



# DASU HYDROPOWER CONSULTANTS

## Dasu Hydropower Project

Joint Venture of



**DOLSAR**  
ENGINEERING

With sub-consultants



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Date: 25-02-2023

**General Manager/ Project Director,**

Dasu Hydropower Project,

WAPDA Office Dasu, Kohistan

**Subject: Dasu HPP— 32nd ENVIRONMENTAL PROGRESS REPORT FOR THE PERIOD FROM OCT TO DECEMBER 2022**

Please find enclosed 32<sup>nd</sup> Environmental Quarterly Progress Report (Env-QPR) for the period from October to December 2022. This report is submitted for your further necessary *action* please.

Sincerely Yours,

Project Manager  
Dasu Hydropower Consultants

**Copy to:**

1. GM/PD, Dasu HPP, WAPDA, Dasu, Kohistan
2. Office file



PAKISTAN WATER AND POWER DEVELOPMENT AUTHORITY

## **Dasu Hydropower Project**

# **Environmental Quarterly Progress Report**

**Report Number: 32<sup>nd</sup>**

**Reporting Period: October to December 2022**

**February 2023**

**Project Management Unit & Dasu Hydropower Consultants**





## **ACRONYMS**

CEAP	Construction Environmental Action Plan
CEAP	Construction Environmental Action Project
CGGC	China Gezhouba Group Co. Ltd.
DHC	Dasu Hydropower Consultants
DHP	Dasu Hydropower Project
DHP-I	Dasu Hydropower project Stage-1
DO	Dissolved oxygen
ECP	Environmental codes of practice
EOT	Extension of time
ESA	Environmental and social assessment
ISM	Implementation Support Mission
MW	Main works
NEQS	National Environmental quality standards
PC-02	Project Colony-Phase-2
pH	Power of hydrogen and Hydroxyl Ion
ROW	Right of Way
WAPDA	Water and power development authority
WTEIR	Walkthrough Environmental Inspection Report



## TABLE OF CONTENTS

<b>1</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Background .....	1
1.2	Environmental Compliance Requirements of DHP .....	1
1.3	Project Description .....	1
1.4	Procurement Status of Contracts.....	2
1.5	Status of Project Implementation.....	2
1.6	Environmental Staffing of PMU and DHC .....	8
1.7	Structure of this Report.....	8
<b>2</b>	<b>Main Works Contracts (MW-01 &amp; MW-02).....</b>	<b>9</b>
2.1	Overview of Contracts .....	9
2.2	Contractor Environmental Action Plan.....	9
2.3	Contractor’s Facilities and ESHS Staff .....	9
2.4	Construction Activities.....	10
2.5	Construction Supervision and Environmental Compliances .....	10
2.5.1	Site Inspections and WTEIRs.....	10
2.5.2	Notices and Letters .....	43
2.5.3	Quarterly Monitoring of Air, Noise, Water and Wastewater .....	43
2.5.4	Spot Monitoring of Wastewater Quality.....	43
2.6	Contractor’s Effect Monitoring .....	44
2.7	Key Performance Indicators .....	45
2.8	NCR Issued in this Quarter .....	48
2.9	Overall Compliance Status – Tri-Partite Monthly Meetings .....	48
<b>3</b>	<b>KKH-01 Contract .....</b>	<b>49</b>
3.1	Overview of Contracts .....	49
3.2	Contractor Environmental Action Plan.....	49
3.3	Contractor’s Facilities and ESHS Staff .....	49
3.4	Construction Activities.....	49
3.5	Construction Supervision and Environmental Compliances .....	50
3.5.1	Site Inspections and WTEIRs.....	50
3.5.2	Notices and Letters .....	74
3.5.3	Quarterly Monitoring of Air, Noise, Water and Wastewater .....	74
3.6	Contractor’s Effect Monitoring .....	74
3.7	Key Performance Indicators .....	75
3.8	NCR’s issued in this Quarter .....	78
3.9	Overall Compliance Status – Tri-Partite Monthly Meetings .....	78
<b>4</b>	<b>RAR-01 Contract .....</b>	<b>79</b>
4.1	Overview of Contracts .....	79
4.2	Contractor Environmental Action Plan.....	79
4.3	Contractor’s Facilities and ESHS Staff .....	79
4.4	Construction Activities.....	79
4.5	Construction Supervision and Environmental Compliances .....	79
4.5.1	Site Inspections and WTEIRs.....	79
4.5.2	Notices and Letters .....	85
4.5.3	Quarterly Monitoring of Air, Noise, Water and Wastewater .....	85
4.6	Contractor’s Effect Monitoring .....	85
4.7	Key Performance Indicators .....	86
4.8	Overall Compliance Status – Tri-Partite Monthly Meetings .....	89
<b>5</b>	<b>TL-01 Contract.....</b>	<b>90</b>

<b>5.1</b>	<b>Overview of Contracts .....</b>	<b>90</b>
<b>5.2</b>	<b>Contractor Environmental Action Plan .....</b>	<b>90</b>
<b>5.3</b>	<b>Contractor’s Facilities and ESHS Staff .....</b>	<b>90</b>
<b>5.4</b>	<b>Construction Activities .....</b>	<b>90</b>
<b>5.5</b>	<b>Construction Supervision and Environmental Compliances .....</b>	<b>90</b>
5.5.1	Site Inspections and Rectifications .....	90
5.5.2	Notices and Letters .....	91
5.5.3	NCR issued in this quarter .....	91
<b>5.6</b>	<b>Contractor’s Effect Monitoring .....</b>	<b>91</b>
<b>5.7</b>	<b>Key Performance Indicators .....</b>	<b>92</b>
<b>5.8</b>	<b>Overall Compliance Status – Tri-Partite Monthly Meetings .....</b>	<b>94</b>
<b>6</b>	<b>PCI-01R Contract.....</b>	<b>95</b>
<b>6.1</b>	<b>Overview of Contracts .....</b>	<b>95</b>
<b>6.2</b>	<b>Contractor Environmental Action Plan .....</b>	<b>95</b>
<b>6.3</b>	<b>Contractor’s Facilities and ESHS Staff .....</b>	<b>95</b>
<b>6.4</b>	<b>Construction Activities .....</b>	<b>95</b>
<b>6.5</b>	<b>Construction Supervision and Environmental Compliances .....</b>	<b>95</b>
6.5.1	NCR’s issued in this Quarter .....	95
6.5.2	Site Inspections and WTEIRs.....	96
6.5.3	Notices and Letters .....	106
6.5.4	Quarterly Monitoring of Air, Noise, Water and Wastewater .....	106
<b>6.6</b>	<b>Contractor’s Effect Monitoring .....</b>	<b>106</b>
<b>6.7</b>	<b>Key Performance Indicators .....</b>	<b>107</b>
<b>6.8</b>	<b>Overall Compliance Status – Tri-Partite Monthly Meetings .....</b>	<b>110</b>
<b>7</b>	<b>RAR-02 Contract .....</b>	<b>111</b>
<b>7.1</b>	<b>Overview of Contracts .....</b>	<b>111</b>
<b>7.2</b>	<b>Contractor Environmental Action Plan .....</b>	<b>111</b>
<b>7.3</b>	<b>Contractor’s Facilities and ESHS Staff .....</b>	<b>111</b>
<b>7.4</b>	<b>Construction Activities .....</b>	<b>111</b>
<b>7.5</b>	<b>Construction Supervision and Environmental Compliances .....</b>	<b>111</b>
7.5.1	NCR’s issued in this Quarter .....	111
7.5.2	Site Inspections and WTEIRs.....	111
7.5.3	Notices and Letters .....	132
7.5.4	Quarterly Monitoring of Air, Noise, Water and Wastewater .....	132
<b>7.6</b>	<b>Contractor’s Effect Monitoring .....</b>	<b>132</b>
<b>7.7</b>	<b>Key Performance Indicators .....</b>	<b>133</b>
<b>7.8</b>	<b>Overall Compliance Status – Tri-Partite Monthly Meetings .....</b>	<b>135</b>
<b>8</b>	<b>KKH-02 Contract .....</b>	<b>136</b>
<b>8.1</b>	<b>Overview of Contracts .....</b>	<b>136</b>
<b>8.2</b>	<b>Contractor Environmental Action Plan .....</b>	<b>136</b>
<b>8.3</b>	<b>Contractor’s Facilities and ESHS Staff .....</b>	<b>136</b>
<b>8.4</b>	<b>Construction Activities .....</b>	<b>136</b>
<b>8.5</b>	<b>Construction Supervision and Environmental Compliances .....</b>	<b>136</b>
8.5.1	Site Inspections and WTEIRs .....	136
8.5.2	Notices and Letters .....	132
8.5.3	Quarterly Monitoring of Air, Noise, Water and Wastewater .....	132
<b>8.6</b>	<b>Contractor’s Effect Monitoring .....</b>	<b>132</b>
<b>8.7</b>	<b>Key Performance Indicators .....</b>	<b>133</b>
<b>8.8</b>	<b>Overall Compliance Status – Tri-Partite Monthly Meetings .....</b>	<b>127</b>
<b>9</b>	<b>Electromechanical Works (EM-01) .....</b>	<b>128</b>

