large scale Fuel/ Mobil Oil/ Chemical Spillage	 <p>The 'Picture' column contains three photographs. The top photo shows a spill of dark liquid on a rocky, light-colored slope. The middle photo shows a large, dark pile of debris and rocks. The bottom photo shows a paved area with several orange trucks parked, and a black car in the foreground.</p>	<ul style="list-style-type: none"> <li>Contractor is instructed to replace the soil with clean and fresh soil immediate basis.</li> <li>If needed then use spill kits for oil spill on the site.</li> <li>Dispose of the contaminated Soil.</li> <li>Contractor is also instructed to arrange a training session for the labor and mechanics so that they would understand how not to spill oils/ chemicals/ fuel.</li> </ul>	Immediate	 <p>The 'Action Taken by the Contractor' column contains three photographs. The top photo shows a spill kit (a green and red container) on the ground. The middle photo shows a large pile of debris and rocks. The bottom photo shows a paved area with several orange trucks parked, and a black car in the foreground.</p>	





Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
			 <p>May 26, 2022 10:29:39 AM Index number: 855</p> <p>May 26, 2022 10:32:21 AM 356° N Index number: 864</p> <p>May 26, 2022 10:29:09 AM Index number: 853</p>				

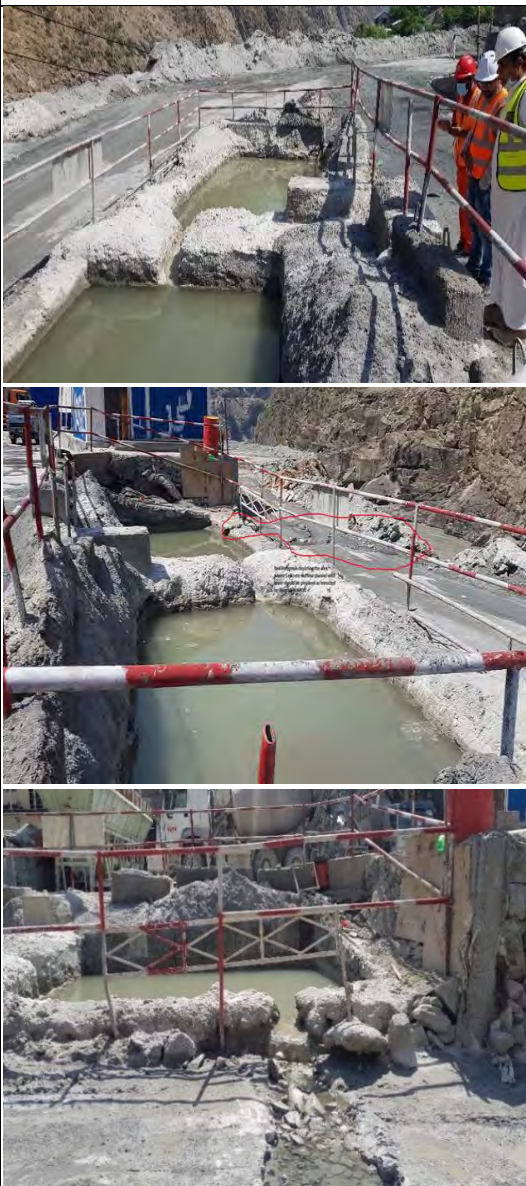



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
52.2	26-05-2022 Uchaar crushing Plant	Poor Housekeeping	 <p>May 26, 2022 10:50:05 AM 233° SW Index number: 971 26 May 2022 10:55:21 26 May 2022 10:56:11 35.34054169N 73.20579854E N-35 Kohistan Khyber Pakhtunkhwa</p>	The contractor is instructed to maintain good housekeeping practices at all the construction sites.	Immediate		



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
			  			  	





Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
52.3	26-05-2022 Outside on KKH along fence of CR-09, CR-02 and Uchar Crushing Plant owned by CGGC.	Fugitive Dust Suppression		<p>Fugitive Dust Suppression measures are found inadequate at site especially inside CR-09, CR-02, outside CR-09 up till Uchar Batching plant and Uchar Crushing Plant.</p> <p>Contractor is instructed to Increase the frequency of Water Sprinkling at all allocated Sites.</p> <p>In order to increase absorption of water in soil the Water Tanker should move slowly and the perforation of the shower holes should be increased on the back of Water Tanker</p>	Immediate		

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
52.4	26-05-2022 at CR-02	Sedimentation Pond		<p>The contractor is instructed to Add up fresh water intake pipe to this pond and it should be buried under the soil so that moving truck may not damage any of it. As well as the water channel from the outlet of the sedimentation tank up till it is being released to other water body.</p>	3 <sup>rd</sup> of June 2022		





Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
52.5	26 <sup>th</sup> of May 2022 at CR-02	Poor Hygienic and Maintenance condition of Toilets at CR-02		<p>Cleaning of Staff Toilets at CR-02 is direly needed at priority. There was littering in the Toilets Cigarette butts, used masks Niswar Packaging was seen in the Toilets. Therefore, Contractor is instructed to clean the Toilet at least three Times a day as well as maintain inspection slips on the door to maintain record as well as but a waste bin in the toilet to curb littering in the toilets.</p>	1 <sup>st</sup> of June 2022		

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
52.6	Location id at CR-02, Uchar Crushing Plant of CGGC	Sedimentation Tank was full of Sludgy Froth.		<p>Contractor is further instructed to clear the Septic Tank from Sludge as the water is oozing out of the Septic Tanks as well.</p> <p>The Primary and secondary ponds were full of Sludgy froth which was floating on the water which needs to be cleared out on daily basis do that it can be monitored.</p>	1 <sup>st</sup> of June 2022		








**Table 2.9: Walk-Through Environmental Inspection Report 53**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
53.1	27-05-2022 CR-2	Fuel/Oil Spillage		Contractor is instructed to replace the soil with clean and fresh soil immediate basis. If needed then use spill kits for oil spill on the site. Dispose of the contaminated Soil.	Immediate		28-05-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
53.2	27-05-2022 DT-B (Diversion Tunnel-B)	Poor Housekeeping		The contractor is instructed to maintain good housekeeping practices at all the construction sites	Immediate		28-05-2022



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
			 <p style="text-align: right; font-size: small;">27 May 2022 10:19:55</p>  <p style="text-align: right; font-size: small;">May 27, 2022 10:21:11 AM 50° NE Index number: 920</p>			 <p style="text-align: right; font-size: x-small;">2022.05.31 15:36</p>  <p style="text-align: right; font-size: x-small;">2022.05.31 09:43</p>  <p style="text-align: right; font-size: x-small;">2022.05.31 09:07</p>	





Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
53.3	27-05-2022 CR-2	Poor Housekeeping	 <p>27 May 2022 10:50:19 35.3212661N 73.1963577E N 35 Dasu Kohistan Khyber Pakhtunkhwa</p> <p>May 27, 2022 10:37:44 AM 13° 13' Index number: 922</p> <p>May 27, 2022 9:53:15 AM 63° NE Index number: 885</p>	The contractor is instructed to maintain good housekeeping practices at all the construction sites.			28-05-2022



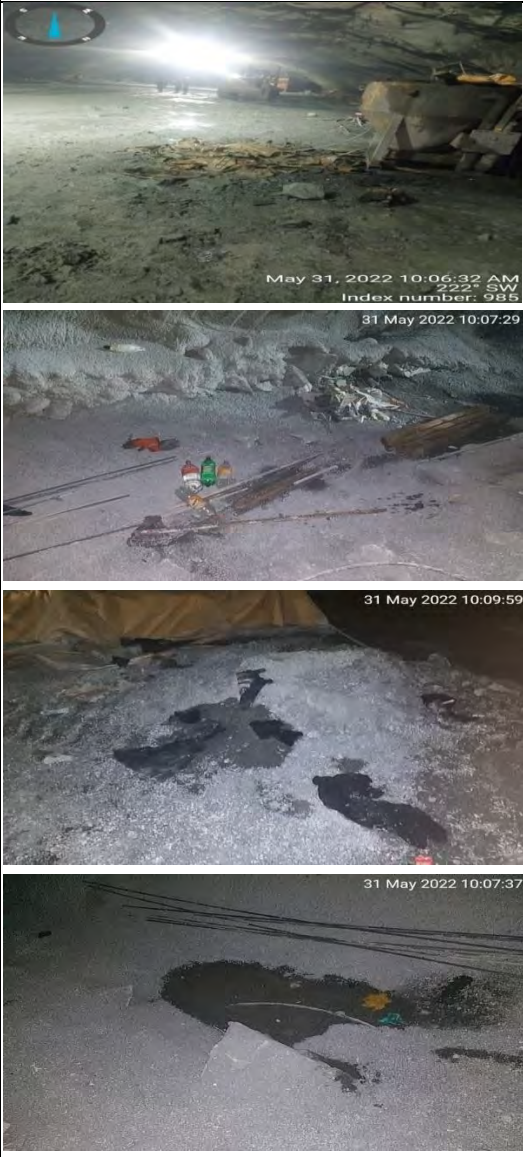

**Table 2.10: Walk-Walk Through Environmental Inspection Report 54**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
54.1	31-05-2022 CR-2 and CR-9	Fuel/Oil Spillage		<p>Contractor is instructed to replace the soil with clean and fresh soil immediate basis. If needed then use spill kits for oil spill on the site. Dispose of the contaminated Soil.</p>	Immediate		05-06-22



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
			 <p style="text-align: right; font-size: small;">May 31, 2022 11:22:29 AM 73° E Index number: 1026</p>				
54.2	31-05-2022 Power house	Inadequate Housekeeping in Power House	 <p style="text-align: right; font-size: small;">31 May 2022 10:04:04 31 May 2022 10:07:00</p>	The contractor is instructed to maintain good housekeeping practices at all the construction sites. Arrange regular awareness and training session for the Labor and staff to keep good housekeeping.	Immediate		05-06-22





Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
				<p>Contractor is instructed to remove the Oil Spill by replacing fresh soil with contaminated soil</p>			

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
54.3	31-05-2022 CR-9	Poor Housekeeping	 <p>The 'Picture' column contains three photographs showing cluttered construction sites. The top photo shows a large metal drum and debris next to a blue container. The middle photo shows a pile of waste and debris in a narrow space. The bottom photo shows a messy area with pipes and debris. Each photo has a timestamp: '31 May 2022 10:16:36' and '31 May 2022 10:22:21'.</p>	The contractor is instructed to maintain good housekeeping practices at all the construction sites.		 <p>The 'Action Taken by the Contractor' column contains three photographs showing the same construction sites after cleanup. The top photo shows the area with the metal drum now tidied up. The middle photo shows the narrow space cleaned. The bottom photo shows the area with pipes and debris cleaned. Each photo has a 'TECTO SPARK' logo in the bottom left corner.</p>	05-06-22




Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
							

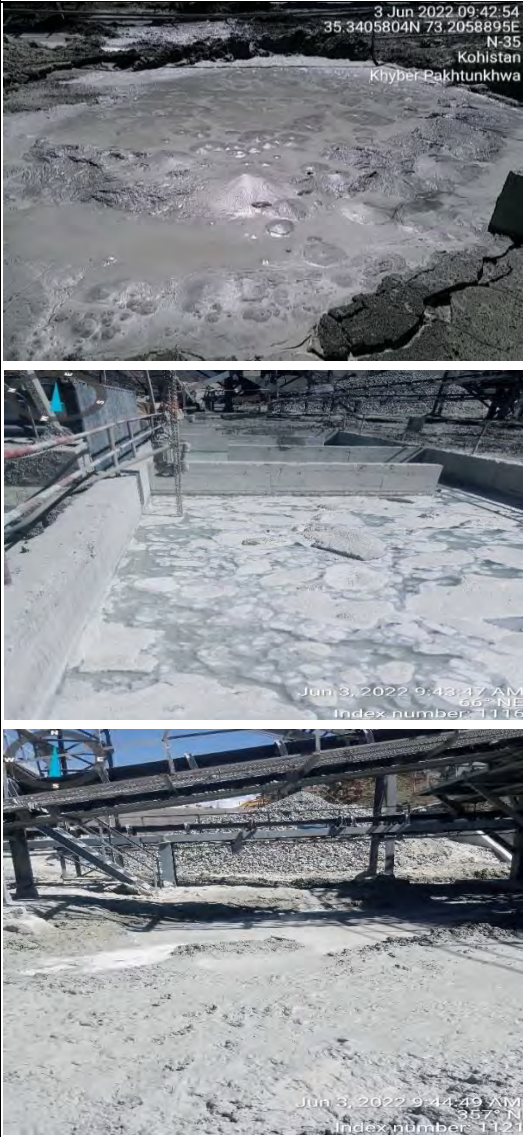



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
54.4	31-05-2022 Power house	Sludge		It is instructed the contractor to remove the sludge from site and dispose to the disposal site.			
54.5	31-05-2022 CR-9	Workshop waste full of Fuel/Oil		Repeatedly instruction through walk through environmental inspection report to the contractor for removal of the workshop waste but contractor did not rectify the issue. It is again instructed with grave concern that CGGC has to remove the waste from site immediately and clean the site.			





**Table 2.11: Walk-Walk Through Environmental Inspection Report 55**



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
55.1	03-06-2022 Uchaar Crushing Plant	Sludge Floating on the Water Tank as well as no fresh water input was seen at site. The fresh water pipe was not working.		<p>The sedimentation tank of Uchaar crushing plant is full of sludge and the contractor is required to remove the sludge on urgent basis. The sludge was dumped besides the sedimentation tank as shown in pictures. The outside sludge is so much full that it is again flowing into the tank. Contractor is instructed to remove the sludge from site with immediate effect and dispose it at some place far from the sedimentation tank so that it may dry fully in sun light and not entering in the sedimentation tank.</p>			

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
							







**Table 2.12: Walk-Walk Through Environmental Inspection Report 56**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
56.1	07-06-2022 Sedimentation Tank CR 02	Permanent fresh water addition	 <p style="text-align: center;">Jun 7, 2022 11:14:27 AM 27° NE Index number: 1242</p>	Contractor is instructed to install permanent fresh water pipe to the sedimentation tank.	<b>Immediate</b>		
56.2	07-06-22 CR 02  Toilets Septic Tank	Septic Tank overflow is causing nuisance	 <p style="text-align: center;">Jun 7, 2022 10:58:16 AM 190° S Index number: 1240</p>	Contractor is instructed to install an overflow pipe and regular cleaning of Septic tank is required by removing the sludge.	<b>Immediate</b>		

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
56.3	07-06-22 CR 09 Behind workshop	Oil spillage	 <p style="text-align: right;">Jun 7, 2022 9:48:01 AM 320° NW Index number: 1233</p>	Contractor is instructed to remove the oil spillage and replace the contaminated soil with fresh soil and dispose off the contaminated soil as per SOP's.	Immediate		
	Near sedimentation tank along road	Oil spillage	 <p style="text-align: right;">Jun 7, 2022 9:50:45 AM 312° NW Index number: 1236</p>				



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
56.4	07-06-22 CR-09 Workshop Under truss bridge	Garbage and damaged faucets. Pipes		Repair leaking faucets / pipes. And remove the garbage from backyard of Workshops under Truss bridge.	<b>Immediate</b>		
56.5	07-06-22 CR 09	Poor housekeeping		Collect the un used materials And place them to a appropriate place rather than keeping on construction site . Place the	<b>Immediate</b>		

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
56.6		Heavy dust during the crushing operation		The contractor is instructed to install Wet scrubbing system on the conveyer belt so that the crush material is wet and no dust is generated because the water cannon is not as effective as the approach mentioned above.	<b>Immediate</b>		
56.7	07-06-2022 Crush plant at Uchaar	Sludge in the sedimentation pond and froth is floating on the pond surface.		The contractor is instructed to clear the sedimentation pond with immediate effect.	<b>Immediate</b>		
	07-06-2022 Location is sedimentation Tank of Uchar Crushing Plant						

## 2.5.2 Notices and Letters

In addition to the WTEIRs discussed in the previous section, the Engineer has issued notices to the Contractor on several persistent issues during the reporting period. A summary of these issues is given in the following table.

**Table 2.13: Correspondence with the Contractor on Environmental Issues**

S. No.	Environmental issues	No. of issued Letters
1	Engineer's reply on the approval of Environmental Officer	01
2	Submission of remaining CEAP plans	01
3	Seo crusher plant prerequisites/Air dispersion modelling	02
4	Haulage of oversized construction equipment to project site	02
5	Delay/Mobilization plan for 3 <sup>rd</sup> Party environmental monitoring	02
6	Non-compliances w.r.t. EMAP and related ECPs	01

## 2.5.3 Quarterly Monitoring of Air, Noise, Water and Wastewater

The Contractor has not yet conducted any Quarterly environmental monitoring. Negotiations with an approved third-party environmental monitoring laboratory (SGS) are underway and will be mobilized soon to start the environmental monitoring.

## 2.5.4 Spot Monitoring of Wastewater Quality

Monthly spot monitoring was carried out during the reporting quarter to assess the quality of wastewater. The wastewater discharges from the construction sites are collected from the sedimentation ponds and assessed monthly for turbidity, conductivity, pH and dissolved oxygen (DO). These tests are conducted by the Contractor in the presence of the Environment team of PMU and DHC using portable equipment. pH in most of the samples showed high alkalinity due to the use of admixture with concrete inside the tunnels for shotcreting. Fortunately, the receiving body is of huge volume (River Indus) and the dilution factor resolves the issue which was confirmed from downstream surface water quality testing. The surface water was tested downstream of the sedimentation tanks to assess the pH value which was the same as was at upstream of the sedimentation tanks. The coordinates of the sampling locations are given below:

**Table 2.14: Location of the spot monitoring**

S.no	Location	Coordinates
<b>Surface water</b>		
1	Upstream Indus River at Uchaar	35°20'31.93" N 73°12'18.76"E
2	Downstream Indus River near Kas truss bridge	35°17'28.28" N 73°13'14.93"E
<b>Wastewater</b>		
1	Uchaar crusher plant sedimentation pond	35°20'25.56" N 73°12'18.76"E
2	Uchaar Batching plant sedimentation pond	35°19'31.10" N 73°12'01.71"E
3	Sedimentation tank near Adit-1	35°19'16.97" N 73°11'57.79"E
4	Sedimentation tank near MAT	35°18'21.15" N 73°11'35.55"E
5	Sedimentation tank at Khushi batching plant	35°18'07.72" N 73°11'49.27"E

**Table 2.15: Results of Spot Monitoring MW-01**

S. No.	Month	Location	Turbidity (NTU)	Conductivity (uS/cm)	pH	DO mg/l	Temperature, °C	visual presence of Petroleum	Remarks
1	April	Uchaar crusher plant sedimentation pond	1000	143	10.3	0.7	17.3	No	
		Uchaar Batching plant sedimentation pond	145.8	830	11.2	0.7	17.4	No	
		Sedimentation tank near Adit-1	42.2	192.9	8.9	0.6	17.7	NO	
2	May	Uchaar crusher plant sedimentation pond	-	-	-	-	-		The sedimentation tank was full of sludge. The monitoring was not conducted, and the contractor was instructed to clean the tanks.
		Uchaar Batching plant sedimentation pond	182	847	10.9	0.8	19.4	No	
		Sedimentation tank near Adit-1	57.6	216	9.2	0.5	18.8	No	



3	June	Uchaar crusher plant sedimentation pond	-	-	-	-	-	-	
		Uchaar Batching plant sedimentation pond	156.3	691	11.2	2.4	22.9		
		Sedimentation tank near Adit-1	-	-	-	-	-	-	The tank was full of Algae, the contractor was asked to clean it
<b>NEQS</b>			200NTU		6-9		<40		

**Table 2.16: Results of Spot Monitoring MW-02**

S. No.	Month	Location	Turbidity (NTU)	Conductivity (uS/cm)	pH	DO mg/l	Temperature, °C	The visual presence of Petroleum Product	Remarks
1	April	Sedimentation tank near MAT	324	323	10.7	0.6	19.6	No	
		Sedimentation tank at Khushi batching plant	329	431	11	0.6	20.5	yes	
2	May	Sedimentation tank near MAT	35.5	355	10.6	0.6	21.9	No	
		Sedimentation tank at Khushi batching plant	196.7	471	11	0.8	23.2	No	
3	June	Sedimentation tank near MAT	186.9	726	11.1	2.8	23.9		
		Sedimentation tank at Khushi batching plant	497	289	10.4	3.1	24.8		
<b>NEQS</b>			200 NTU		6-9		<40		

### 2.5.5 Contractor's Effect Monitoring

The monitoring requirements of the Contractor as per the bidding documents are given in the following table. The Engineer's observation of the monitoring status is also given in the last column of this table.

**Table 2.17: Status of Contractor's Effect Monitoring**

S. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	Geology team of the Engineer supervised this aspect during the reporting quarter and issued necessary instructions to the Contractors for the areas where there was a potential of landslide. As far as the 37 landslides are concerned that are coming in the reservoir area and the effect will be monitored once the dam impounding is started.
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	Monthly visual inspection carried out. No occurrence was recorded during the quarter.
3	Surface water quality	In the rivers and tributaries at the downstream of the construction sites. The locations of sampling can be same locations of baseline water quality or new locations recommended by the CSC.	Sampling and analysis of river water quality and wastewater discharges for the key parameters given in NEQS (river water quality – DO, BOD, COD, Temperature, pH, Conductivity, TSS, turbidity, nitrate, Wastewater – BOD, TSS, turbidity, TDS, COD, grease and oil, iron, ammonia, sulfates, chlorides)	Quarterly	The Contractor is in negotiation with SGS Environmental laboratory to conduct the third-party environmental monitoring.
4	Air Quality (dust, smoke)	Construction sites, quarry areas along KKH and blasting areas	Visual inspection to ensure good standard equipment is in use and dust suppression measures (spraying of waters) are in place.	Weekly	Weekly visual inspections were carried out during the quarter and instructions were given to contractor for compliance. The Contractor was strictly instructed to increase water sprinkling frequency. The dust is under control.
5	Air Quality (PM10, NO <sub>2</sub> , SO <sub>2</sub> , CO <sub>2</sub> , CO)	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same	Air quality monitoring for 24 hours for the parameters specified in NEQS 2000	Quarterly	The Contractor is in negotiation with SGS Environmental laboratory to conduct the third-party environmental monitoring.

S. No.	Parameter	Location	Means Monitoring	Frequency	Status
		locations of baseline air quality or new locations recommended by the CSC.			
6	Emissions from plant and equipment	At all the construction sites for dam, KKH and tunnels	Visual Inspection	Monthly	Monthly visual inspections were carried out during the quarter and no issue was observed.
7	Noise and vibration	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC	24-hour noise monitoring	Quarterly	The Contractor is in negotiation with Green Crescent and SGS Environmental laboratory to conduct the third-party environmental monitoring.
8	Waste Management	At the designated rock disposal area	Visual inspection on spoil disposal in accordance with EMP Sub plan on Waste Management	Monthly	The Contractor is disposing the spoil in the designated spoil dumping site at Khushi and is also transporting the spoil to the crushing plant at Uchaar as raw material for aggregate
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Monthly	Monthly monitoring was carried out and contractor disposed the waste in Barseen area as a temporary arrangement till the landfill site is finalized by the DHPP.
10	Spills from Hydrocarbon	Material storage sites and construction yards	Visual Inspection for leaks and spills	Monthly	Monthly monitoring was carried out. The spills were recorded during the quarter and contractor was instructed to rectify the issue.
11	Traffic Safety	Along KKH and access roads to the construction areas	Visual inspection to see whether Traffic Management Plan (EMP Sub Plan 12) is implemented	Monthly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Monthly	Monthly monitoring was carried out and no damage was observed to the local roads
13	Cultural and archeological Sites	At the physical and cultural resources identified in the EIA	Visual observation on implementation of EMP Sub Plan 13 on Physical Cultural Resources Management	Monthly	The contractor kept in consideration this aspect during the excavation activities. There was no archeological site present in the current construction area.
14	Drinking water and sanitation	In construction sites and construction camps	Ensure the construction workers are provided with safe water and sanitation facilities on the site	Weekly	Weekly Monitored. The contractor provided water coolers to the workers at the sites.

### 2.5.6 Key Performance Indicators

The key performance indicators identified in the ESA<sup>3</sup> of DHP to mitigate the environmental impacts and risks during construction can be summarized into five categories, as shown in the following table.

**Table 2.18: Key Performance Indicators for compliance with mitigation measures**

S. No	Key Performance Indicator	Description of the Indicator
1	Number of any non-compliance reports	The number of non-compliances noticed and reported to the Contractor.
2	Number of public complaints or grievances	The number of complaints or grievances received from the communities on the construction-related nuisances such as traffic, dust, noise and vibration, or any other construction-related activities
3	Number of accidents/incidents	The number of accidents or incidents, or near misses involving construction activities and construction vehicles
4	Number of exceedances over NEQS	The number of parameters in ambient air and noise quality, drinking water, wastewater discharges and surface waters found beyond the national standards.
5.	Other Indicators	Any other indicators that are not covered in the above categories are given in 'other indicators.' This includes the number of times chance finds are noticed, the number of trainings conducted, etc.

A detailed assessment of the status of compliance with the performance indicators and their status during the reporting period is given in the following table. Any indicators related to OHS and social aspects are covered in the relevant reports, not in this report.

<sup>3</sup> See Table 9.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 2.19: Key Performance Indicators and their Status during the reporting period**

Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
1. Contractor Mobilisation and Demobilisation	1.1 Traffic Management						None reported in this quarter
	1.2 Soil Erosion and Contamination						-do-
	1.3 Air Quality						-do-
	1.4 Noise						-do-
	1.5 Public Safety						-do-
	1.6 Damage to Infrastructure						-do-
2. Contractor's Camp	2.1 Soil and Water Contamination						-do-
	2.2 Air Quality						No quarterly environmental monitoring is done
	2.3 Vegetation loss					Number of trees felled: 0	
	2.4 Noise						No monitoring is done
	2.5 Health and Safety						Covered under OHS Quarterly Report
	2.6 Social and Gender Issues						Covered under Social Quarterly report
	2.7 Damage to PCRs					Number of chance finds: 0	None reported this quarter
	2.8 Increased load on local services						Covered under Social Report
3. Transportation of Equipment	3.1 Traffic Management						Two letters were issued on the hauling of oversized equipment
	3.2 Soil Erosion and Contamination						None reported
	3.3 Air Quality						-do-
	3.4 Noise						-do-
	3.5 Public Safety					Number of trainings provided:	Covered under social report
	3.6 Damage to infrastructure						None reported
4. Construction of Dam, Powerhouse and other Infrastructure	4.1 Changes to topography						-do-
	4.2 Landslides					Number of landslides: Number of blasting events:	-do-
	4.3 Soil erosion					Number of incidences borrow pits not covered:	-do-
	4.4. Soil and water contamination		8				8 incidences of oil spills reported in WTEIRs which were rectified
	4.5 Water pollution		6				6 incidences of water pollution reported in WTEIRs which were rectified
	4.6 Air Quality		2				2 incidences of dust reported in WTEIRs which were rectified
	4.7 Health and Safety						Covered under OHS report
	4.8 Noise and vibration						-do-
	4.9. Landscape and visual Intrusion	Nil					Nil
	4.10. Vegetation Loss	Nil				The number of trees felled:0	-do-



Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
						The number of saplings planted:0 The survival rate of samplings after one year: 0	
	4.11. Fauna/wildlife	Nil				Number of reports of sighting key wildlife species	-do-
	4.12 Mortality of fish	Nil					-do-
	4.13 Impact on ecological connectivity						Covered under BEDMP
	4.14 Damage to infrastructure						None reported
	4.15 Damage to PCRs	Nil				Number of chance finds:0	-do-
	4.16. Loss of access to villages	Nil				Presence of new roads:	-do-
	4.17 Disturbance to visual landscape and natural habitats	Nil					-do-
	4.18. Social conflicts due to labour influx						Covered under Social Report
	4.19 Local cultural values						do
	4.20. Health impacts on local community					Number of patients being treated in local hospitals:	-do-
	4.21 Increased load on local services and supplies						-do-
5. Quarry Operation	5.1 Changes to topography 5.2 Landslide 5.3 Soil erosion 5.4 Soil and water contamination 5.5 Air Quality 5.6 Health and Safety 5.7 Noise and Vibration 5.8 Landscape and Visual Intrusion 5.9 Vegetation loss 5.10 Fauna / Wildlife 5.11 Damage to infrastructure 5.12 Damage to PCRs	Nil					No quarry operation started
6. Spoil Area Management	6.1 Changes to topography 6.2 Landslide 6.3 Soil erosion 6.4 Air Quality 6.5 Landscape and Visual Intrusion 6.6 Vegetation loss	Nil					
7. Waste Management	7.1 Soil and water contamination 7.2 Odor		8				8 incidences of waste management and 3 incidences of poor house keeping are mentioned in WTEIRs of this quarter

### **2.5.7 Overall Compliance Status – Tri-Partite Monthly Meetings**

Monthly meetings were held with the Contractor by the Engineer and PMU to discuss pending environmental non-compliance and the actions taken by the Contractor to address these issues. The minutes of these meetings are shown in Annexure-1.

The Major pending issues are:

- 3<sup>rd</sup> party environmental monitoring
- Adaptive measures for the closure of NCRs
- Status of Air dispersion modelling for Proposed Seo crusher plant
- Appointment of Environmental Director

### 3 KKH-01 Contract

#### 3.1 Overview of Contracts

A brief overview of the KKH-01 contract is given in Table 3.1. The KKH-01 contract works are related to the construction of 25.2 km of road along with the tunnels.

**Table 3.1: Overview of KKH-01 Contract**

S. No.	Item	Data
1	Contract Number	ICB No. Dasu-KKH-01
2	Contractor Name	Relocation of Karakorum Highway (KKH) RD0+000 to RD 25+200
3	Contractor	China Civil Engineering Construction Corporation (CCECC)
4	Commencement Date	March 16, 2015
5	Contract Completion Date	Feb 20, 2017
6	Updated Completion Date	July 22, 2024

#### 3.2 Contractor Environmental Action Plan

The Contractor has submitted the Contractor Environmental Action Plan (CEAP) with the site-specific management plans to address the environmental impacts and risks of the construction activities. In addition, the Contractor has also prepared an Occupational Health and Safety Management Plan (OHSMP), and details of these plans are not covered in this report.

#### 3.3 Contractor's Facilities and ESHS Staff

The facilities established by the Contractor, such as workers' camps and construction yards, are given in Table 3.2. The Environmental Social Health and Safety (ESHS) Staff of the Contractor are given in Table 3.3.

**Table 3.2: Contractor's Facilities**

S. No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>			
1	Chinese Workers Camp	Uchaar/Shal/Chuchang/Dasu	About 39 workers live in this camp	
2	Pakistan Workers Camps	Uchaar	About 73 workers live in this camp	
<b>B.</b>	<b>Crushing/Batching Plants</b>			
1	Crushing Plant	Uchaar	A small plant with 2 ton/day capacity	Currently not in operation
2	Batching plant	Uchaar		
<b>C.</b>	<b>Other Facilities</b>			
1	Construction Yard	Uchaar		
2.	Explosive Magazine	Barseen	20 Ton capacity	

**Table 3.3: Contractor's ESHS Staff**

S. No.	Position	KKH-01 Contract	Remarks
1	Manager HSE	Manzoor Hussain	
2	Environmental Officer		
3	Environmental Supervisor	Arif Hussain	

#### 3.4 Construction Activities

Details of construction activities conducted during the reporting period are shown in Table 3.4.



**Table 3.4: Construction Activities in KKH-01 Contract**

<b>S. No.</b>	<b>Work Site</b>	<b>Details of Works</b>	<b>Remarks</b>
1	K3 Tunnel	Seismic reinforcement wall at K3 tunnel	Continued during the quarter
2	Khushi K5, K6 and K7	Retaining Wall	Continued during the quarter
3	Khushi K9	Camp development at K9	Continued during the quarter

### **3.5 Construction Supervision and Environmental Compliances**

#### **3.5.1 Site Inspections and WTEIRs**

Site visits to the construction areas are conducted daily by the environmental staff to supervise environmental compliance of the construction activities and complete daily monitoring checklists. In addition, walk-through environmental inspections have been conducted at all work sites regularly by the senior environmental staff of DHC and PMU to identify any environmental issues and non-compliance. The issues identified at the construction sites are communicated with the Contractor through Walk-Through Environmental Inspection Reports (WTEIRs). The Contractor has also been instructed to address these issues within a suggested timeframe. The Contractor has rectified these non-compliances and submitted the report with the actions taken. The WTEIRs, consisting of both non-compliances and rectifications, are given in the following tables.

**Table 3.5: Walk-Through Environmental Inspection Report 29**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor
29.1	09-06-2022 CCECC workshop	Oil spillage		Contractor is instructed to remove the contaminated soil and replace it with fresh soil. Also for future protection either use Chemical/ fuel Spill Sheets or concrete the area where oil is to be stored or vehicular oil is to be changed. In case of Engine oil of some vehicle is to be changed on soil/open area then use of dripping trays is strongly recommended	Immediate	

<p><b>29.2</b></p>	<p>09-06-22 CCECC camp</p>	<p><b>Inadequate housekeeping</b></p>	 <p>The top photograph shows an outdoor area with a large pile of debris, including metal sheets and plastic waste, on a dirt ground. A timestamp at the bottom reads 'Jun 9, 2022 9:41:10 AM 325° NW Index number 1288'. The bottom photograph shows an interior space with several large white bags and other equipment scattered around, appearing disorganized. A timestamp at the bottom reads 'Jun 9, 2022 10:57:24 AM 63° NE Index number 1289'.</p>	<p>The Contactor is instructed to maintain good housekeeping and keep the junkyard in order.</p>	 <p>This photograph shows a large, messy pile of scrap metal and debris in an outdoor area, likely a junkyard. The items are scattered and not organized.</p>
<p><b>29.3</b></p>	<p>09-06-22 CCECC Camp Pakistani kitchen</p>	<p><b>Unhygienic kitchen</b></p>	 <p>The top photograph shows a kitchen counter with various items, including a metal tray and some containers, in a cluttered state. A timestamp at the bottom reads 'Jun 9, 2022 10:57:24 AM 63° NE Index number 1289'. The bottom photograph shows a close-up of the floor under a counter, with a bowl of food and other debris, indicating unhygienic conditions. A timestamp at the bottom reads 'Jun 9, 2022 10:57:24 AM 63° NE Index number 1290'.</p>	<p>The Contactor is instructed to clean all its cooking, eating, dining facilities and provide all workers/ staff with clean and healthy environment and follow ECPs in true letter and spirit.</p>	 <p>This photograph shows a long, narrow table made of wood or metal, possibly used for dining or eating. The table is cluttered with items, and the overall environment appears unhygienic.</p>



29.4	9-6-22 Chinese kitchen	Hygiene and Cleanliness to be ensured . Waste management and cleaning of utensils and dirty kitchen/ brewery equipment/ kitchen utensils.				
29.5	9-6-22 Temporary waste storage	Management of Waste in proper manner like segregated waste storage areas as can be seen in picture the Paper waste and cartons (Paper waste is mixed		The contractor is instructed to ensure proper waste management as per ECP-01 Waste Management.		
29.6	09-06-22 CCECC camp backyard behind security residence s			Oil and garbage littering, Poor house keeping and poorer waste management needs to be rectified immediately		

29.7	9-6-22	Fire hazard		<p>The contractor is instructed to put the Gas/ LPG Cylinder outside the building and bring a connecting pipe inside only, because by putting the LPG cylinder and stove next to each other may result in any kind of fire incident or explosion.</p>	
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### 3.5.2 Notices and Letters

In addition to the WTEIRs discussed in the previous section, the Engineer has issued notices to the Contractor on several persistent issues during the reporting period. A summary of these issues is given in the following table.

**Table 3.6: Correspondence with the Contractor on Environmental Issues**

S. No.	Environmental issues	No. of issued Letters
1	Implementation of ECP-13 relating to protection of fauna	01

### 3.5.3 Quarterly Monitoring of Air, Noise, Water and Wastewater

During the quarter the scope of the work was very meagre i.e., breast wall construction etc. Although KKH-01 has balance quantities for Environmental monitoring which will be utilized once the construction works starts momentum.

### 3.5.4 Contractor's Effect Monitoring

The monitoring requirements of the Contractor as per the bidding documents are given in the following table. The Engineer's observation of the monitoring status is also given in the last column of this table.

**Table 3.7: Status of Contractor's Effect Monitoring**

S. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	Most of the identified landslides will be triggered once the reservoir impounding is started. However, the construction related landslides are supervised by DHC Geology team during the reporting quarter.
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	Monthly Monitored visually. No occurrence was recorded during the quarter.
3	Surface water quality	In the rivers and tributaries at the downstream of the construction sites. The locations of sampling can be same locations of baseline water quality or new locations recommended by the CSC.	Sampling and analysis of river water quality and wastewater discharges for the key parameters given in NEQS (river water quality – DO, BOD, COD, Temperature, pH, Conductivity, TSS, turbidity, nitrate, Wastewater – BOD, TSS, turbidity, TDS, COD, grease and oil, iron, ammonia, sulfates, chlorides)	Quarterly	Not done due to the current limited scope of work
4	Air Quality (dust, smoke)	Construction sites, quarry areas along KKH and blasting areas	Visual inspection to ensure good standard equipment is in use and dust suppression measures (spraying of waters) are in place.	Weekly	Weekly visual inspections were carried out during the quarter and instructions were given to contractor for compliance. The Contractor was strictly instructed to increase water sprinkling frequency. The dust is under control. In this regard a Realtime WhatsApp group is also established to quickly communicate with contractor if any non-compliance is noted
5	Air Quality (PM10, NO <sub>2</sub> , SO <sub>2</sub> , CO <sub>2</sub> , CO)	Near the sensitive sites and settlements at the close to the construction works and along KKH.	Air quality monitoring for 24 hours for the parameters specified in NEQS 2000	Quarterly	Not done due to the current limited scope of work



		The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC.			
6	Emissions from plant and equipment	At all the construction sites for dam, KKH and tunnels	Visual Inspection	Monthly	Monthly visual inspections were carried out during the quarter and no issue was observed.
7	Noise and vibration	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC	24-hour noise monitoring	Quarterly	Not done due to the current limited scope of work
8	Waste Management	At the designated rock disposal area	Visual inspection on spoil disposal in accordance with EMP Sub plan on Waste Management	Monthly	The Contractor is disposing the spoil in the designated spoil dumping site at Khushi and is also transporting the spoil to the crushing plant at Uchaar as a raw material for aggregate
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Monthly	Monthly monitoring was carried out. The Contractor is temporarily storing the waste at the camp. The Organic waste is dumped in a pit at Uchaar and covered with soil. This temporary practice is adopted due to non-availability of landfill site. Whereas the reusable and recyclable material are sent to local vendors.
10	Spills from Hydrocarbon	Material storage sites and construction yards	Visual Inspection for leaks and spills	Monthly	Monthly monitoring was carried out. The spills were recorded during the quarter were communicated to the contractor through the walkthrough environmental inspection reports.
11	Traffic Safety	Along KKH and access roads to the construction areas	Visual inspection to see whether Traffic Management Plan (EMP Sub Plan 12) is implemented	Monthly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Monthly	This aspect was also monitored on monthly basis. No damage was observed to the local roads
13	Cultural and archeological Sites	At the physical and cultural resources identified in the EIA	Visual observation on implementation of EMP Sub Plan 13 on Physical Cultural Resources Management	Monthly	The contractor kept in consideration this aspect during the excavation activities. There was no archeological site present in the current construction area.
14	Drinking water and sanitation	In construction sites and construction camps	Ensure the construction workers are provided with safe water and sanitation facilities on the site	Weekly	Weekly monitored. The contractor provided water coolers to the workers at the sites.

### 3.5.5 Key Performance Indicators

The key performance indicators identified in the ESA<sup>4</sup> of DHP to mitigate the environmental impacts and risks during construction can be summarized into five categories, as shown in the following table.

<sup>4</sup> See Table 9.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 3.8: Key Performance Indicators for compliance with mitigation measures**

<b>S. No</b>	<b>Key Performance Indicator</b>	<b>Description of the Indicator</b>
1	Number of any non-compliance reports	The number of non-compliances noticed and reported to the Contractor.
2	Number of public complaints or grievances	The number of complaints or grievances received from the communities on the construction-related nuisances such as traffic, dust, noise and vibration, or any other construction-related activities
3	Number of accidents/incidents	The number of accidents or incidents, or near misses involving construction activities and construction vehicles
4	Number of exceedances over NEQS	The number of parameters in ambient air and noise quality, drinking water, wastewater discharges and surface waters found beyond the national standards.
5	Other Indicators	Any other indicators that are not covered in the above categories are given in 'other indicators.' This includes the number of times chance finds are noticed, the number of trainings conducted, etc.

A detailed assessment of the status of compliance with the performance indicators and their status during the reporting period is given in the following table. Any indicators related to OHS and social aspects are covered in the relevant reports, not in this report.

**Table 3.9: Key Performance Indicators and their Status during the reporting period**

Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
1. Contractor Mobilisation and Demobilisation	3.1 Traffic Management	Nil					Contractor traffic management plan implemented
	3.2 Soil Erosion and Contamination	Nil					
	3.3 Air Quality	Nil					
	3.4 Noise	Nil					
	3.5 Public Safety	Nil					
	3.6 Damage to Infrastructure	Nil					
4. Contractor's Camp	4.1 Soil and Water Contamination		1				1 Incident of minor spill reported to Contractor which was rectified
	4.2 Air Quality	Nil					
	4.3 Vegetation loss	Nil				Number of trees felled: 0	
	4.4 Noise	Nil					
	4.5 Health and Safety						Covered under OHS Report
	4.6 Social and Gender Issues						Covered under social report
	4.7 Damage to PCRs	Nil				Number of chance finds: 0	
	4.8 Increased load on local services						Covered under social report
5. Transportation of Equipment	5.1 Traffic Management						
	5.2 Soil Erosion and Contamination	Nil					
	5.3 Air Quality	Nil					
	5.4 Noise	Nil					
	5.5 Public Safety	Nil				Number of trainings provided:	Covered under OHS Report
	5.6 Damage to infrastructure	Nil					
7. KKH Construction	7.1 Changes to topography						
	7.2 Landslides	Nil					
	7.3 Soil erosion						
	7.4 Soil and water contamination	Nil					
	7.5 Air Quality	Nil					Not reported during the quarter due to meagre work quantum
	7.6 Health and Safety						Covered under OHS
	7.7 Noise and Vibration	Nil					
	7.8 Landscape and Visual Intrusion	Nil					
	7.9 Vegetation loss	Nil					Not reported during the quarter
	7.10 Fauna / Wildlife	Nil					Not reported during the quarter
	7.11 Mortality of Fish	Nil					Not reported during the quarter
	7.12 Damage to infrastructure	Nil					Not reported during the quarter
	7.13 Damage to PCRs	Nil					Not reported during the quarter



Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
	7.14 Disturbance of Visual Landscape and Natural Habitats	Nil					
	7.15 Social conflict due to the Influx of Workers and In-migrants						Covered under Social report
	7.16 Conflicts due to culturally inappropriate behaviors by the workers						Covered under Social report
	7.17 Adverse Effects on Health Situation						
	7.18 Increased Load on Local Services and Supplies						
8. Quarry Operation	8.1 Changes to topography 8.2 Landslide 8.3 Soil erosion 8.4 Soil and water contamination 8.5 Air Quality 8.6 Health and Safety 8.7 Noise and Vibration 8.8 Landscape and Visual Intrusion 8.9 Vegetation loss 8.10 Fauna / Wildlife 8.11 Damage to infrastructure 8.12 Damage to PCRs						No quarry operation has started. The excavated rock is used as a raw material for aggregate.
9. Spoil Area Management	9.1 Changes to topography 9.2 Landslide 9.3 Soil erosion 9.4 Air Quality 9.5 Landscape and Visual Intrusion 9.6 Vegetation loss	Nil					
12. Waste Management	12.1 Soil and water contamination 12.2 Odor			1			01 Incident of improper waste disposal reported to Contractor which was rectified

### **3.5.6 Overall Compliance Status – Tri-Partite Monthly Meetings**

Monthly meetings were held with the Contractor by the Engineer and PMU to discuss pending environmental non-compliance and the actions taken by the Contractor to address these issues. The minutes of these meetings are shown in Annex-1. The following were the major issues discussed during the meetings:

- Ensure solid waste management
- Oil spillages removal
- Proper disposal of used oil

## 4 RAR-01 Contract

### 4.1 Overview of Contracts

A brief overview of the RAR-01 contract is given in Table 4.1. The RAR-01 contract works are related to the construction of 12 km of road from Komila town up to the dam site.

**Table 4.1: Overview of RAR-01 Contract**

S. No.	Item	Data
1	Contract Number	ICB No. Dasu-RAR-01
2	Contractor Name	Right Bank Access Road RD0+000 to RD 12+000
3	Contractor	China Civil Engineering Construction Corporation (CCECC)
4	Commencement Date	March 16, 2015
5	Contract Completion Date	Aug 22, 2016
6	Updated Completion Date	August 31, 2022

### 4.2 Contractor Environmental Action Plan

The Contractor has submitted the Contractor Environmental Action Plan (CEAP) with the site-specific management plans to address the environmental impacts and risks of the construction activities. In addition, the Contractor has also prepared an Occupational Health and Safety Management Plan (OHSMP), and details of these plans are not covered in this report.

### 4.3 Contractor's Facilities and ESHS Staff

The facilities established by the Contractor, such as workers' camps and construction yards, are given in Table 4.2. The Environmental Social Health and Safety (ESHS) Staff of the Contractor are given in Table 4.3.

**Table 4.2: Contractor's Facilities**

S. No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>			
1	Chinese Workers Camp	Zaal	About 6 workers live in this camp	
2	Pakistan Workers Camps	Zaal	About 42 workers live in this camp	
<b>B.</b>	<b>Crushing/Batching Plants</b>			
1	Crushing Plant	Kas	The crushing plant has now been removed	
2	Batching plant	Kas	The Batching plant will be removed as the road work has almost been completed	
<b>C.</b>	<b>Other Facilities</b>			
1	Construction Yard			
2	Explosive Magazine	Kas	20 Ton capacity	

**Table 4.3: Contractor's ESHS Staff**

S. No.	Position	RAR-01 Contract	Remarks
1	Manager HSE	Junaid Jilani	
2	Environmental Officer		
3	Environmental Supervisor		

### 4.4 Construction Activities

Details of construction activities conducted during the reporting period are shown in Table 4.4.

**Table 4.4: Construction Activities in RAR-01 Contract**

S. No.	Work Site	Details of Works	Remarks
1	Komila Bypass K0+500-K1+000 and K2+280	Excavation, drilling and blasting works, formwork, reinforcement and concrete works for foundation of breast wall	In progress
2	K9+300 to K12+071	Excavation, pavement and concrete pavement	In progress









## **4.5 Construction Supervision and Environmental Compliances**

### **4.5.1 Site Inspections and WTEIRs**

Site visits to the construction areas are conducted daily by the environmental staff to supervise environmental compliance of the construction activities and complete daily monitoring checklists. In addition, walk-through environmental inspections have been conducted at all work sites regularly by the senior environmental staff of DHC and PMU to identify any environmental issues and non-compliance. The issues identified at the construction sites are communicated with the Contractor through Walk-Through Environmental Inspection Reports (WTEIRs). The Contractor has also been instructed to address these issues within a suggested timeframe. The Contractor has rectified these mistakes and submitted the report with the actions taken. The WTEIRs, consisting of both non-compliances and rectifications, are given in the following tables.

**Table 4.5: Walk-Through Inspection Report 11**







Sr. No.	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
11.1	17-03-2022 Komila Bypass End Point	No Water sprinkling		CCECC is instructed to suppress the fugitive dust by Water Sprinkling	Immediate		01-04-2022 Water sprinkling has been ensured for dust Suppression.
11.2	23-03-2022 RAR-01	Excavated Material Boulders	 	Removal of Boulders or excavated soil from the newly built RAR-01. Otherwise it was cause a traffic accident on RAR-01	Immediate	 	10-04-2022 The material has been removed. ( The Mentioned material was dumped by the local Community)





11.3	26-03-2022 Komila Bypass End Point	Fuel/Oil Spill	 <p>26 Mar 2022 09:32:51 35.214301N 73.225127E Dasu Kohistan Khyber Pakhtunkhwa</p>	CCECC instructed to Remove the contaminated soil and replace it with clean & fresh soil.	is immediate	 <p>Apr 1, 2022 10:00:24 AM</p>	01-04-2022 Fuel Spillage has been Removed and Area filled with fresh soil.
11.4	26-03-2022 Komila Bypass End Point	Fugitive Dust	 <p>26 Mar 2022 09:18:51 35.2692409N 73.2230272E Dasu Kohistan Khyber Pakhtunkhwa</p>  <p>26 Mar 2022 09:17:54 35.26831973N 73.21921035E Dasu Kohistan Khyber Pakhtunkhwa</p>	CCECC instructed to suppress the fugitive dust by Water Sprinkling	is Immediate	 <p>2022-04-09 09:33</p>  <p>Apr 6, 2022 7:09:01 AM</p>	Water sprinkling frequency increased according to requirements.



**Table 4.6: Walk-Through Inspection Report 12**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
12.1	14-06-2022 RAR-01 Construction site Komila bypass end point	Heavy dust drill		The contractor is instructed to ensure water sprinkling and all fugitive dust issue should be resolved as the site is near residential area it might cause public nuisance and grievances by the community.	Immediate		
12.2	14-06-22 RAR-01 Construction site Komila bypass end point	Fugitive Dust		The contractor is instructed to ensure Water sprinkling at all working faces of the RAR-01 Komila Bypass.			The contractor ensured water sprinkling during drilling and Excavation to suppress dust emission
12.3	14-06-22 RAR-01 Komila bypass end point	Oil Spillage		Contractor is instructed to replace the contaminated soil with fresh soil and dispose off the contaminated soil as per SOP provide in ECPs			Contractor has removed the contaminated soil and area filled with fresh soil.

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
			 <p style="text-align: center; font-size: small;">Jun 14, 2022 9:45:31 AM 211 SVJ Index number: 1447</p>				

#### 4.5.2 Notices and Letters

No notices have been issued to the Contractor during the reporting quarter except WTEIRs.

#### 4.5.3 Quarterly Monitoring of Air, Noise, Water and Wastewater

No quarterly environmental monitoring was conducted during the quarter

#### 4.5.4 Contractor's Effect Monitoring

The monitoring requirements of the Contractor as per the bidding documents are given in the following table. The Engineer's observation of the monitoring status is also given in the last column of this table.

**Table 4.7: Status of Contractor's Effect Monitoring**

S. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	Most of the identified landslides are on the left side (KKH-01) which will be triggered once the reservoir impounding is started.
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	Monthly monitored visually. No incident was recorded during the quarter.
3	Surface water quality	In the rivers and tributaries at the downstream of the construction sites. The locations of sampling can be same locations of baseline water quality or new locations recommended by the CSC.	Sampling and analysis of river water quality and wastewater discharges for the key parameters given in NEQS (river water quality – DO, BOD, COD, Temperature, pH, Conductivity, TSS, turbidity, nitrate, Wastewater – BOD, TSS, turbidity, TDS, COD, grease and oil, iron, ammonia, sulfates, chlorides)	Quarterly	Not done due to the current limited scope of work
4	Air Quality (dust, smoke)	Construction sites, quarry areas along KKH and blasting areas	Visual inspection to ensure good standard equipment is in use and dust suppression measures (spraying of waters) are in place.	Weekly	Regular visual inspections were carried out during the quarter and instructions were given to contractor for compliance. The Contractor was strictly instructed to increase water sprinkling frequency. The dust is under control. In this regard a Realtime WhatsApp group is also established to quickly communicate with contractor if any non-compliance is noted
5	Air Quality (PM10, NO <sub>2</sub> , SO <sub>2</sub> , CO <sub>2</sub> , CO)	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC.	Air quality monitoring for 24 hours for the parameters specified in NEQS 2000	Quarterly	Not done due to the current limited scope of work
6	Emissions from plant and equipment	At all the construction sites for dam, KKH and tunnels	Visual Inspection	Monthly	Monthly visual inspections were carried out during the quarter and no issue was observed.
7	Noise and vibration	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC	24-hour noise monitoring	Quarterly	Not done due to the current limited scope of work



8	Waste Management	At the designated rock disposal area	Visual inspection on spoil disposal in accordance with EMP Sub plan on Waste Management	Monthly	The Contractor is disposing the spoil generated from the Komila bypass excavation in the designated spoil dumping site at Kas area. Part of the spoil was used by EM-01 contractor for levelling of their camp.
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Monthly	Monthly monitoring was carried out. The Contractor is temporarily storing the waste at the camp. The Organic waste is dumped in a pit at K4 and covered with soil. This temporary practice is adopted due to non-availability of landfill site. Whereas the reusable and recyclable material are sent to local vendors.
10	Spills from Hydrocarbon	Material storage sites and construction yards	Visual Inspection for leaks and spills	Monthly	Monthly monitoring was carried out and minor oil spill noted were reported to contractor which were rectified
11	Traffic Safety	Along KKH and access roads to the construction areas	Visual inspection to see whether Traffic Management Plan (EMP Sub Plan 12) is implemented	Monthly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Monthly	Monthly monitoring was carried out and no damage was observed to the local roads
13	Cultural and archeological Sites	At the physical and cultural resources identified in the EIA	Visual observation on implementation of EMP Sub Plan 13 on Physical Cultural Resources Management	Monthly	The contractor kept in consideration this aspect during the excavation activities. There was no archeological site present in the current construction area.
14	Drinking water and sanitation	In construction sites and construction camps	Ensure the construction workers are provided with safe water and sanitation facilities on the site	Weekly	Weekly monitored. The contractor provided water coolers to the workers at the sites.

#### 4.5.5 Key Performance Indicators

The key performance indicators identified in the ESA<sup>5</sup> of DHP to mitigate the environmental impacts and risks during construction can be summarized into five categories, as shown in the following table.

**Table 4.8: Key Performance Indicators for compliance with mitigation measures**

S. No	Key Performance Indicator	Description of the Indicator
1	Number of any non-compliance reports	The number of non-compliances noticed and reported to the Contractor.
2	Number of public complaints or grievances	The number of complaints or grievances received from the communities on the construction-related nuisances such as traffic, dust, noise and vibration, or any other construction-related activities
3	Number of accidents/incidents	The number of accidents or incidents, or near misses involving construction activities and construction vehicles
4	Number of exceedances over NEQS	The number of parameters in ambient air and noise quality, drinking water, wastewater discharges and surface waters found beyond the national standards.
5	Other Indicators	Any other indicators that are not covered in the above categories are given in 'other indicators.' This includes the number of times chance finds are noticed, the number of trainings conducted, etc.

A detailed assessment of the status of compliance with the performance indicators and their status during the reporting period is given in the following table. Any indicators related to OHS and social aspects are covered in the relevant reports, not in this report.

<sup>5</sup> See Table 9.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 4.9: Key Performance Indicators and their Status during the reporting period**

Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
1. Design/Pre-Construction Stage							Not relevant
3. Contractor Mobilisation and Demobilisation	3.1 Traffic Management	Nil					
	3.2 Soil Erosion and Contamination	Nil					
	3.3 Air Quality	Nil					
	3.4 Noise	Nil					
	3.5 Public Safety	Nil					
	3.6 Damage to Infrastructure	Nil					
4. Contractor's Camp	4.1 Soil and Water Contamination	Nil					
	4.2 Air Quality	Nil					
	4.3 Vegetation loss	Nil				Number of trees felled: 0	
	4.4 Noise	Nil					
	4.5 Health and Safety	Nil					Covered under OHS Report
	4.6 Social and Gender Issues	Nil					Covered under social report
	4.7 Damage to PCRs	Nil				Number of chance finds: 0	
	4.8 Increased load on local services	Nil					Covered under social report
5. Transportation of Equipment	5.1 Traffic Management	Nil					
	5.2 Soil Erosion and Contamination		1				1 incidence of Oil spillage reported which was rectified by contractor
	5.3 Air Quality		1				1 incidence was reported through WTEIRs which were rectified by the contractor
	5.4 Noise	Nil					
	5.5 Public Safety					Number of trainings provided:	
	5.6 Damage to infrastructure						
7. RAR-01 Construction	7.1 Changes to topography						
	7.2 Landslides						
	7.3 Soil erosion						
	7.4 Soil and water contamination						
	7.5 Air Quality						
	7.6 Health and Safety						
	7.7 Noise and Vibration						
	7.8 Landscape and Visual Intrusion						
	7.9 Vegetation loss					Number of trees felled: 0	

Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
	7.10 Fauna / Wildlife						
	7.11 Mortality of Fish	Nil					
	7.12 Damage to infrastructure	Nil					
	7.13 Damage to PCRs	Nil					
	7.14 Disturbance of Visual Landscape and Natural Habitats	Nil					
	7.15 Social conflict due to the Influx of Workers and In-migrants						Covered under Social section report
	7.16 Conflicts due to culturally inappropriate behaviors by the workers						Covered under Social section report
	7.17 Adverse Effects on Health Situation	Nil					Covered under Social section report
	7.18 Increased Load on Local Services and Supplies						
9. Spoil Area Management	9.1 Changes to topography 9.2 Landslide 9.3 Soil erosion 9.4 Air Quality 9.5 Landscape and Visual Intrusion 9.6 Vegetation loss	Nil					
12. Waste Management	12.1 Soil and water contamination 12.2 Odor	Nil					



#### **4.5.6 Overall Compliance Status – Tri-Partite Monthly Meetings**

Monthly meetings were held with the Contractor by the Engineer and PMU to discuss pending environmental non-compliance and the actions taken by the Contractor to address these issues. The minutes of these meetings are shown in Annex-2. The major environmental issues discussed during the meetings were:

- Solid waste mgt to be reported in MPR
- Oil spillage removal at K4
- Proper disposal of spoil disposal

## 5 TL-01 Contract

### 5.1 Overview of Contracts

A brief overview of the TL-01 contract is given in Table 5.1. The TL-01 contract works are related to the construction of transmission line from Pattan up to Chuchang and a Grid station at Kuz Chuchang.

**Table 5.1: Overview of TL-01 Contract**

S. No.	Item	Data
1	Contract Number	ICB No. Dasu-TL-01
2	Contract Name	Procurement, Design, Supply, Installation, Testing and Commission of 132KV Single Circuit Transmission Line and Grid Station (From 132KV Switchyard Dubair Khwar to Proposed 132 KV Grid Station Dasu)
3	Contractor	Power China Corporation oof China Ltd (PCCL)
4	Commencement Date	November 02, 2015
5	Contract Completion Date	June 19, 2016
6	Updated Completion Date	November 19, 2022

### 5.2 Contractor Environmental Action Plan

The Contractor has submitted the Contractor Environmental Action Plan (CEAP) with the site-specific management plans to address the environmental impacts and risks of the construction activities. In addition, the Contractor has also prepared an Occupational Health and Safety Management Plan (OHSMP), and details of these plans are not covered in this report.

### 5.3 Contractor's Facilities and ESHS Staff

The facilities established by the Contractor, such as workers' camps and construction yards, are given in Table 5.2. The Environmental Social Health and Safety (ESHS) Staff of the Contractor are given in Table 5.3.

**Table 5.2: Contractor's Facilities**

S. No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>			
1	Chinese Workers Camp	Dasu	About 12 workers live in this camp	
2	Pakistan Workers Camps	Dasu	About 42 workers live in this camp	
<b>B.</b>	<b>Crushing/Batching Plants</b>			
1	Crushing Plant	Nil		
2	Batching plant	Nil		
<b>C.</b>	<b>Other Facilities</b>			
1	Construction Yard			
	Explosive Magazine	Dubair, lower kohistan	The explosives are purchased from a license supplier at Dubair	

**Table 5.3: Contractor's ESHS Staff**

S. No.	Position	TL-01 Contract	Remarks
1	Manager HSE	Mr. Waleed	
2	Environmental Officer		
3	Environmental Supervisor		

### 5.4 Construction Activities

Details of construction activities conducted during the reporting period are shown in Table 5.4.

**Table 5.4: Construction Activities in TL-01 Contract**

S. No.	Work Site	Details of Works	Remarks
1	Chuchang	Formwork installation, scaffolding, still fixing of top beam and roof slab of control house building	In progress
2	Chuchang	Excavation/ cutting for access road to grid station and transformer foundation	In progress
3	T-11A	Excavation for foundation	In progress
4	T-204A	Tower erection	In progress

## **5.5 Construction Supervision and Environmental Compliances**

### **5.5.1 Site Inspections and WTEIRs**

Site visits to the construction areas are conducted daily by the environmental staff to supervise environmental compliance of the construction activities and complete daily monitoring checklists. In addition, walk-through environmental inspections have been conducted at all work sites regularly by the senior environmental staff of DHC and PMU to identify any environmental issues and non-compliance. The issues identified at the construction sites are communicated with the Contractor through Walk-Through Environmental Inspection Reports (WTEIRs). The Contractor has also been instructed to address these issues within a suggested timeframe. The Contractor has rectified these mistakes and submitted the report with the actions taken. The WTEIRs, consisting of both non-compliances and rectifications, are given in the following tables. Although the rectification was done at site, but the reports were not submitted to the Engineer due to resignation of HSE manager.



**Table 5.5: Walk-Through Inspection Report No.09**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Corrective Action Taken by contractor pictorial proof	Action Taken by the Contractor	Completion Date
9.1	23-05-2022 Grid Station and TL-01 Portion on KKH-01	Heavy dust		It is instructed the contractor to ensure the water sprinkling daily 3 or 4 time a day on heavy dust.		Contractor doing water sprinkling continuously in allcated area. Instructed to water bowser driver to increase frequency of water sprinkling	26-05-22


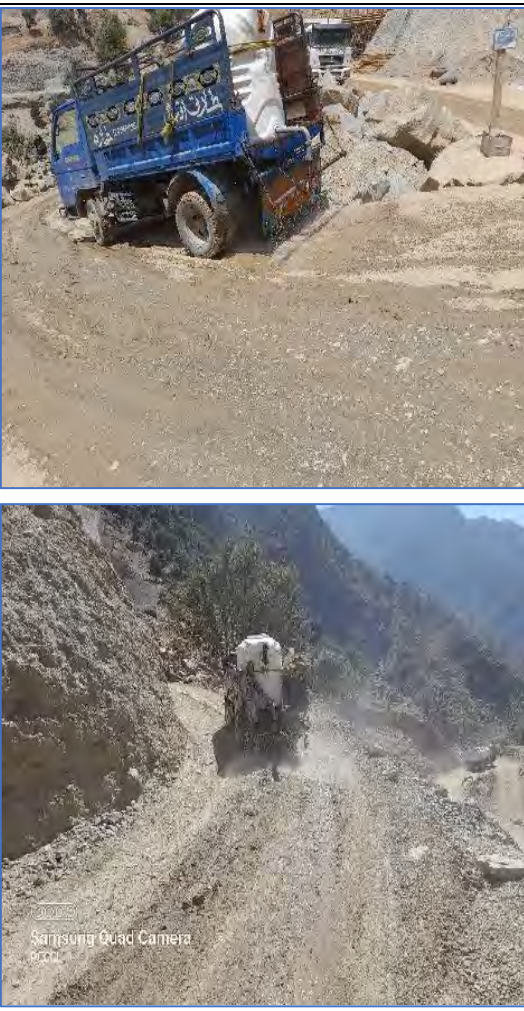
Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Corrective Action Taken by contractor pictorial proof	Action Taken by the Contractor	Completion Date
9.2	23-05-2022 Grid Station	Oil Spill	 <p>May 28, 2022 10:49:55 AM 92° E Index number: 669</p> <p>May 23, 2022 10:54:09 AM 289° W Index number: 675</p> <p>May 23, 2022 10:46:06 AM 276° W Index number: 663</p>	It is instructed the contractor remove Fuel/ Oil spill from the site Immediate		Contractor remove the concrete mixer and repair engine for oil spill control  contractor instruct to drivers use drip tray during maintenance for spill control	



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Corrective Action Taken by contractor pictorial proof	Action Taken by the Contractor	Completion Date
			 <p>May 23, 2022 10:46:31 AM 2831 W Index number: 665</p>				
9.3	23-05-2022 Grid Station	Poor Housekeeping	 <p>23 May 2022 10:46:01 35.29920023N 73.21125436E Dasu Kohistan Khyber Pakhtunkhwa</p> <p>23 May 2022 10:53:15 35.29927855N 73.21099529E unnamed Road Dasu Kohistan Khyber Pakhtunkhwa</p>				



**Table 5.6: Walk-Through Inspection Report No.10**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Contractor taken action pictorial proofs	Action Taken by the Contractor	Completion Date
10.1	02-06-2022 Grid Station and TL-01 Portion on KKH-01	Heavy dust		It is instructed the contractor to ensure the water sprinkling daily 3 or 4 time a day settle down heavy dust.		Contractor increase frequency of water sprinkling and to ensure sprinkling site supervisor monitor water sprinkling activity itself	08-06-22



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Contractor taken action pictorial proofs	Action Taken by the Contractor	Completion Date
10.2	02-06-2022 Grid Station	Oil Spill		<p>Contractor is instructed to replace the soil with clean and fresh soil immediate basis. If needed then use spill kits for oil spill on the site. Dispose of the toxicities Soil.</p>		<p>As per ECP,s contractor removed contaminated soil with clean and fresh soil.</p> <p>Contractor also conduct training about prevention of oil spil and house keeping</p>	



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Contractor taken action pictorial proofs	Action Taken by the Contractor	Completion Date
10.3	02-06-2022 Grid Station	Poor Housekeeping		The contractor is instructed to maintain good housekeeping practices at all the construction sites.		Contractor is trying to maintain good house keeping. To maintain good house keeping contractor conducting training and also in daily TBT also instruct to workers maintain house keeping	



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Contractor taken action pictorial proofs	Action Taken by the Contractor	Completion Date
			 <p style="text-align: right; font-size: small;">Jun 2, 2022 10:34:13 AM 291 W Index number: 1052</p>				

### 5.5.2 Notices and Letters

No notices were issued to the contractor except WTEIRs.