<b>9.1</b>	<b>Overview of Contracts</b> .....	<b>128</b>
<b>9.2</b>	<b>9 Contractor Environmental Action Plan</b> .....	<b>128</b>
<b>9.3</b>	<b>Contractor’s Facilities and ESHS Staff</b> .....	<b>128</b>
<b>9.4</b>	<b>Construction Activities</b> .....	<b>128</b>
<b>9.5</b>	<b>Construction Supervision and Environmental Compliances</b> .....	<b>128</b>
9.5.1	Site Inspections and WTEIRs .....	128
9.5.2	Notices and Letters .....	129
9.5.3	Quarterly Monitoring of Air, Noise, Water and Wastewater .....	129
<b>9.6</b>	<b>Contractor’s Effect Monitoring</b> .....	<b>129</b>
<b>9.7</b>	<b>Key Performance Indicators</b> .....	<b>130</b>
<b>9.8</b>	<b>Overall Compliance Status- Tri-Partite Monthly Meetings</b> .....	<b>133</b>
<b>10</b>	<b>Other Environmental Activities</b> .....	<b>134</b>
<b>10.1</b>	<b>Visit Conducted during the Quarter</b> .....	<b>134</b>
10.1.1	Visit to Kuzabanda Service Area for Traffic Management Planning .....	134
10.1.2	Recommendations for WAPDA .....	134
10.1.3	Station for Prime Mover at Pattan .....	134
<b>10.2</b>	<b>Solid Waste Disposal Area</b> .....	<b>135</b>
<b>10.3</b>	<b>Meetings Conducted During the Quarter</b> .....	<b>135</b>
10.3.1	Meeting with MSC Consultants .....	135
10.3.2	Meeting with CGGC .....	135
10.3.3	Meeting with WAPDA .....	135
10.3.4	Meeting with RAR-02 EHS Team.....	135
10.3.5	Meeting with CGGC EHS Director & proposed 3 <sup>rd</sup> Party Monitoring Lab named as Bureau Veritas Lab (on behalf of CGGC) .....	135
10.3.6	Monthly Environmental progress review meetings with all Contractors.....	136
<b>10.4</b>	<b>Meeting with World Bank (WB) Implementation Support Mission (ISM)</b> .....	<b>136</b>
10.4.1	WB Mission Details .....	136
10.4.2	NCR issued to the Contractors .....	136
<b>10.5</b>	<b>Letters/ Reports sent to contractors and WAPDA</b> .....	<b>136</b>
<b>10.6</b>	<b>10.7 Joint Inspection by EHS Teams of WAPDA and DHC</b> .....	<b>137</b>
<b>10.7</b>	<b>Trainings Conducted during the 4<sup>th</sup> Quarter of 2022</b> .....	<b>137</b>
10.7.1	Training sessions for Contractors .....	137
<b>10.8</b>	<b>Training session with CGGC</b> .....	<b>137</b>

## List of Tables

Table 1.1:	Stage I and Stage II activities in DHP.....	1
Table 1.2:	Procurement Status of Contracts .....	2
Table 1.3:	Overall Construction Progress .....	2
Table 1.4:	Environmental Staff of PMU and DHC .....	8
Table 1.5:	Structure of this Report .....	8
Table 2.1:	Overview of MW-01 and MW-02 Contracts.....	9
Table 2.2:	Contractor’s Facilities .....	9
Table 2.3:	Contractor’s ESHS Staff .....	9
Table 2.4:	Construction Activities in MW-01 Contract.....	10
Table 2.5:	Construction Activities in MW-02 Contract.....	10
Table 2.6:	Walk-Through Environmental Inspection Report 60.....	11
Table 2.7:	Walk-Through Environmental Inspection Report 61.....	13
Table 2.8:	Walk-Through Environmental Inspection Report 58.....	14
Table 2.9:	Walk-Through Environmental Inspection Report 62.....	16
Table 2.10:	Walk-Through Environmental Inspection Report 63.....	21
Table 2.11:	Walk-Through Environmental Inspection Report 64.....	25
Table 2.12:	Walk-Through Environmental Inspection Report 65.....	33
Table 2.13:	Walk-Through Environmental Inspection Report 66.....	36
Table 2.14:	Correspondence with the Contractor on Environmental Issues	<b>Error! Bookmark not defined.</b>
Table 2.15:	Location of the spot monitoring .....	43
Table 2.16:	Results of Spot Monitoring MW-01.....	43
Table 2.17:	Results of Spot Monitoring MW-02.....	44
Table 2.18:	Status of Contractor’s Effect Monitoring.....	44
Table 2.19:	Key Performance Indicators for compliance with mitigation measures .....	45
Table 2.20:	Key Performance Indicators and their Status during the reporting period.....	46
Table 3.1:	Overview of KKH-01 Contract .....	49
Table 3.2:	Contractor’s Facilities .....	49
Table 3.3:	Contractor’s ESHS Staff .....	49
Table 3.4:	Construction Activities in KKH-01 Contract.....	49
Table 3.5:	Walk-Through Environmental Inspection Report 34.....	51
Table 3.6:	Walk-Through Environmental Inspection Report 35.....	55
Table 3.7:	Walk-Through Environmental Inspection Report 36.....	59
Table 3.8:	Walk-Through Environmental Inspection Report 37.....	61
Table 3.9:	Status of Contractor’s Effect Monitoring.....	74
Table 3.10:	Key Performance Indicators for compliance with mitigation measures .....	75
Table 3.11:	Key Performance Indicators and their Status during the reporting period.....	76
Table 4.1:	Overview of RAR-01 Contract.....	79
Table 4.2:	Contractor’s Facilities .....	79
Table 4.3:	Contractor’s ESHS Staff .....	79
Table 4.4:	Construction Activities in RAR-01 Contract.....	79
Table 4.5:	Walk-Through Inspection Report 15.....	80
Table 4.6:	Walk-Through Inspection Report 16.....	82
Table 4.7:	Walk-Through Inspection Report 17.....	83
Table 4.8:	Status of Contractor’s Effect Monitoring.....	85
Table 4.9:	Key Performance Indicators for compliance with mitigation measures .....	86
Table 4.10:	Key Performance Indicators and their Status during the reporting period.....	87
Table 5.1:	Overview of TL-01 Contract .....	90
Table 5.2:	Contractor’s Facilities .....	90
Table 5.3:	Contractor’s ESHS Staff .....	90
Table 5.4:	Construction Activities in TL-01 Contract.....	90
Table 5.5:	Status of Contractor’s Effect Monitoring.....	91
Table 5.6:	Key Performance Indicators for compliance with mitigation measures .....	92
Table 5.7:	Key Performance Indicators and their Status during the reporting period.....	93
Table 6.1:	Overview of PCI-01R Contract .....	95
Table 6.2:	Contractor’s Facilities .....	95
Table 6.3:	Contractor’s ESHS Staff .....	95
Table 6.4:	Construction Activities in PCI-01R Contract.....	95
Table 6.5:	Walk-Through Inspection Report-No.37.....	97
Table 6.6:	Status of Contractor’s Effect Monitoring.....	106

Table 6.7:	Key Performance Indicators for compliance with mitigation measures .....	107
Table 6.8:	Key Performance Indicators and their Status during the reporting period.....	108
Table 7.1:	Overview of RAR-02 Contract .....	111
Table 7.2:	Contractor's Facilities .....	111
Table 7.3:	Contractor's ESHS Staff .....	111
Table 7.4:	Construction Activities in RAR-02 Contract.....	111
Table 7.5:	Walk-Through Inspection Report No. 8.....	113
Table 7.6:	Walk-Through Inspection Report No.9 .....	115
Table 7.7:	Walk-Through Inspection Report No.10 .....	117
Table 7.8:	Walk-Through Inspection Report No.12 .....	119
Table 7.9:	Walk-Through Inspection Report No.13 .....	122
Table 7.10:	Walk-Through Inspection Report No. 15 .....	128
Table 7.11:	Status of Contractor's Effect Monitoring .....	132
Table 7.12:	Key Performance Indicators for compliance with mitigation measures .....	133
Table 7.13:	Key Performance Indicators and their Status during the reporting period.....	134
Table 8.1:	Overview of KKH-02 Contract .....	136
Table 8.2:	Contractor's Facilities .....	136
Table 8.3:	Contractor's ESHS Staff .....	136
Table 8.4:	Construction Activities in KKH-02 Contract .....	136
Table 8.5:	Walk-Through Inspection Report No. 6 .....	120
Table 8.6:	Walk-Through Inspection Report No. 7 .....	122
Table 8.7:	Walk-Through Inspection Report No. 8 .....	125
Table 8.8:	Walk-Through Inspection Report No. 9 .....	127
Table 8.9:	Walk-Through Inspection Report No. 10 .....	130
Table 8.10:	Status of Contractor's Effect Monitoring .....	132
Table 8.11:	Key Performance Indicators and their Status during the reporting period.....	134
Table 9.1:	Overview of EM-01 Contract .....	128
Table 9.2:	Contractor's Facilities .....	128
Table 9.3:	Contractor's ESHS Staff .....	128
Table 9.4:	Construction Activities in EM-01 Contract .....	128
Table 9.5:	Status of Contractor's Effect Monitoring .....	129
Table 9.6:	Key Performance Indicators for compliance with mitigation measures .....	130
Table 9.7:	Key Performance Indicators and their Status during the reporting period.....	131

### **List of Annexures**

- Annexure A: Minutes of Monthly Environmental Progress Meetings
- Annexure B: Spot Monitoring Results for Month of Oct to Dec 2022
- Annexure C: PHOTO LOG





## 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 Oct to December 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 Occupational health and safety (OHS) and Social performance of the Project are covered under separate reports.