### 5.5.3 Contractor's Effect Monitoring

The monitoring requirements of the Contractor as per the bidding documents are given in the following table. The Engineer's observation of the monitoring status is also given in the last column of this table.

**Table 5.7: Status of Contractor's Effect Monitoring**

.No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	No landslide issue was observed during the quarter
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	Monthly visual inspection done. No incident was recorded during the quarter.
3	Surface water quality	In the rivers and tributaries at the downstream of the construction sites. The locations of sampling can be same locations of baseline water quality or new locations recommended by the CSC.	Sampling and analysis of river water quality and wastewater discharges for the key parameters given in NEQS (river water quality – DO, BOD, COD, Temperature, pH, Conductivity, TSS, turbidity, nitrate, Wastewater – BOD, TSS, turbidity, TDS, COD, grease and oil, iron, ammonia, sulfates, chlorides)	Quarterly	NA
4	Air Quality (dust, smoke)	Construction sites, quarry areas along KKH and blasting areas	Visual inspection to ensure good standard equipment is in use and dust suppression measures (spraying of waters) are in place.	Weekly	Weekly visual inspections were carried out during the quarter at the Grid Station and instructions were given to contractor for compliance. The Contractor was strictly instructed to increase water sprinkling frequency. The dust is under control.
5	Air Quality (PM10, NO <sub>2</sub> , SO <sub>2</sub> , CO <sub>2</sub> , CO)	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC.	Air quality monitoring for 24 hours for the parameters specified in NEQS 2000	Quarterly	NA
6	Emissions from plant and equipment	At all the construction sites for dam, KKH and tunnels	Visual Inspection	Monthly	Monthly visual inspections were carried out during the quarter and no issue was observed.
7	Noise and vibration	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC	24-hour noise monitoring	Quarterly	NA
8	Waste Management	At the designated rock disposal area	Visual inspection on spoil disposal in accordance with EMP Sub plan on Waste Management	Monthly	Spoil is being dumped at the Khushe disposal site

9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Monthly	Monthly visual inspection was carried out. The Contractor is temporarily storing the waste at the camp. The Contractor is disposing the spoil in the wastebins of Local government at Komila bazar. This temporary practice is adopted due to non-availability of landfill site. Whereas the reusable and recyclable material are sent to local vendors.
10	Spills from Hydrocarbon	Material storage sites and construction yards	Visual Inspection for leaks and spills	Monthly	Monthly visual inspection was carried out during the quarter.
11	Traffic Safety	Along KKH and access roads to the construction areas	Visual inspection to see whether Traffic Management Plan (EMP Sub Plan 12) is implemented	Monthly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Monthly	Monthly visual inspection was carried out and no damage was observed to the local roads
13	Cultural and archeological Sites	At the physical and cultural resources identified in the EIA	Visual observation on implementation of EMP Sub Plan 13 on Physical Cultural Resources Management	Monthly	The contractor kept in consideration this aspect during the excavation activities. There was no archeological site present in the current construction area.
14	Drinking water and sanitation	In construction sites and construction camps	Ensure the construction workers are provided with safe water and sanitation facilities on the site	Weekly	Monitored. The contractor provided water coolers to the workers at the sites.

#### 5.5.4 Key Performance Indicators

The key performance indicators identified in the ESA<sup>6</sup> of DHP to mitigate the environmental impacts and risks during construction can be summarized into five categories, as shown in the following table.

**Table 5.8: Key Performance Indicators for compliance with mitigation measures**

S. No	Key Performance Indicator	Description of the Indicator
1	Number of any non-compliance reports	The number of non-compliances noticed and reported to the Contractor.
2	Number of public complaints or grievances	The number of complaints or grievances received from the communities on the construction-related nuisances such as traffic, dust, noise and vibration, or any other construction-related activities
3	Number of accidents/incidents	The number of accidents or incidents, or near misses involving construction activities and construction vehicles
4	Number of exceedances over NEQS	The number of parameters in ambient air and noise quality, drinking water, wastewater discharges and surface waters found beyond the national standards.
5.	Other Indicators	Any other indicators that are not covered in the above categories are given in 'other indicators.' This includes the number of times chance finds are noticed, the number of trainings conducted, etc.

A detailed assessment of the status of compliance with the performance indicators and their status during the reporting period is given in the following table. Any indicators related to OHS and social aspects are covered in the relevant reports, not in this report.

<sup>6</sup> See Table 9.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project



**Table 5.9: Key Performance Indicators and their Status during the reporting period**

Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
1.Design/Pre-Construction Stage							Not relevant
2. Contractor Mobilisation and Demobilisation	3.1 Traffic Management	Nil					
	3.2 Soil Erosion and Contamination	Nil					
	3.3 Air Quality	Nil					
	3.4 Noise	Nil					
	3.5 Public Safety	Nil					
	3.6 Damage to Infrastructure	Nil					
3. Contractor's Camp	4.1 Soil and Water Contamination	Nil					
	4.2 Air Quality	Nil					
	4.3 Vegetation loss	Nil				Number of trees felled: 0	
	4.4 Noise	Nil					
	4.5 Health and Safety						Covered under OHS Report
	4.6 Social and Gender Issues						Covered under social report
	4.7 Damage to PCRs					Number of chance finds: 0	
	4.8 Increased load on local services						Covered under social report
4. Transportation of Equipment	5.1 Traffic Management	Nil					
	5.2 Soil Erosion and Contamination		2				2 incidences reported too contractor.
	5.3 Air Quality	Nil					
	5.4 Noise	Nil					
	5.5 Public Safety					Number of trainings provided:	
	5.6 Damage to infrastructure	Nil					
5. Spoil Area Management	9.1 Changes to topography	Nil					
	9.2 Landslide						
	9.3 Soil erosion						
	9.4 Air Quality						
	9.5 Landscape and Visual Intrusion						
	9.6 Vegetation loss						
6. Waste Management	12.1 Soil and water contamination	Nil					
	12.2 Odor						

### **5.5.5 Overall Compliance Status – Tri-Partite Monthly Meetings**

Monthly meetings were held with the Contractor by the Engineer and PMU to discuss pending environmental non-compliance and the actions taken by the Contractor to address these issues. The minutes of these meetings are shown in the Annex-2. The Major issues discussed during the meetings were:

- Submission of plan for oversized vehicle movement
- Maintaining of housekeeping
- Dust suppression measures

## 6 PCI-01R Contract

### 6.1 Overview of Contracts

A brief overview of the PCI-01R contract is given in Table 6.1. The PCI-01R contract works are related to the construction of project colony and infrastructure at Chuchang.

**Table 6.1: Overview of PCI-01R Contract**

S. No.	Item	Data
1	Contract Number	ICB No. Dasu- PCI-01R
2	Contract Name	Construction of Project Colony and Infrastructure
3	Contractor	China Gansu International Corporation for Economic and Technical Corporation (CGICOP)
4	Commencement Date	Oct 18, 2018
5	Contract Completion Date	May 17, 2021
6	Revised Completion Date	October 31, 2022

### 6.2 Contractor Environmental Action Plan

The Contractor has submitted the Contractor Environmental Action Plan (CEAP) with the site-specific management plans to address the environmental impacts and risks of the construction activities. In addition, the Contractor has also prepared an Occupational Health and Safety Management Plan (OHSMP), and details of these plans are not covered in this report.

### 6.3 Contractor's Facilities and ESHS Staff

The facilities established by the Contractor, such as workers' camps and construction yards, are given in Table 6.2. The Environmental Social Health and Safety (ESHS) Staff of the Contractor are given in Table 6.3.

**Table 6.2: Contractor's Facilities**

S.No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>			
1	Chinese Workers Camp	Chuchang	About 12 workers live in this camp	
2	Pakistan Workers Camps	Chuchang	About 22 workers live in this camp	
<b>B.</b>	<b>Crushing/Batching Plants</b>			
1	Crushing Plant	Chuchang		Not operational
2	Batching plant	Chuchang		Not operational
<b>C.</b>	<b>Other Facilities</b>			
1	Construction Yard	Chuchang		

**Table 6.3: Contractor's ESHS Staff**

S. No.	Position	PCI-01R Contract	Remarks
1	Manager HSE	Mr. Fazal Mabood	
2	Environmental Officer		
3	Environmental Supervisor		

### 6.4 Construction Activities

Details of construction activities conducted during the reporting period are shown in Table 6.4.

**Table 6.4: Construction Activities in PCI-01R Contract**

S. No.	Work Site	Details of Works	Remarks
1	DHPP Colony Project Office	Marble grinding, electrification, Dome work and Paint	In progress
2	Cat 2C and 2D houses	Plastering work	In progress
4	DHPP Colony	Main sewerage work	In progress

### 6.5 Construction Supervision and Environmental Compliances

#### 6.5.1 Site Inspections and WTEIRs

Site visits to the construction areas are conducted daily by the environmental staff to supervise environmental compliance of the construction activities and complete daily monitoring checklists.



In addition, walk-through environmental inspections have been conducted at all work sites regularly by the senior environmental staff of DHC and PMU to identify any environmental issues and non-compliance. The issues identified at the construction sites are communicated with the Contractor through Walk-Through Environmental Inspection Reports (WTEIRs). The Contractor has also been instructed to address these issues within a suggested timeframe. The Contractor has rectified these mistakes and submitted the report with the actions taken. The WTEIRs, consisting of both non-compliances and rectifications, are given in the following tables.

**Table 6.5: Walk-Through Inspection Report-No.32**

Sr. No	Date and Location of Inspection	EHS observations	Before rectification Picture	Action taken by the contractor	After rectification picture
32.1	14-04-2022 WAPDA Colony	Scattered Solid Waste at Labor camp		<p>The Contractor has collected the scattered waste and dispose off at designated waste disposal site and place enough waste bins at site ,also conducted awareness session with staff and local community regarding safe disposal of waste.</p>	



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Sr. No	Date and Location of Inspection	EHS observations	Before rectification Picture	Action taken by the contractor	After rectification picture
32.2	14-04-2022 Labor camp	Poor housekeeping		The Contractor has collected the waste from crushing plant area and maintained good housekeeping at the construction site	
32.3	14-04-2022 WPADA Colony Crush Plant	Oil/ Fuel Spills		The contractor has removed the oil spill from crushing plant area and stored the contaminated soil as hazardous waste and put fresh soil.	



Sr. No	Date and Location of Inspection	EHS observations	Before rectification Picture	Action taken by the contractor	After rectification picture
32.4	14-04-2022 WPADA Colony	Fuel Wood still using for Cooking		The contractor has avoided to use wood as fuel and provided LPG cylinders for cooking purpose at labour camps kitchen	
32.5	14-04-2022 WAPDA Colony	Improper placement of Fuel/ Oil Drums		The contractor placed all the fuel drums at bunded concrete floor, some of the empty drums at site are used to store water for curing and other concrete orks .	

**Table 6.6: Walk-Through Inspection Report-No.33**

Sr. No	Date and Location of Inspection	EHS observations	Before Rectification Picture	Action Taken by the Contractor	After Rectification picture
33.1	23-6-2022 WAPDA colony	Oil spill at Office	 <p>23 Jun 2022 10:51:15 35.29992831N 73.20229957E N-35 Dassu Kohistan Khyber Pakhtunkhwa</p>	Removed the contaminated soil and stored as hazardous waste and add fresh soil.	
33.2	23-6-2022 Labour Camp	Fuel Wood	 <p>23 Jun 2022 10:45:36 35.29985438N 73.20278442E Unnamed Road Dassu Kohistan Khyber Pakhtunkhwa</p>  <p>23 Jun 2022 10:51:21 35.29992928N 73.20229957E N-35 Dassu Kohistan Khyber Pakhtunkhwa</p>	Replace the fuel wood with LPG and instruct strictly to canteen owner to avoid the use of wood as fuel at project .	 









Sr. No	Date and Location of Inspection	EHS observations	Before Rectification Picture	Action Taken by the Contractor	After Rectification picture
33.4	23-6-2022 Labour camp	Bad Drainage system	 	<p>Remove the scattered waste from site and dispose off at designated site</p> <p>Open the chocked drainage pipe and operationalized the drainage system</p>	 
33.5	23-6-2022	Improper waste disposal			



Sr. No	Date and Location of Inspection	EHS observations	Before Rectification Picture	Action Taken by the Contractor	After Rectification picture
				<p>Remove the scattered waste from site and dispose off at designated site</p>	

### 6.5.2 Notices and Letters

In addition to the WTEIRs discussed in the previous section, the Engineer has issued notices to the Contractor on several persistent issues during the reporting period. A summary of these issues is given in the following table.

**Table 6.7: Correspondence with the Contractor on Environmental Issues**

S. No.	Environmental issues	No. of issued Letters
1	Engineer's reply on the submission of 5 <sup>th</sup> Quarterly environmental monitoring	01

### 6.5.3 Quarterly Monitoring of Air, Noise, Water and Wastewater

5<sup>th</sup> Quarterly environmental monitoring was postponed with the consent of Employer as the work were very limited during the quarter. The monitoring will be conducted once the construction work starts momentum.

### 6.5.4 Contractor's Effect Monitoring

The monitoring requirements of the Contractor as per the bidding documents are given in the following table. The Engineer's observation of the monitoring status is also given in the last column of this table.

**Table 6.8: Status of Contractor's Effect Monitoring**

S. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	No landslide issue was observed during the quarter
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	Monthly monitored visually. No incident was recorded during the quarter.
3	Surface water quality	In the rivers and tributaries at the downstream of the construction sites. The locations of sampling can be same locations of baseline water quality or new locations recommended by the CSC.	Sampling and analysis of river water quality and wastewater discharges for the key parameters given in NEQS (river water quality – DO, BOD, COD, Temperature, pH, Conductivity, TSS, turbidity, nitrate, Wastewater – BOD, TSS, turbidity, TDS, COD, grease and oil, iron, ammonia, sulfates, chlorides)	Quarterly	5 <sup>th</sup> Quarterly Environmental monitoring was postponed with the consent of Employer due to limited construction work i.e., whitewashing/paint, electrification etc.
4	Air Quality (dust, smoke)	Construction sites, quarry areas along KKH and blasting areas	Visual inspection to ensure good standard equipment is in use and dust suppression measures (spraying of waters) are in place.	Weekly	Weekly visual inspections were carried out during the quarter at the DHPP Colony site and instructions were given to contractor for compliance. The Contractor was strictly instructed to increase water sprinkling frequency. The dust is under control.
5	Air Quality (PM10, NO <sub>2</sub> , SO <sub>2</sub> , CO <sub>2</sub> , CO)	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC.	Air quality monitoring for 24 hours for the parameters specified in NEQS 2000	Quarterly	5 <sup>th</sup> Quarterly Environmental monitoring was postponed with the consent of Employer due to limited construction work i.e., whitewashing/paint, electrification etc.
6	Emissions from plant and equipment	At all the construction sites for dam, KKH and tunnels	Visual Inspection	Monthly	Monthly visual inspections were carried out during the quarter and no issue was observed.
7	Noise and vibration	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of	24-hour noise monitoring	Quarterly	5 <sup>th</sup> Quarterly Environmental monitoring was postponed with the consent of Employer due to limited construction work i.e.,



		sampling can be same locations of baseline air quality or new locations recommended by the CSC			whitewashing/paint, electrification etc.
8	Waste Management	At the designated rock disposal area	Visual inspection on spoil disposal in accordance with EMP Sub plan on Waste Management	Monthly	Spoil is being dumped at the Khushe disposal site
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Monthly	Monthly visual inspection was carried out. The Contractor is temporarily storing the waste at the camp. The Contractor using the Organic waste as compost for the kitchen garden while the reusable and recyclables are temporarily stored at the site for onward sending to local trash vendor.
10	Spills from Hydrocarbon	Material storage sites and construction yards	Visual Inspection for leaks and spills	Monthly	Weekly and monthly visual inspection was carried out. The non-compliances are reported to the contractor in the WTEIRs for rectification.
11	Traffic Safety	Along KKH and access roads to the construction areas	Visual inspection to see whether Traffic Management Plan (EMP Sub Plan 12) is implemented	Monthly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Monthly	Regular monitoring was carried out and no damage was observed to the local roads
13	Cultural and archeological Sites	At the physical and cultural resources identified in the EIA	Visual observation on implementation of EMP Sub Plan 13 on Physical Cultural Resources Management	Monthly	The contractor kept in consideration this aspect during the excavation activities. There was no archeological site present in the current construction area.
14	Drinking water and sanitation	In construction sites and construction camps	Ensure the construction workers are provided with safe water and sanitation facilities on the site	Weekly	Monitored. The contractor provided water coolers to the workers at the sites.

### 6.5.5 Key Performance Indicators

The key performance indicators identified in the ESA<sup>7</sup> of DHP to mitigate the environmental impacts and risks during construction can be summarized into five categories, as shown in the following table.

**Table 6.9: Key Performance Indicators for compliance with mitigation measures**

S. No	Key Performance Indicator	Description of the Indicator
1	Number of any non-compliance reports	The number of non-compliances noticed and reported to the Contractor.
2	Number of public complaints or grievances	The number of complaints or grievances received from the communities on the construction-related nuisances such as traffic, dust, noise and vibration, or any other construction-related activities
3	Number of accidents/incidents	The number of accidents or incidents, or near misses involving construction activities and construction vehicles
4	Number of exceedances over NEQS	The number of parameters in ambient air and noise quality, drinking water, wastewater discharges and surface waters found beyond the national standards.
5.	Other Indicators	Any other indicators that are not covered in the above categories are given in 'other indicators.' This includes the number of times chance finds are noticed, the number of trainings conducted, etc.

A detailed assessment of the status of compliance with the performance indicators and their status during the reporting period is given in the following table. Any indicators related to OHS and social aspects are covered in the relevant reports, not in this report.

<sup>7</sup> See Table 9.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 6.10: Key Performance Indicators and their Status during the reporting period**

Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
1. Design/Pre-Construction Stage							Not relevant
2. Contractor Mobilisation and Demobilisation	3.1 Traffic Management	Nil					
	3.2 Soil Erosion and Contamination	Nil					
	3.3 Air Quality	Nil					
	3.4 Noise	Nil					
	3.5 Public Safety	Nil					
	3.6 Damage to Infrastructure	Nil					
3. Contractor's Camp	4.1 Soil and Water Contamination		1				1 incidence observed which was reported to contractor and was rectified
	4.2 Air Quality	Nil					
	4.3 Vegetation loss	Nil				Number of trees felled: 0	
	4.4 Noise	Nil					
	4.5 Health and Safety						Covered under OHS Report
	4.6 Social and Gender Issues						Covered under social report
	4.7 Damage to PCRs	Nil				Number of chance finds: 0	
	4.8 Increased load on local services						Covered under social report
4. Transportation of Equipment	5.1 Traffic Management	Nil					
	5.2 Soil Erosion and Contamination						
	5.3 Air Quality						
	5.4 Noise						
	5.5 Public Safety					Number of trainings provided:	
	5.6 Damage to infrastructure						
5. Spoil Area Management	9.1 Changes to topography	Nil					
	9.2 Landslide						
	9.3 Soil erosion						
	9.4 Air Quality						
	9.5 Landscape and Visual Intrusion						
	9.6 Vegetation loss						
6. Construction Colony	10.1 Change in topography	Nil					
	10.2 Landslide						
	10.3 Soil erosion						
	10.4 Soil and water contamination						
	10.5 Air Quality						
	10.6 Health and Safety						
	10.7 Noise and Vibration						
	10.8 Landscape and Visual Intrusion						
	10.9 Vegetation loss						
	10.10 Fauna / Wildlife						
	10.11 Damage to infrastructure						
	10.12 Damage to PCRs						
	10.13 Access						
7. Waste Management	12.1 Soil and water contamination		02				02 incidences of improper waste management sent to contractor for rectification through WTEIRs
	12.2 Odor						

#### **6.5.6 Overall Compliance Status – Tri-Partite Monthly Meetings**

Monthly meetings were held with the Contractor by the Engineer and PMU to discuss pending environmental non-compliance and the actions taken by the Contractor to address these issues. The minutes of these meetings are shown in Annex-1. The major issues discussed during the meetings were:

- Submission of Fuel storage license
- Orientation session with staff regarding protection of flora and fauna
- Housekeeping
- Dust control



## 7 LBRV-11&12 Contract

### 7.1 Overview of Contracts

A brief overview of the LBRV-11&12 contract is given in Table 7.1. The LBRV-11&12 contract works are related to the construction of resettlement sites at Khushi, Uchaar and Nasirabad etc.

**Table 7.1: Overview of LBRV-11&12 Contract**

S. No.	Item	Data
1	Contract Number	ICB No. Dasu- LBRV-11&12
2	Contract Name	Left Bank Resettlement Villages 11&12
3	Contractor	Zhongmei Engineering group Limited (ZEGL)
4	Commencement Date	Dec 26, 2018
5	Contract Completion Date	Dec 25, 2019
6	Updated Completion Date	August 31,2022

### 7.2 Contractor Environmental Action Plan

The Contractor has submitted the Contractor Environmental Action Plan (CEAP) with the site-specific management plans to address the environmental impacts and risks of the construction activities. In addition, the Contractor has also prepared an Occupational Health and Safety Management Plan (OHSMP), and details of these plans are not covered in this report.

### 7.3 Contractor's Facilities and ESHS Staff

The facilities established by the Contractor, such as workers' camps and construction yards, are given in Table 7.2. The Environmental Social Health and Safety (ESHS) Staff of the Contractor are given in Table 7.3.

**Table 7.2: Contractor's Facilities**

S.No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>			
1	Chinese Workers Camp	Uchaar	About 08 workers live in this camp	
2	Pakistan Workers Camps	Uchaar	About 23 workers live in this camp	
<b>B.</b>	<b>Crushing/Batching Plants</b>			
1	Crushing Plant	Nil		
2	Batching plant	Nil		
<b>C.</b>	<b>Other Facilities</b>			
1	Construction Yard	Uchaar		
2	Explosive magazine	Barseen	20 tons capacity	

**Table 7.3: Contractor's ESHS Staff**

S.No.	Position	LBRV-11&12 Contract	Remarks
1	Manager HSE	Mr. Attique Khokar	
2	Environmental Officer		
3	Environmental Supervisor		

### 7.4 Construction Activities

Details of construction activities conducted during the reporting period are shown in Table 7.4.

**Table 7.4: Construction Activities in LBRV-11 Contract**

S.No.	Work Site	Details of Works	Remarks
1	Khoshe-1	PCC on permanent Access road	In progress
2	Khoshe-2		No activity
3	Uchaar site		No activity

**Table 7.5: Construction Activities in LBRV-12 Contract**


S.No.	Work Site	Details of Works	Remarks
1	Nasirabad-1	Water supply pipeline between terrace 1 and terrace 2, sewage work	In progress
2	Nasirabad-2	Slope protection and sewerage work	In progress

## **7.5 Construction Supervision and Environmental Compliances**

### **7.5.1 Site Inspections and WTEIRs**

Site visits to the construction areas are conducted daily by the environmental staff to supervise environmental compliance of the construction activities and complete daily monitoring checklists. In addition, walk-through environmental inspections have been conducted at all work sites regularly by the senior environmental staff of DHC and PMU to identify any environmental issues and non-compliance. The issues identified at the construction sites are communicated with the Contractor through Walk-Through Environmental Inspection Reports (WTEIRs). The Contractor has also been instructed to address these issues within a suggested timeframe. The Contractor has rectified these mistakes and submitted the report with the actions taken. The WTEIRs, consisting of both non-compliances and rectifications, are given in the following tables.

**Table 7.6: Walk-Through Inspection Report No. 16**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
16.1	16-04-2022 Khushi RV site	Oil Spills at site		The Contractor is instructed to remove the oil spills from the site and as regularly instructed to use drip trays while refueling at site.	Immediate	 <p>The contractor has removed the contaminated soil from the ground and put the new soil on the excavated area.</p>	17.4.2022





Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
							
16.2	16-04-2022 Khushi RV site	Improper Placement of Oil/ Fuel Drums		The Contractor is instructed to place the fuel drums at a bunded concrete surface or on an impermeable surface	immediate	 <p>The contractor remove all the fuel and lubricant drums from site. And put on the temporary fuel storage at site</p>	



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
16.3	16-04-2022 Khushi RV site	No waste Bins at site		The contractor is instructed to place waste bins at the construction site and ask the staff to use it	immediate	 <p>Houes keeping and cleaning at site</p>	
16.4	16-04-2022 Khushi RV site	No water sprinkling		The contractor is instructed to ensure water sprinkling at the access roads	immediate	 <p>Water sprinkling at site</p>	



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
16.5	16-04-2022 Khushi RV site	Poor housekeeping Construction waste at site	 <p>16 Apr 2022 10:35:31 35.31076275N 73.19296192E Dasu Kohistan Khyber Pakhtunkhwa</p> <p>16 Apr 2022 10:37:29 35.31154142N 73.19278665E N-35 Dasu Kohistan Khyber Pakhtunkhwa</p> <p>16 Apr 2022 10:48:30</p>	The contractor is instructed to ensure good housekeeping at the construction site	immediate	 <p>House keeping and cleaning</p>	



**Table 7.7: Walk-Through Inspection Report No. 17**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Action Taken by the Contractor
17.1	16-04-2022 Khushi RV site	Oil Spills at site		The Contractor is instructed to remove the oil spills from the site and as regularly instructed to use drip trays while refueling at site.	




17.2	16-04-2022 Khushi RV site	Improper Placement of Oil/Fuel Drums		The Contractor is instructed to place the fuel drums at a bunded concrete surface or on an impermeable surface	
17.3	16-04-2022 Khushi RV site	No waste Bins at site		The contractor is instructed to place waste bins at the construction site and ask the staff to use it	



					
17.4	16-04-2022 Khushi RV site	No water sprinkling g		The contractor is instructed to ensure water sprinkling a the access roads	
17.5	16-04-2022 Khushi RV site	Inadequate housekeeping Construction waste at site	 	The contractor is instructed to ensure good housekeeping at the construction site	 



**Table 7.8: Walk-Through Inspection Report No. 18**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Action Taken by the Contractor
18.1	21-05-2022 Khushi RV site	Oil Spills at site		<p>Contractor is instructed the contractor to remove the spill from site and replace the soil.</p> <p>Contractor is further instructed to use dipping tray &amp; Spill Sheet whenever they are replacing the oils in their machinery/ equipment/vehicles.</p> <p>Contractor is also instructed to arrange on-site training for its staff with agenda: " How to deal with oil/ chemical spillage".</p>	
18.2	21-05-2022 Khushi V site	Fugitive Dust at on the road connecting LBRV &12.		<p>Contractor is instructed that to ensure the water sprinkling at site at least 3 to 4 time a days during the summer season.</p> <p>It is expressed with great concern that this issue a long awaited, and repeated in a number of monthly meetings, several walkthrough reports but still not complied properly.</p>	

					
18.3	21-05-2022 Khushi RV site	Improper Placement of Oil/ Fuel Drums		Contractor is instructed to not to place oil storage drums in a haphazard manner at site and place into designated area. The designated area should possess spill sheets beneath the drums.	
18.4	21-5-2022 Khushi RV site	Inadequate housekeeping		Contractor is instructed to put all garbage in a special large sized bin and train there staff to stop littering and throwing away discarded material in a haphazard manner.	



### 7.5.2 Notices and Letters

No notices or letters were issued to the contractor except the WTEIRs during the reporting quarter.

### 7.5.3 Quarterly Monitoring of Air, Noise, Water and Wastewater

The Contractor has not conducted 24-hour monitoring of air, and noise quality during the quarter.

### 7.5.4 Contractor's Effect Monitoring

The monitoring requirements of the Contractor as per the bidding documents are given in the following table. The Engineer's observation of the monitoring status is also given in the last column of this table.

**Table 7.9: Status of Contractor's Effect Monitoring**

S. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	The construction related slope stability is addressed by protection of the slope through wire meshing and shotcreting at the resettlement sites
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	Monitored visually. No incident was recorded during the quarter.
3	Surface water quality	In the rivers and tributaries at the downstream of the construction sites. The locations of sampling can be same locations of baseline water quality or new locations recommended by the CSC.	Sampling and analysis of river water quality and wastewater discharges for the key parameters given in NEQS (river water quality – DO, BOD, COD, Temperature, pH, Conductivity, TSS, turbidity, nitrate, Wastewater – BOD, TSS, turbidity, TDS, COD, grease and oil, iron, ammonia, sulfates, chlorides)	Quarterly	No Quarterly Environmental monitoring was conducted during the quarter.
4	Air Quality (dust, smoke)	Construction sites, quarry areas along KKH and blasting areas	Visual inspection to ensure good standard equipment is in use and dust suppression measures (spraying of waters) are in place.	Weekly	Regular visual inspections were carried out during the quarter at the Access Road to the resettlement site. Also, some portion of Khushee access road was also allocated to the contractor. The Contractor was instructed to increase water sprinkling frequency. The dust is under control.
5	Air Quality (PM10, NO <sub>2</sub> , SO <sub>2</sub> , CO <sub>2</sub> , CO)	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC.	Air quality monitoring for 24 hours for the parameters specified in NEQS 2000	Quarterly	No Quarterly Environmental monitoring was conducted during the quarter.
6	Emissions from plant and equipment	At all the construction sites for dam, KKH and tunnels	Visual Inspection	Monthly	Regular visual inspections were carried out during the quarter and no issue was observed.
7	Noise and vibration	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations	24-hour noise monitoring	Quarterly	No Quarterly Environmental monitoring was conducted during the quarter.



		recommended by the CSC			
8	Waste Management	At the designated rock disposal area	Visual inspection on spoil disposal in accordance with EMP Sub plan on Waste Management	Monthly	Spoil is being dumped at the Khushe disposal site
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Monthly	Regular monitoring was carried out. The Contractor is temporarily storing the waste at the camp. The reusable and recyclables are temporarily stored at the site for onward sending to local trash vendor.
10	Spills from Hydrocarbon	Material storage sites and construction yards	Visual Inspection for leaks and spills	Monthly	Regular monitoring was carried out. The non-compliances are reported to the contractor in the WTEIRs for rectification.
11	Traffic Safety	Along KKH and access roads to the construction areas	Visual inspection to see whether Traffic Management Plan (EMP Sub Plan 12) is implemented	Monthly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Monthly	Regular monitoring was carried out and no damage was observed to the local roads
13	Cultural and archeological Sites	At the physical and cultural resources identified in the EIA	Visual observation on implementation of EMP Sub Plan 13 on Physical Cultural Resources Management	Monthly	The contractor kept in consideration this aspect during the excavation activities. There was no archeological site present in the current construction area.
14	Drinking water and sanitation	In construction sites and construction camps	Ensure the construction workers are provided with safe water and sanitation facilities on the site	Weekly	Monitored. The contractor provided water coolers to the workers at the sites.

### 7.5.5 Key Performance Indicators

The key performance indicators identified in the ESA<sup>8</sup> of DHP to mitigate the environmental impacts and risks during construction can be summarized into five categories, as shown in the following table.

**Table 7.10: Key Performance Indicators for compliance with mitigation measures**

S. No	Key Performance Indicator	Description of the Indicator
1	Number of any non-compliance reports	The number of non-compliances noticed and reported to the Contractor.
2	Number of public complaints or grievances	The number of complaints or grievances received from the communities on the construction-related nuisances such as traffic, dust, noise and vibration, or any other construction-related activities
3	Number of accidents/incidents	The number of accidents or incidents, or near misses involving construction activities and construction vehicles
4	Number of exceedances over NEQS	The number of parameters in ambient air and noise quality, drinking water, wastewater discharges and surface waters found beyond the national standards.
5.	Other Indicators	Any other indicators that are not covered in the above categories are given in 'other indicators.' This includes the number of times chance finds are noticed, the number of trainings conducted, etc.

A detailed assessment of the status of compliance with the performance indicators and their status during the reporting period is given in the following table. Any indicators related to OHS and social aspects are covered in the relevant reports, not in this report.

<sup>8</sup> See Table 9.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 7.11: Key Performance Indicators and their Status during the reporting period**

Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
1. Design/Pre-Construction Stage							Not relevant
2. Contractor Mobilisation and Demobilisation	3.1 Traffic Management	Nil					
	3.2 Soil Erosion and Contamination	Nil					
	3.3 Air Quality	Nil					
	3.4 Noise	Nil					
	3.5 Public Safety	Nil					
	3.6 Damage to Infrastructure	Nil					
3. Contractor's Camp	4.1 Soil and Water Contamination	Nil					
	4.2 Air Quality	Nil					
	4.3 Vegetation loss	Nil				Number of trees felled: 0	
	4.4 Noise	Nil					
	4.5 Health and Safety	Nil					Covered under OHS Report
	4.6 Social and Gender Issues	Nil					Covered under social report
	4.7 Damage to PCRs	Nil				Number of chance finds: 0	
	4.8 Increased load on local services	Nil					Covered under social report
4. Transportation of Equipment	5.1 Traffic Management	Nil					
	5.2 Soil Erosion and Contamination	Nil					
	5.3 Air Quality	Nil					
	5.4 Noise	Nil					
	5.5 Public Safety	Nil				Number of trainings provided:	
	5.6 Damage to infrastructure	Nil					
5. Spoil Area Management	9.1 Changes to topography	Nil					
	9.2 Landslide						
	9.3 Soil erosion						
	9.4 Air Quality						
	9.5 Landscape and Visual Intrusion						
	9.6 Vegetation loss						
6. Waste Management	12.1 Soil and water contamination		3				3 occurrences of soil contamination reported through WTEIR which were rectified
	12.2 Odor						

### **7.5.6 Overall Compliance Status – Tri-Partite Monthly Meetings**

Monthly meetings were held with the Contractor by the Engineer and PMU to discuss pending environmental non-compliance and the actions taken by the Contractor to address these issues. The minutes of these meetings are shown in the Annex-1. The major environmental issues discussed during the meeting were:

- Submission of NOC and license for fuel storage
- Ensuring water sprinkling
- Implementation of demobilization ECP



## 8 RAR-02 Contract

### 8.1 Overview of Contracts

A brief overview of the RAR-02 contract is given in Table 8.1. The LBRV-11&12 contract works are related to the construction of construction of Right bank access road that is starting from dam site upto Uttar Gah.

**Table 8.1: Overview of LBRV-11&12 Contract**

S.No.	Item	Data
1	Contract Number	ICB No. Dasu- RAR-02
2	Contract Name	Construction of Right bank Access Road (Dam site to Uttar Gah)
3	Contractor	China Gezhouba Group Co. Ltd. (CGGC)
4	Commencement Date	May 20, 2021
5	Contract Completion Date	May 18, 2023

### 8.2 Contractor Environmental Action Plan

The Contractor has submitted the Contractor Environmental Action Plan (CEAP) with the site-specific management plans to address the environmental impacts and risks of the construction activities. In addition, the Contractor has also prepared an Occupational Health and Safety Management Plan (OHSMP), and details of these plans are not covered in this report.

### 8.3 Contractor's Facilities and ESHS Staff

The facilities established by the Contractor, such as workers' camps and construction yards, are given in Table 8.2. The Environmental Social Health and Safety (ESHS) Staff of the Contractor are given in Table 8.3.

**Table 8.2: Contractor's Facilities**

S. No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>			
1	Chinese Workers Camp	Kaigah	About 23 workers live in this camp	
2	Pakistan Workers Camps	Kaigah	About 10 workers live in this camp	
<b>B.</b>	<b>Crushing/Batching Plants</b>			
1	Crushing Plant	Nil		
2	Batching plant	Nil		
<b>C.</b>	<b>Other Facilities</b>			
1	Construction Yard	Nil		
2	Explosive magazine	Nil	Explosive from MW-02 at Kas area is being used for the construction work	

**Table 8.3: Contractor's ESHS Staff**

S. No.	Position	RAR-02 Contract	Remarks
1	Manager HSE	Vacant	Contractor has been instructed to engage environmental officer along with supervisory staff
2	Environmental Officer		
3	Environmental Supervisor		

### 8.4 Construction Activities

Details of construction activities conducted during the reporting period are shown in Table 8.4.

**Table 8.4: Construction Activities in LBRV-11 Contract**

S. No.	Work Site	Details of Works	Remarks
1	K12+660 to k13+145	Excavation and blasting	In progress
2	K20+590 at Largani	Cableway foundation concrete	No activity

## **8.5 Construction Supervision and Environmental Compliances**

### **8.5.1 Site Inspections and WTEIRs**

Site visits to the construction areas are conducted daily by the environmental staff to supervise environmental compliance of the construction activities and complete daily monitoring checklists. In addition, walk-through environmental inspections have been conducted at all work sites regularly by the senior environmental staff of DHC and PMU to identify any environmental issues and non-compliance. The issues identified at the construction sites are communicated with the Contractor through Walk-Through Environmental Inspection Reports (WTEIRs). The Contractor has also been instructed to address these issues within a suggested timeframe. The Contractor has rectified these mistakes and submitted the report with the actions taken. The WTEIRs, consisting of both non-compliances and rectifications, are given in the following tables.

**Table 8.5: Walk-Through Inspection Report No. 1**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
2.1	30-05-2022 RAR-02	Fugitive dust		<p>Contractor is instructed to haul the excavated material and dump at Kass area and do not roll down into Indus river which is causing dust cloud opposite of CR-09 of MW-01.</p> <p>The dumper access is available at the working face and contractor needs to haul the excavated material. As well as implement Water sprinkling.</p>	Immediate	 <p>Properly water sprinkling at RAR-02 and excavated material dump at kass area</p>	02-6-2022
2.2	30-05-2022 RAR-02	Spillage of oil		<p>Contractor is instructed to replace the contaminated soil with clean and fresh soil immediate basis. If needed then use spill kits for oil spill on the site. Dispose off the contaminated Soil.</p>		 <p>Contaminated soil removed from site and disposed properly</p>	02-6-2022



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
							
2.3	30-05-2022 RAR-02	Poor housekeeping		The contractor is instructed to maintain good housekeeping practices at all the construction sites. i.e., provisions of waste bins and awareness to labor and staff about waste management.			02-6-2022



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
						<p>Removed extra material from working site and cleaned working area and installed temporary waste bins</p>	
2.4	30-05-2022 RAR-02	Fire wood using for cooking purpose		Contractor is instructed to use LPG gas for cooking purpose and avoid the Wood fuel. It is a clear violation of ECPs as well.		<p>Conduct TBT for workers and instruct him and stop the wooden fuel</p>	02-6-2022

### 8.5.2 Notices and Letters

No notices or letters were issued to the contractor except the WTEIRs during the reporting quarter.

### 8.5.3 Quarterly Monitoring of Air, Noise, Water and Wastewater

The Contractor has not conducted 24-hour monitoring of air, and noise quality during the quarter.

### 8.5.4 Contractor's Effect Monitoring

The monitoring requirements of the Contractor as per the bidding documents are given in the following table. The Engineer's observation of the monitoring status is also given in the last column of this table.

**Table 8.6: Status of Contractor's Effect Monitoring**

S. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	Fortnight visual inspection was conducted, and no landslide was observed.
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	Monitored visually. No incident was recorded during the quarter.
3	Surface water quality	In the rivers and tributaries at the downstream of the construction sites. The locations of sampling can be same locations of baseline water quality or new locations recommended by the CSC.	Sampling and analysis of river water quality and wastewater discharges for the key parameters given in NEQS (river water quality – DO, BOD, COD, Temperature, pH, Conductivity, TSS, turbidity, nitrate, Wastewater – BOD, TSS, turbidity, TDS, COD, grease and oil, iron, ammonia, sulfates, chlorides)	Quarterly	No Quarterly Environmental monitoring was conducted during the quarter.
4	Air Quality (dust, smoke)	Construction sites, quarry areas along KKH and blasting areas	Visual inspection to ensure good standard equipment is in use and dust suppression measures (spraying of waters) are in place.	Weekly	Weekly visual inspection was conducted during the quarter. Contractor was instructed to ensure water sprinkling.
5	Air Quality (PM10, NO <sub>2</sub> , SO <sub>2</sub> , CO <sub>2</sub> , CO)	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC.	Air quality monitoring for 24 hours for the parameters specified in NEQS 2000	Quarterly	No Quarterly Environmental monitoring was conducted during the quarter.
6	Emissions from plant and equipment	At all the construction sites for dam, KKH and tunnels	Visual Inspection	Monthly	Regular visual inspections were carried out during the quarter and no issue was observed.
7	Noise and vibration	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC	24-hour noise monitoring	Quarterly	No Quarterly Environmental monitoring was conducted during the quarter.
8	Waste Management	At the designated rock disposal area	Visual inspection on spoil disposal in accordance with EMP Sub plan on Waste Management	Monthly	Spoil is being dumped along the slope due to nonavailability of disposal site
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Monthly	Regular monitoring was carried out. The Contractor is temporarily storing the waste at the camp.
10	Spills from Hydrocarbon	Material storage sites and construction yards	Visual Inspection for leaks and spills	Monthly	Monthly visual inspection observation regarding the spills



					was reported to the contractor for rectification.
11	Traffic Safety	Along KKH and access roads to the construction areas	Visual inspection to see whether Traffic Management Plan (EMP Sub Plan 12) is implemented	Monthly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Monthly	Regular monitoring was carried out and no damage was observed to the local roads
13	Cultural and archeological Sites	At the physical and cultural resources identified in the EIA	Visual observation on implementation of EMP Sub Plan 13 on Physical Cultural Resources Management	Monthly	The contractor kept in consideration this aspect during the excavation activities. There was no archeological site present in the current construction area.
14	Drinking water and sanitation	In construction sites and construction camps	Ensure the construction workers are provided with safe water and sanitation facilities on the site	Weekly	Monitored. The contractor provided water coolers to the workers at the sites.

### 8.5.5 Key Performance Indicators

The key performance indicators identified in the ESA<sup>9</sup> of DHP to mitigate the environmental impacts and risks during construction can be summarized into five categories, as shown in the following table.

**Table 8.7: Key Performance Indicators for compliance with mitigation measures**

S. No	Key Performance Indicator	Description of the Indicator
1	Number of any non-compliance reports	The number of non-compliances noticed and reported to the Contractor.
2	Number of public complaints or grievances	The number of complaints or grievances received from the communities on the construction-related nuisances such as traffic, dust, noise and vibration, or any other construction-related activities
3	Number of accidents/incidents	The number of accidents or incidents, or near misses involving construction activities and construction vehicles
4	Number of exceedances over NEQS	The number of parameters in ambient air and noise quality, drinking water, wastewater discharges and surface waters found beyond the national standards.
5.	Other Indicators	Any other indicators that are not covered in the above categories are given in 'other indicators.' This includes the number of times chance finds are noticed, the number of trainings conducted, etc.

A detailed assessment of the status of compliance with the performance indicators and their status during the reporting period is given in the following table. Any indicators related to OHS and social aspects are covered in the relevant reports, not in this report.

<sup>9</sup> See Table 9.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 8.8: Key Performance Indicators and their Status during the reporting period**

Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
1. Design/Pre-Construction Stage							Not relevant
2. Contractor Mobilisation and Demobilisation	3.1 Traffic Management	Nil					
	3.2 Soil Erosion and Contamination	Nil					
	3.3 Air Quality	Nil					
	3.4 Noise	Nil					
	3.5 Public Safety	Nil					
	3.6 Damage to Infrastructure	Nil					
3. Contractor's Camp	4.1 Soil and Water Contamination	Nil					
	4.2 Air Quality	Nil					
	4.3 Vegetation loss	Nil				Number of trees felled: 0	
	4.4 Noise	Nil					
	4.5 Health and Safety	Nil					Covered under OHS Report
	4.6 Social and Gender Issues	Nil					Covered under social report
	4.7 Damage to PCRs	Nil				Number of chance finds: 0	
	4.8 Increased load on local services	Nil					Covered under social report
4. Transportation of Equipment	5.1 Traffic Management	Nil					
	5.2 Soil Erosion and Contamination	Nil					
	5.3 Air Quality		1				1 occurrence of dust reported through WTEIR which was rectified
	5.4 Noise	Nil					
	5.5 Public Safety	Nil				Number of trainings provided:	
	5.6 Damage to infrastructure	Nil					
5. Spoil Area Management	9.1 Changes to topography	Nil					
	9.2 Landslide						
	9.3 Soil erosion						
	9.4 Air Quality						
	9.5 Landscape and Visual Intrusion						
	9.6 Vegetation loss						
6. Waste Management	12.1 Soil and water contamination		1				1 occurrence of soil contamination reported through WTEIR which was rectified
	12.2 Odor						

### **8.5.6 Overall Compliance Status – Tri-Partite Monthly Meetings**

Monthly meetings were held with the Contractor by the Engineer and PMU to discuss pending environmental non-compliance and the actions taken by the Contractor to address these issues. The minutes of these meetings are shown in the Annex-1. The major environmental issues discussed during the meeting were:

- Hiring of environmental officer
- Submission of monthly MPR
- Suppression of dust
- Proper haulage of spoil



## 9 KKH-02 Contract

### 9.1 Overview of Contracts

A brief overview of the KKH-02 contract is given in Table 9.1. The KKH-02 contract work is related to the construction of construction of relocated road that is starting from dam site upto Uttar Gah.

**Table 9.1: Overview of KKH-02 Contract**

S. No.	Item	Data
1	Contract Number	ICB No. Dasu- KKH-02
2	Contract Name	Construction of Relocated KKH-02 (K24 to K61)
3	Contractor	China Gezhouba Group Co. Ltd. (CGGC)
4	Commencement Date	May 15, 2022
5	Contract Completion Date	May 12, 2024

### 9.2 Contractor Environmental Action Plan

The Contractor has submitted the Contractor Environmental Action Plan (CEAP) with the site-specific management plans to address the environmental impacts and risks of the construction activities. The plan was reviewed by the Engineer and the contractor was asked to revise the plan as per engineer comments. The revised report is not yet submitted. In addition, the Contractor has also prepared an Occupational Health and Safety Management Plan (OHSMP), and details of these plans are not covered in this report.

### 9.3 Contractor's Facilities and ESHS Staff

The facilities established by the Contractor, such as workers' camps and construction yards, are given in Table 9.2. The Environmental Social Health and Safety (ESHS) Staff of the Contractor are given in Table 9.3.

**Table 9.2: Contractor's Facilities**

S. No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>		About 22 Chinese staff reside in camp	
1	Chinese Workers Camp	Kaigah		
2	Pakistan Workers Camps	Kaigah		
<b>B.</b>	<b>Crushing/Batching Plants</b>			
1	Crushing Plant	Nil		
2	Batching plant	Nil		
<b>C.</b>	<b>Other Facilities</b>			
1	Construction Yard	Nil		
2	Explosive magazine	Barseen	20 ton capacity	

**Table 9.3: Contractor's ESHS Staff**

S. No.	Position	KKH-02 Contract	Remarks
1	Manager HSE	Vacant	Contractor has been instructed to engage environmental officer along with supervisory staff
2	Environmental Officer		
3	Environmental Supervisor		

### 9.4 Construction Activities

Details of construction activities conducted during the reporting period are shown in Table 9.4.

**Table 9.4: Construction Activities in KKH-02 Contract**

S. No.	Work Site	Details of Works	Remarks
1	K28, K31 and K37 Kaigah	Excavation and blasting	In progress

## **9.5 Construction Supervision and Environmental Compliances**



### **9.5.1 Site Inspections and WTEIRs**

Site visits to the construction areas are conducted daily by the environmental staff to supervise environmental compliance of the construction activities and complete daily monitoring checklists. In addition, walk-through environmental inspections have been conducted at all work sites regularly by the senior environmental staff of DHC and PMU to identify any environmental issues and non-compliance. The issues identified at the construction sites are communicated with the Contractor through Walk-Through Environmental Inspection Reports (WTEIRs). The Contractor has also been instructed to address these issues within a suggested timeframe. The Contractor has rectified these mistakes and submitted the report with the actions taken. The WTEIRs, consisting of both non-compliances and rectifications, are given in the following tables.


**Table 9.5: Walk-Through Inspection Report No. 1**


Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
1.1	01-06-2022 KKH-02	Spoil rolling down into Indus River	 <p style="text-align: right; font-size: small;">Jun 1, 2022 10:34:12 AM 5° N Index number: 1037</p>	<p>Contractor is instructed to haul the excavated material and dump into dumping site and do not roll down in Indus River.</p> <p>The dumpers can easily access working face need to haul the excavated material.</p>	Immediate		



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
1.2	01-06-2022 KKH-02	Spillage of oil		<p>Contractor is instructed to replace the soil with clean and fresh soil immediate basis. If needed then use spill kits for oil spill on the site. Dispose of the contaminated Soil.</p>	Immediate		
1.3	01-06-2022 KKH-02	Dust		<p>The contractor is instructed to increase water sprinkling frequency at least 3 to 4 time or as and when required.</p>			

**Table 9.6: Walk-Through Inspection Report No. 2**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
2.1	20-06-2022 KKH-02	Oil Spillage		Contractor is instructed to remove the contaminated soil and replace it with fresh soil and Dispose of the contaminated Soil as per agreed mitigation measures given in ECP's.	Immediate		

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
2.2	20-06-2022 KKH-02	Poor housekeeping	 <p>20 Jun 2022 10:34:39 35.41266419N 73.20388408E N-35 Kohistan Khyber Pakhtunkhwa</p> <p>20 Jun 2022 10:34:47 35.41267319N 73.20384536E N-35 Kohistan Khyber Pakhtunkhwa</p> <p>20 Jun 2022 10:35:15 35.41259705N 73.20390237E N-35 Kohistan Khyber Pakhtunkhwa</p>	Contractor is instructed to maintain good housekeeping of site.			



### 9.5.2 Notices and Letters

No notices or letters were issued to the contractor except the WTEIRs during the reporting quarter.

### 9.5.3 Quarterly Monitoring of Air, Noise, Water and Wastewater

The Contractor has not conducted 24-hour monitoring of air, and noise quality during the quarter.

### 9.5.4 Contractor's Effect Monitoring

The monitoring requirements of the Contractor as per the bidding documents are given in the following table. The Engineer's observation of the monitoring status is also given in the last column of this table.

**Table 9.7: Status of Contractor's Effect Monitoring**

S. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	Fortnightly visual inspection conducted, and no landslide observed.
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	Monitored visually. No incident was recorded during the quarter.
3	Surface water quality	In the rivers and tributaries at the downstream of the construction sites. The locations of sampling can be same locations of baseline water quality or new locations recommended by the CSC.	Sampling and analysis of river water quality and wastewater discharges for the key parameters given in NEQS (river water quality – DO, BOD, COD, Temperature, pH, Conductivity, TSS, turbidity, nitrate, Wastewater – BOD, TSS, turbidity, TDS, COD, grease and oil, iron, ammonia, sulfates, chlorides)	Quarterly	No Quarterly Environmental monitoring was conducted during the quarter.
4	Air Quality (dust, smoke)	Construction sites, quarry areas along KKH and blasting areas	Visual inspection to ensure good standard equipment is in use and dust suppression measures (spraying of waters) are in place.	Weekly	Regular visual inspections were carried out during the quarter. The contractor was instructed to ensure water sprinkling
5	Air Quality (PM10, NO <sub>2</sub> , SO <sub>2</sub> , CO <sub>2</sub> , CO)	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC.	Air quality monitoring for 24 hours for the parameters specified in NEQS 2000	Quarterly	No Quarterly Environmental monitoring was conducted during the quarter.
6	Emissions from plant and equipment	At all the construction sites for dam, KKH and tunnels	Visual Inspection	Monthly	Regular visual inspections were carried out during the quarter and no issue was observed.
7	Noise and vibration	Near the sensitive sites and settlements at the close to the construction works and along KKH. The locations of sampling can be same locations of baseline air quality or new locations recommended by the CSC	24-hour noise monitoring	Quarterly	No Quarterly Environmental monitoring was conducted during the quarter.
8	Waste Management	At the designated rock disposal area	Visual inspection on spoil disposal in accordance with EMP Sub plan on Waste Management	Monthly	Spoil is being dumped at the designated spoil disposal sites along KKH
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Monthly	Regular monitoring was carried out. The Contractor is temporarily storing the waste at the camp. The reusable and recyclables are temporarily stored at the site for onward sending to local trash vendor.

10	Spills from Hydrocarbon	Material storage sites and construction yards	Visual Inspection for leaks and spills	Monthly	Regular monitoring was carried out. The non-compliances are reported to the contractor in the WTEIRs for rectification.
11	Traffic Safety	Along KKH and access roads to the construction areas	Visual inspection to see whether Traffic Management Plan (EMP Sub Plan 12) is implemented	Monthly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Monthly	Regular monitoring was carried out and no damage was observed to the local roads
13	Cultural and archeological Sites	At the physical and cultural resources identified in the EIA	Visual observation on implementation of EMP Sub Plan 13 on Physical Cultural Resources Management	Monthly	The contractor kept in consideration this aspect during the excavation activities. There was no archeological site present in the current construction area.
14	Drinking water and sanitation	In construction sites and construction camps	Ensure the construction workers are provided with safe water and sanitation facilities on the site	Weekly	Monitored. The contractor provided water coolers to the workers at the sites.

### 9.5.5 Key Performance Indicators

The key performance indicators identified in the ESA<sup>10</sup> of DHP to mitigate the environmental impacts and risks during construction can be summarized into five categories, as shown in the following table.

**Table 9.8: Key Performance Indicators for compliance with mitigation measures**

S. No	Key Performance Indicator	Description of the Indicator
1	Number of any non-compliance reports	The number of non-compliances noticed and reported to the Contractor.
2	Number of public complaints or grievances	The number of complaints or grievances received from the communities on the construction-related nuisances such as traffic, dust, noise and vibration, or any other construction-related activities
3	Number of accidents/incidents	The number of accidents or incidents, or near misses involving construction activities and construction vehicles
4	Number of exceedances over NEQS	The number of parameters in ambient air and noise quality, drinking water, wastewater discharges and surface waters found beyond the national standards.
5.	Other Indicators	Any other indicators that are not covered in the above categories are given in 'other indicators.' This includes the number of times chance finds are noticed, the number of trainings conducted, etc.

A detailed assessment of the status of compliance with the performance indicators and their status during the reporting period is given in the following table. Any indicators related to OHS and social aspects are covered in the relevant reports, not in this report.

<sup>10</sup> See Table 9.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 9.9: Key Performance Indicators and their Status during the reporting period**

Activity	Environmental Impact/Issue	Number of any non-compliance reports	Number of related incidents	Number of related grievances	Exceedances in Standards (air, noise, water, etc.)	Other Indicators	Remarks
1. Design/Pre-Construction Stage							Not relevant
2. Contractor Mobilisation and Demobilisation	3.1 Traffic Management	Nil					
	3.2 Soil Erosion and Contamination	Nil					
	3.3 Air Quality	Nil					
	3.4 Noise	Nil					
	3.5 Public Safety	Nil					
	3.6 Damage to Infrastructure	Nil					
3. Contractor's Camp	4.1 Soil and Water Contamination	Nil					
	4.2 Air Quality	Nil					
	4.3 Vegetation loss	Nil				Number of trees felled: 0	
	4.4 Noise	Nil					
	4.5 Health and Safety	Nil					Covered under OHS Report
	4.6 Social and Gender Issues	Nil					Covered under social report
	4.7 Damage to PCRs	Nil				Number of chance finds: 0	
	4.8 Increased load on local services	Nil					Covered under social report
4. Transportation of Equipment	5.1 Traffic Management	Nil					
	5.2 Soil Erosion and Contamination	Nil					
	5.3 Air Quality	Nil					
	5.4 Noise	Nil					
	5.5 Public Safety	Nil				Number of trainings provided:	
	5.6 Damage to infrastructure	Nil					
5. Spoil Area Management	9.1 Changes to topography	Nil					
	9.2 Landslide						
	9.3 Soil erosion						
	9.4 Air Quality						
	9.5 Landscape and Visual Intrusion						
	9.6 Vegetation loss						
6. Waste Management	12.1 Soil and water contamination			1			1 occurrence of soil contamination reported through WTEIR
	12.2 Odor						



### **9.5.6 Overall Compliance Status – Tri-Partite Monthly Meetings**

Monthly meetings were held with the Contractor by the Engineer and PMU to discuss pending environmental non-compliance and the actions taken by the Contractor to address these issues. The minutes of these meetings are shown in the Annex-1. The major environmental issues discussed during the meeting were:

- Hiring of dedicated Environmental Manger
- Submission of monthly environmental progress report
- Submission of revised CEAP
- Dust suppression measures
- Haulage of spoil material to designated spoil disposal sites

### **9.6 Status of EM-01 Contract**

This Contract was commenced on May 20, 2020. The works related to this contract is procurement of plant design, supply, installation, testing and commissioning Hydro-mechanical and electrical equipment.

During the quarter earthwork and boundary wall construction started at Khushi for the contractor camp. First draft of CEAP has been submitted by the Contractor which is under review by The Engineer.

## 10 Other Environmental activities

### 10.1 Solid waste disposal site identification

DHC Surveyed a potential solid waste disposal site at Kaigah along the realigned KKH. The landfill site criteria as per the IFC guidelines was checked and the site was promising as it was fulfilling most of the criteria. DHC Survey section was engaged to conduct its topographic survey which after completion was later handed over to DHC geology section to carryout its geological investigation. The potential site has an area of 34 kanals and can accommodate solid waste upto 7 years. The details will be shared in the next QPR.

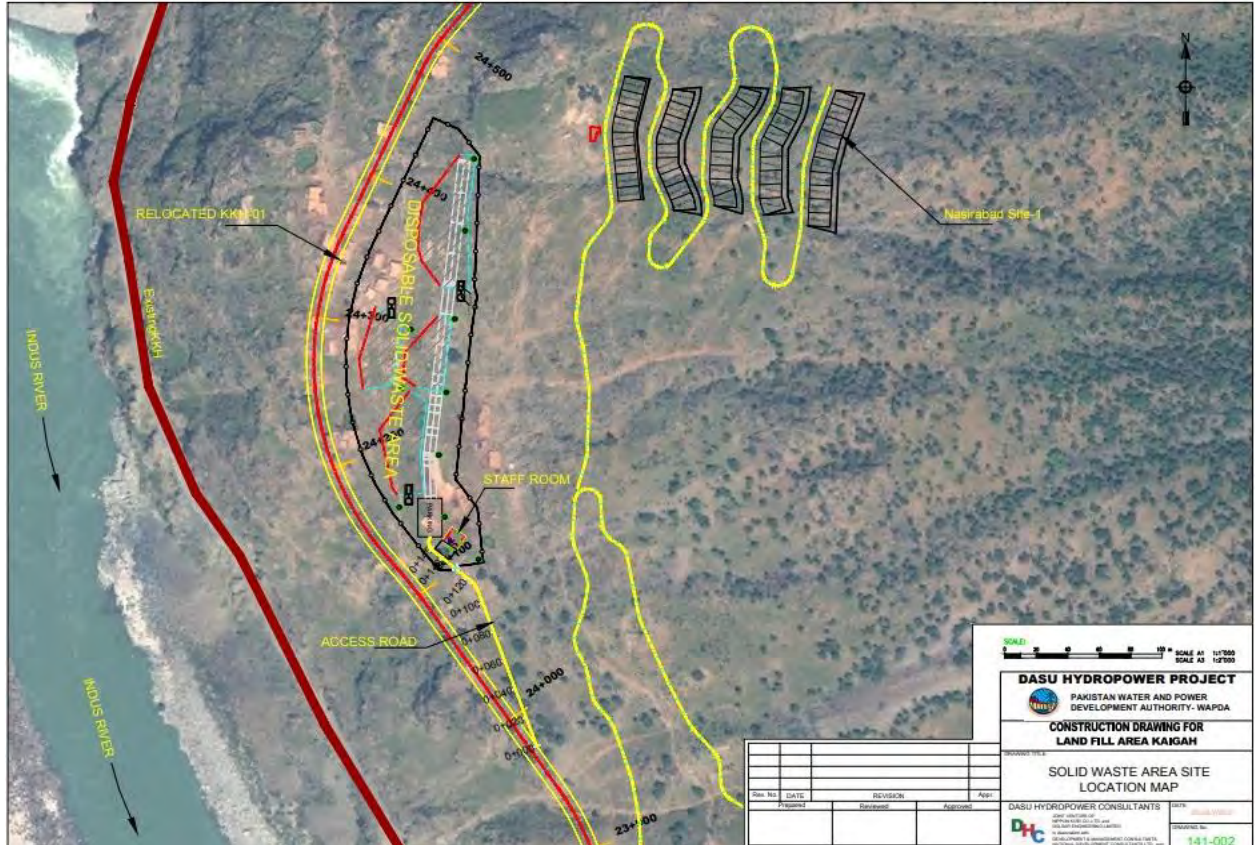


Figure 10.1: Potential solid waste disposal site at Kaigah

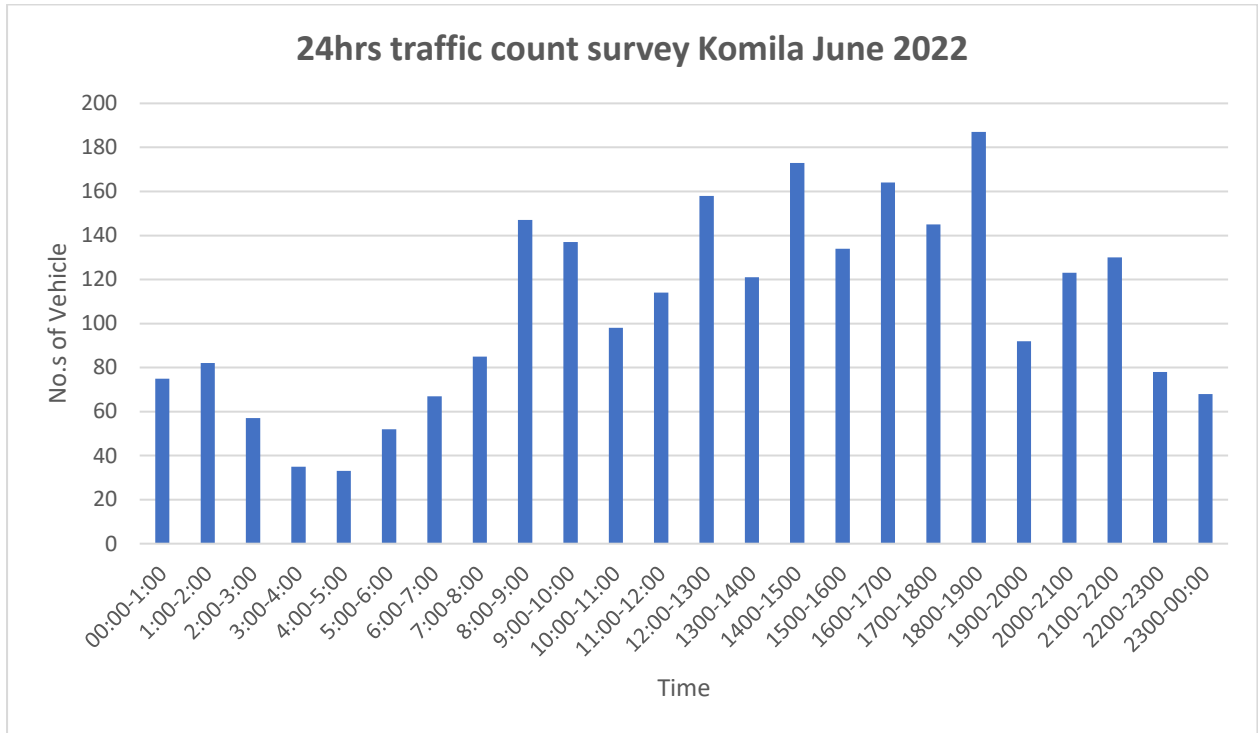
### 10.2 24hrs Traffic count survey

A 24hrs traffic count survey was conducted on 29<sup>th</sup> June 2022 which was completed next day on 30<sup>th</sup> June 2022. Two locations were selected for the count survey. The first location was the entrance to Komila bazar at Musa building (35°15'30.44"N, 73°12'58.39"E) while another survey point was selected at the end of Dasu town at Continental hostel (35°16'40.91"N 73°13'26.91"E). The Annual Average Daily traffic (AADT) count noted at Komila entrance point was 2555. The north bound traffic noted at Komila entrance consisted of 72% of the light vehicles (Car, station wagon, pickup, Hiace) while 27% are heavy vehicles which include minibus, Buses, Rigid truck and articulated trucks). Similarly, the south bound traffic noted at the same location consisted of almost the same pattern i.e., 73% light vehicles and 26% heavy vehicles. The Peak traffic hours were 8am to 10pm.