### i. 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 are given in the following table.

**Table ES1: 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)	<p><b>Preparatory Works</b></p> <p><b>(1) Contractor's Camp</b></p> <p>The construction of Kass Main Camp is in progress. The status of construction is as follows.</p> <ul style="list-style-type: none"> <li>- Ground leveling for the Contractor's main camp-65%</li> <li>- Building foundation of the prefabricated house- 73%</li> <li>- Prefabricated house hoisting- 85%</li> <li>- Chinese Canteen- 70%</li> <li>- Stone Masonry for Retaining Wall-53%</li> <li>- Installation of precast fence- 70%</li> </ul> <p><b>(2) 1#Batching Plant and 1# Crushing Plant at Uchar Area</b></p> <ul style="list-style-type: none"> <li>- Stone Masonry for retaining wall- 86%</li> <li>- Aggregate Storage- 60%</li> <li>- Power Plant Ground Levelling-90%</li> <li>- Power Plant Foundation- 90%</li> <li>- Fencing Wall- 0%</li> </ul> <p><b>Diversion Tunnel A</b></p> <ul style="list-style-type: none"> <li>- Overall Excavation volume progress for DT.A at the end of December is 747,842m<sup>3</sup>/760,000m<sup>3</sup> (87.41%).</li> </ul> <p><b>Diversion Tunnel B</b></p> <ul style="list-style-type: none"> <li>- Overall Excavation progress for DT.B at the end of December is <b>663,528m<sup>3</sup> / 670,000m<sup>3</sup> (88%)</b>.</li> <li>- Excavation work for debris removal outside of DT-A &amp; DT-B (outlet) river side remained continued during the month of December, 2022.</li> </ul> <p>Concrete Work of Diversion and Adit Tunnels</p> <p><b>Diversion Tunnel A</b></p> <p>1) Inlet Structure Works (Outside)</p> <ul style="list-style-type: none"> <li>- 10,530m<sup>3</sup> / 21,515m<sup>3</sup> (54%) completed till end of December, 2022.</li> </ul> <p>2) Inlet Lining Works (Inside)</p> <ul style="list-style-type: none"> <li>- Concrete Works: 7,543m<sup>3</sup> / 9,773m<sup>3</sup> (68%) completed till end of December 2022.</li> </ul> <p>3) Invert Levelling Concrete (C20)</p> <ul style="list-style-type: none"> <li>- L/S- 1,173m / 1,524m (77%)</li> <li>- R/S- 1,203m/1,524m (78%)</li> </ul> <p>4) Invert Structural Concrete (A25)</p> <ul style="list-style-type: none"> <li>- L/S- 612m / 1,434m (43%)</li> <li>- R/S- 812m/1,434m (64%)</li> </ul> <p>Diversion Tunnel No. B</p> <p>1) Inlet Structure Works (Outside)</p> <ul style="list-style-type: none"> <li>- 17,841m<sup>3</sup>/ 21,600m<sup>3</sup> (73%) completed till end of December, 2022.</li> </ul> <p><b>Diversion Tunnel No. B (Continued...)</b></p> <p>2) Inlet Lining Works (Inside)</p> <ul style="list-style-type: none"> <li>- 9,054m<sup>3</sup> / 9,054m<sup>3</sup> (90%) completed on 21st December, 2022.</li> </ul> <p>3) Shear Zone Area</p> <ul style="list-style-type: none"> <li>- Concrete Works: 8,004m<sup>3</sup> / 8,004m<sup>3</sup> (90%) completed on 16th December, 2022.</li> </ul> <p>4) Invert Levelling Concrete (C20)</p> <ul style="list-style-type: none"> <li>- L/S- 1,173m / 1,327m (77%)</li> <li>- R/S- 1,213m/1,327m (81%)</li> </ul> <p>5) Invert Structural Concrete (A25)</p> <ul style="list-style-type: none"> <li>- L/S- 883m / 1,171.52m (78%)</li> <li>- R/S- 857.50m/1,171.52m (71%)</li> </ul>

**Dasu Hydropower Project**  
**Environmental Quarterly Progress Report No. 32 (Oct to Dec 2022)**

S. No.	Contract Name	Contractor	Major Activities During This Quarter
			<p><b>6) Adit Plug Concrete</b>  - Concrete Works: 374m<sup>3</sup>/ 1647m<sup>3</sup> (21%) completed till end of December, 2022.</p> <p><b>Inlet dyke</b>  - Some Part of Inlet Dyke in front of Diversion Tunnel - No. A was removed for making platform for the Construction of Inlet Structure Slab.</p> <p><b>Diversion Channel on the Right Bank</b>  - Backfilling inside the Indus river in front of DT.B for diversion of Indus river from Diversion Channel to excavate outlet part of DT.B completed during the month of November, 2022.</p> <p>&gt; <b>Temporary facilities (Diversion tunnel Inlet side)</b>  - Gabion protection for CR2 Road river side 90%</p> <p>&gt; <b>Temporary facilities (Diversion tunnel outlet side)</b>  - Air supply station 90%  - Power station 90%  - Stone masonry for surface ditch on the EL. 775 Platform 90%</p> <p><b>Left Bank Traffic Diversion Tunnel</b>  - Upstream Surface Excavation – 90%  - Underground Excavation Work (from U/S &amp; D/S) - 753m / 1,365m (62.48%)  - Excavation of the Slope for Outlet- 90%  - Support of the slope for outlet- 90% completed on December 14, 2022  - Canopy tube drilling and installation- 90%  - Underground excavation and support from outlet- 1+365 ~ 1+362 (3m)  - (First Underground blast from D/S was carried out on December 15, 2022)</p> <p><b>Right Bank Abutment (Siglo Area)</b>  - U/S Temporary Access Road Construction- 70%  - D/S Temporary Access Road Construction- 90%  - Excavation and support of Right Bank Cable crane Platform above El. 965m- 90%  - Excavation and support of Right Bank Cable crane Platform slope El. 965m to El. 950m- 50% (Now El. 958m)</p> <p><b>(2) Left Bank Abutment</b>  - Excavation of the second layer of CR5-2 Road- 27%  - Additional Berm excavation and support- 45%  - CR5 Pool Construction-90%</p> <p><b>Upstream Starter Dam</b>  - Right &amp; Left bank fill road to U/S coffer dam- 90%  - Backfilling of upstream starter dam-40%</p> <p><b>Cutt Off Wall</b>  - Concrete pouring for the Guide wall of the Cut-off wall started on Dec 3rd, 2022- 53m/122m (43%) (from Ch. 0+122 ~0+068m)</p>
2	MW-02: Under Ground Power Complex, Tunnels and Hydraulic Steel Structure	CGGC	<p><b>Construction Activities</b></p> <ul style="list-style-type: none"> <li>• Installation of Rebar Mesh = Additional Support within Powerhouse Cavern</li> <li>• Excavation for 2nd Bench (Central portion Including Both and Left side walls Enlargements) of Powerhouse Cavern was Completed on 27th November 2022.</li> <li>• Excavation for 2nd Bench (Central portion Including Both and Left side walls Enlargements) of Transformer Cavern was Completed on 21st November 2022.</li> <li>• Installation of Rebar Mesh = Additional Support within Transformer Cavern.</li> <li>• Installation of (Prestressed)PS Tendon within Powerhouse Cavern was in progress</li> <li>• Trial Test for PS Tendon was Completed in Transformer Cavern with different bond length.</li> <li>• Installation of PS Tendon within Transformer Cavern in progress.</li> <li>• 5th Bench slope Excavation and Support work of both left and Right Side at EL.858m to 847m was in progress (Switchyard).</li> <li>• Intake Protection Fence was in progress (Ditch Excavation) Surface Excavation at EL.900m to EL880m.</li> <li>• Support work of LU1 (wire mesh, shotcrete rock dowel) from Ch.0+070~0+240 was in progress.</li> <li>• Excavation and Support work of Lower Pressure Tunnel No.1 (Pilot &amp; Crown Enlargement).</li> <li>• Lower Pressure Tunnel#2 Invert Cleaning was in progress.</li> <li>• Excavation and Support work of Adit Tunnel CT2 for Tailrace Outlet was in progress.</li> <li>• Excavation and support work in progress at Service Tunnel B.</li> <li>• Vertical Exhaust shaft Pilot excavation was Completed on 23rd November 2022.</li> <li>• SCVAT 1 and SCVAT 2 Gallery Excavation and Support was in progress. (December 2022)</li> </ul> <p><b>Main Access Platform</b>  Gravity Wall Type A: (848 m<sup>3</sup> in total, 84% design volume).  • Gravity Wall Type C: (356 m<sup>3</sup> in total)  • Leaning Retaining Wall Type III: (781 m<sup>3</sup> in total, 78% of design volume).  • Cross Drain Culvert: (62 m<sup>3</sup> in total), works was suspended</p> <p><b>Surge Chamber Vault Access Tunnel</b></p>