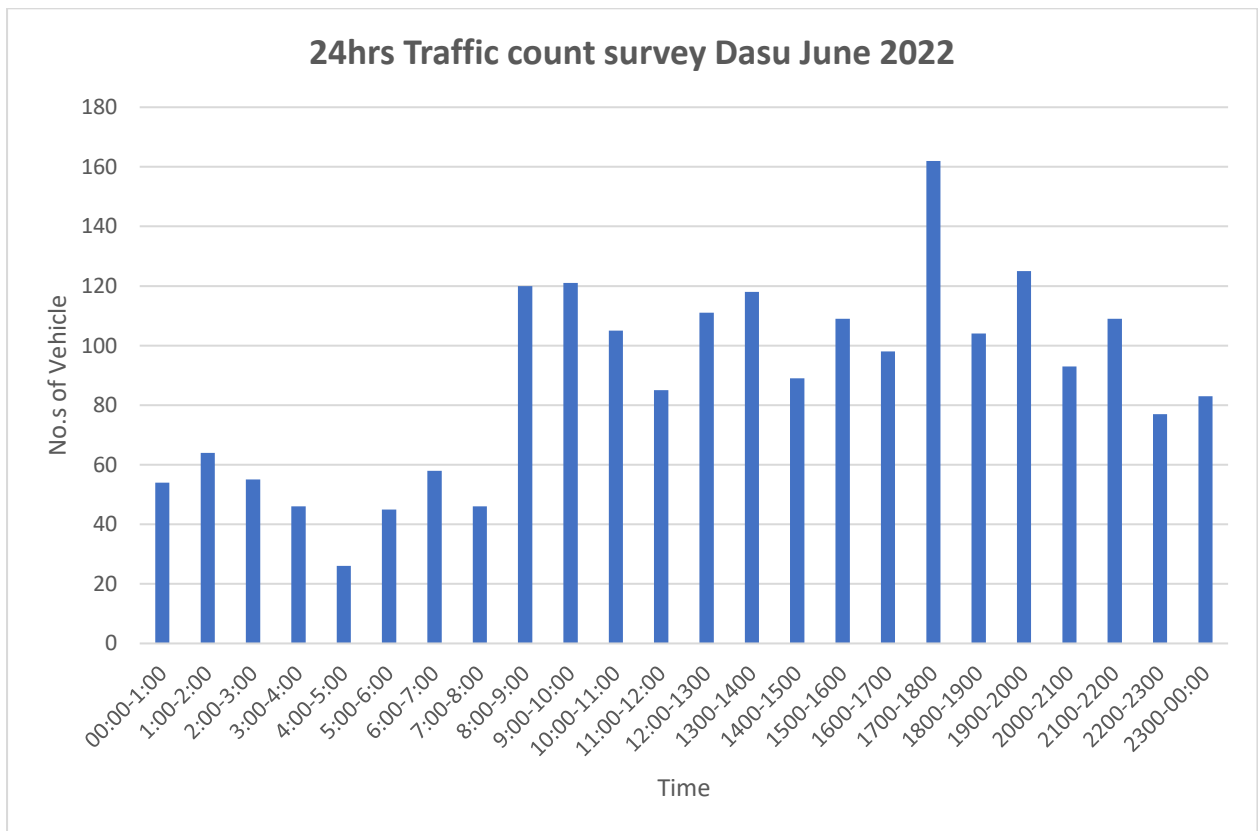
Similarly, the AADT count noted at Dasu exit was 2103. The north bound traffic noted at Dasu exit consisted of 66% of the light vehicles (Car, station wagon, pickup, Hiace) while 33% were heavy vehicles which include minibus, Buses, Rigid truck and articulated trucks). Similarly, the south bound traffic noted at the same location consisted of almost the same pattern i.e. 67% light vehicles and 33% heavy vehicles. The Peak traffic hours were 8am to 10pm.

The best time for the material supply trucks to pass through these area is night time 10 pm upto morning 7am.

The following graphs represent the hourly traffic at Komila and Dasu:



**Figure 10.2: 24hrs traffic count survey at Komila**



**Figure 10.3: 24hrs traffic count survey at Dasu**



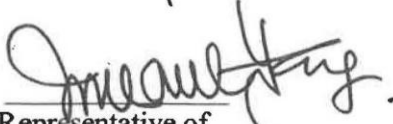


# Annexures

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**Annexure A: Minutes of Monthly Environmental Progress Meetings**  
(MW-01 & 2, KKH-01 & 02, RAR01 & 02, TL-01, PCI-01R & LBRV-11&12)

## MW-01 & 2

<b>DASU HYDROPOWER PROJECT</b> <b>MINUTES OF MEETING (MW-01&amp; MW-02) April &amp; May 2022</b>		28/05/ 2022
<b>Employer:</b> WAPDA (DHPP)		
<b>Engineer:</b> Dasu Hydropower Consultants (DHC)		
<b>Contractor:</b> China Gezhouba Group Co., LTD (CGGC)		
<b>Subject:</b> Monthly Environment Progress Review Meeting for MW-01&02. <b>Date:</b> 28 <sup>th</sup> May 2022 <b>Time:</b> 09:30 am-10:25 am <b>Place:</b> DHC meeting Hall <b>Exhibit:</b> Attendance Sheet	<b>Agenda:</b> Monthly Environmental Progress Review Meeting of MW-01&02.	
<b>Attendees</b> See the attached attendance sheet		
<b>Distributed (Softcopy) to:</b> 1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu  2. Engineer - DHC RE MW-01&02, Dasu	3. Contractor, CGGC 4. Office File / Circulation	
<b>Agreed by:</b>		
<u>Employer</u> Date: 6/6/2022  Representative of Employer- WAPDA (DHPP)	<u>Engineer</u> Date: 62/06/2022  Representative of Engineer (DHC)	<u>Contractor</u> Date: 2022-06-06  Representative of Contractor(CGGC)

**Minutes of the Monthly Environmental Progress Review Meeting\* (MW-01& MW-02) April & May 2022**



Project	MW-01& MW-02			Location	DHC Office		
Employer	WAPDA			Date of Meeting	28 <sup>th</sup> May 2022		
Engineer	DHC			Place of meeting	DHC Meeting Hall		
Contractor	CGGC			Time	09:30 pm-10:25 pm		
Sr. #	Checked Items and Actions Planned	Action By			Target Date for Action	Action Confirm Date	Status Closed, Open, Partially Closed
		Emp.	Eng.	Con.			
23	Status of 3 <sup>rd</sup> party Quarterly environmental monitoring as per contract specifications			√	20/05/2021	02/06/2021 02/07/2021  26/10/2021 30/11/2021  30/12/2021   07/02/2022   01/03/2022	<p><b>In process.</b> In process. The contractor informed that the contract with the laboratory is in process by CGGC commercial department.</p> <p>Not done.</p> <p>Not done. The contractor was instructed to immediately arrange 3<sup>rd</sup> party quarterly environmental monitoring.</p> <p><b>Partially done.</b> The Contractor mobilized <i>Bureau Veritas</i> environmental monitoring laboratory to site but their equipment were not as per the monitoring specifications. The Laboratory was demobilized and were asked to come up with all the calibrated analyzers and instruments. The contractor informed that the laboratory will be remobilized to site by 10<sup>th</sup> January 2021.</p> <p>The Contractor informed that they are considering new environmental laboratory for the environmental monitoring which may be mobilized by 20<sup>th</sup> February 2022. Employer and Engineer instructed the Contractor to share profile before mobilization of the environmental laboratory.</p> <p>The Contractor informed that they are considering new environmental laboratory for the environmental monitoring which may be mobilized by 20<sup>th</sup> February 2022. Employer and Engineer instructed the Contractor to share</p>

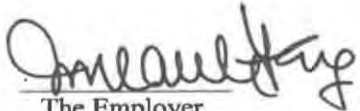




						01/03/2022	profile before mobilization of the environmental laboratory
						28/05/2022	<p>“The Engineer” will write a letter to contractor for updated status about the Third Party Monitoring Laboratory Hiring Status.</p> <p><b>Not Done:</b> Contractor shared its decision that SGS Laboratory is finalized by the CGGC but number of parameters is still under discussion.</p>
24	Proper adaptive/mitigation measures for the closure of two NCRs issued in November 2020			√	20/05/2021	02/06/2021 02/07/2021  26/10/2021 30/11/2021  30/12/2021  07/02/2022   01/03/2022	<p><b>Not done.</b></p> <p><b>Not done.</b> The Contractor informed that the rectification will be done immediately and the NCR closure will be requested within a week.</p> <p>Not done</p> <p>Partially done. The contractor has closed one NCR regarding dust suppression measures at KKH near Uchar crushing plant. Other two NCRs regarding sedimentation tanks are yet to closed.</p> <p>The Contractor informed that by 5<sup>th</sup> January AFI will be sent to the Engineer to check the rectification.</p> <p>The Contractor informed that due to labor strike the mitigation measures could not be implemented for closure of NCRs and further told that negotiation with labor were fruitful and the work may resume tomorrow. After resumption of work an AFI will be submitted by 12<sup>th</sup> February 2022 to verify the mitigation measures done for closure of NCR.</p> <p><b>Not Done.</b> The Contractor informed that an AFI will be submitted by 11<sup>th</sup> March 2022 to verify the mitigation measures done for closure of NCR.</p>

					28/05/2022	<b>Partially Done:</b> NCR cannot be closed at the moment till "The Engineer" receives AFI for Inspection from the contractor.
25	Status of TOR's for Air dispersion modelling		√	Next PRM meeting	02/06/2021 02/07/2021 26/10/2021 30/11/2021 30/12/2021 07/02/2022	<b>Not done.</b> The contractor informed that the TORs will be finalized within June 2021. The Contractor informed that the location of the crusher plant is in the process of shifting to Kass area. So IEE and Proposal for conducting Air dispersion modelling will also be changed. Same status Same status. The contractor was instructed to mobilize the laboratory for the air dispersion modelling. The Contractor informed that the by 10 <sup>th</sup> January 2022 M/s Hagler Bailly will arrive at site for a meeting regarding the monitoring. The Contractor informed that to strike and COVID-19 cases the meeting will now be conducted in the 3 <sup>rd</sup> week of February 2022.
			√		01/03/2022 28/05/2022	The contractor informed that Site for Seo Crushing Plant is still not finalized and therefore Air Dispersal Modeling (ADM) is also delayed accordingly. <b>Not Done:</b> The location of the proposed Seo crushing plant has been shifted to 200m up stream. The contractor informed that EPA official has visited the site and contractor would submit the IEE for NOC from EPA KPK. During this course of time Haggler & Bailey will be engaged to conduct the Air Dispersal Modelling.
36	Appointment of Environment Director		√	16 <sup>th</sup> January 2021	07/02/2022	<b>Not done.</b> The Contractor informed that search for the candidate is in progress and CV will be shared with the Engineer for approval most probably by 25 <sup>th</sup> February 2022.

					01/03/2022	Not done. Contractor informed that search for suitable candidate is still in progress.
					28/05/2022	Not Done: The matter is still pending, Contractor has assured to share CV of suitable candidate who has some practical experience.
37	Ensure Khoshe Access road sprinkling		√	Immediate	07/02/2022	Not done. The contractor assured that after the resumption of work water sprinkling at this stretch will be started.
					01/03/2022	Contractor has assured for continuous implementation.
					28/05/2022	Done.
39	Chemical Spillage in Transformer Cavern		√	Immediate	28/05/2022	Done.
40	Oil Spillage at CR-02, CR-09; The contaminated soil to be removed immediately and replaced with fresh soil.		√	Immediate	28/05/2022	The contractor is instructed to replace the contaminated soil with immediate effect.
41	Training for mechanics and related staff of contractor on "How to change engine oils by using dripping trays as well as awareness about Oil/Chemical spills and their removal"		√	07/06/2022	28/05/2022	Contractor has agreed to conduct a training session on 07-06-2022.
42	Ensure Water sprinkling on existing KKH (From Tailrace to Barseen Camp except the CCECC Uchaar Camp area) Schedule and allocated areas in this regard has already been shared with the CGGC.		√	Immediate	28/05/2022	Continuous process, at least three times a day during summer season. If requirement increases then the contractor is instructed to increase the frequency of water sprinkling.
43	Waste management at Construction sites		√	Immediate	28/05/2022	Ensure placement of Waste bins at all construction sites under MW-01 & MW-02 component.
44	Maintenance of Toilets at CR-02		√	Immediate	28/05/2022	Joint inspection from WAPDA and DHC will be conducted 06 <sup>th</sup> of June 2022 at CR-02 site.
45	Training of Contractors Staff and Labor to use bins instead of littering as well as training on how to use toilets without choking them.		√	07/06/2022	28/05/2022	Contractor has agreed to conduct a training session on 07-06-2022.

Confirmed by:

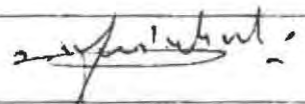

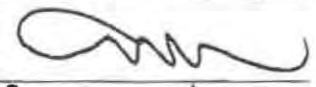
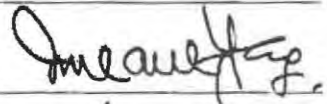
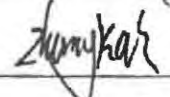
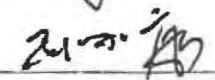


			
	The Employer	The Engineer/Consultant	The Contractor
Name:	Imran Tariq	AWAIS H. KHAN	M. Usman Shahid
Position:	Dy. Director	SR. ENVIRONMENT SPECIALIST	Safety Supervisor
Date:	6/6/2022	02 JUNE 2022	2022-06-06

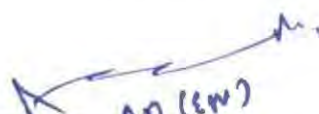

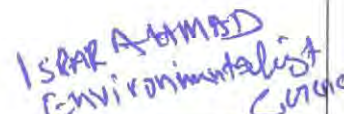


**Dasu Hydropower Project**  
**Dasu Hydropower Consultants**  
**Meeting attendance sheet**

Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02

Date: 28-05-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
1	Zafar Iqbal Chaudry	DHC	Chief Environment	MW-01	
2	AWAIS H. Khan	DHC	Sr. Environment sp	03336563675	
3	SAEED-UL-HASSAN	HSED CGGC	HSE Staff	03219812722	
4	Imran Tariq	Wapda	Dy. Director Env	0321-5181114	
5	Zunaykar	HSED CGGC	HSE	03471088309	
6	SUN KANG	HSED CGGC	HSE	0342-9508635	
7	Shi Feng	CGGC	PM - RAR-02	03428508428	
8	Sardar Alam	DHC	Sr. Environmentalist	0333-9290609	

DASU HYDROPOWER PROJECT MINUTES OF MEETING (MW-01& MW-02) June 2022		30 <sup>th</sup> June 2022
Employer: WAPDA (DHPP)		
Engineer: Dasu Hydropower Consultants (DHC)		
Contractor: China Gezhouba Group Co., LTD (CGGC)		
Subject: Monthly Environment Progress Review Meeting for MW-01&02. Date: 30 <sup>th</sup> June 2022 Time: 09:30 am-10:15 am Place: DHC meeting Hall Exhibit: Attendance Sheet	Agenda: Monthly Environmental Progress Review Meeting of MW-01&02.	
Attendees See the attached attendance sheet		
Distributed (Softcopy) to: 1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu  2. Engineer - DHC RE MW-01&02, Dasu	3. Contractor, CGGC 4. Office File / Circulation	
Agreed by:		
<u>Employer</u> Date: 06/07/2022   Representative of Employer- WAPDA (DHPP)	<u>Engineer</u> Date: 06/07/2022   Representative of Engineer (DHC)	<u>Contractor</u> Date: 7/7/2022   Representative of Contractor(CGGC)

**Minutes of the Monthly Environmental Progress Review Meeting (MW-01& MW-02) June 2022**



Project	MW-01& MW-02			Location	DHC Office		
Employer	WAPDA			Date of Meeting	30 <sup>th</sup> June 2022		
Engineer	DHC			Place of meeting	DHC Meeting Hall		
Contractor	CGGC			Time	09:30 am-10:15 am		
Sr. #	Checked Items and Actions Planned	Action By			Target Date for Action	Action Confirm Date	Status Closed, Open, Partially Closed
		Emp.	Eng.	Con.			
23	Status of 3 <sup>rd</sup> party Quarterly environmental monitoring as per contract specifications			√	20/05/2021	02/06/2021 02/07/2021  26/10/2021 30/11/2021  30/12/2021   07/02/2022   01/03/2022	<p><b>In process.</b> In process. The contractor informed that the contract with the laboratory is in process by CGGC commercial department.</p> <p>Not done.</p> <p>Not done. The contractor was instructed to immediately arrange 3<sup>rd</sup> party quarterly environmental monitoring.</p> <p><b>Partially done.</b> The Contractor mobilized <i>Bureau Veritas</i> environmental monitoring laboratory to site but their equipment were not as per the monitoring specifications. The Laboratory was demobilized and were asked to come up with all the calibrated analyzers and instruments. The contractor informed that the laboratory will be remobilized to site by 10<sup>th</sup> January 2021.</p> <p>The Contractor informed that they are considering new environmental laboratory for the environmental monitoring which may be mobilized by 20<sup>th</sup> February 2022. Employer and Engineer instructed the Contractor to share profile before mobilization of the environmental laboratory.</p> <p>The Contractor informed that they are considering new environmental laboratory for the environmental monitoring which may be mobilized by 20<sup>th</sup> February 2022. Employer and Engineer instructed the Contractor to share</p>



						05/04/2022	profile before mobilization of the environmental laboratory
				√		28/05/2022	<b>“The Engineer”</b> will write a letter to contractor for updated status about the Third-Party Monitoring Laboratory Hiring Status.
						30/06/2022	<b>Not Done:</b> Contractor shared its decision that SGS Laboratory is finalized by the CGGC but number of parameters is still under discussion.
							<b>Not done.</b> The Contractor informed that their contract section wants clarification regarding the number of parameters to be tested. A meeting in this regard will be scheduled by the Engineer.
24	Proper adaptive/mitigation measures for the closure of two NCRs issued in November 2020			√	20/05/2021	02/06/2021	<b>Not done.</b>
						02/07/2021	<b>Not done.</b> The Contractor informed that the rectification will be done immediately and the NCR closure will be requested within a week.
						26/10/2021	<b>Not done</b>
						30/11/2021	<b>Partially done.</b> The contractor has closed one NCR regarding dust suppression measures at KKH near Uchar crushing plant. Other two NCRs regarding sedimentation tanks are yet to closed.
						30/12/2021	The Contractor informed that by 5 <sup>th</sup> January AFI will be sent to the Engineer to check the rectification.
						07/02/2022	The Contractor informed that due to labor strike the mitigation measures could not be implemented for closure of NCRs and further told that negotiation with labor were fruitful and the work may resume tomorrow. After resumption of work an AFI will be submitted by 12 <sup>th</sup> February 2022 to verify the mitigation measures done for closure of NCR.

						01/03/2022	<b>Not Done.</b> The Contractor informed that an AFI will be submitted by 11 <sup>th</sup> March 2022 to verify the mitigation measures done for closure of NCR.
						28/05/2022	<b>Partially Done:</b> NCR cannot be closed now till “The Engineer” receives AFI for Inspection from the contractor.
						30/06/2022	<b>Partially done.</b> NCR regarding the sedimentation tank of Uchaar was inspected on 23 <sup>rd</sup> May 2022 as per AFI submitted by Contractor. The cleaning of sedimentation tank and housekeeping improved a lot. The NCR will be closed accordingly.
25	Status of TOR’s for Air dispersion modelling			√	Next PRM meeting	02/06/2021	<b>Not done.</b> The contractor informed that the TORs will be finalized within June 2021.
						02/07/2021	The Contractor informed that the location of the crusher plant is in the process of shifting to Kass area. So IEE and Proposal for conducting Air dispersion modelling will also be changed.
						26/10/2021	Same status
						30/11/2021	Same status. The contractor was instructed to mobilize the laboratory for the air dispersion modelling.
						30/12/2021	The Contractor informed that the by 10 <sup>th</sup> January 2022 M/s Hagler Bailly will arrive at site for a meeting regarding the monitoring.
						07/02/2022	The Contractor informed that to strike and COVID-19 cases the meeting will now be conducted in the 3 <sup>rd</sup> week of February 2022.
				√		01/03/2022	The contractor informed that Site for Seo Crushing Plant is still not finalized and therefore Air Dispersal Modeling (ADM) is also delayed accordingly.
						28/05/2022	<b>Not Done:</b> The location of the proposed Seo crushing plant has been shifted to 200m up

						30/06/2022	stream. The contractor informed that EPA official has visited the site and contractor would submit the IEE for NOC from EPA KPK. During this course of time Haigler & Bailey will be engaged to conduct the Air Dispersal Modelling. <b>Not done.</b> Contractor informed that IEE has been revised and resubmitted to EPA for grant of NOC which is expected on 15th July 2022. After getting NOC Haigler Bailey will be engaged.
36	Appointment of Environment Director			√	16 <sup>th</sup> January 2021	07/02/2022 01/03/2022 28/05/2022 30/06/2022	<b>Not done.</b> The Contractor informed that search for the candidate is in progress and CV will be shared with the Engineer for approval most probably by 25 <sup>th</sup> February 2022. <b>Not done.</b> Contractor informed that search for suitable candidate is still in progress. <b>Not Done:</b> The matter is still pending; Contractor has assured to share CV of suitable candidate who has some practical experience. <b>Not done.</b> Contractor verbally discussed about a potential candidate Mr. Afzal who was engaged in Neelum Jehlum. The Engineer instructed the contractor to submit the CV officially to proceed further in this matter.
40	Oil Spillage at CR-02, CR-09; The contaminated soil to be removed immediately and replaced with fresh soil.			√	Immediate	30/06/2022	<b>Done</b>
41	Training for mechanics and related staff of contractor on “How to change engine oils by using dripping trays as well as awareness about Oil/Chemical spills and their removal”. Contractor has agreed to conduct a training session on 07-06-2022.			√	07/06/2022	30/06/2022	<b>Done.</b> The Engineer instructed the contractor to reflect the training session along with pictures and attendance sheet.
42	Ensure Water sprinkling on existing KKH (From Tailrace to Barseen Camp except the CCECC Uchaar Camp area) Schedule and allocated areas in this regard has already been shared with the CGGC.			√	Immediate	30/06/2022	<b>Partially done.</b> The Contractor was instructed to also extend water sprinkling to the construction work at the tailrace outlet.



	Continuous process, at least three times a day during summer season. If requirement increases then the contractor is instructed to increase the frequency of water sprinkling.						
43	Waste management at Construction sites. Ensure placement of Waste bins at all construction sites under MW-01 & MW-02 component.			√	Immediate	30/06/2022	Done
44	Maintenance of Toilets at CR-02. Joint inspection from WAPDA and DHC will be conducted 06 <sup>th</sup> of June 2022 at CR-02 site.			√	Immediate	30/6/2022	Done
45	Training of Contractors Staff and Labor to use bins instead of littering as well as training on how to use toilets without choking them. Contractor agreed to conduct a training session on 7 <sup>th</sup> June 2022			√	07/06/2022	30/06/2022	Done. The contractor was instructed to incorporate the training session record in the MPR.
46	Orientation session on waste management			√	06/07/2022		
47	Control of dust at Uchaar crushing plant			√	immediate		
48	Periodic cleaning of sedimentation tanks should be ensured			√	immediate		
49	Pet animals kept near the CR-9 batching plant should immediately be removed from site			√	immediate		
50	Current Waste management practices should be reflected in the MPR			√	Next MPR		

**Confirmed by:**

  
AD (Env)

The Employer

Name:

Muhammad Ahmad

Position:

AD (Env)

Date:

06/07/2022



The Engineer/Consultant

Sardar Alam

Sr. Env

06/07/2022



The Contractor

M. R. A. Ahmad

Env CEGC

07/7/2022

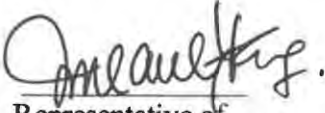

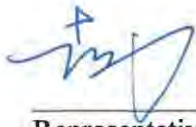
Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02/KKH-02

Date: 30/6/2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Zafar Iqbal Chaudry	Chief Environment/DHC	Chief Environment	0300-9460132	
02	Sasdar - Alam	DHC	Sr. Environmentalist	0323-9290609	
03	Liakat Ali ✓	WAPDA	AD - Ecology	0345-9610585	
04	Zhang Jun	CGAC HSE	HSE	03471088309	
05	Zhang Jun	KKH-02	Section officer	03487779359	
06	Wang Zhong	CGAC	AD Supervisor	03428508552	
07	Zhu Jiancheng	CGAC	RAR-02 officer	03551664528	
08	Saeed ul Hassan	CGCL	HSED	03219812722	
09	Nasir Khan	DHC	<del>HSE</del> field insp.	0345-9577742	

## KKH-01 & 2

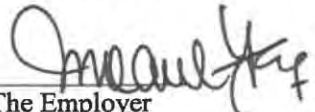

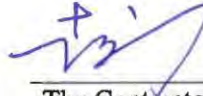
<b>DASU HYDROPOWER PROJECT</b> <b>MINUTES OF MEETING (KKH-01) April &amp; May 2022</b>		28 <sup>th</sup> May 2022
<b>Employer:</b> WAPDA (DHPP)		
<b>Engineer:</b> Dasu Hydropower Consultants (DHC)		
<b>Contractor:</b> China Civil Engineering Construction Co., LTD (CCECC)		
<b>Subject:</b> Monthly Environment Progress Review Online Meeting for KKH-01. <b>Date:</b> 28th of May 2022 <b>Time:</b> 04:00pm-:04:47pm <b>Place:</b> DHC Meeting Hall <b>Pages:</b> 02 <b>Exhibit:</b> Attendance Sheet		<b>Agenda:</b> Monthly Environmental Progress Review Meeting of KKH-01.
<b>Attendees</b> See the attached attendance sheet		
<b>Distributed (Softcopy) to:</b> 1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu  2. Engineer - DHC RE Roads, Dasu		3. Contractor, KKH-01 4. Office File / Circulation
<b>Agreed by:</b>		
<u>Employer</u> Date: <i>6/6/2022</i>	<u>Engineer</u> Date: <i>02/06/2022</i>	<u>Contractor</u> Date:
 Representative of Employer- WAPDA (DHPP)	 Representative of Engineer (DHC)	 Representative of Contractor(CCECC)



**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING\* (KKH-01) April & May 2022**



Project		KKH-01			Location		DHC Dasu Office	
Employer		WAPDA			Date of Meeting		28/05/2022 (04:00pm-04:47 pm)	
Engineer		DHC			Place of Meeting		DHC Meeting Hall	
Contractor		CCECC			Attendance		Attendance Sheet Attached	
Sr.#	Checked Items and Actions Planned	Action By			Target Date for Action	Date to Confirm Action	Status	
		Emp.	Eng.	Con.			Done/Closed, Not Done/Open, In Progress/Partially closed	
44	Ensure permanent water sprinkler for Khohse access road and KKH portion as summer has arrived therefore increase the frequency of sprinkling.			√	Immediate	04/04/2022	The contractor is instructed to continue the water sprinkling with enhanced frequency.	
						28/05/2022	The Contractor CCECC is instructed to allocate separate Water Bowsers for different locations at KKH-01 allocated portions due to long haulage of water i.e. Uchar Camp.	
45	Ensure solid waste management (SWM) as per ECP-01 by segregating the waste as recyclable, organic and non-recyclable.			√	Immediate	04/04/2022	The contractor is instructed to undertake segregation of Solid Waste (SW) as per ECP-01. All Hazardous waste to be collected, Type identified and quantified and documented and shared via Monthly Progress Report (MPR), e.g., all used vehicular engine oil should be collected in a 200 liter drum and further handed over to the scarp vendor which CCECC has hired for discarded materials and hazardous waste. Details to be added in the MPR from CCECC.	
						28/05/2022	The Engineer's will conduct Environment Inspection on Dated: 07/06/2022.	
46	Oil spillages should be removed			√	Immediate	06/04/2022	Shovel Machine/excavator was parked on the Khoshe Bypass which is leaking some engine oil. The instruction are to remove the contaminated soil and replace with fresh soil.	
						28/05/2022	<b>Done</b>	

47	Proper Disposal of Used Engine/ Equipment Oils and other chemicals			√	Immediate	28/05/2022	Please add details of this activity in the MPR of May 2022 with photographic records as well for before spillage and after spillage.
Confirmed by:							
 The Employer		 The Engineer		 The Contractor			
Name: <u>Imran Tawlay</u>		Name: <u>AWAIS H. KHAN</u>		Name: <u>Peng Zhinen</u>			
Position: <u>Dy. Director</u>		Position: <u>SR. ENVIRONMENT SPECIALIST</u>		Position: <u>Deputy PM</u>			
Date: <u>6/6/22</u>		Date: <u>02 JUNE 2022</u>		Date: <u>02-June-2022</u>			




Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02

Date: 28/05/2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
1	Zafar Iqbal Chaudry	DHC	Chief Environment	0300-9460132	
2	IMRAN TARIQ	WAPDA	By DIRECTOR ENV-	0321-5181114	
3	AWAIS H. KHAN	DHC	Sr. ENVIRONMENTALIST	0333-6563675	
4	MANZoor Hussain	CCECC	HSE Manager	0345-5687251	
5	JUNAID Ahmed	CCECC	HSE Manager	0345-9601987	
6	Liy Ya	CCECC	Safety Engineer	0340 3200 317	
7	Sardar Alam	DHC	Sr. Environmentalist	0333-9290619	



<b>DASU HYDROPOWER PROJECT</b>		
<b>MINUTES OF MEETING (KKH-01) June 2022</b>		
30 <sup>th</sup> June 2022		
Employer: WAPDA (DHPP)		
Engineer: Dasu Hydropower Consultants (DHC)		
Contractor: China Civil Engineering Construction Co., LTD (CCECC)		
Subject: Monthly Environment Progress Review Online Meeting for KKH-01. Date: 30 <sup>th</sup> June 2022 Time: 10:55am-11:15am Place: DHC Meeting Hall Pages: 02 Exhibit: Attendance Sheet	Agenda: Monthly Environmental Progress Review Meeting of KKH-01.	
Attendees See the attached attendance sheet		
Distributed (Softcopy) to: 1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu  2. Engineer - DHC RE Roads, Dasu	3. Contractor, KKH-01 4. Office File / Circulation	
Agreed by:		
<u>Employer</u> Date: 06/07/2022	<u>Engineer</u> Date: 06/07/2022	<u>Contractor</u> Date: 07/07/2022
 Representative of Employer- WAPDA (DHPP)	 Representative of Engineer (DHC)	 Representative of Contractor(CCECC)




**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING (KKH-01) June 2022**



Project	KKH-01			Location	DHC Dasu Office		
Employer	WAPDA			Date of Meeting	30/06/2022 (10:55am-11:15am)		
Engineer	DHC			Place of Meeting	DHC Meeting Hall		
Contractor	CCECC			Attendance	Attendance Sheet Attached		
Sr.#	Checked Items and Actions Planned	Action By			Target Date for Action	Date to Confirm Action	Status Done/Closed, Not Done/Open, In Progress/Partially closed
		Emp.	Eng.	Con.			
44	Ensure permanent water sprinkler for Khohse access road and KKH portion as summer has arrived therefore increase the frequency of sprinkling.			√	Immediate	04/04/2022  28/05/2022  30/06/2022	The contractor is instructed to continue the water sprinkling with enhanced frequency.  The Contractor CCECC is instructed to allocate separate Water Bowsers for different locations at KKH-01 allocated portions due to long haulage of water i.e. Uchar Camp. Partially done
45	Ensure solid waste management (SWM) as per ECP-01 by segregating the waste as recyclable, organic and non-recyclable.			√	Immediate	04/04/2022  28/05/2022  30/06/2022	The contractor is instructed to undertake segregation of Solid Waste (SW) as per ECP-01. All Hazardous waste to be collected, Type identified and quantified and documented and shared via Monthly Progress Report (MPR), e.g., all used vehicular engine oil should be collected in a 200 liter drum and further handed over to the scarp vendor which CCECC has hired for discarded materials and hazardous waste. Details to be added in the MPR from CCECC.  The Engineer's will conduct Environment Inspection on Dated: 07/06/2022.  Inspection done. The
47	Proper Disposal of Used Engine/ Equipment Oils and other chemicals			√	Immediate	28/05/2022  30/06/2022	Please add details of this activity in the MPR of May 2022 with photographic records as well for before spillage and after spillage.

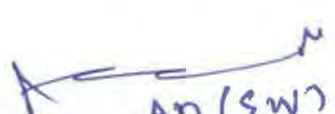


48	Current Waste management practices at camp should be highlighted in the MPR with pictorial evidence			√	Next MPR		
49	Housekeeping at Uchaar workshop area to be ensured			√	Immediate		

Confirmed by:

 <hr/> The Employer  Name: <u>Muhammad Asim</u>  Position: <u>AE (Env)</u>  Date: <u>06/07/2022</u>	 <hr/> The Engineer  Name: <u>Sardar Alam</u>  Position: <u>Sr. Environmentalist</u>  Date: <u>06/07/2022</u>	 <hr/> The Contractor  Name: <u>MANZOOR</u>  Position: <u>HS&amp;E Manager</u>
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<b>DASU HYDROPOWER PROJECT</b> <b>MINUTES OF MEETING (KKH-02) June 2022</b>		30 <sup>th</sup> June 2022
Employer: WAPDA (DHPP)		
Engineer: Dasu Hydropower Consultants (DHC)		
Contractor: China Gezouba Group Co., LTD (CGGCC)		
Subject: Monthly Environmental Progress Review Meeting for KKH-02. Date: 30 <sup>th</sup> June 2022 Time: (10:35am-10:55am) Place: DHC Meeting Hall Pages: 01 Exhibit: Attendance Sheet	Agenda: Monthly Environmental Progress Review Meeting of KKH-02.	
Attendees See the attached attendance sheet		
Distributed (Softcopy) to: 1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu 2. Engineer - DHC RE Roads, Dasu	3. Contractor, CGGC 4. Office File / Circulation	
Agreed by:		
<u>Employer</u> Date: 06/07/2022	<u>Engineer</u> Date: 06/07/2022	<u>Contractor</u> Date: 7-7-2022
 AD (EW)		
Representative of Employer- WAPDA (DHPP)	Representative of Engineer (DHC)	Representative of Contractor(CGGC)

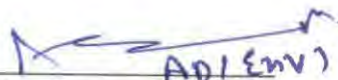
**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING (KKH-02) June 2022**



Project	RAR-02	Location	DHC Office
Employer	WAPDA	Date of Meeting	30/06/2022 (10:35am-10:55am)
Engineer	DHC	Place of meeting	DHC Meeting Hall
Contractor	CGGCC	Attendance	Attendance Sheet Attached*

Sr.#	Checked Items and Actions Planned	Action by			Target Date for Action	Action Confirm Date	Status Done/Closed, Not Done/open, In Progress/Partially closed
		Emp.	Eng.	Con.			
01	Hiring of Dedicated Environmental Manager for RAR-02 Component			√	20/07/2022		
02	Submission of monthly environmental progress report			√	Immediate		
03	Submission of revised CEAP as per the Engineer's comments			√	07/07/2022		
04	Fugitive Dust Suppression measures to be taken at site on regular basis with at least 3 time a day and additional if required because summer season has already started.			√	Immediate		
05	Rolling of Debris/ over burden or any loose material after blasting/ slope cutting activity to be hauled away at the designated disposal site only			√	Immediate		

Confirmed by:

  
The Employer

  
The Engineer/Consultant

  
The Contractor

Name: Muhammad Azim.

Position: AD (Env)

Date: 06/07/2022

Sardar Alam  
Sr. Environmentalist  
06/07/2022

USRAR  
ENV. CGGCC  
7/7/2022




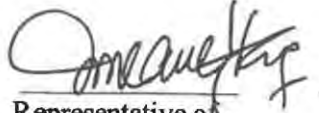

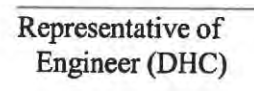
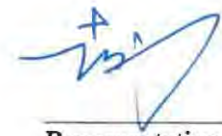
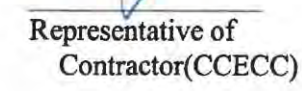
Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02/KKH-02

Date: 30/6/2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Zafar Iqbal Chaudry	Chief Environment/DHC	Chief Environment	0300-9460132	Zafar Iqbal
02	Sardar Alam	DHC	Sr. Environmentalist	0333-9290609	Sardar Alam
03	Liaqat Ali ✓	WAPDA	AD- Ecology	0346-9610585	Liaqat Ali
04	Zhang Jun	CGAC HSE	HSE	03471088309	Zhang Jun
05	Zhang Jun	KKH-02	Senior officer	03487779359	Zhang Jun
06	Wang Zhong	CGAC	AD Supervisor	0342850844	Wang Zhong
07	Zhu Jiancheng	CGAC	RAR-02 officer	03556694588	Zhu Jiancheng
08	Saeed ul Hassan	CGGC	HSED	03219812722	Saeed ul Hassan
09	Nasir Khan	DHC	<del>HSE</del> field insp.	0345-9577742	Nasir Khan

## RAR-01 & 2

<b>DASU HYDROPOWER PROJECT</b> <b>MINUTES OF MEETING (RAR-01) April &amp; May 2022</b>		28 <sup>th</sup> of May 2022
<b>Employer:</b> WAPDA (DHPP)		
<b>Engineer:</b> Dasu Hydropower Consultants (DHC)		
<b>Contractor:</b> China Civil Engineering Construction Co., LTD (CCECC)		
<b>Subject:</b> Monthly Environmental Progress Review Meeting for RAR-01. <b>Date:</b> 28 <sup>th</sup> of May 2022 <b>Time:</b> (03:10pm-03:50pm) <b>Place:</b> DHC Meeting Hall <b>Pages:</b> 01 <b>Exhibit:</b> Attendance Sheet	<b>Agenda:</b> Monthly Environmental Progress Review Meeting of RAR-01.	
<b>Attendees</b> See the attached attendance sheet		
<b>Distributed (Softcopy) to:</b> 1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu 2. Engineer - DHC RE Roads, Dasu	3. Contractor, CCECC 4. Office File / Circulation	
<b>Agreed by:</b>		
<u>Employer</u> Date:   Representative of Employer- WAPDA (DHPP)	<u>Engineer</u> Date:   Representative of Engineer (DHC)	<u>Contractor</u> Date:   Representative of Contractor(CCECC)

**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING\* (RAR-01) April & May 2022**

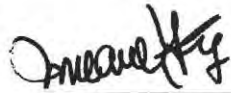


Project	RAR-01	Location		DHC Office			
Employer	WAPDA	Date of Meeting		28/05/2022 (03:10 pm-03:50 pm)			
Engineer	DHC	Place of meeting		DHC Meeting Hall			
Contractor	CCECC	Attendance		Attendance Sheet Attached*			
Sr.#	Checked Items and Actions Planned	Action by			Target Date for Action	Action Confirm Date	Status Done/Closed, Not Done/open, In Progress/Partially closed
		Emp.	Eng.	Con.			
21	Housekeeping at K4 workshop area to maintained			√	immediate	26/10/2021 30/11/2021 30/12/2021 07/02/2022  01/03/2022  01/04/2022 28/05/2022	<ul style="list-style-type: none"> <li>• <b>Not done</b></li> <li>• <b>Same status</b></li> <li>• <b>Not done.</b></li> <li>• <b>Not done.</b> The Contractor informed that K4 workshop and adjacent labour camp is going to be demolished for further handing over to CGGC.</li> <li>• <b>Not done.</b> The Contractor informed that K4 workshop and adjacent labour camp is going to be demolished for further handing over to CGGC.</li> <li>• <b>Not done.</b> Contractor has agreed to clear the issue by 20<sup>th</sup> of April 2022.</li> <li>• <b>Partially Done;</b> Contractor is instructed to improve house keeping issues</li> </ul>
23	Implement demobilization of ECP at K4			√	Immediate		<p><b>Not Done.</b> This issue is linked to the issue 21. Contractor has agreed to clear the issue by 20<sup>th</sup> of April 2022.</p> <p><b>Not Done.</b> Still pending and no date for resolving this issue is provided by RAR-01 Team of CCECC</p>
25	Reporting of Solid Waste and Discarded Materials Storage, Segregation according to type and transportation either by contractor himself or some vendor in the MPR			✓	Immediate	04/04/2022  28/05/2022	<p>The contractor is instructed to report Solid Waste and Discarded Materials Storage, Segregation according to type, dumping and transportation either by contractor himself or some vendor in the MPR. All details should be added to MPR.</p> <p><b>Done</b></p>



26	Oil Spillage at K-4;			✓	Immediate	28/05/2022	Contractor is instructed to replace the contaminated soil with fresh soil and prepare a record of this activity and report it in the MPR of May 2022 which is to be submitted by 05 <sup>th</sup> of June 2022.
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Confirmed by:



The Employer

Name:

Imran Tariq

Position:

Dy. Director

Date:


6/6/2022

The Engineer/Consultant

AWAIS H. KHAN

SR. ENVIRONMENT SPECIALIST

02 JUNE 2022



The Contractor

DPM PENG

DPM CCECC

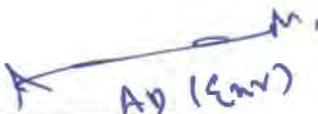


02-June-2022

Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02

Date: 28/05/2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
1	Zafar Iqbal Chaudry	DHC	Chief Environment	0300-9660132	
2	IMRAN TARIQ	WAPDA	Dy DIRECTOR ENV-	0324-5181114	
3	AWAIS H. KHAN	DHC	Sr. ENVIRONMENTALIST	0333-6563675	
4	MANZoor Hussain	CCECC	HSE Manager	0345-5687251	
5	JUNAID Ahmed	CCECC	HSE Manager	0345-9601987	
6	Liyiq	CECC	Safety Engineer	03403200317	
7	Sardar Alam	DHC	Sr. Environmentalist	0333-9290609	

DASU HYDROPOWER PROJECT MINUTES OF MEETING (RAR-01) June 2022		30 <sup>th</sup> June 2022
Employer: WAPDA (DHPP)		
Engineer: Dasu Hydropower Consultants (DHC)		
Contractor: China Civil Engineering Construction Co., LTD (CCECC)		
Subject: Monthly Environmental Progress Review Meeting for RAR-01. Date: 30 <sup>th</sup> June 2022 Time: (05:10pm-05:35pm) Place: DHC Meeting Hall Pages: 01 Exhibit: Attendance Sheet	Agenda: Monthly Environmental Progress Review Meeting of RAR-01.	
Attendees See the attached attendance sheet		
Distributed (Softcopy) to: 1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu 2. Engineer - DHC RE Roads, Dasu	3. Contractor, CCECC 4. Office File / Circulation	
Agreed by:		
<u>Employer</u> Date: 06/07/2022   Representative of Employer- WAPDA (DHPP)	<u>Engineer</u> Date: 06/07/2022   Representative of Engineer (DHC)	<u>Contractor</u> Date: 2/7/2022   Representative of Contractor(CCECC)




**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING (RAR-01) June 2022**



Project		RAR-01		Location		DHC Office	
Employer		WAPDA		Date of Meeting		30/06/2022 (05:10 pm-05:35 pm)	
Engineer		DHC		Place of meeting		DHC Meeting Hall	
Contractor		CCECC		Attendance		Attendance Sheet Attached*	
Sr.#	Checked Items and Actions Planned	Action by			Target Date for Action	Action Confirm Date	Status Done/Closed, Not Done/open, In Progress/Partially closed
		Emp.	Eng.	Con.			
21	Housekeeping at K4 workshop area to maintained			√	immediate	26/10/2021 30/11/2021 30/12/2021 07/02/2022  01/03/2022  01/04/2022  28/05/2022  30/06/2022	<b>Not done</b> <b>Same status</b> <b>Not done.</b> <b>Not done.</b> The Contractor informed that K4 workshop and adjacent labour camp is going to be demolished for further handing over to CGGC.  <b>Not done.</b> The Contractor informed that K4 workshop and adjacent labour camp is going to be demolished for further handing over to CGGC. <b>Not done.</b> Contractor has agreed to clear the issue by 20 <sup>th</sup> of April 2022.  <b>Partially Done;</b> Contractor is instructed to improve housekeeping issues  <b>Done</b>
23	Implement demobilization of ECP at K4			√	Immediate	01/04/2022  28/05/2022  30/06/2022	<b>Not Done.</b> This issue is linked to the issue 21. Contractor has agreed to clear the issue by 20 <sup>th</sup> of April 2022.  <b>Not Done.</b> Still pending and no date for resolving this issue is provided by RAR-01 Team of CCECC  The Contractor informed that the site has been handed over to WAPDA
26	Oil Spillage at K-4; Contractor is instructed to replace the contaminated soil with fresh soil and prepare a record of this activity and				Immediate	30/06/2022	<b>Done.</b> The contractor informed that the oil spillage has been removed and is reported in the MPR.

	report it in the MPR of May 2022 which is to be submitted by 05 <sup>th</sup> of June 2022.					
27	Proper disposal of spoil at designated spoil disposal site only				immediate	
28	Removal of Oil spillage at Zaal camp				immediate	
29	Removal of wildlife (Monkey) seen in the vicinity of Zaal camp. Engineer should be invited to witness the release				immediate	

Confirmed by:

  
The Employer

Name: Muhammad Asim.  
Position: AD (Env)  
Date: 06/07/2022.

  
The Engineer/Consultant

Sardar Alam  
Sr. Env  
06/07/2022

  
The Contractor

MANZOOR  
A/E Manager  
7/7/2022





DASU HYDROPOWER PROJECT  
MINUTES OF MEETING (RAR-02) May 2022

28<sup>th</sup> of May 2022

Employer:  
WAPDA (DHPP)

Engineer:  
Dasu Hydropower Consultants (DHC)

Contractor:  
China Gezouba Group Co., LTD (CGGCC)

Subject: Monthly Environmental Progress  
Review Meeting for RAR-02.  
Date: 28<sup>th</sup> of May 2022  
Time: (09:00am-09:27am)  
Place: DHC Meeting Hall  
Pages: 01  
Exhibit: Attendance Sheet

Agenda:  
Monthly Environmental Progress Review  
Meeting of RAR-02.

Attendees  
See the attached attendance sheet

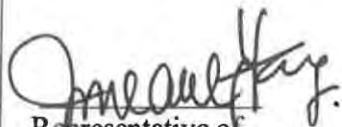
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1. Employer  
- DHP WAPDA GM/PD, Dasu  
- DHP WAPDA Director (Environment), Dasu  
2. Engineer  
- DHC RE Roads, Dasu

3. Contractor, CGGC  
4. Office File / Circulation

Agreed by:


Employer

Date: 6/6/22

  
Representative of  
Employer- WAPDA (DHPP)


Engineer

Date: 02/06/2022

  
Representative of  
Engineer (DHC)

Contractor

Date: 2022-06-06

  
Representative of  
Contractor (CGGC)

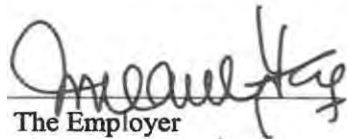
MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING\* (RAR-02) May 2022



Project	RAR-02	Location	DHC Office
Employer	WAPDA	Date of Meeting	28/05/2022 ((09:00am-09:27am))
Engineer	DHC	Place of meeting	DHC Meeting Hall
Contractor	CGGCC	Attendance	Attendance Sheet Attached*

Sr.#	Checked Items and Actions Planned	Action by			Target Date for Action	Action Confirm Date	Status Done/Closed, Not Done/open, In Progress/Partially closed
		Emp.	Eng.	Con.			
01	Hiring of Dedicated Environmental Manager for RAR-02 Component			√	5 <sup>th</sup> of June 2022		
02	1 <sup>st</sup> Monthly Progress Report is due and is to be submitted by 07 <sup>th</sup> of June 2022			√	Immediate		
03	Fugitive Dust Suppression measures to be taken at site on regular basis with at least 3 time a day and additional if required because summer season has already started.			√	Immediate		
04	Rolling of Debris/ over burden or any loose material after blasting/ slope cutting activity to be hauled away at the designated site of Kass disposal site on RAR-01.			√	Immediate		

Confirmed by:

  
The Employer

Name: Imran Tariq

Position: Dy. Director

Date: 31/05/2022

  
The Engineer/Consultant

AWAIS H. KHAN

SR. ENVIRONMENT SPECIALIST

02 - JUNE - 2022

  
The Contractor

M. Usman Shahid

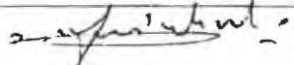

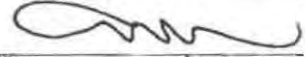
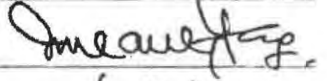

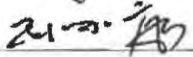
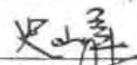

Safety Supervisor

2022-06-06




Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02

Date: 28-05-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
1	Zafar Iqbal Chaudry	DHC	Chief Environment	MW-01	
2	AWAIS H. Khan	DHC	Sr. Environment sp.	03336563675	
3	SAEED-UL-HASSAN	HSED CGGC	HSE Staff	03219812722	
4	Imran Tariq	Wapda	Dy. Director Env.	0321-5181114	
5	Zamykai	HSED CGGC	HSE	03471088309	
6	SUN KANG	HSED CGGC	HSE	0342-8508635	
7	Shi Feng	CGGC	PM - RAR-02	03428508428	
8	Sardar Alam	DHC	Sr. Environmentalist	0333-9290609	



<b>DASU HYDROPOWER PROJECT</b>		
<b>MINUTES OF MEETING (RAR-02) June 2022</b>		
30 <sup>th</sup> June 2022		
Employer: WAPDA (DHPP)		
Engineer: Dasu Hydropower Consultants (DHC)		
Contractor: China Gezouba Group Co., LTD (CGGCC)		
Subject: Monthly Environmental Progress Review Meeting for RAR-02. ✓ Date: 30 <sup>th</sup> June 2022 Time: (10:10am-10:35am) Place: DHC Meeting Hall Pages: 01 Exhibit: Attendance Sheet	Agenda: Monthly Environmental Progress Review Meeting of RAR-02.	
Attendees See the attached attendance sheet		
Distributed (Softcopy) to: 1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu 2. Engineer - DHC RE Roads, Dasu	3. Contractor, CGGC 4. Office File / Circulation	
Agreed by:		
<u>Employer</u> Date: 06/07/2022.  	<u>Engineer</u> Date: 06/07/2022  	<u>Contractor</u> Date: 7/7/2022  
Representative of Employer- WAPDA (DHPP)	Representative of Engineer (DHC)	Representative of Contractor(CGGC)

**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING (RAR-02) June 2022**



Project	RAR-02	Location	DHC Office
Employer	WAPDA	Date of Meeting	30/06/2022 (10:10am-10:35am)
Engineer	DHC	Place of meeting	DHC Meeting Hall
Contractor	CGGCC	Attendance	Attendance Sheet Attached*

Sr.#	Checked Items and Actions Planned	Action by			Target Date for Action	Action Confirm Date	Status Done/Closed, Not Done/open, In Progress/Partially closed
		Emp.	Eng.	Con.			
01	Hiring of Dedicated Environmental Manager for RAR-02 Component			√	5 <sup>th</sup> of June 2022	30/06/2022	Not done. The Contractor informed that they will share CV of a relevant candidate to be considered for the post.
02	1 <sup>st</sup> Monthly Progress Report is due and is to be submitted by 07 <sup>th</sup> of June 2022			√	Immediate	30/06/2022	Not Done. The Contractor asked to share report template
03	Fugitive Dust Suppression measures to be taken at site on regular basis with at least 3 time a day and additional if required because summer season has already started.			√	Immediate	30/06/2022	<b>Partially done.</b> The contractor informed that a dedicated water sprinkler is deputed at site which not only sprinkle along the access road but also at the excavated material before disposal.
04	Rolling of Debris/ over burden or any loose material after blasting/ slope cutting activity to be hauled away at the designated site of Kass disposal site on RAR-01.			√	Immediate	30/06/2022	Not done. The Contractor is strictly instructed to ensure haulage of the spoil to designated spoil disposal area

Confirmed by:

  
AD (Env)

The Employer

Name: Muhammad Asim

Position: AD (Env)

Date: 06/07/2022



The Engineer/Consultant

Sardar Alam

Sr. Env

06/07/2022



The Contractor

ISRAR AHMAD

Envir CGGC

7/7/2022



Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

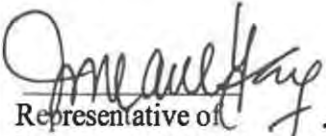


Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02/KKH-02

Date: 30/6/2022

Sr. No	Name of Participant	Dept/Organization	Designation	Contact No.	Signature
01	Zafar Iqbal Chaudry	Chief Environment/DHC	Chief Environment	0300-9460132	
02	Sardar Alam	DHC	Sr. Environmentalist	0393-9290609	
03	Usaf Ali ✓	WAPDA	AD- Ecology	0345-9610585	
04	Zhong Jun	CGAC HSE	HSE	03471088309	
05.	Zhong Jun	KKH-02	Safety officer	03487779359	
06	Wang Zhong	CGAC	AD Supervisor	03428308552	
07	Zhu Jiancheng	CGAC	RAR-02 office	03556694528	
08	Saeed ul Hassan	CGCL	HSED	03219812722	
09	Nasir Khan	DHC	<del>HSE</del> field <sup>insp.</sup>	0345-9597742	



## TL-01

DASU HYDROPOWER PROJECT MINUTES OF MEETING (TL-01) April & May 2022		27 <sup>th</sup> of May 2022
<b>Employer:</b> WAPDA (DHPP)		
<b>Engineer:</b> Dasu Hydropower Consultants (DHC)		
<b>Contractor:</b> Power China Construction Co., LTD (PCCC)		
<b>Subject:</b> Monthly Environmental Progress Review Meeting for TL-01. <b>Date:</b> 27 <sup>th</sup> May 2022  <b>Time:</b> (09:30pm-09:59 am) <b>Place:</b> DHC Meeting Hall <b>Exhibit:</b> Attendance Sheet		<b>Agenda:</b> Monthly Environmental Progress Review Meeting of TL-01.
<b>Attendees</b> See the attached attendance sheet		
<b>Distributed (Softcopy) to:</b> 1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu 2. Engineer - DHC RE TL-01, Dasu		3. Contractor, PCCC 4. Office File / Circulation
<b>Agreed by:</b>		
<u>Employer</u> Date: 6/6/2022   Representative of Employer- WAPDA (DHPP)	<u>Engineer</u> Date: 02/6/2022   Representative of Engineer (DHC)	<u>Contractor</u> Date: 06/06/2022   Representative of Contractor(PCCC)

**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING\* (TL-01) April & May 2022**

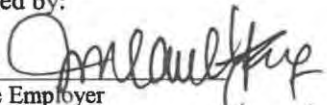



Project	132 KV TL-01	Location			DHC Office		
Employer	WAPDA	Date of Meeting			27/05/2022 (09:30am-09:59 am)		
Engineer	DHC	Place of meeting			DHC Meeting Hall		
Contractor	PCCC	Attendance			Attendance Sheet Attached		
Sr.#	Checked Items and Actions Planned	Action by			Target Date for Action	Date to Confirm Action	Status Done/Closed, Not Done/Open, In Progress/Partially Closed
		Emp.	PM	Con			
24	Water sprinkling along the access road and the construction site at Grid station			√	Immediate & continuous input Required	30/11/2021 30/12/2021 07/02/2022 01/03/2022 27/05/2022	<b>Not done</b>  <b>Partially done</b> <b>Partially done</b> <b>Partially done</b> <b>Partially done</b>
25	Maintain Housekeeping at construction site and camp			√	immediate	30/12/2021  07/02/2022  01/03/2022  02/04/2022  27/05/2022	<b>Partially done.</b> The contractor is instructed to maintain good housekeeping and submit an AFI for inspection by 10th January 2021.  <b>Partially done.</b> The contractor informed that an AFI will be submitted by 15th February 2022 for inspection.  <b>Partially done.</b> The contractor informed that an AFI will be submitted by 07 <sup>th</sup> March 2022 for inspection.  <b>Partially Done.</b> The contractor informed that they are about to shift their camp to a new building  <b>Partially Done:</b>
31	<ul style="list-style-type: none"> <li>Revision of MPR should be made as Waste type, collection methodology, and transportation to dump area/ handing over to the vendor/scavenger.</li> </ul>			√	Immediate		The contractor is instructed to add following points in their respective months revised MPR: <ul style="list-style-type: none"> <li>Solid Waste Types, Collection, transportation and dumping site</li> </ul>


							<ul style="list-style-type: none"> <li>• Housekeeping at Grid Station Site especially provision of clean drinking water to labor and staff.</li> <li>• Awareness session for the staff and labour will be arranged by the contractor. During Tool Box Talk the ECP's of EMAP will be discussed with staff at least twice a week.</li> </ul>
32	Oil Spillage(Grid Station)			✓	Immediate	27/05/2022	To be properly removed from site as per standard procedure. Fresh soil to be introduced in place of contaminated soil.
33	Fugitive Dust at TL-01 allocated portion and grid station			✓	Immediate	27/05/2022	Contractor is instructed that Water Sprinkling is a regular activity and is to be conducted on daily basis with at least three times per day. The frequency can be increased due to summer season or in case of a VIP movement. Therefore to follow the aforementioned instructions in true letter and spirit.
34	Poor Housekeeping			✓	Immediate	27/05/2022	Contractor is instructed to ensure Proper Housekeeping as per description in ECP's part of contract.
35	Provision of Waste Bins and Awareness/ Training on How to use these.			✓	Immediate	27/05/2022	Contractor is instructed to place Water Bins at site with instructions in Chinese and Urdu Language so that Labour may understand to put their discarded materials in those bins.
36	Plan for oversized vehicle movement			✓	20 <sup>th</sup> June 2022	27/05/2022	The plan has to be submitted by 20 <sup>th</sup> of June 2022.
37	Establishment of Newly hired camp building as per EMAP and ECPs.			✓	Immediate	27/05/2022	The Engineer will inspect the newly hired camp building on 3 <sup>rd</sup> June 2022.



Confirmed by:

  
The Employer  
Name: Imran Tariq  
Position: DM - Director  
Date: 6/6/2022

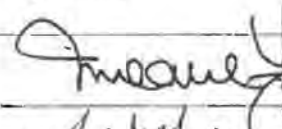
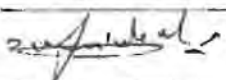

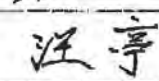
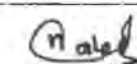

  
THE ENGINEER  
Name: AWAIS H. KHAN  
Position: SR. ENVIRONMENT SPECIALIST  
Date: 02 - JUNE - 2022

  
The Contractor  
Name: M. Wakeed  
Position: OHS-Supervisor  
Date: 06-JUNE-2022

Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02

Date: 27/05/2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Imran Tariq	Wapda	Dy. Director	032-5181114	
02	Zafar Iqbal Chaudry	DHC	Chief Environment	0300-946 0132	
03	Awais Hassan Khan	DHC	Sr. Environmentalist	03336563675	
04	Wang Ting	PCCL	chief engineer	034 8133501	
05	M. Waleed	PCCL	OHS supervisor	0316-5594291 2mohammedwaleed455@gmail.com	
06	Saeed Alam	DHC	Sr. Engineer	0333-9290609	

DASU HYDROPOWER PROJECT MINUTES OF MEETING (TL-01) June 2022		30 <sup>th</sup> June 2022						
<p><b>Employer:</b> WAPDA (DHPP)</p> <p><b>Engineer:</b> Dasu Hydropower Consultants (DHC)</p> <p><b>Contractor:</b> Power China Construction Co., LTD (PCCC)</p>								
<p><b>Subject:</b> Monthly Environmental Progress Review Meeting for TL-01. <b>Date:</b> 30<sup>th</sup> June 2022</p> <p><b>Time:</b> (11:45am-12:30 pm) <b>Place:</b> DHC Meeting Hall <b>Exhibit:</b> Attendance Sheet</p>	<p><b>Agenda:</b> Monthly Environmental Progress Review Meeting of TL-01.</p>							
<p><b>Attendees</b> See the attached attendance sheet</p>								
<p><b>Distributed (Softcopy) to:</b></p> <ol style="list-style-type: none"> <li>1. Employer                             <ul style="list-style-type: none"> <li>- DHP WAPDA GM/PD, Dasu</li> <li>- DHP WAPDA Director (Environment), Dasu</li> </ul> </li> <li>2. Engineer                             <ul style="list-style-type: none"> <li>- DHC RE TL-01, Dasu</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>3. Contractor, PCCC</li> <li>4. Office File / Circulation</li> </ol>							
<p><b>Agreed by:</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; text-align: center; vertical-align: top;"> <p><u>Employer</u> Date: 06/07/2022</p> <p style="font-size: 1.5em; font-family: cursive;">A.A. (AD enr)</p> </td> <td style="width: 33%; text-align: center; vertical-align: top;"> <p><u>Engineer</u> Date: 06/07/2022</p> <p style="font-size: 1.5em; font-family: cursive;">[Signature]</p> </td> <td style="width: 33%; text-align: center; vertical-align: top;"> <p><u>Contractor</u> Date: 07/07/2022</p> <p style="font-size: 1.5em; font-family: cursive;">[Signature]</p> </td> </tr> <tr> <td style="text-align: center;"> <p>Representative of Employer- WAPDA (DHPP)</p> </td> <td style="text-align: center;"> <p>Representative of Engineer (DHC)</p> </td> <td style="text-align: center;"> <p>Representative of Contractor(PCCC)</p> </td> </tr> </table>			<p><u>Employer</u> Date: 06/07/2022</p> <p style="font-size: 1.5em; font-family: cursive;">A.A. (AD enr)</p>	<p><u>Engineer</u> Date: 06/07/2022</p> <p style="font-size: 1.5em; font-family: cursive;">[Signature]</p>	<p><u>Contractor</u> Date: 07/07/2022</p> <p style="font-size: 1.5em; font-family: cursive;">[Signature]</p>	<p>Representative of Employer- WAPDA (DHPP)</p>	<p>Representative of Engineer (DHC)</p>	<p>Representative of Contractor(PCCC)</p>
<p><u>Employer</u> Date: 06/07/2022</p> <p style="font-size: 1.5em; font-family: cursive;">A.A. (AD enr)</p>	<p><u>Engineer</u> Date: 06/07/2022</p> <p style="font-size: 1.5em; font-family: cursive;">[Signature]</p>	<p><u>Contractor</u> Date: 07/07/2022</p> <p style="font-size: 1.5em; font-family: cursive;">[Signature]</p>						
<p>Representative of Employer- WAPDA (DHPP)</p>	<p>Representative of Engineer (DHC)</p>	<p>Representative of Contractor(PCCC)</p>						



**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING (TL-01) June 2022**




Project	132 KV TL-01		Location	DHC Office			
Employer	WAPDA		Date of Meeting	30/06/2022 (11:45am-12:30 pm)			
Engineer	DHC		Place of meeting	DHC Meeting Hall			
Contractor	PCCC		Attendance	Attendance Sheet Attached			
Sr.#	Checked Items and Actions Planned	Action by			Target Date for Action	Date to Confirm Action	Status Done/Closed, Not Done/Open, In Progress/Partially Closed
		Emp.	PM	Con			
24	Water sprinkling along the access road and the construction site at Grid station			√	Immediate & continuous input Required	30/11/2021 30/12/2021 07/02/2022 01/03/2022 27/05/2022 30/06/2022	<b>Not done</b>  <b>Partially done</b> <b>Partially done</b> <b>Partially done</b> <b>Partially done</b> <b>Done.</b> The Contractor was instructed to continue and increase the water sprinkling frequency.
25	Maintain <u>Housekeeping</u> at construction site and camp			√	immediate	30/12/2021  07/02/2022  01/03/2022  02/04/2022  27/05/2022  30/06/2022	<b>Partially done.</b> The contractor is instructed to maintain good housekeeping and submit an AFI for inspection by 10th January 2021.  <b>Partially done.</b> The contractor informed that an AFI will be submitted by 15th February 2022 for inspection.  <b>Partially done.</b> The contractor informed that an AFI will be submitted by 07th March 2022 for inspection.  <b>Partially Done.</b> The contractor informed that they are about to shift their camp to a new building  <b>Partially Done</b>  <b>Done</b>

31	Revision of MPR should be made as Waste type, collection methodology, and transportation to dump area/ handing over to the vendor/scavenger. The contractor is instructed to add following points in their respective months revised MPR: <ul style="list-style-type: none"> <li>• Solid Waste Types, Collection, transportation and dumping site</li> <li>• Housekeeping at Grid Station Site especially provision of clean drinking water to labor and staff.</li> <li>• Awareness session for the staff and labour will be arranged by the contractor. During Toolbox Talk the ECP's of EMAP will be discussed with staff at least twice a week.</li> </ul>			√	Immediate	30/06/2022	<b>Done.</b>
32	Oil Spillage(Grid Station) To be properly removed from site as per standard procedure. Fresh soil to be introduced in place of contaminated soil.			√	Immediate	30/06/2022	<b>Done.</b>
33	Fugitive Dust at TL-01 allocated portion and grid station. Contractor is instructed that Water Sprinkling is a regular activity and is to be conducted on daily basis with at least three times per day. The frequency can be increased due to summer season or in case of a VIP movement. Therefore to follow the aforementioned instructions in true letter and spirit.			√	Immediate	30/06/2022	<b>Done.</b> The contractor was instructed to continue and increase the water sprinkling frequency to suppress the dust
34	Poor Housekeeping. Contractor is instructed to ensure Proper Housekeeping as per description in ECP's part of contract.				Immediate	30/06/2022	<b>Done.</b> The contractor is instructed to regularly maintain housekeeping both at the camp as well as in the construction site.
35	Provision of Waste Bins and Awareness/ Training on How to use these. Contractor is instructed to place Water Bins at site with instructions in Chinese and Urdu				Immediate	30/06/2022	<b>Done.</b> The Contractor is instructed to reflect the compliance in the MPR.