**Dasu Hydropower Project**  
**Environmental Quarterly Progress Report No. 32 (Oct to Dec 2022)**

S. No.	Contract Name	Contractor	Major Activities During This Quarter
			<ul style="list-style-type: none"> <li>• Work progress of Surge Chamber Vault Access Tunnel in Oct 2022: 0.00 m (517.00 m in total, 87.7 % of total length of 530.0 m)</li> <li>• Excavation and Support of SCVAT #1 Gallery was in progress (current chainage 0+67 m (25 Dec. 2022))</li> <li>• Support of SCVAT #2 Gallery was in Progress (Current chainage 0+026 m (25 Dec. 22))</li> </ul> <p><b>GIS Room Access Tunnel</b></p> <ul style="list-style-type: none"> <li>• Work progress of the GIS Room Access Tunnel in November 2022: 00.0m (103m in total 87.8% of the total length of 104.17 m)</li> <li>• STB Tunnel Excavation was in Progress F.ch 0+121 approx. (25 December 2022)</li> </ul> <p><b>Exhaust Tunnel</b></p> <ul style="list-style-type: none"> <li>• Completed except for Vertical Shaft (217.26 m in total 90% of the total length of 217.26 m).</li> <li>• Trail Excavation for vertical Shaft was completed from the drain Tunnel.(23rd November 2022)</li> </ul> <p><b>Underground Powerhouse</b></p> <p><b>Crown Portion</b></p> <ul style="list-style-type: none"> <li>• Total Excavation Volume of November 2022 is 64165.00 m<sup>3</sup> of Total Powerhouse</li> <li>• Cavern Excavation Volume of 377,570.46 m<sup>3</sup> which is the progress of 16.84% in total.</li> <li>• Support Work is in progress for the overall Crown Pilot Portion.</li> <li>• PS Tendon Installation was in progress (Dec.2022)</li> <li>• Excavation for 2nd Bench (Central portion II-1 and Both Left /Right Side walls Opening) of Powerhouse Cavern was Completed on 27th of November 2022.</li> </ul>
			<p><b>Connection Tunnel to Powerhouse Cavern (From Service Tunnel A).</b></p> <ul style="list-style-type: none"> <li>• Tunnel was commenced on 25 April 2020.</li> <li>• Work progress of the Connection Tunnel in October 2022: 0 m (76.50 m in total, 88.18 % of total length of 77.12 m)</li> </ul> <p><b>Penstock Adit Tunnel No.01</b></p> <ul style="list-style-type: none"> <li>• Lower pressure tunnel # 1 Crown enlargement was in progress Current Chainage 0+47m (December.2022) Penstock Adit Tunnel No.02</li> <li>• Work progress of the Penstock Adit Tunnel No.02 in April 2022: 0.00 m (248.24 m in total, 90 % of total length of 248.24m).</li> <li>• Lower pressure tunnel # 2 Invert Cleaning was in progress (December.2022).</li> </ul> <p><b>Switchyard</b></p> <ul style="list-style-type: none"> <li>• The topographic Survey for the Initial Excavation is in progress.</li> <li>• A joint inspection was conducted to specify the Boundary of Switchyard Area and Relocated KKH Tunnel A. (Joint Inspection Attended WAPDA, CGGC, CCECC, and DHC Engineer).</li> <li>• Contractor (CGGC) and Engineer have conducted joint topographic survey.</li> <li>• Reinforcement and formwork of the water tank are in progress.</li> <li>• Removing of Dumping material by Daywork is in progress.</li> <li>• A meeting was held regarding Boundary line of Switchyard and KKH Batching Plant.</li> <li>• Switchyard 5th Bench slope Excavation and Support work of both left and Right Side at EL.870m to 857m was in progress (November 2022)</li> <li>• 5th Bench slope Excavation and Support work of both left and Right Side at EL.858m to 847m was in progress (December 2022)</li> </ul>
3	EM-01	GE Hydro China Co. Ltd. and Power China Engineering Ltd (GE-PC)	<p><b>Civil Works</b></p> <p><b>(1) Excavation:</b></p> <ul style="list-style-type: none"> <li>• No Excavation was done up to 25th of December 2022 for Terraces.</li> </ul> <p><b>(2) Boundary Wall:</b></p> <ul style="list-style-type: none"> <li>• Excavation completed: CP5 TO CP6 (Side boundary wall)</li> <li>• Lean concrete completed: CP5 TO CP6 (Side boundary wall)</li> <li>• Stone foundation for wall: CP5 TO CP6 was completed (Dec.2022)</li> <li>• Block masonry in progress: CP5 TO CP6 was in progress (Dec.2022)</li> </ul> <p><b>(3) Retaining Walls: (Dec.2022)</b></p> <ul style="list-style-type: none"> <li>• Terrace # 02 Retaining wall was in progress.</li> <li>• Terrace # 04 Retaining wall was in progress.</li> <li>• Terrace # 07 Retaining wall was in progress.</li> <li>• Terrace # 07 Retaining wall was in progress.</li> <li>• Terrace # 9 Retaining was in Progress.</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>• Slope protection works at Zero-point third bench continued and excavation activity at Third bench resumed and continued during the month.</li> <li>• Excavation and primary support works of K-4 Tunnel outlet RD=K4+524 continued during the month and 82m length completed.</li> </ul>

**Dasu Hydropower Project**  
**Environmental Quarterly Progress Report No. 32 (Oct to Dec 2022)**

S. No.	Contract Name	Contractor	Major Activities During This Quarter
			<ul style="list-style-type: none"> <li>• Excavation and primary support works of Logro-A tunnel RD=K8+277 continued during the month and 95m length completed.</li> <li>• Improvement works and excavation of Khoshe Bypass Road started and continued during the month.</li> <li>• Removal of flood material and recovery of buried Equipment's &amp; machinery from Camp/workshop/plant areas in progress.</li> <li>• Installation of serial arches at outlet let area of Logro-B during the month started and continued.</li> <li>• Slope protection works of Dugah Tunnel out let area started and continued during the month.</li> <li>• Batching plant erection and installation at K6+400 continued during the month.</li> <li>• Excavation works of Logro-A tunnel RD=K8+206 continued during the month 54m completed.</li> <li>• Excavation works and primary support works of K-4 Tunnel outlet RD=K4+580 continued during the month 37m completed.</li> <li>• Camp construction at K5+90 completed during the month.</li> <li>• Slope protection works at Zero-point third bench continued during the month.</li> <li>• Removal of flood material and recovery of buried equipment's &amp; machinery from Camp/workshop/plant areas in progress. Rehabilitation/modification of access roads for Logro-B tunnel and Uchar Bridge in Uchar Nullah during the reporting period from Oct-Dec 2022 continued.</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 work, drilling and blasting work, boulder blasting etc. at middle and end portion of Komila bypass in progress.</li> <li>• Excavation for road around K1+200, drilling and blasting around K1+500 and end section i.e. around K2+250 Komila Bypass in progress.</li> <li>• Excavation for sub grade and preparation i.e. levelling etc. around K1+500 to K1+800 in progress.</li> <li>• Drilling, blasting and excavation work for local access around K2+90 in progress.</li> <li>• Embankment filling in Nullah for causeway around K1+350 in progress.</li> <li>• Toe wall protection in nullah at K1+350 for rip rap in progress &amp; completed.</li> <li>• Stone masonry retaining walls around K0+160, K0+200 and K1+700 in progress.</li> <li>• Stone masonry retaining wall around K1+90 in progress and completed.</li> <li>• Stone masonry retaining wall around K1+462 to K1+470 in progress and completed.</li> <li>• Backfilling behind completed retaining walls at different location in progress.</li> <li>• Stone masonry breast wall around K0+450 in progress.</li> <li>• Stone masonry retaining wall around K1+854 to K1+877 in progress.</li> <li>Excavation work, drilling and blasting work, boulder blasting etc at middle and end portion of Komila bypass in progress.</li> <li>• Excavation for road &amp; drilling for blasting around K1+500 to 1+650 and end section Komila Bypass in progress.</li> <li>• Drilling, blasting and excavation work for local access around K2+90 in progress.</li> <li>• Embankment filling in Nullah for causeway around K1+350 in progress.</li> <li>• Excavation &amp; levelling for R/wall foundation around K0+700 in progress and completed.</li> <li>• Stone masonry R/wall around K0+700 and K1+700 in progress.</li> <li>• Stone masonry R/wall around K0+200 in progress.</li> <li>• Excavation for Retaining wall foundation around K1+857 in progress and completed.</li> <li>• RCC breast wall left # 4 concrete in progress and completed.</li> <li>• RCC B/wall concrete left # 2 at Komila bypass in progress &amp; completed.</li> <li>• Stone masonry B/wall work in progress at Komila bypass start section K0+000.</li> <li>• Stone masonry B/wall work in progress around 0+050 and K0+140 at Komila bypass.</li> <li>• Stone masonry, dormitory work for new labor camp at K5+400 (RAR-01-zaal area) in progress.</li> </ul>
3	KKH-02: Relocation of Karakoram Highway from RD 25+200 to 62+213	CGGC	<p>The major construction activities undertaken during this Quarter were:</p> <ul style="list-style-type: none"> <li>• The Contractor has mobilized manpower and Equipment to the Kaigah Contractor's camp.</li> <li>• The Contractor has started excavation of Main KKH-02 alignment at all access roads.</li> <li>• The DID team from WAPDA has started the drilling work at tunnel portals.</li> <li>• Drilling work for shori-1 tunnels inlet is completed.</li> </ul>
4	RAR-02: Construction of Right Bank Access Road from Dam Site to Uttar Gah	CGGC	<p>The major construction activities undertaken during this Quarter were:</p> <ul style="list-style-type: none"> <li>• Excavation and blasting works are on-going from K13+200 to K13+700. Backfill with gabion work is on-going at K13+250.</li> <li>• Excavation work is on-going from k32+600 to k33+00.</li> </ul>