	Language so that Labour may understand to put their discarded materials in those bins.					
36	Plan for oversized vehicle movement. The plan has to be submitted by 20 <sup>th</sup> of June 2022.				20 <sup>th</sup> June 2022	30/06/2022
37	Establishment of Newly hired camp building as per EMAP and ECPs. The Engineer will inspect the newly hired camp building on 3 <sup>rd</sup> June 2022.				Immediate	30/06/2022
						<p><b>Not done.</b> The Contractor informed that the plan is not yet prepared but shared the transformer dimensions.</p> <p>The contractor informed that full shifting to the camp has not yet started.</p>

Confirmed by:

  
The Employer

Name: Muhammad Arif

Position: AD (Env)

Date: 06/07/2022

  
The Project Manager

Name: Sadar Alam

Position: Sr. Env

Date: 06/07/2022

  
The Contractor

Name: Wang

Position: O/E



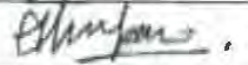



Date: 07/07/2022



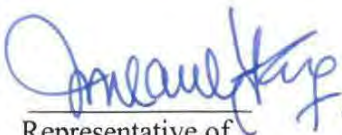


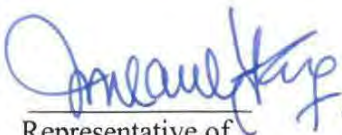


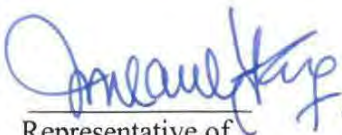


Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02/KKH-02

Date: 30/6/2022

Sr. No	Name of Participant	Dept/Organisation	Designation	Contact No.	Signature
01	Zafar Iqbal Chaudry	DHC	Chief Environment	0300-9460132	
02	Junaid Iftikhar	WAPDA	Sub-Engineer	0305-5961458	
03	Arslan Arshad	WAPDA	SOB-Engineer	0811-4682257	
04	M. Waheed	PCCCL	OHS Supervisor	0316-5594291	
05	Wang Ting	PCCCL	Chief Engineer	0341-8133501	
06	Sardar - Alam	DHC	Sr. Environmentalist	0333-9290609	

## PCI-01R

<p>DASU HYDROPOWER PROJECT MINUTES OF MEETING (PCI-01R) April &amp; May 2022</p>		<p>27<sup>th</sup> of May 2022</p>			
<p>Employer: WAPDA (DHPP)</p> <p>Engineer: Dasu Hydropower Consultants (DHC)</p> <p>Contractor: China Gansu Co., LTD (CGICOP)</p>					
<p>Subject: Monthly Environmental Progress Review Meeting for PCI_01R. Date: 27<sup>th</sup> of May 2022 Time: (10:00 am- 10:30 am ) Place: DHC Meeting Hall Pages: 02 Exhibit: Attendance Sheet</p>	<p>Agenda: Monthly Environmental Progress Review Meeting of PCI-01R.</p>				
<p>Attendees See the attached attendance sheet</p>					
<p>Distributed (Softcopy) to:</p> <p>1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Addl Chief Engineer (Environment Dasu</p> <p>2. Engineer - DHC RE Infrastructure, Dasu</p>	<p>3. Contractor, CGICOP 4. Office File / Circulation</p>				
<p>Agreed by:</p> <table style="width: 100%;"><tr><td style="text-align: center;"><p><u>Employer</u> Date: 6/6/2022</p><p>Representative of Employer- WAPDA (DHPP)</p></td><td style="text-align: center;"><p><u>Engineer</u> Date: 02 JUNE 2022</p><p>Representative of Engineer (DHC)</p></td><td style="text-align: center;"><p><u>Contractor</u> Date: 7/6/22</p><p>Representative of Contractor(CGICOP)</p></td></tr></table>			<p><u>Employer</u> Date: 6/6/2022</p>  <p>Representative of Employer- WAPDA (DHPP)</p>	<p><u>Engineer</u> Date: 02 JUNE 2022</p>  <p>Representative of Engineer (DHC)</p>	<p><u>Contractor</u> Date: 7/6/22</p>  <p>Representative of Contractor(CGICOP)</p>
<p><u>Employer</u> Date: 6/6/2022</p>  <p>Representative of Employer- WAPDA (DHPP)</p>	<p><u>Engineer</u> Date: 02 JUNE 2022</p>  <p>Representative of Engineer (DHC)</p>	<p><u>Contractor</u> Date: 7/6/22</p>  <p>Representative of Contractor(CGICOP)</p>			

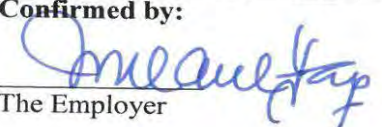


**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING\* (PCI-01) April & May 2022**



Project	PCI-01			Location	DHC Office		
Employer	WAPDA			Date of Meeting	27/05/2022 (10:00 am- 10:30 am)		
Engineer	DHC			Place of meeting	DHC Meeting Hall		
Contractor	CGICOP			Attendance	Attendance Sheet Attached		
Sr.#	Checked Items and Actions Planned	Action By			Target Date for Action	Date to Confirm Action	Status Closed, Open, Partially Closed
		Emp.	Eng.	Con			
19	Submission of NOC and License for fuel storage at site.			√	22/05/2021	02/06/2021 03/07/2021 29/09/2021  26/10/2021 30/11/2021 30/12/2021 07/02/2022  01/03/2022 01/04/2022  27/05/2022	<p><b>Not done.</b> The Contractor was instructed to quickly initiate the process.</p> <p>In process</p> <p>Engineer requested WAPDA through letter dated 12<sup>th</sup> July 2021 to issue a recommendation letter to district administration for CGICOP to grant them an NOC for fuel storage which is a prerequisite for license apply to Chief inspector of explosives. The Employer is requested to pursue the matter please.</p> <p><b>Not done</b></p> <p><b>Not done.</b> The Employer was again requested to send a letter to the district administration for NOC.</p> <p><b>Not done.</b> The Employer is again requested to send a letter to district administration.</p> <p>Employer sent letter to DC to provide NOC to contractor. Contractor was asked to pursue the matter to get the NOC for onward apply for license.</p> <p><b>Not Done.</b> Still pending but contractor has promised to submit it by 07<sup>th</sup> February 2022</p> <p><b>Not Done.</b> Still pending contractor has agreed to share the NOC by 20<sup>th</sup> of April 2022</p> <p><b>Partially Done;</b> NOC from Deputy Commissioner Office has been granted but License is still not granted</p>



35	The contractor should ensure waste bins at all sites for proper waste management			√	Immediate	07/02/2022 01/03/2022 01/04/2022 27/05/2022	Partially done. The contractor was instructed to increase the number of waste bins at site. <b>Partially Done</b> <b>Partially Done.</b> Number of Waste bins needs to be increased on the site. Staff awareness session needs to be conducted so that the staff do not continue littering habit. <b>Done:</b> Contractor has to make sure that proper training of its staff should be made in order to implement solid water management
38	Submission of details regarding details of hazardous waste management in the monthly progress report and Tool Box Talk for staff awareness(To be reflected in MPR of February and March 2022)			√	10/02/2022  Immediate	01/03/2022  01/04/2022  27/05/2022	<b>Done</b>  MPR should be having separate write up about the solid waste management, Hazardous waste management, components like collection, segregation, storage, transportation to a vendor/scavenger or dump site. <b>Done</b>
40	Training to relevant staff for Hazardous Waste Management			√	12/04/2022	   27/05/2022	The contractor is instructed to arrange a training session regarding different ECP's for its own Staff especially for ECP-01 Waste Management. Contractor agreed a date for 12 <sup>th</sup> of April for 2022 for the training session.  <b>Done</b>
41	Sedimentation Tank for PCI-01 Contract			✓	01/04/2022	01/04/2022   27/05/2022	The contractor is instructed to clean the sedimentation tank from sludge and contractor is instructed to use the sedimentation tank water for water sprinkling on the dirt road coming towards the colony and inside the colony roads as well. The water may also be used to hydrate the sand and crush material.  <b>Done</b>
42	Oil Spillage at Crushing Plant of Colony Area.			✓		27/05/2022	Contractor is instructed to clear the oil spillage area by replacing the contaminated soil with fresh soil as well as preparation of an incident

							report and submission by Date: 2 <sup>nd</sup> of June 2022 to "The Engineer"
43	Training to Local Staff on Fauna and its protection especially it's Habitat.				✓	27/05/2022	Contractor has agreed upon to conduct the said training session by Dated: 07 <sup>th</sup> of June 2022
<b>Confirmed by:</b>							
 The Employer		 The Engineer		 The Contractor			
Name: <u>Insam Tawky</u>		Name: <u>AWAIZ H. KHAN</u>		Name: <u>Abdullah Tahir</u>			
Position: <u>Dy. Director</u>		Position: <u>SR. ENVIRONMENT SPECIALIST</u>		Position: <u>Document Controller</u>			
Date: <u>6/6/22</u>		Date: <u>02 JUNE 2022</u>		Date: <u>7/6/22</u>			

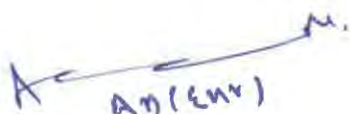


Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02

Date: 27/05/2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Imran Tariq	Wapda	Dy. Director (Env)	0321-381114	
02	Sardar Alam	DHC	Sr. Environmentalist	0333-9290609	
03	Zafar Iqbal Chaudry	DHC	Chief Environment	0300-9460132	
04	Awais Hassan Khan	DHC	Sr. ENVIRONMENTALIST	0333 6563675	
05	Nasir Khan	DHC	<sup>ENV</sup> Field inspector	0345-9577742	
06	Wen jie	CGICOP	DPM		
07	Sanaullah	CGICOP	interpreter	0311-2966894	
08	Fazal Mabood	CGICOP	Environmentalist	03441190431	



DASU HYDROPOWER PROJECT MINUTES OF MEETING (PCI-01R) June 2022		30 <sup>th</sup> June 2022
Employer: WAPDA (DHPP)		
Engineer: Dasu Hydropower Consultants (DHC)		
Contractor: China Gansu Co., LTD (CGICOP)		
Subject: Monthly Environmental Progress Review Meeting for PCI_01R. Date: 30 <sup>th</sup> June 2022 Time: (12:00 pm- 12:30 pm ) Place: DHC Meeting Hall Pages: 02 Exhibit: Attendance Sheet	Agenda: Monthly Environmental Progress Review Meeting of PCI-01R.	
Attendees See the attached attendance sheet		
Distributed (Softcopy) to: 1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Addl Chief Engineer (Environment) Dasu  2. Engineer - DHC RE Infrastructure, Dasu	3. Contractor, CGICOP 4. Office File / Circulation	
Agreed by:		
<u>Employer</u> Date: 06/07/2022	<u>Engineer</u> Date: 06/07/2022	<u>Contractor</u> Date:
 Representative of Employer- WAPDA (DHPP)	 Representative of Engineer (DHC)	 Representative of Contractor(CGICOP)


**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING (PCI-01) June 2022**





Project	PCI-01			Location	DHC Office		
Employer	WAPDA			Date of Meeting	30/06/2022 (12:00 pm- 12:30 pm)		
Engineer	DHC			Place of meeting	DHC Meeting Hall		
Contractor	CGICOP			Attendance	Attendance Sheet Attached		
Sr.#	Checked Items and Actions Planned	Action By			Target Date for Action	Date to Confirm Action	Status Closed, Open, Partially Closed
		Emp.	Eng.	Con			
19	Submission of NOC and License for fuel storage at site.			√	22/05/2021	02/06/2021 03/07/2021 29/09/2021  26/10/2021 30/11/2021  30/12/2021 07/02/2022  01/03/2022 01/04/2022  27/05/2022	<p><b>Not done.</b> The Contractor was instructed to quickly initiate the process.</p> <p><b>In process</b></p> <p>Engineer requested WAPDA through letter dated 12<sup>th</sup> July 2021 to issue a recommendation letter to district administration for CGICOP to grant them an NOC for fuel storage which is a prerequisite for license apply to Chief inspector of explosives. The Employer is requested to pursue the matter please.</p> <p><b>Not done</b></p> <p><b>Not done.</b> The Employer was again requested to send a letter to the district administration for NOC.</p> <p><b>Not done.</b> The Employer is again requested to send a letter to district administration.</p> <p>Employer sent letter to DC to provide NOC to contractor. Contractor was asked to pursue the matter to get the NOC for onward apply for license.</p> <p><b>Not Done.</b> Still pending but contractor has promised to submit it by 07<sup>th</sup> February 2022</p> <p><b>Not Done.</b> Still pending contractor has agreed to share the NOC by 20<sup>th</sup> of April 2022</p> <p><b>Partially Done.</b> NOC from Deputy Commissioner Office has been granted but License is still not granted</p>

						30/06/2022	<b>Partially done.</b> The Engineer instructed the contractor to proceed further in the matter and send application to KP Inspector of Explosives for grant of license.
42	Oil Spillage at Crushing Plant of Colony Area. Contractor is instructed to clear the oil spillage area by replacing the contaminated soil with fresh soil as well as preparation of an incident report and submission by Date: 2 <sup>nd</sup> of June 2022 to "The Engineer"			√		30/06/2022	<b>Done.</b> The Contractor informed that the oil spill has been removed and the incident report has also been submitted on 2 <sup>nd</sup> June 2022.
43	Training to Local Staff on Fauna and its protection especially its Habitat. Contractor has agreed upon to conduct the said training session by Dated: 07 <sup>th</sup> of June 2022			√		30/06/2022	<b>Done.</b> The contractor was asked to reflect the training along with attend sheet and pictures in the MPR.
44	Housekeeping of the site should be ensured			√	immediate		
45	Ensure dust control at the crusher plant			√	immediate		

**Confirmed by:**

  
 The Employer  
 Name: Muhammad Asim  
 Position: AD (Env)  
 Date: 06/07/2022.

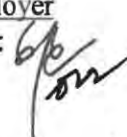


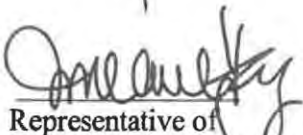


  
 The Engineer  
Sardar Alam  
Sr. Environmentalist  
06/07/2022

  
 The Contractor  
Lia Rai  
Ch'oop (pm)  
2022.7.7





## LBRV-11 & 12

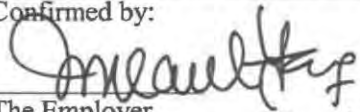


<b>DASU HYDROPOWER PROJECT</b> <b>MINUTES OF MEETING (LBRV-11&amp;12) April &amp; May2022</b>		28 <sup>th</sup> of May 2022
<b>Employer:</b> WAPDA (DHPP) <b>Engineer:</b> Dasu Hydropower Consultants (DHC) <b>Contractor:</b> M/s Zhongmei Engineering Group Limited		
<b>Subject:</b> Monthly Environmental Progress Review Meeting for LBRV-11&12. <b>Date:</b> 28 <sup>th</sup> of May 2022 <b>Time:</b> (10:30am -10:59am) <b>Place:</b> DHC Meeting Hall <b>Exhibit:</b> Attendance Sheet	<b>Agenda:</b> Monthly Environmental Progress Review Meeting of LBRV-11&12.	
<b>Attendees</b> See the attached attendance sheet		
<b>Distributed (Softcopy) to:</b> 1. Employer - DHP WAPDA GM/PD, Dasu - DHP Director (Environment), Dasu 2. Engineer -DHC RE Infrastructure, Dasu	3. Contractor, Zhongmei 4. Office File / Circulation	
<b>Agreed by:</b>		
<u>Employer</u> Date: 	<u>Engineer</u> Date: 	<u>Contractor</u> Date: 
 Representative of Employer- WAPDA (DHPP)	 Representative of Engineer (DHC)	 Representative of Contractor(Zhongmei)





28	Maintain the record for quantified waste / discarded material e.g., batteries, used engine oils, chemical drums or solid waste per month etc.			✓	Immediate	01/04/2022	The contractor is instructed to maintain the record for quantified waste / discarded material e.g., batteries, used engine oils, chemical drums or solid waste per month.
						28/05/2022	<b>Not Done</b>
29	Ensure daily water sprinkling at the allocated portion of Khoshe access road as well as the access roads to the LBRV-11 &12 Sites.			✓	Immediate	28/05/2022	The contractor is instructed to continuously perform Water Sprinkling on allocated sites with at least 3 time a day due to summer season.


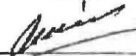

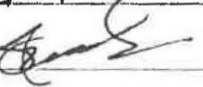
Confirmed by:




<p> The Employer Name: <u>Imran Tariq</u> Position: <u>Dy. Director</u> Date: <u>06/06/2022</u></p>	<p> The Engineer Name: <u>AWAIS H. KHAN</u> Position: <u>SR. ENVIRONMENT SPECIALIST</u> Date: <u>02 JUNE 2022</u></p>	<p> The Contractor Name: <u>Kamran Khan</u> Position: <u>male Nurse</u> Date: <u>03/06/2022</u></p>
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Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

Monthly Progress review meeting: KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02

Date: 28/05/2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Sardar Alam	DHC	Sr. Environmentalist	0333-9290609	
02	Awais H. Khan	DHC	Sr. Environmentalist	03336563675	
03	Ahique. ur Rehman	ZEGL	EHS Manager	0344-1154101	
04	Saeedullah	ZEGL	Contract Manager	0346-5669720	

<b>DASU HYDROPOWER PROJECT</b> <b>MINUTES OF MEETING (LBRV-11&amp;12) June</b>		30 <sup>th</sup> June 2022
Employer: WAPDA (DHPP)		
Engineer: Dasu Hydropower Consultants (DHC)		
Contractor: M/s Zhongmei Engineering Group Limited		
Subject: Monthly Environmental Progress Review Meeting for LBRV-11&12. Date: 30 <sup>th</sup> June 2022 Time: (04:03pm -04:15pm) Place: DHC Meeting Hall Exhibit: Attendance Sheet	Agenda: Monthly Environmental Progress Review Meeting of LBRV-11&12.	
Attendees See the attached attendance sheet		
Distributed (Softcopy) to: 1. Employer - DHP WAPDA GM/PD, Dasu - DHP Director (Environment), Dasu 2. Engineer -DHC RE Infrastructure, Dasu	3. Contractor, Zhongmei 4. Office File / Circulation	
Agreed by:		
<u>Employer</u> Date: 06/07/2022  	<u>Engineer</u> Date: 06/07/2022  	<u>Contractor</u> Date: 07/07/2022  
Representative of Employer- WAPDA (DHPP)	Representative of Engineer (DHC)	Representative of Contractor(Zhongmei)



**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING\* (LBRV-11 & 12) June 2022**



Project	LBRV-11& 12			Location	DHC Office		
Employer	WAPDA			Date of Meeting	30/06/2022 (04:03pm -04:15pm)		
Engineer	DHC			Place of meeting	DHC Meeting Hall		
Contractor	M/s Zhongmei Engineering Group Limited			Attendance	Attendance Sheet Attached		
Sr.#	Checked Items and Actions Planned	Action By			Target Date for Action	Date to Confirm Action	Status Done/Closed, Not Done/open, In Progress/Partially Closed
		Emp.	Eng.	Con.			
16	Submission of NOC and License for fuel storage from district administration and Chief inspector of explosives			√	22/05/2021	02/06/2021 03/07/2021 29/09/2021 26/10/2021 30/11/2021 30/12/2021 07/02/2022 01/03/2022 01/04/2022 28/05/2022 30/06/2022	<b>In process.</b> The Contractor informed that letter has been submitted to the district administration for NOC Same status Still pending. The Contractor was instructed to pursue the matter to close the issue Same status. Same status <b>Not Done.</b> Employer instructed the contractor to give a reminder letter to district administration. <b>Not done.</b> The contractor was asked to pursue the matter with district administration. <b>Not done.</b> The contractor was asked to pursue the matter with district administration. <b>Not Done:</b> The contractor was assured by the employer to get help from their office. <b>Not done.</b> The contractor was asked to pursue the matter with district administration. Not done
27	MPR should be revised having following components included: <ul style="list-style-type: none"> <li>• Solid Waste Types, Collection, transportation and dumping site / Vendor or Scavenger details</li> <li>• Housekeeping of site area should be maintained</li> <li>• Training / Awareness Session to be held for ECP implementation every week in Tool Box Talks and a separate session to be arranged for all staff as well by the HSE Manager.</li> </ul>			√	Immediate	04/04/2022 28/05/2022 30/06/2022	To be implemented from 04 <sup>th</sup> of April 2022  <b>Not Done</b>  <b>Not done.</b>

28	Maintain the record for quantified waste / discarded material e.g., batteries, used engine oils, chemical drums or solid waste per month etc.			√	Immediate	01/04/2022  28/05/2022 30/06/2022	The contractor is instructed to maintain the record for quantified waste / discarded material e.g., batteries, used engine oils, chemical drums or solid waste per month.  <b>Not Done</b> <b>Not done</b>
29	Ensure daily water sprinkling at the allocated portion of Khoshe access road as well as the access roads to the LBRV-11 &12 Sites. The contractor is instructed to continuously perform Water Sprinkling on allocated sites with at least 3 time a day due to summer season.			√	Immediate	30/06/2022	Partially done
30	Implementation of demobilization ECP			√	Immediate		
31	MPR submission			√	immediate		

Confirmed by:

The Employer

Name: Muhammad Ali  
Position: AD (L&V) WAPDA  
Date: 06/07/2022

The Engineer

Sardar Alam  
Sr. Enr  
06/07/2022

The Contractor



Yangjuny  
07/07/2022

\*Note: The Contractor informed that by 30<sup>th</sup> July 2022 their contract time will be completed. They have already demobilized staff including HSE Manager. The meeting was attended by LBRV-11&12 Contract Manager only.







**Annexure B: Results of Monthly Spot Wastewater and Surface Water Quality Monitoring  
(MW-01 & MW-02)**

Contractor  中国能建 ENERGY CHINA	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Employer 
Environmental Monitoring Works		
AVAILABILITY FOR INSPECTION (AFI)	AFI Number:	CGGC/ MW-01/HSED/AFI-22-185
	AFI Issue Ref:	
	AFI Issue Date:	April 14, 2022

To the Engineer: Dasu Hydropower Consultants		From the Contractor: China Gezhouba Group Company Limited	
<b>The Engineer is notified of the AVAILABILITY FOR INSPECTION of the following:</b>			
Description of Inspection:	Joint inspection Environmental Monitoring Surface and waste Water Quality for the Month of April 2022.		
Location	Please see the attachments for details		
Date of Inspection:	April 21, 2022	Time of Inspection:	10:00AM
Engineer's Representative is to acknowledge receipt by signing and returning one copy to the Contractor.			
<b>Issued by Contractor's Representative</b>		<b>Receipt Acknowledgment</b>	
Director of HSED		Engineer's Receipt Stamp	
Date:	2022.4.14		15/04/2022

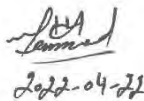
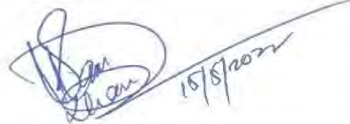
<b>The Engineer's response to the above AVAILABILITY FOR INSPECTION is as follows:</b>	
The Inspection was attended by the following:	
(i) Anwar Hassan Khan (Sr. Environmentalist - DAC) (ii) Asim Khan (AD Environment - WAPDA) (iii) Nasir Khan (Inspector - DAC) (iv) Hammad Mushtaq (Lab technician - CGGC)	
The Inspection is	APPROVED / NOT APPROVED / APPROVED AS NOTED <input checked="" type="checkbox"/>
Engineer's Response not valid unless signed by the Engineer's Representative. Contractor is to acknowledge receipt by signing and returning one copy to the Engineer's Representative.	
<b>Issued by Engineer's Representative</b>	
<b>Receipt Acknowledgment</b>	
Signature:	
Name: Sardar Alam	Contractor's Receipt Stamp & date received
Date: 15/5/2022	Sabin Ahmad. 15/5/22

\* The contractor is instructed to consider dilute acid to control pH value at the Sedimentation Ponds.

Entry done  


**Environment Monitoring Water Quality Location List of April 2022**

**MW-01**

Sr.	Item	Location	Monitoring Date	Report No.	Remark
1	River Water	Upstream Ucher Crush Plant	2022/4/21 10:00 AM	MW-01/SW-95	
	Waste Water	Sedimentation Pound of Uchar Crushing Plant	2022/4/21 10:35 AM	MW-01/SW-96	
3	Waste Water	Sedimentation Pound of Batching Plant (CR2)	2022/4/21 10:55 AM	MW-01/SW-97	
4	Waste Water	Sedimentation Pound of Adit Tunnel 1	2022/4/21 11:15 AM	MW-01/SW-98	
Contractor Representative:			DHC Representative:		
 2022-04-21			 15/5/2022		

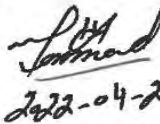
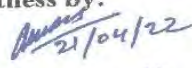
Dasu Hydropower Project

Contractor  	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Engineer 	Employer 
Surface water quality spot measurements Report			

<b>Surface water quality</b>		River Water <input checked="" type="checkbox"/>	Waste Water <input type="checkbox"/>
Location	upstream uchar crushing plant		
Date Of Inspection	21-04-2022	Time Of Inspection	10:00
Sample points	01	Report No.	MW-01/SW-95

Item	Unit	Portable Meter	Result
✓ Turbidity	NTU	WZB-175	209
✓ Conductivity	µs/cm	DZB-718L	324
✓ PH	/	DZB-718L	8.6
✓ DO	mg/L	DZB-718L	0.9
✓ Temperature	°C	DZB-718L	16.2
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>





**Remarks:**

Contractor Representative:  2022-04-21	Witness by:  21/04/22 AWAIS H. KHAN Sr. Environment Specialist DHC
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Done ✓



Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

Surface water quality		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	<i>Sedimentation tank of Ucheav crushing plant</i>		
Date Of Inspection	<i>21-04-2022</i>	Time Of Inspection	<i>10:35</i>
Sample points	<i>02</i>	Report No.	<i>MW-01/SW-96</i>

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	<i>&gt; 1000</i>
Conductivity	µs/cm	DZB-718L	<i>143</i>
PH	/	DZB-718L	<i>10.3</i> ↑
DO	mg/L	DZB-718L	<i>0.7</i>
Temperature	°C	DZB-718L	<i>17.3</i>
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:** *The PH value is greater than permissible limits of NEQS. The contractor is instructed to add fresh water continuously.*

<p>Contractor Representative:</p> <p style="text-align: center;"><i>[Signature]</i> <i>2022-04-21</i></p>	<p>Witness by:</p> <p style="text-align: center;"><i>[Signature]</i> <i>21-04-22</i></p> <p style="text-align: center;"><i>AWAIS H. Khan</i> <i>Sr. Environment Specialist</i> <i>DHC</i></p>
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Done



Dasu Hydropower Project


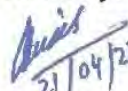
Contractor	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

<b>Surface water quality</b>		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Sedimentation tank of Batching plant CR-2.		
Date Of Inspection	21-04-2022	Time Of Inspection	10:55
Sample points	03-	Report No.	MW-01/SW-97

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	145.8
Conductivity	µs/cm	DZB-718L	830
PH	/	DZB-718L	11.2 ↑
DO	mg/L	DZB-718L	0.7
Temperature	°C	DZB-718L	17.4
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>





**Remarks:** No Oil Residues are observed. pH is beyond NEQS. Therefore it is advised that mild acid should be used to lower the pH values

*Amir*  
21/04/22

<b>Contractor Representative:</b>   2022-04-21	<b>Witness by:</b>  21/04/22 Awais H. Khan Sr. Environment Specialist DTC
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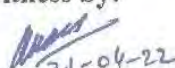
Done!

Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			



<b>Surface water quality</b>	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	<i>Sedimentation tank of Adit Tunnel 1</i>	
Date Of Inspection	<i>21-04-2022</i>	Time Of Inspection <i>11:15</i>
Sample points	<i>04</i>	Report No, <i>MW-01/SW-98</i>

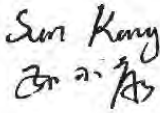
Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	<i>42.2</i>
Conductivity	µs/cm	DZB-718L	<i>192.9</i>
PH	/	DZB-718L	<i>8.9</i>
DO	mg/L	DZB-718L	<i>0.6</i>
Temperature	°C	DZB-718L	<i>17.7</i>
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>



<b>Remarks:</b>	
<b>Contractor Representative:</b>  <i>2022-04-21</i>	<b>Witness by:</b>  <i>21-04-22</i> <b>AWAIS H. KHAN</b> Sr. Environment specialist DHC

*Dme*




Contractor  中国能建 ENERGY CHINA	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Employer 
<b>Environmental Monitoring Works</b>		
<b>AVAILABILITY FOR INSPECTION (AFI)</b>	AFI Number:	CGGC/MW-01/HSED/AFI-22-189
	AFI Issue Ref:	
	AFI Issue Date:	May 11, 2022

To the Engineer: Dasu Hydropower Consultants		From the Contractor: China Gezhouba Group Company Limited	
<b>The Engineer is notified of the AVAILABILITY FOR INSPECTION of the following:</b>			
Description of Inspection:	Joint inspection Environmental Monitoring Surface and waste Water Quality for the Month of May 2022.		
Location	Please see the attachments for details		
Date of Inspection:	May 18, 2022	Time of Inspection:	10:00AM
Engineer's Representative is to acknowledge receipt by signing and returning one copy to the Contractor.			
<b>Issued by Contractor's Representative</b>		<b>Receipt Acknowledgment</b>	
Director of HSED	 Sun Kang	 21/5/2022	
Date: 2022.05.10			

<b>The Engineer's response to the above AVAILABILITY FOR INSPECTION is as follows:</b>	
The Inspection was attended by the following:	
① Nasir Khan DHC ② Amad Mughal CGGC	
The Inspection is <b>APPROVED / NOT APPROVED / APPROVED AS NOTED</b>	
Engineer's Response not valid unless signed by the Engineer's Representative. Contractor is to acknowledge receipt by signing and returning one copy to the Engineer's Representative.	
<b>Issued by Engineer's Representative</b>	<b>Receipt Acknowledgment</b>
Signature:  Name: Sarder - Alam Date: 21/05/2022	Contractor's Receipt Stamp & date received  2022-05-21

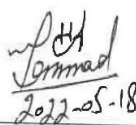

- The sedimentation tank at ulhaar is in a very miserable condition  
 The contractor is instructed to remove the sludge and dispose it. Spill  
 disposed o to


Entry Done  




**Environmental Monitoring Surface and Waste Water Quality for May, 2022**

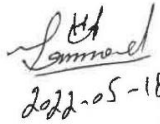

**MW-01**

Sr.	Environmental Component	Item	Location	Inspection Date	Reference Clause	Monitoring/Inspection Parameters	CGGC Spots Schedule	Engineer's Approved spots	Presence personnel	Remark
1	Monthly Spot Monitoring	Surface Water Quality	Upstream Ucher Crushing Plant	2022-5-18 10:00 AM	Chapter 0120	PH, Conductivity, Turbidity, Temperature, petroleum Product (Visual)	1	01	Engineer, Employer	Done
		Wastewater Quality	Outlet of sedimentation pond of Batching Plant, Crushing plant & Adit No.1	2022-5-18 10:00 AM	Chapter 0120	PH, Conductivity, Turbidity, Temperature, petroleum Product (Visual)	3	02	Engineer, Employer	Done, 02.
<b>Contractor Representative:</b>						<b>DHC Representative:</b>				
 2022-05-18						Nasir Khan  18-5-2022				

\* The Ucher crushing plant Sedimentation pond cancelled due to non-compliance. The crushing plant not operational and secondary portion is full of sludge.  
  