**Dasu Hydropower Project**  
**Environmental Quarterly Progress Report No. 32 (Oct to Dec 2022)**

S. No.	Contract Name	Contractor	Major Activities During This Quarter
			<ul style="list-style-type: none"> <li>The Contractor has completed new access road at K32+700 and now started the work at RAR02 alignment (K32+700).</li> <li>Excavation and blasting works are on-going from K13+200 to K13+700. Backfill with gabion work is on-going at K13+250.</li> <li>Excavation work is on-going from k32+600 to k33+00.</li> </ul>
5	RAR-03: Construction of Right Bank Access Road from Uttargah to Shatial		Procurement is in progress
<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 Khawar to proposed Grid Station Dasu)	Power China Corporation Company (PCCC)	<p>Preparatory works for electrification of Control house building at Grid Station completed.</p> <ul style="list-style-type: none"> <li>Excavation/cutting of access road to Grid Station is in progress.</li> <li>Breast wall at Alignment-1 of access road is in progress.</li> <li>Foundation work for Gantries at Grid Station is in progress.</li> <li>Fencing work of switchyard is in progress.</li> <li>Block masonry work and Plaster work at Grid Station completed.</li> <li>Preparatory works for electrification of Control house building at Grid Station is in progress.</li> <li>Excavation/cutting of access road to Grid Station is in progress.</li> <li>Foundation work for switchgear equipment on upper and lower terraces of Grid Station completed.</li> <li>Foundation work for Gantries at Grid Station is in progress.</li> </ul>
2	TL-02: 10kV Distribution Line to Resettlement Villages		Procurement is in progress
<b>III</b>	<b>Colony Works</b>		
1	PCI-01R: Project Colony & Infrastructure	China Gansu International Corporation for Economic and Technical Cooperation (CGICOP)	<p>The major construction activities undertaken during this quarter were:</p> <ul style="list-style-type: none"> <li>Door polishing in progress at project office building.</li> <li>Additional doors and ventilations at project office building in progress.</li> <li>Cleaning and clearing of project office in progress.</li> <li>Roof treatment at residence cat -2B, 2C and 2D units in progress.</li> <li>Marble tile fixing for floor at cat -2D is in progress.</li> <li>Boundary wall construction at residence cat -2, cat -2A &amp; 2B in progress.</li> <li>Kuphrail tile fixing on roof of residence CAT -2B and CAT - 2C in progress.</li> <li>Manhole cover concreting at residence cat -2C in progress.</li> <li>Sand filling in kitchens and bathrooms at residence cat-2B in progress.</li> <li>Ppr and plumbing work in bath rooms at residence cat-2B, 2C and 2D in progress.</li> <li>Tile fixing in bath rooms at residence cat -2B &amp; 2C in progress.</li> <li>Repair work is in progress at residence cat -1.</li> <li>Doors Polishing at residence cat-1 in progress.</li> <li>Cleaning works at residence cat -1 in progress.</li> <li>Block masonry at cat 3 and cat 4 is in progress.</li> <li>Plastering at residence cat -3 and residence cat-4 in progress.</li> <li>Form work and reinforcement fixing for the remaining units of cat -3D progress.</li> <li>Electrical conduiting at residence cat -3 and residence cat -4 in progress.</li> <li>Plastering at hostel cat -2A &amp; hostel cat -2B.</li> <li>External water supply from Indus River: excavation for the retaining wall in progress.</li> <li>Excavation of trench for water supply in progress.</li> <li>Laying of water supply pipes in colony in progress.</li> <li>Conduction of pressure tests of water supply pipes in progress.</li> <li>Sluice vales construction in progress.</li> <li>Septic tank type D construction in progress.</li> <li>Block masonry of internal septic tanks at residence cat 2 c and 2D in progress.</li> <li>Lean concreting for drain along P1 road in progress.</li> <li>Construction of Manhole cap covers along P1 road in progress.</li> <li>External boundary wall: block masonry and plastering in progress.</li> <li>P1 road pavement work in progress.</li> </ul>
2	PCI-02: Project Colony and Infrastructure		Procurement is in Progress
<b>IV</b>	<b>Resettlement Villages Contracts</b>		
1	RV: Resettlement of Village Chuchang & Construction of Shatial Museum	Khyber Grace (Pvt.) Limited (KGL)	Retaining wall work at Kuz Chuchang Site still in progress Work has been stopped by locals at Shatial rock carving site since 20-10-2020.
2	Resettlement of Villages Right Bank of Indus River RBRV-10	China Railway 17th Bureau Group Co. Ltd. (CR17B)	No activity
3	Resettlement of Villages Left Bank of Indus River LBRV-13- Right Bank of Indus River RBRV-12		The works are yet to be designed (subject to agreement with the affected communities)
4	Resettlement of Villages RV-01 & RV-02		The works are yet to be finalized
<b>V</b>	<b>Other Works</b>		



S. No.	Contract Name	Contractor	Major Activities During This Quarter
1	VTC-01: Vocational Training Centre for Men and Women		Procurement is in progress

## ii. 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 weekly 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.

## iii. 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.

**Table ES-2: Major Non-compliances & Number of WTEIRs Issued During This Quarter**

Contract	No. of WTEIRs			Number of Letters			Main Non-Compliances
	Oct	Nov	Dec	Oct	Nov	Dec	
MW-01& MW-02	3	4	1	4	7	5	Minor oil spills, Dust, high pH of waste water, lack of Environmental officer, Improper maintenance of Sedimentation Ponds, Air Dispersion Modeling and non- submission of Seo Crush Plant installation NOC's
KKH-01	3	2	1	1	2	8	Minor oil spill, inadequate Waste Management, Inappropriate Utilities in Camp for Labor and Staff, Housekeeping, Fuel Storage without containment, improper Sedimentation Tank k9.
RAR-01	0	2	1	0	1	3	Dust and minor oil spill.
PCI-01R	2	1	0	0	0	2	Dust, Waste Littering, use of fuel Wood for cooking in labor camps, Minor oil spill, Sewage
KKH-02	1	2	2	1	2	5	Dust Issue, Minor oil spill, Non-hiring Environmental Officer, Spoil Disposal Management Issue
RAR-02	3	3	2	0	3	11	Dust Issue, Non-hiring of Environmental Officer, Spoil Disposal Management Issue, Rolling of Debris down the slope
TL-01	0	0	0	0	0	0	Improper Waste Management, inadequate Housekeeping, Minor Oil Spill, inadequate drinking water facility at site
EM-01	0	0	0	0	1	2	Contract is in Design Stage. EM-01 Camp Construction is in progress i.e., excavation and back filling of terraces.

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

**Table ES-3: 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		
	Oct	Nov*	Dec	Oct	Nov*	Dec	Oct	Nov*	Dec	Oct	Nov*	Dec
MW-01&-02	7	5	14	3	1	1	4	3	12	1	1	1
KKH-01	7	9	16	3	3	4	3	7	9	2	0	2
RAR-01	6	1	4	6	0	3	0	1	0	0	0	1
TL-01	0	0	5	0	0	1	0	0	3	0	0	1
PCI-01R	6	8	13	1	0	4	2	7	7	3	2	2
LBRV-10&12	0	0	0	0	0	0	0	0	0	0	0	0
KKH-02	8	8	9	0	3	0	8	1	7	0	5	2
RAR-02	7	7	9	1	1	2	6	6	7	1	1	0

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

**Table ES-4: Spot monitoring of Surface Water**

Contractor	Upstream and downstream of the construction area from River Indus												Remarks
	Turbidity			pH			Conductivity			DO			
	Oct	Nov*	Dec	Oct	Nov*	Dec	Oct	Nov*	Dec	Oct	Nov*	Dec	
MW-01	90	23.8	21.5	7.7	7.6	7.5	29	280	226	8.1	5.4	8.1	
MW-02	97.5	74.4	26.7	7.1	8.7	7.6	247	235	202	6.8	8.4	7.0	

Locations at MW-01 is: Upstream of Uchar crush plant in River Indus,  
Locations at MW-02 is: Downstream near Khoshe Batching plant,

**Table ES-5: Spot Monitoring of Wastewater and Compliance with NEQS**

	S. No.	Oct	Nov*	Dec	Oct	Nov*	Dec	Oct	Nov*	Dec	Oct	Nov*	Dec	Remarks
		Turbidity			pH			Conductivity			DO			
MW-01	1	77.4	97.3	96	9.7	10.1	8.2	52.2	44.7	95.3	4.7	9.6	7.2	The Contractor was instructed to increase the freshwater addition to lower the pH value and Turbidity.
	2	122.1	171.7	65.8	10.7	10.4	12.1	1030	733	1770	6.3	6.4	5.5	
	3	703	67.1	-	7.8	9.7	-	933	278	-	7.5	7.6	-	
MW-02	1	102.4	-	57.1	10.2	-	10.1	802	-	377	4.22	-	8.5	Also the contractor was advised to consider weak acid addition to lower the pH value.
	2	900	570	-	8.7	10.7	-	177.7	1358	-	6.3	7.2	-	
Standard		200 NTU			6-8			µs/cm			ppm			

Note: Samples were not taken from MAT Pond, CT-02 Pond(MW-02) and Uchar Crushing Plant( MW-01)

Locations at MW-01 are: 1. Sedimentation pond of Uchar crush plant, 2. Sedimentation pond at Uchar 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 Khoshe Batching Plant

#### v. Other Activities conducted

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.

**Table ES-6: Summary of Other Activities conducted and Outstanding Issues**

Sr. No.	Activity/ Outstanding Issue	Progress in this Quarter
1	Solid Waste Disposal Site	The Screening report for Newly identified site at Kaigah (Near 24+600RD of KKH-01) with basic design drawings/layout plans were submitted to WAPDA on 4th of August 2022. PMU WAPDA has forwarded the case for Land Acquisition. The Land Acquisition Team has forwarded the letter to the District Revenue Department for the due process of Acquisition. As per 31 <sup>st</sup> Dec 2022 the Revenue Team Visited the prospective site
2	WB ISM Dated: 10-13 Oct 2022	Environment team prepared and delivered presentations on two components i.e., "EMAP implementation" as well as for "Traffic Management Plan" for World Bank Implementation Support Mission. Meetings and site visits were conducted from 10 <sup>th</sup> till 13 <sup>th</sup> of the October 2022. World Bank, DHC, WAPDA environment teams inspected underground works of MW-01 and MW-02 with WB Teams and inspected the 12th of Oct 2022.
3	WB ISM Dated: 21- 23 Dec 2022	Environment team prepared and delivered presentations on two components i.e., "EMAP implementation" as well as for "Traffic Management Plan" for World Bank Implementation Support Mission. World Bank Team, The Engineer and WAPDA environment teams inspected underground works of MW-01, Coffor Dam, MW-02, and K-08 Area inspected the 22 <sup>nd</sup> of Dec 2022.
4	Joint training session for contractor staff	DHC Environment section in collaboration with M&E consultants arranged a training session for the Contractor environment staff regarding monitoring and reporting on 17th November 2022 at WAPDA PMU hall. WAPDA Deputy Director Environment along with his staff also attended the training session.
5	Training Sessions for Environmental Managers of Contractors	DHC Environment section arranged a training session on 18th November 2022 for the environmental technicians of CGGC engaged for water testing. Presentation was delivered by DHC Chief Environmentalist on water sampling and monitoring techniques. WAPDA environment staff also participated in the training session. There was another training session on 18 <sup>th</sup> of November 2022 by Mr. Awais Hassan Khan regarding Oil Spills at construction site and Oil Spill Management. Lastly there was a training session on 18 <sup>th</sup> Nov, 2022 by Mr. Sardar Alam regarding Protection of Flora and Fauna.
6	Visit to Kuza	The Environment Team of DHC Visited the stop over area on the CPEC route of Hazara



**Dasu Hydropower Project  
Environmental Quarterly Progress Report No. 32 (Oct to Dec 2022)**

	Banda for finalization of the Traffic Management Plan	Motorway and met different officers and probed into hiring of that rest area for DHPP Traffic Management Purpose. The Visit was conducted on 24 Dec 2022 and headed by Mr. Zafar Iqbal Chaudry and Accompanied by Mr. Sardar Alam from Environment Section. The ET met Kuza Banda Toll Plaza manager by the name Mr. Nasir Khan at his office cum residence at NHA office. He disclosed that the current traffic flow is exceptionally low, and the current operation at Toll Plaza is financially uneconomic. He was a thorough gentleman and the ET thanked him for the courtesy shown. The current operation of CPEC road and the Hazara motorway by NHA implies the observance of strict SOPs on axle load. Any failure to meet the load restriction results in a fine on each section of the CPEC and Hazara Motorway used. This has resulted in shifting of most of truck traffic on old KKH.
7	Meeting with Land Acquisition Collector and District Kanungo for Solid Waste Disposal site Matter	The Screening report for Newly identified site at Kaigah (Near 24+600RD of KKH-01) with basic design drawings/layout plans were submitted to WAPDA on 4th of August 2022. PMU WAPDA approved the case for Land Acquisition and SWD Site Plans with Location Maps were Forwarded to Revenue Department by DHC Land Acquisition Department on <b>22nd of Dec 2022</b> . In this background the meeting was conducted in which DHC Environment Team gave a presentation to the district revenue department regarding the purpose of the SWD Site as well as its location and discussed the matters like how to get the land without local communities' disturbance.
8	Meeting with MSC Consultant and Reporting	A meeting was called upon by Project Manager MSC on 15th October 2022 in their office to discuss the reporting and monitoring mechanism. A presentation was delivered by Dr. Venkata on the DHPP and updated MSC from the start date and onwards. It was informed to MSC that EMAP documents are superseded by ESA which was prepared by Independent Environmental consultants Dr. Koopsman and Mr. Omar Khalid and approved by World Bank. A presentation was delivered by Dr. Anura Widana regarding the scope of their work. The MSC stressed that the contractor reports should be critically reviewed. The rectification work of contractor should be verified and each contract should be covered with approved CEAP. DHC informed that all contracts are covered by CEAP whereas the CEAP documents for KKH-02 and EM-01 are under review and revision by the contractor. Another meeting was called upon by Project Manager MSC on 14th November 2022 in their office regarding Formats of the monthly reports by the DHC and contractors.
9	Tree Removal	Total trees cut down due to construction of DHPP components or associated activities are 4182 up till Dec 2022.
10	Physical Cultural Resources	There were no Physical Cultural Resources found on any construction site of DHPP during this quarter i.e., Oct-Dec 2023.
11	Grievance Redressal Mechanism	There is a one tier Independent Grievance Redressal Committee which is headed by a retired Additional Deputy Commissioner (A.D.C). The Engineer's Environment Section is in close liason with this IGRC and till date there has been no grievances regarding Environmental component of DHPP



# 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 July to September 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:

- 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.
- The environmental conditions and specifications in the bidding documents of the Contractors.
- 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 7 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 (2017-2018), 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 7: Environmental Management Plan.

<sup>2</sup> The DEBMP 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.

#### 1.4 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	28.12.2016	07.03.2017	23.06.2017	22-1-2023	21-11-2026	China Ghezouba Group Company Limited (CGGC)s
2	MW-02: Under Ground Power Complex, Tunnels and Hydraulic Steel Structure	28.12.2016	07.03.2017	23.06.2017	21-2-2023	01-10-2026	China Ghezouba Group Company Limited (CGGC)
3	EM-01: Procurement of Plant Design, Supply, Installation, Testing & Commissioning of Hydro-Mechanical and Electrical Equipment	22.9.2018	25.10.2018	20.5.2020	18-6-2025	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	08.02.2015	16.03.2015	24.07.2015	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 and VO-007 of Komila bypass	08.02.2015	16.03.2015	24.07.2015	22-7-2016	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	02.10.2015	17-6-2016	18-10-2022	Power China Corporation Company (PCCC)
7	Resettlement of Villages Left Bank of Indus River LBRV-10	27.02.2017	20.04.2017	26.12.2017	25-12-2018	31-7-2022	Zhongmei Engineering Group Limited
7	Resettlement of Villages Left Bank of Indus River LBRV-12	27.02.2017	20.04.2017	26.12.2017	25-12-2018	31-7-2022	Zhongmei Engineering Group Limited
8	RAR-02: Construction of Right Bank Access Road from Dam Site to Uttar Gah	22.06.2016	17.01.2017	20.12.2021	18-5-2023		China Ghezouba Group Company Limited (CGGC)
9	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)
10	Right Bank of Indus River RBRV-10	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)	27.07.2017	17.9.2017	20.5.2018	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)	23.04.2018	17.06.2018	17.06.2018	15-12-2020 & 16-9-2018	31-12-2022	Khyber Grace (Pvt.) Limited (KGL)

#### 1.5 Status of Project Implementation

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

**Table 1.3: Overall Construction Progress**

Sr. No.	Contract	Elapsed Time		Work Progress up to reporting period		Progress in This Time period
		Quarter	%Age	Scheduled %	Actual %	
1	ICB No. DASU-KKH-01(ii)	77.3	170.8	90.0	32.6	Limited Construction Activities in these Quarter of Oct, Nov, & Dec 2022.