 18-05-2022





**Environment Monitoring Water Quality Location List of May 2022**

**MW-01**

Sr.	Item	Location	Monitoring Date	Report No.	Remark
1	River Water	Upstream Ucher Crush Plant	2022/5/18 10:20 AM	MW-01/SW-99	✓
3	Waste Water	Sedimentation Pound of Batching Plant (CR2)	2022/5/18 11:00 AM	MW-01/SW-100	✓
4	Waste Water	Outlet Sedimentation Pound of Adit Tunnel 1	2022/5/18 11:30 AM	MW-01/SW-101	✓
<b>Contractor Representative:</b>			<b>DHC Representative:</b>		
 2022-05-18			 21/5/2022		

Dasu Hydropower Project



*DMC*

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
<b>Surface water quality spot measurements Report</b>			





<b>Surface water quality</b>	River Water <input checked="" type="checkbox"/>	Waste Water <input type="checkbox"/>	
Location	<i>upstream Uchar crushing plant</i>		
Date Of Inspection	<i>18-05-2022</i>	Time Of Inspection	<i>10:20</i>
Sample points	<i>01</i>	Report No.	<i>MW-01/SW-99</i>

Item	Unit	Portable Meter	Result
✓ Turbidity	NTU	WZB-175	<i>408</i>
✓ Conductivity	µs/cm	DZB-718L	<i>143.7</i>
✓ PH	/	DZB-718L	<i>8.4</i>
✓ DO	mg/L	DZB-718L	<i>0.5</i>
✓ Temperature	—°C	—DZB-718L	<i>17.5</i>
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:**

<b>Contractor Representative:</b> <div style="text-align: center; margin-top: 20px;">   <i>2022-05-18</i> </div>	<b>Witness by:</b> <div style="text-align: center; margin-top: 10px;"> <i>Nasir Khan</i>                      DHC    <i>18-05-2022</i> </div>
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Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

<b>Surface water quality</b>	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	<i>Uchar crushing plant Sedimentation Tank.</i>	
Date Of Inspection	<i>18-05-2022</i>	Time Of Inspection
Sample points	<i>/</i>	Report No.
		<i>10:40AM</i>





Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	/
Conductivity	µs/cm	DZB-718L	
PH	/	DZB-718L	
DO	mg/L	DZB-718L	
Temperature	°C	DZB-718L	
Visual Petroleum Product		Yes <input type="checkbox"/>	

<p><b>Remarks:</b> (i) The crushing plant <sup>was</sup> not operational. (ii) The secondary portion of Tank full of sludge which is not clear. (iii) Sludge fallout near by sedimentation Tank. That's the monitoring cancel.</p>	
<p>Contractor Representative:</p> <p style="text-align: center;"><i>HA Samad</i> <i>2022-05-18</i></p>	<p>Witness by:</p> <p style="text-align: center;"><i>Nasir Ichan</i> <i>DHC</i> <i>18-05-2022</i></p>

*Not enter*



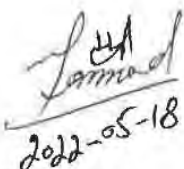

Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Engineer	Employer
 			
<b>Surface water quality spot measurements Report</b>			





<b>Surface water quality</b>		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	<i>Sedimentation tank of CR-2 Batching Plant.</i>		
Date Of Inspection	<i>18-05-2022.</i>	Time Of Inspection	<i>11:00</i>
Sample points	<i>02</i>	Report No.	<i>MW-01/SW-100</i>

Item	Unit	Portable Meter	Result
✓ Turbidity	NTU	WZB-175	<i>182.</i>
✓ Conductivity	µs/cm	DZB-718L	<i>847.</i>
✓ PH	/	DZB-718L	<i>10.9</i> ↑
✓ DO	mg/L	DZB-718L	<i>0.8</i>
✓ Temperature	°C	DZB-718L	<i>19.4</i>
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:** *The PH value is higher then permissible limits of NEQs. The contractor is instructed to add fresh water continuously to reduce the PH value.*

<b>Contractor Representative:</b>   <i>2022-05-18</i>	<b>Witness by:</b>  <i>Nasir Khan DHC</i>  <i>18-05-2022</i>
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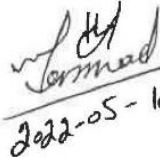

Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

<b>Surface water quality</b>		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	outlet sedimentation tank of Adit-1		
Date Of Inspection	18-05-2022	Time Of Inspection	11:30
Sample points	03	Report No.	MW-01/SW-101

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	57.6
Conductivity	µs/cm	DZB-718L	216
PH	/	DZB-718L	9.2 ↑
DO	mg/L	DZB-718L	0.5
Temperature	°C	DZB-718L	18.8
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:** The PH value is greater than permissible limits of NEQS. The contractor is instructed to add fresh water continuously.

<b>Contractor Representative:</b>   2022-05-18	<b>Witness by:</b> Nasir Khan DHC  18-05-2022
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Done



<b>Contractor</b>   中国能建 ENERGY CHINA	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	<b>Employer</b> 
<b>Environmental Monitoring Works</b>		
<b>AVAILABILITY FOR INSPECTION (AFI)</b>	AFI Number:	CGGC/ MW-01/HSED/AFI-22-209
	AFI Issue Ref:	
	AFI Issue Date:	June 06, 2022

To the Engineer: Dasu Hydropower Consultants		From the Contractor: China Gezhouba Group Company Limited	
<b>The Engineer is notified of the AVAILABILITY FOR INSPECTION of the following:</b>			
Description of Inspection:	Joint inspection Environmental Monitoring Surface and wastewater Quality for the Month of June 2022.		
Location	Please see the attachments for details		
Date of Inspection:	June 13, 2022	Time of Inspection:	10:00AM
Engineer's Representative is to acknowledge receipt by signing and returning one copy to the Contractor.			
<b>Issued by Contractor's Representative</b>		<b>Receipt Acknowledgment</b>	
Director of HSED		Engineer's Receipt Stamp	
Date:	2022.6.6		6/6/22

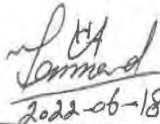

<b>The Engineer's response to the above AVAILABILITY FOR INSPECTION is as follows:</b>	
The Inspection was attended by the following: (i) Asim Khan (AD Environment - WAPDA) (ii) Audis Hassan (Sr. Environmentalist - DAC) (iii) Hammed Mughal (Lab technician - CGGC)	
The Inspection is	<input checked="" type="checkbox"/> APPROVED / <input type="checkbox"/> NOT APPROVED / <input checked="" type="checkbox"/> APPROVED AS NOTED
Engineer's Response not valid unless signed by the Engineer's Representative. Contractor is to acknowledge receipt by signing and returning one copy to the Engineer's Representative.	
<b>Issued by Engineer's Representative</b>	<b>Receipt Acknowledgment</b>
Signature:	Contractor's Receipt Stamp & date received
Name:	
Date:	2022-06-29
29-06-2022.	

The Sedimentation Tanks at Uchar and Adit-1 should be cleaned before sampling.





**Environmental Monitoring Surface and Waste Water Quality for June, 2022**

**MW-01**

Sr.	Environmental Component	Item	Location	Inspection Date	Reference Clause	Monitoring/Inspection Parameters	CGGC Spots Schedule	Engineer's Approved spots	Presence personnel	Remark
1	Monthly Spot Monitoring	Surface Water Quality	Upstream Ucher Crushing Plant	2022-6-13 10:00 AM	Chapter 0120	PH, Conductivity, Turbidity, Temperature, petroleum Product (Visual)	1	1	Engineer, Employer	
		Wastewater Quality	Outlet of sedimentation pond of Batching Plant, Crushing plant & Adit No.1	2022-6-13 10:00 AM	Chapter 0120	PH, Conductivity, Turbidity, Temperature, petroleum Product (Visual)	1	1	Engineer, Employer	
<b>Contractor Representative:</b>						<b>DHC Representative:</b>				
 2022-06-18						 29/06/2022				

**Environment Monitoring Water Quality Location List of June 2022**

**MW-01**

Sr.	Item	Location	Monitoring Date	Report No.	Remark
1	River Water	Upstream Uchar Crush Plant (Indus River)	2022/6/18 10:20 AM	MW-01/SW-102	
3	Waste Water	Sedimentation Pound of Batching Plant (CR2)	2022/6/18 10:50 AM	MW-01/SW-103	
<b>Contractor Representative:</b>			<b>DHC Representative:</b>		
 2022-06-18			 29/6/2022		

Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

Surface water quality	River Water <input checked="" type="checkbox"/>	Waste Water <input type="checkbox"/>
Location	<i>Upstream uchat Crushing Plant (Indus River) N/S</i>	
Date Of Inspection	<i>2022-06-18</i>	Time Of Inspection <i>10:20</i>
Sample points	<i>01</i>	Report No. <i>MW-01/SW-102</i>

Item	Unit	Protobale Meter	Result
<input checked="" type="checkbox"/> Turbidity	NTU	WZB-175	<i>806</i>
<input checked="" type="checkbox"/> Conductivity	µs/cm	DZB-718L	<i>199</i>
<input checked="" type="checkbox"/> PH	/	DZB-718L	<i>8.1</i>
<input checked="" type="checkbox"/> DO	mg/L	DZB-718L	<i>3.2</i>
<input checked="" type="checkbox"/> Temperature	°C	DZB-718L	<i>17.6</i>
Visual Petroleum Product	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

**Remarks:** *Turbidity levels are High in river water due to recent rains but pH is within NEQS Limits.*  
*18/06/2022*

Contractor Representative:  <div style="text-align: center;"><i>[Signature]</i> <i>2022-06-18</i></div>	Witness by:  <div style="text-align: center;"><i>[Signature]</i> <i>AD (Env) WAPDA</i> <i>18/06/2022</i></div>
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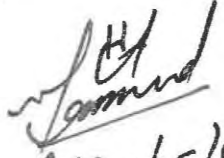
Dasu Hydropower Project

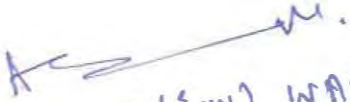
Contractor	DASU HYDROPOWER PROJECT DASU-MW-01	Engineer	Employer
 			
Surface water quality spot measurements Report			

Surface water quality	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Sedimentation of Batching Plant. of CR2	
Date Of Inspection	2022-06-18	Time Of Inspection 10:50
Sample points	3 <sup>rd</sup> CR-02	Report No. MW-01/SW-103

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	156.3
Conductivity	µs/cm	DZB-718L	691
PH	/	DZB-718L	11.2 ↑
DO	mg/L	DZB-718L	2.4
Temperature	°C	DZB-718L	22.9
Visual Petroleum Product	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

**Remarks:** PH level is very high and contractor needs to put increase fresh water in the sedimentation Tank of CR-02 Batching Plant.  
*Amir*  
 18/6/2022

Contractor Representative:  
  
 2022-06-18

Witness by:  
  
 A.D (Env) WAPDA  
 18/6/2022



Dasu Hydropower Project

Contractor	<p style="text-align: center; margin-top: 10px;"><b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b></p>	Engineer	Employer
Surface water quality spot measurements Report			

Surface water quality	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>	
Location	Uchar Gush Plant (Sedimentation Tank/Pond)		
Date Of Inspection	18/6/2022	Time Of Inspection	10:30
Sample points	NIL	Report No.	-

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	/
Conductivity	µs/cm	DZB-718L	
PH	/	DZB-718L	
DO	mg/L	DZB-718L	
Temperature	°C	DZB-718L	
Visual Petroleum Product		Yes <input type="checkbox"/>	

**Remarks:** As the Sedimentation Tank is not clean having high Visible Turbidity & froth Therefore, No sample is taken and No Test is conducted.  
*[Signature]*  
 Sr. Environmentalist, DHC

Contractor Representative:  2022-06-18	Witness by:  M. AD (Env) WAPDA 18/06/2022.
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Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			




Surface water quality	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Adit -1 (Sedimentation Pond)	
Date Of Inspection	18/06/2022	Time Of Inspection
Sample points	Sedimentation Pond besides DTA	Report No.
		/

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	
Conductivity	µS/cm	DZB-718L	
PH	/	DZB-718L	
DO	mg/L	DZB-718L	
Temperature	°C	DZB-718L	
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input type="checkbox"/>

**Remarks:** The Sedimentation Pond was full of algae and needs to be cleared from algae first. No Sample was taken neither any tests were conducted.  
*Muhammad*  
 18/06/2022

Contractor Representative:  2022-06-18	Witness by:  AD (Env) WAPDA 18/06/022
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Contractor  中国能建 ENERGY CHINA 	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-02</b>	Employer 
<b>Environmental Monitoring Works</b>		
<b>AVAILABILITY FOR INSPECTION (AFI)</b>	AFI Number:	<b>CGGC/ MW-02/HSED/AFI-22-188</b>
	AFI Issue Ref:	
	AFI Issue Date:	April 14, 2022



To the Engineer:  
Dasu Hydropower Consultants

From the Contractor:  
China Gezhouba Group Company Limited

The Engineer is notified of the AVAILABILITY FOR INSPECTION of the following:

Description of Inspection:	<b>Joint inspection Environmental Monitoring of Surface and Waste Water Quality for the month of April 2022</b>		
Location:	Please see the attachments for details		
Date of Inspection:	April 21, 2022	Time of Inspection:	11:00 AM

Engineer's Representative is to acknowledge receipt by signing and returning one copy to the Contractor.

<u>Issued by Contractor's Representative</u>	<u>Receipt Acknowledgment</u>
Director of HSED  Date: 2022.4.14	Engineer's Receipt Stamp  15/4/2022


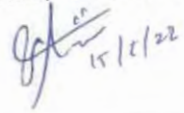
The Engineer's response to the above AVAILABILITY FOR INSPECTION is as follows:

The Inspection was attended by the following:

- (i) Anwar Hassan Khan (Sr. Environmentalist - DAC)
- (ii) Asim Khan (AD Environment - NAPPAA)
- (iii) Nasir Khan (Inspector - DHC)
- (iv) Hummad Mughal (Lab technician - CGGC)

The Inspection is **APPROVED** / NOT APPROVED (delete as appropriate)

Engineer's Response not valid unless signed by the Engineer's Representative. Contractor is to acknowledge receipt by signing and returning one copy to the Engineer's Representative.

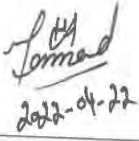

<u>Issued by Engineer's Representative</u>	<u>Receipt Acknowledgment</u>
Signature: Name: Sardar Alam Date: 15/5/2022 	Contractor's Receipt Stamp & date received Sabir Mehal 15/5/22 

The Contractor is instructed to Corridor dilute acid to lower the pH value at the Sedimentation tanks. 15/5/2022  
 Done.





**Environmental Monitoring of Surface and Waste Water Quality for March , 2022**

**MW-02**





Sr.	Environmental Component	Item	Location	Inspection Date	Reference Clause	Monitoring/Inspection Parameters	CGGC Spots Schedule	Engineer's approved Spot schedule	Presence personnel	Remark
1	Monthly Spot Monitoring	River Water Quality	The Indus river	14 03 2022 11:00:00 AM	Chapter 0120	PH, Conductivity, Turbidity, Temperature, petroleum Product (Visual)	1 ✓		Engineer, Employer	
		Waste water Quality	Outlet of Sedimentation Tank of MAT Out let, sedimentation Tank of khushi	14 03 2022 11:00:00 AM	Chapter 0120	PH, Conductivity, Turbidity, Temperature, petroleum Product (Visual)	2 ✓		Engineer, Employer	
Contractor Representative:					DHC Representative:					
 2022-04-22					 15/5/2022					

**Environment Monitoring Water Quality Location List of April 2022**

**MW-02**

Sr.	Item	Location	Monitoring Date	Report No.	Remark
1	Waste Water	Outlet Sedimentation Pond MAT (CR9)	2022/4/21 11:40 AM	MW-02/SW-59	1
2	Waste Water	Outlet Sedimentation Pond Batching Plant Khushi	2022/4/21 11:50 AM	MW-02/SW-60	1
3	River Water	Down stream of MAT (River)	2022/4/21 12:15 PM	MW-02/SW-61	1
Contractor Representative:			DHC Representative:		
 2022-04-22			 15/5/2022		

Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-02</b>	Engineer	Employer
 			
<b>Surface water quality spot measurements Report</b>			

<b>Surface water quality</b>	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	<i>Outlet Sedimentation tank MAT CR-9</i>	
Date Of Inspection	<i>21-04-2022</i>	Time Of Inspection
Sample points	<i>01</i>	Report No.
		<i>MW-02/SW-59</i>





Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	324
Conductivity	µs/cm	DZB-718L	323
PH	/	DZB-718L	(10.7) ↑
DO	mg/L	DZB-718L	0.6
Temperature	°C	DZB-718L	19.6
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Remarks: PH value is greater than NEQs limits. The contractor is instructed to add fresh water continuously.

<p>Contractor Representative:</p> <p style="text-align: center;"><i>Sattar</i> <i>2022-04-21</i></p>	<p>Witness by:</p> <p style="text-align: center;"><i>21-04-22</i> <i>AWAIS H. Khan</i> Sr. Environment specialist DHC</p>
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*Dme.*


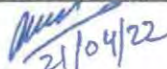
Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-02</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

Surface water quality		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Outlet Sedimentation tank Batching Plant Ichushi		
Date Of Inspection	21-04-2022	Time Of Inspection	11:50
Sample points	02.	Report No.	MW-02/SW-60


Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	329
Conductivity	µs/cm	DZB-718L	431
PH	/	DZB-718L	11.0 ↑
DO	mg/L	DZB-718L	0.6
Temperature	°C	DZB-718L	20.5
Visual Petroleum Product		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Remarks: PH value is greater than NEQs limits. The contractor can't connect the fresh water pipe. The contractor is instructed to connect the fresh water pipe and add fresh water continuously.

Contractor Representative:  2022-04-21	Witness by:  AWAIS H. Khan 21/04/22 Sr. Environment specialist DHC
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Dasu Hydropower Project


Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-02</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

<b>Surface water quality</b>	River Water <input checked="" type="checkbox"/>	Waste Water <input type="checkbox"/>	
Location	Down stream MAT (River),		
Date Of Inspection	21-04-2022	Time Of Inspection	12:10 pm.
Sample points	03.	Report No.	MW-02/SW-61


Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	259
Conductivity	µs/cm	DZB-718L	204
PH	/	DZB-718L	8.3
DO	mg/L	DZB-718L	0.6
Temperature	°C	DZB-718L	16.9
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>



**Remarks:**

**Contractor Representative:**

  
 2022-04-21

**Witness by:**

  
 AWAIS H. Khan  
 Sr. Environment Specialist  
 DHC

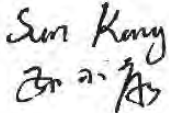

Contractor 	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Employer 
<b>Environmental Monitoring Works</b>		
<b>AVAILABILITY FOR INSPECTION (AFI)</b>	AFI Number:	CGGC/MW-01/HSED/AFI-22-189
	AFI Issue Ref:	
	AFI Issue Date:	May 11, 2022

To the Engineer: Dasu Hydropower Consultants	From the Contractor: China Gezhouba Group Company Limited
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**The Engineer is notified of the AVAILABILITY FOR INSPECTION of the following:**

Description of Inspection:	<b>Joint inspection Environmental Monitoring Surface and waste Water Quality for the Month of May 2022.</b>		
Location:	Please see the attachments for details		
Date of Inspection:	May 18, 2022	Time of Inspection:	10:00AM

Engineer's Representative is to acknowledge receipt by signing and returning one copy to the Contractor.

<u>Issued by Contractor's Representative</u>  Director of HSED  Date: 2022.05.10	<u>Receipt Acknowledgment</u> Engineer's Receipt Stamp   21/5/2022
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**The Engineer's response to the above AVAILABILITY FOR INSPECTION is as follows:**

The Inspection was attended by the following:

- ① Nasir Khan DHC
- ② Amad Mughal CGGC.

The Inspection is ✓ **APPROVED / NOT APPROVED / APPROVED AS NOTED**

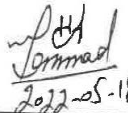

Engineer's Response not valid unless signed by the Engineer's Representative. Contractor is to acknowledge receipt by signing and returning one copy to the Engineer's Representative.


<u>Issued by Engineer's Representative</u>  Signature: Name: <i>Sardar Alam</i> Date: 21/05/2022	<u>Receipt Acknowledgment</u> Contractor's Receipt Stamp & date received   2022-05-21
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- The Sedimentation tank at Mchuar is in a very miserable condition. The Contractor is instructed to remove the sludge and dispose it. Spill dismissed. S.T.

**Environmental Monitoring Surface and Waste Water Quality for May, 2022**

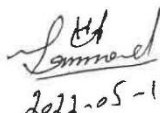

**MW-01**

Sr.	Environmental Component	Item	Location	Inspection Date	Reference Clause	Monitoring/Inspection Parameters	CGGC Spots Schedule	Engineer's Approved spots	Presence personnel	Remark
1	Monthly Spot Monitoring	Surface Water Quality	Upstream Ucher Crushing Plant	2022-5-18 10:00 AM	Chapter 0120	PH, Conductivity, Turbidity, Temperature, petroleum Product (Visual)	1	01	Engineer, Employer	Done
		Wastewater Quality	Outlet of sedimentation pond of Batching Plant, Crushing plant & Adit No.1	2022-5-18 10:00 AM	Chapter 0120	PH, Conductivity, Turbidity, Temperature, petroleum Product (Visual)	3	02	Engineer, Employer	Done, 02.
<b>Contractor Representative:</b>						<b>DHC Representative:</b>				
 2022-05-18						Nasir Khan  18-5-2022				

\* The Ucher crushing plant sedimentation pond cancelled due to non-compliance  
 The crushing plant not operational and secondary portion is full of sludge  
  
 18-05-2022

**Environment Monitoring Water Quality Location List of May 2022**





**MW-01**

Sr.	Item	Location	Monitoring Date	Report No.	Remark
1	River Water	Upstream Ucher Crush Plant	2022/5/18 10:20 AM	MW-01/SW-99	✓
3	Waste Water	Sedimentation Pound of Batching Plant (CR2)	2022/5/18 11:00 AM	MW-01/SW-100	✓
4	Waste Water	Outlet Sedimentation Pound of Adit Tunnel 1	2022/5/18 11:30 AM	MW-01/SW-101	✓
<b>Contractor Representative:</b>			<b>DHC Representative:</b>		
 2022-05-18			 21/5/2022		



Dasu Hydropower Project

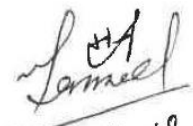

*dme*

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

Surface water quality		River Water <input checked="" type="checkbox"/>	Waste Water <input type="checkbox"/>
Location	<i>upstream Uchara crushing plant</i>		
Date Of Inspection	<i>18-05-2022</i>	Time Of Inspection	<i>10:20</i>
Sample points	<i>01</i>	Report No.	<i>MW-01/SW-99</i>

Item	Unit	Portable Meter	Result
✓ Turbidity	NTU	WZB-175	<i>408</i>
✓ Conductivity	µs/cm	DZB-718L	<i>143.7</i>
✓ PH	/	DZB-718L	<i>8.4</i>
✓ DO	mg/L	DZB-718L	<i>0.5</i>
✓ Temperature	—°C	—DZB-718L	<i>17.5</i>
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:**

<b>Contractor Representative:</b>  <i>2022-05-18</i>	<b>Witness by:</b> <i>Nasir Khan</i> DHC  <i>18-05-2022</i>
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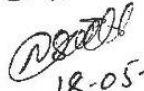
Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

<b>Surface water quality</b>	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	<i>Uchar crushing plant Sedimentation Tank.</i>	
Date Of Inspection	<i>18-05-2022</i>	Time Of Inspection
Sample points	<i>/</i>	Report No.
		<i>/</i>





Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	/
Conductivity	µs/cm	DZB-718L	
PH	/	DZB-718L	
DO	mg/L	DZB-718L	
Temperature	°C	DZB-718L	
Visual Petroleum Product		Yes <input type="checkbox"/>	

**Remarks:** (i) The crushing plant <sup>was</sup> not operational. (ii) The secondary portion of Tank full of sludge which is not clear. (iii) Sludge fallout near by sedimentation Tank. That's the monitoring cancel.

<b>Contractor Representative:</b>   <i>2022-05-18</i>	<b>Witness by:</b> <i>Nasir Ichan</i> DHC  <i>18-05-2022</i>
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*not enter*

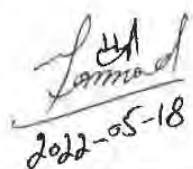

Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
<b>Surface water quality spot measurements Report</b>			

<b>Surface water quality</b>		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Sedimentation tank of CR-2 Batching Plant.		
Date Of Inspection	18-05-2022.	Time Of Inspection	11:00
Sample points	02	Report No.	MW-01/SW-100





Item	Unit	Portable Meter	Result
✓ Turbidity	NTU	WZB-175	182.
✓ Conductivity	µs/cm	DZB-718L	847.
✓ PH	/	DZB-718L	(10.9) ↑
✓ DO	mg/L	DZB-718L	0.8
✓ Temperature	°C	DZB-718L	19.4
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:** The PH value is higher than permissible limits of NEGs. The contractor is instructed to add fresh water continuously to reduce the PH value.

<b>Contractor Representative:</b>   2022-05-18	<b>Witness by:</b> Nasir Khan DHC  18-05-2022
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Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

<b>Surface water quality</b>		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	<i>outlet sedimentation tank of Adit-1</i>		
Date Of Inspection	<i>18-05-2022</i>	Time Of Inspection	<i>11:30</i>
Sample points	<i>03</i>	Report No.	<i>MW-01/SW-101</i>

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	57.6
Conductivity	µs/cm	DZB-718L	216
PH	/	DZB-718L	(9.2) ↑
DO	mg/L	DZB-718L	0.5
Temperature	°C	DZB-718L	18.8
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:** *The PH value is greater than permissible limits of NEQS. The contractor is instructed to add fresh water continuously.*

<b>Contractor Representative:</b>   <i>2022-05-18</i>	<b>Witness by:</b> <i>Nasir Khan DHC</i>  <i>18-05-2022</i>
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Done

<b>Contractor</b> 	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	<b>Employer</b> 
<b>Environmental Monitoring Works</b>		
<b>AVAILABILITY FOR INSPECTION (AFI)</b>	AFI Number:	CGGC/MW-01/HSED/AFI-22-209
	AFI Issue Ref:	
	AFI Issue Date:	June 06, 2022

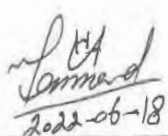

To the Engineer: Dasu Hydropower Consultants		From the Contractor: China Gezhouba Group Company Limited	
<b>The Engineer is notified of the AVAILABILITY FOR INSPECTION of the following:</b>			
Description of Inspection:	Joint inspection Environmental Monitoring Surface and wastewater Quality for the Month of June 2022.		
Location	Please see the attachments for details		
Date of Inspection:	June 13, 2022	Time of Inspection:	10:00AM
Engineer's Representative is to acknowledge receipt by signing and returning one copy to the Contractor.			
<u>Issued by Contractor's Representative</u>		<u>Receipt Acknowledgment</u>	
Director of HSED Date: 2022.6.6		Engineer's Receipt Stamp 	

<b>The Engineer's response to the above AVAILABILITY FOR INSPECTION is as follows:</b>	
The Inspection was attended by the following: (i) Asim Khan (AD Environment - WAPDA) (ii) Aunus Hassan (Sr. Environmentalist - DAC) (iii) Hammad Maghal (Lab technician - CEGC)	
The Inspection is <b>APPROVED / NOT APPROVED / APPROVED AS NOTED</b>	
Engineer's Response not valid unless signed by the Engineer's Representative. Contractor is to acknowledge receipt by signing and returning one copy to the Engineer's Representative.	
<b>Issued by Engineer's Representative</b>	
<b>Receipt Acknowledgment</b>	
Signature: Name: <b>Zafar Iqbal Chaudry</b> Date: <b>29-06-2022</b>	Contractor's Receipt Stamp & date received  <b>2022-06-29</b>

The Sedimentation Tanks at Wahaar And Adit-1 should be cleaned before sampling.



**Environmental Monitoring Surface and Waste Water Quality for June, 2022**

**MW-01**

Sr.	Environmental Component	Item	Location	Inspection Date	Reference Clause	Monitoring/Inspection Parameters	CGGC Spots Schedule	Engineer's Approved spots	Presence personnel	Remark
1	Monthly Spot Monitoring	Surface Water Quality	Upstream Uchar Crushing Plant	2022-6-13 10:00 AM	Chapter 0120	PH, Conductivity, Turbidity, Temperature, petroleum Product (Visual)	1	1	Engineer, Employer	
		Wastewater Quality	Outlet of sedimentation pond of Batching Plant, Crushing plant & Adit No.1	2022-6-13 10:00 AM	Chapter 0120	PH, Conductivity, Turbidity, Temperature, petroleum Product (Visual)	2	1	Engineer, Employer	
<b>Contractor Representative:</b>						<b>DHC Representative:</b>				
 2022-06-18						 29/6/2022				

**Environment Monitoring Water Quality Location List of June 2022**

**MW-01**

Sr.	Item	Location	Monitoring Date	Report No.	Remark
1	River Water	Upstream Uchar Crush Plant (Indus River)	2022/6/18 10:20 AM	MW-01/SW-102	
3	Waste Water	Sedimentation Pound of Batching Plant (CR2)	2022/6/18 10:50 AM	MW-01/SW-103	
<b>Contractor Representative:</b>			<b>DHC Representative:</b>		
 2022-06-18			 29/6/2022		



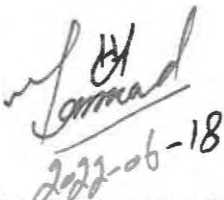
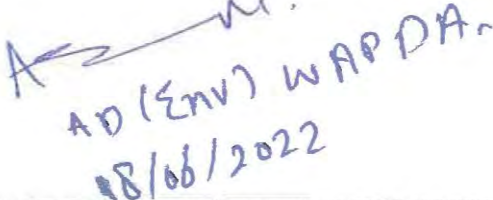
Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
<b>Surface water quality spot measurements Report</b>			

Surface water quality		River Water <input checked="" type="checkbox"/>	Waste Water <input type="checkbox"/>
Location	<i>Upstream ucheat Crushing Plant (Indus River) N/S</i>		
Date Of Inspection	<i>2022-06-18</i>	Time Of Inspection	<i>10:20</i>
Sample points	<i>01</i>	Report No.	<i>MW-01/SW-102</i>

Item	Unit	Portable Meter	Result
<input checked="" type="checkbox"/> Turbidity	NTU	WZB-175	<i>806</i>
<input checked="" type="checkbox"/> Conductivity	µs/cm	DZB-718L	<i>199</i>
<input checked="" type="checkbox"/> PH	/	DZB-718L	<i>8.1</i>
<input checked="" type="checkbox"/> DO	mg/L	DZB-718L	<i>3.2</i>
<input checked="" type="checkbox"/> Temperature	°C	DZB-718L	<i>17.6</i>
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:** *Turbidity levels are High in river water due to recent rains but pH is within NEQS Limits.*  
*18/6/2022*

Contractor Representative: <div style="text-align: center; margin-top: 20px;">   <i>2022-06-18</i> </div>	Witness by: <div style="text-align: center; margin-top: 20px;">   <i>AD (ENV) WAPDA, 18/06/2022</i> </div>
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Dasu Hydropower Project

Contractor	<p style="text-align: center; margin-top: 10px;"><b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b></p>	Engineer	Employer
Surface water quality spot measurements Report			

Surface water quality	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	<i>Sedimentation of Batching Plant. of CR2</i>	
Date Of Inspection	<i>2022-06-18</i>	Time Of Inspection <i>10:50</i>
Sample points	<i>CR-02</i>	Report No. <i>MW-01/SW-103</i>

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	<i>156.3</i>
Conductivity	µs/cm	DZB-718L	<i>691</i>
PH	/	DZB-718L	<i>11.2</i> ↑
DO	mg/L	DZB-718L	<i>2.4</i>
Temperature	°C	DZB-718L	<i>22.9</i>
Visual Petroleum Product	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

**Remarks:** *PH level is very high and contractor needs to put increase fresh water in the sedimentation Tank of CR-02 Batching plant.*  
*18/6/2022*

Contractor Representative:  <i>2022-06-18</i>	Witness by:  AD (ENV) WAPDA <i>18/6/2022</i>
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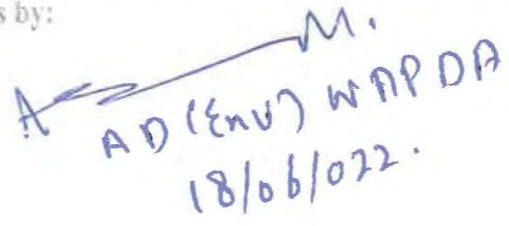
Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

Surface water quality		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Uchar Crush Plant (Sedimentation Tank/Pond)		
Date Of Inspection	18/6/2022	Time Of Inspection	10:30
Sample points	NIL	Report No.	—

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	/
Conductivity	µs/cm	DZB-718L	
PH	/	DZB-718L	
DO	mg/L	DZB-718L	
Temperature	°C	DZB-718L	
Visual Petroleum Product		Yes <input type="checkbox"/>	

**Remarks:** As the Sedimentation Tank is not clean having high Visible Turbidity & froth Therefore, No sample is taken and No Test is conducted.

*[Signature]*  
Sr. Environmentalist, DHC

Contractor Representative:  <div style="text-align: center;">                       2022-06-18                 </div>	Witness by:  <div style="text-align: center;">                       M. AD (Env) WAPDA                      18/06/022.                 </div>
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Dasu Hydropower Project

Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
			
Surface water quality spot measurements Report			

Surface water quality	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>	
Location	<i>Adit -1 (Sedimentation Pond)</i>		
Date Of Inspection	<i>18/06/2022</i>	Time Of Inspection	<i>11:30 am</i>
Sample points	<i>Sedimentation Pond besides DTA</i>	Report No.	<i>/</i>

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	
Conductivity	µS/cm	DZB-718L	
PH	/	DZB-718L	
DO	mg/L	DZB-718L	
Temperature	°C	DZB-718L	
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input type="checkbox"/>

**Remarks:** *The Sedimentation Pond was full of algae and needs to be cleared from algae first. No Sample was taken neither any tests were conducted.*  
*M. Aslam*  
*18/06/2022*

Contractor Representative:  <i>2022-06-18</i>	Witness by:  <i>M. Aslam (Env) WAPDA</i> <i>18/06/022</i>
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