**Dasu Hydropower Project**  
**Environmental Quarterly Progress Report No. 32 (Oct to Dec 2022)**

						<ul style="list-style-type: none"> <li>• Slope protection works at Zero-point third bench continued and excavation activity at Third bench resumed and continued during the Quarter.</li> <li>• Excavation and primary support works of K-4 Tunnel outlet RD=K4+524 continued during the Quarter and 82 m length completed.</li> <li>• Excavation and primary support works of Logro-A tunnel RD=K8+277 continued during the Quarter and 95m length completed.</li> <li>• Improvement works and excavation of Khoshe Bypass Road started and continued during the Quarter.</li> <li>• Removal of flood material and recovery of buried equipment's &amp; machinery from Camp/workshop/plant areas in progress.</li> <li>• Installation of serial arches at outlet let area of Logro-B during the Quarter started and continued.</li> <li>• Slope protection works of Dugah Tunnel out let area started and continued during these Quarters</li> </ul>
2	ICB No. DASU-RAR-01(iii)	77.3	150.3	90	87.4	<ul style="list-style-type: none"> <li>• Excavation work, drilling and blasting work, boulder blasting etc. at middle and end portion of Komila bypass in progress.</li> <li>• Excavation for road around K1+200, drilling and blasting around K1+500 and end section i.e. around K2+250 Komila Bypass in progress.</li> <li>• Excavation for sub grade and preparation i.e. levelling etc. around K1+500 to K1+800 in progress.</li> <li>• Drilling, blasting and excavation work for local access around K2+90 in progress.</li> <li>• Embankment filling in Nullah for causeway around K1+350 in progress.</li> <li>• Toe wall protection in nullah at K1+350 for rip rap in progress &amp; completed.</li> <li>• Stone masonry retaining walls around K0+160, K0+200 and K1+700 in progress.</li> <li>• Stone masonry retaining wall around K1+90 in progress and completed.</li> <li>• Stone masonry retaining wall around K1+462 to K1+470 in progress and completed.</li> <li>• Backfilling behind completed retaining walls at different location in progress.</li> <li>• Stone masonry breast wall around K0+450 in progress.</li> <li>• Stone masonry retaining wall around K1+854 to K1+877 in progress.</li> </ul>
3	ICB No. DASU-TL-01(iv)	76.0	157.7	90	81.2	<ul style="list-style-type: none"> <li>• Preparatory works for electrification of Control house building at Grid Station completed.</li> <li>• Excavation/cutting of access road to Grid Station is in progress.</li> <li>• Breast wall at Alignment-1 of access road is in progress.</li> <li>• Foundation work for Gantries at Grid Station is in progress.</li> <li>• Fencing work of switchyard is in progress.</li> </ul>
4	ICB No. DASU-MW-01	66.3	57.7	35.7	18.8	<p><b>Preparatory Works</b></p> <p><b>(1) Contractor's Camp</b> The construction of Kass Main Camp is in progress. The status of construction is as follows.</p> <ul style="list-style-type: none"> <li>- Ground leveling for the Contractor's main camp-65%</li> <li>- Building foundation of the prefabricated house- 73%</li> <li>- Prefabricated house hoisting- 85%</li> <li>- Chinese Canteen- 70%</li> <li>- Stone Masonry for Retaining Wall-53%</li> <li>- Installation of precast fence- 70%</li> </ul> <p><b>(2) Batching Plant and 1# Crushing Plant at Uchar Area</b></p> <ul style="list-style-type: none"> <li>- Stone Masonry for retaining wall- 86%</li> <li>- Aggregate Storage- 60%</li> <li>- Power Plant Ground Levelling-90%</li> <li>- Power Plant Foundation- 90%</li> <li>- Fencing Wall- 0%</li> </ul> <p><b>Diversion Tunnel</b></p> <p><b>(1) Excavation of Diversion and Adit Tunnels</b></p> <p>i) <b>Adit Tunnels</b></p> <ul style="list-style-type: none"> <li>• Adit Tunnel 3-2 started on December 5, 2022 and progressed 38/223m (17%) till end of December, 2022.</li> </ul> <p><b>Diversion Tunnels</b></p> <ul style="list-style-type: none"> <li>&gt; Open Excavation of Inlet Structure</li> </ul> <p><b>Diversion Tunnel A</b></p> <p>The third bench excavation commenced on June 27, 2020. It is progressed from inlet side from 0+000~ 1+475(1475m) .The Excavated Length is 1,475m/1,481m (88%).</p> <p>The fourth bench excavation commenced on October 16, 2020. It is also progressed from Adit Tunnel No.3 progress 1+445. The excavated length is 1,445m/1,481m (87%).</p> <ul style="list-style-type: none"> <li>&gt; Overall Excavation volume progress for DT.A at the end of December is 747,842m<sup>3</sup>/ 760,000m<sup>3</sup> (87.41%).</li> </ul>

					<p><b>Diversion Tunnel B</b> Progress of the underground excavation of Diversion Tunnel B is summarized in the table below. -The top bench excavation broke through on August 23, 2020. Enlargement at the outlet part is remaining for less than 9 m. Open excavation and support work of the outlet in progress. - On December 17th, geological shear zone was encountered at CH.0+317 and tunnel support "Type II-6 (with lining concrete)" was applied. This supporting type continued till Ch.0+280 after that rock condition improved &amp; support type changed to Type II-5. - Overall Excavation progress for DT.B at the end of December is 663,528m<sup>3</sup>/ 670,000m<sup>3</sup> (88%). - Excavation work for debris removal outside of DT-A &amp; DT-B (outlet) river side remained continued during the Quarter of December, 2022.</p> <p><b>(2) Concrete Work of Diversion and Adit Tunnels</b> <b>Diversion Tunnel A</b> <b>1) Inlet Structure Works (Outside)</b> - 10,530m<sup>3</sup> / 21,515m<sup>3</sup> (54%) completed till end of December, 2022. <b>2) Inlet Lining Works (Inside)</b> - Concrete Works: 7,543m<sup>3</sup> / 9,773m<sup>3</sup> (68%) completed till end of December 2022. <b>3) Invert Levelling Concrete (C20)</b> - L/S- 1,173m / 1,524m (77%) - R/S- 1,203m/1,524m (78%) <b>4) Invert Structural Concrete (A25)</b> - L/S- 612m / 1,434m (43%) - R/S- 812m/1,434m (64%)</p> <p>Diversion Tunnel No. B 1) Inlet Structure Works (Outside) - 17,841m<sup>3</sup>/ 21,600m<sup>3</sup> (73%) completed till end of December, 2022. 2) Inlet Lining Works (Inside) - 9,054m<sup>3</sup> / 9,054m<sup>3</sup> (90%) completed on 21st December, 2022. 3) Shear Zone Area - Concrete Works: 8,004m<sup>3</sup> / 8,004m<sup>3</sup> (90%) completed on 16th December, 2022. 4) Invert Levelling Concrete (C20) - L/S- 1,173m / 1,327m (77%) - R/S- 1,213m/1,327m (81%) 5) Invert Structural Concrete (A25) - L/S- 883m / 1,171.52m (78%) - R/S- 857.50m/1,171.52m (71%) <b>6) Adit Plug Concrete</b> - Concrete Works: 374m<sup>3</sup>/ 1647m<sup>3</sup> (21%) completed till end of December, 2022. <b>7) Diversion Channel on the right bank</b> - Backfilling inside the Indus river in front of DT.B for diversion of Indus river from Diversion Channel to excavate outlet part of DT.B completed during the Quarter of November, 2022. ➤ Temporary facilities (Diversion tunnel Inlet side) - Gabion protection for CR2 Road river side 90% ➤ Temporary facilities (Diversion tunnel outlet side) - Air supply station 90% - Power station 90% - Stone masonry for surface ditch on the EL. 775 Platform 90%</p> <p><b>Left Bank Traffic Diversion Tunnel</b> - Upstream Surface Excavation – 90% - Underground Excavation Work (from U/S &amp; D/S) - 753m / 1,365m (62.48%) - Excavation of the Slope for Outlet- 90% - Support of the slope for outlet- 90% completed on December 14, 2022 - Canopy tube drilling and installation- 90% - Underground excavation and support from outlet- 1+365 ~ 1+362 (3m) - (First Underground blast from D/S was carried out on December 15, 2022)</p> <p><b>Main Dam</b> The following works related to the construction of Main Dam are in progress. <b>(1) Right Bank Abutment (Siglo Area)</b> - U/S Temporary Access Road Construction- 70% - D/S Temporary Access Road Construction- 90% - Excavation and support of Right Bank Cable crane Platform above El. 965m- 90%</p>
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						<p>- Excavation and support of Right Bank Cable crane Platform slope El. 965m to El. 950m- 50% (Now El. 958m)</p> <p><b>(2) Left Bank Abutment</b></p> <p>- Excavation of the second layer of CR5-2 Road- 27%</p> <p>- Additional Berm excavation and support- 45%</p> <p>- CR5 Pool Construction-90%</p> <p><b>Upstream Starter Dam</b></p> <p>- Right &amp; Left bank fill road to U/S coffer dam- 90%</p> <p>- Backfilling of upstream starter dam-40%</p> <p><b>Cut-off Wall</b></p> <p>- Cut-off Wall Drilling started on December 21st, 2022 from the right side.</p> <p>- Concrete pouring for the Guide wall of the Cut-off wall started on Dec 3rd, 2022- 53m/122m (43%) (from Ch. 0+122 ~0+068m)</p> <p><b>Kass Camp</b></p> <p>The construction of Kass Main Camp is in progress. The status of the Construction is as follows.</p> <p>- Ground leveling for the Contractor's main camp-65%</p> <p>- Building foundation of the prefabricated house- 73%</p> <p>- Prefabricated house hoisting- 85%</p> <p>- Chinese Canteen- 70%</p> <p>- Stone Masonry for Retaining Wall- 53%</p> <p>- Installation of precast fence- 70%</p>
5	ICB No. DASU-MW-02	66.3	61.5	47.4	7.3	<p><b>Construction Activities</b></p> <ul style="list-style-type: none"> <li>• Installation of Rebar Mesh = Additional Support within Powerhouse Cavern</li> <li>• Excavation for 2nd Bench Central portion of Powerhouse Cavern. (Commenced 25 Sep. 2022).</li> <li>• Excavation for 2nd Bench (Central portion Including Both and Left side walls Enlargements) of Powerhouse Cavern was Completed on 27th November 2022.</li> <li>• Excavation for 2nd Bench Central portion of Transformer Cavern was in progress.(Commenced 25 Sep. 22).</li> <li>• Excavation for 2nd Bench (Central portion Including Both and Left side walls Enlargements) of Transformer Cavern was Completed on 21st November 2022.</li> <li>• Installation of Rebar Mesh = Additional Support within Transformer Cavern.</li> <li>• Installation of PS Tendon within Powerhouse Cavern was in progress.</li> <li>• Trail Test for PS Tendon was Completed in Transformer Cavern with different bond length.</li> <li>• Installation of PS Tendon within Transformer Cavern was in progress.</li> <li>• 5th Bench slope Excavation and Support work of both left and Right Side at EL.858m to 847m was in progress (Switchyard).</li> <li>• Intake Protection Fence was in progress (Ditch Excavation) Surface Excavation at EL.900m to EL880m.</li> <li>• Support work of LU1 (wire mesh, shotcrete rock dowel) from Ch.0+070~0+240 was in progress.</li> <li>• Excavation and Support work of Lower Pressure Tunnel No.1 (Pilot &amp; Crown Enlargement).</li> <li>• Lower Pressure Tunnel#2 Invert Cleaning was in progress.</li> <li>• Excavation and Support work of Adit Tunnel CT2 for Tailrace Outlet was in progress.</li> <li>• Excavation and support work were in progress at Service Tunnel B.</li> <li>• Vertical Exhaust shaft Pilot excavation was Completed on 23rd November 2022.</li> <li>• SCVAT 1 and SCVAT 2 Gallery Excavation and Support was in progress. (December 2022)</li> </ul> <p><b>Preparatory Works</b></p> <p><b>Main Access Platform</b></p> <ul style="list-style-type: none"> <li>• Gravity Wall Type A: (848 m<sup>3</sup> in total, 84% of design volume).</li> <li>• Gravity Wall Type C: (356 m<sup>3</sup> in total)</li> <li>• Leaning Retaining Wall Type III: (781 m<sup>3</sup> in total, 78% of design volume).</li> <li>• Cross Drain Culvert: (62 m<sup>3</sup> in total), works was suspended</li> </ul> <p><b>Surge Chamber Vault Access Tunnel</b></p> <ul style="list-style-type: none"> <li>• Work progress of Surge Chamber Vault Access Tunnel in Oct 2022: (517.00 m in total, 87.7 % of total length of 530.0 m)</li> <li>• Crown enlargement and support work Towards Galleries was in progress since Aug 2022</li> </ul>

**Dasu Hydropower Project**  
**Environmental Quarterly Progress Report No. 32 (Oct to Dec 2022)**

						<ul style="list-style-type: none"> <li>• Excavation and Support of SCVAT #1 Gallery was in progress (current chainage 0+67 m (25 Dec. 2022))</li> <li>• Support of SCVAT #2 Gallery was in Progress (Current chainage 0+026 m (25 Dec. 22))</li> <li><b>GIS Room Access Tunnel</b></li> <li>• Work progress of the GIS Room Access Tunnel in November 2022: 00.0m (103m in total 87.8% of the total length of 104.17 m)</li> <li>• STB Tunnel Excavation was in Progress F.ch 0+121 approx. (25 December 2022)</li> <li><b>Exhaust Tunnel</b></li> <li>• Completed except for Vertical Shaft (217.26 m in total 90% of the total length of 217.26 m).</li> <li>• Trail Excavation for vertical Shaft was completed from the drain Tunnel.(23rd November 2022)</li> <li><b>Underground Powerhouse Crown Portion</b></li> <li>• Total Excavation Volume of November 2022 is 64165.00 m<sup>3</sup> of Total Powerhouse Cavern Excavation Volume of 377,570.46 m<sup>3</sup> which is the progress of 16.84% in total.</li> <li>• Support Work is in progress for the overall Crown Pilot Portion.</li> <li>• PS Tendon Installation was in progress (Dec.2022)</li> <li>• Excavation for 2nd Bench (Central portion II-1 and Both Left /Right Side walls Opening) of Powerhouse Cavern was Completed on 27th of November 2022.</li> </ul>
						<ul style="list-style-type: none"> <li><b>Underground Transformer Cavern</b></li> <li>• Total Excavation Volume of December. 2022 is 55300.7m<sup>3</sup> of Total Transformer Cavern Excavation Volume of 234,728.30m<sup>3</sup> which is the progress of 23.5% in total.</li> <li>• PS Tendon Installation was in progress (December2022)</li> <li>• PS Tendon Installation was in progress (Dec.2022)</li> <li>• Excavation for 2nd Bench (Central portion and Both Left /Right Side walls Opening) of Transformer Cavern was completed on 23rd November 2022.</li> <li><b>Drain Tunnel</b></li> <li>• Work progress of the Drain Tunnel in November 2022: 0.00m (824.50 m in total, 87.36 % of total length of 848.50m).</li> <li><b>Connection Tunnel to Powerhouse Cavern (From Service Tunnel A).</b></li> <li>• Work progress of the Connection Tunnel in October 2022: (76.50 m in total, 88.18 % of total length of 77.12 m)</li> <li><b>Penstock Adit Tunnel No.01</b></li> <li>• Lower pressure Tunnel # 1excavation was Started 07/05/2022.</li> <li>• Lower pressure tunnel # 1 Crown enlargement was in progress Current Chainage 0+47m (December.2022)</li> <li><b>Penstock Adit Tunnel No.02</b></li> <li>• Lower pressure tunnel # 2 Invert Cleaning was in progress (December.2022).</li> <li><b>Permanent Access Road LD 7</b></li> <li>• Pilot excavation and initial slope protection</li> <li>• Second stage excavation and initial support works were conducted between Ch:0+325 m to 0+650.</li> <li><b>Switchyard</b></li> </ul>
6	ICB No. DASU-LBRV-10(v)	47.2	206.8	90.0	87.0	<ul style="list-style-type: none"> <li>-Parapet wall construction is in progress.</li> <li>-Access road work is in progress.</li> <li>-Water supply line work is in progress</li> </ul>
7	ICB No. DASU-LBRV-12	47.2	215.1	90.0	87.0	No activity
7	ICB No. DASU-PCI-01R	43.5	94.8	90.0	57.5	<p>The major construction activities undertaken during this Quarter were:</p> <ul style="list-style-type: none"> <li>• Door polishing in progress at project office building.</li> <li>• Additional doors and ventilations at project office building in progress.</li> <li>• Cleaning and clearing of project office in progress.</li> <li>• Roof treatment at residence cat -2B, 2C and 2D units in progress.</li> <li>• Marble tile fixing for floor at cat -2D is in progress.</li> <li>• Boundary wall construction at residence cat -2, cat -2A &amp; 2B in progress.</li> <li>• Kuphrail tile fixing on roof of residence CAT -2B and CAT - 2C in progress.</li> </ul>
7	ICB No. DASU-PCI-01R	43.5	94.8	90.0	57.5	<ul style="list-style-type: none"> <li>Manhole cover concreting at residence cat -2C in progress.</li> <li>• Sand filling in kitchens and bathrooms at residence cat-2B in progress.</li> <li>• Ppr and plumbing work in bath rooms at residence cat-2B, 2C and 2D in progress.</li> </ul>



**Dasu Hydropower Project**  
**Environmental Quarterly Progress Report No. 32 (Oct to Dec 2022)**

						<ul style="list-style-type: none"> <li>• Tile fixing in bath rooms at residence cat -2B &amp; 2C in progress.</li> <li>• Repair work is in progress at residence cat -1.</li> <li>• Doors Polishing at residence cat-1 in progress.</li> <li>• Cleaning works at residence cat -1 in progress.</li> <li>• Block masonry at cat 3 and cat 4 is in progress.</li> <li>• Plastering at residence cat -3 and residence cat-4 in progress.</li> <li>• Form work and reinforcement fixing for the remaining units of cat -3D progress.</li> <li>• Electrical conduiting at residence cat -3 and residence cat -4 in progress.</li> <li>• Plastering at hostel cat -2A &amp; hostel cat -2B.</li> <li>• External water supply from Indus River: excavation for the retaining wall in progress.</li> <li>• Excavation of trench for water supply in progress.</li> <li>• Laying of water supply pipes in colony in progress.</li> <li>• Conduction of pressure tests of water supply pipes in progress.</li> <li>• Sluice vales construction in progress.</li> <li>• Septic tank type D construction in progress.</li> <li>• Block masonry of internal septic tanks at residence cat 2 c and 2D in progress.</li> <li>• Lean concreting for drain along P1 road in progress.</li> <li>• Construction of Manhole cap covers along P1 road in progress.</li> <li>• External boundary wall: block masonry and plastering in progress.</li> <li>• P1 road pavement work in progress.</li> </ul>
8	ICB No. DASU-RV(Vi)	42.5	236.7	90.0	55.8	<p>Major Activities of RV</p> <p>The major construction activities undertaken during this Quarter were:</p> <p>(1) Additional Chuchang site 1</p> <ul style="list-style-type: none"> <li>• Site is handed over to local people.</li> </ul> <p>(2) Chuchang Site 1</p> <ul style="list-style-type: none"> <li>• Mosque structure work is in progress.</li> <li>• RCC retaining wall construction in progress.</li> <li>• Bed preparation for retaining wall.</li> </ul> <p>(3) Kuz Chuchang Site Upper &amp; Lower Portions</p> <ul style="list-style-type: none"> <li>• Bed preparation for retaining wall.</li> </ul> <p>(4) Chuchang Site 2 &amp; 3</p> <ul style="list-style-type: none"> <li>• No activity</li> </ul> <p>(5) Shatial Rock Carving Site</p> <ul style="list-style-type: none"> <li>• Work is stopped at shatial rock carving site due to local since 20-10-2020. However, followings are the summary of activities:</li> <li>• Fencing Wall Concrete Columns from Points P2 to P3 is in progress.</li> <li>• Installation of GI Post dia 75mm along river side is completed.</li> <li>• Stone pitching of parking area is in progress.</li> <li>• Super structure work above plinth beam for staff residence building in progress</li> </ul>
9	ICB No. DASU-EM-01	31.4	51.5	14.7	5.8	<p><b>Civil Works</b></p> <p><b>(1) Excavation:</b></p> <ul style="list-style-type: none"> <li>• No Excavation was done up to 25th of December 2022 for Terraces.</li> </ul> <p><b>(2) Boundary Wall:</b></p> <ul style="list-style-type: none"> <li>• Excavation completed: CP5 TO CP6 (Side boundary wall)</li> <li>• Lean concrete completed: CP5 TO CP6 (Side boundary wall)</li> <li>• Stone foundation for wall: CP5 TO CP6 was completed (Dec.2022)</li> <li>• Block masonry in progress: CP5 TO CP6 was in progress (Dec.2022)</li> </ul> <p><b>(3) Retaining Walls: (Dec.2022)</b></p> <ul style="list-style-type: none"> <li>• Terrace # 02 Retaining wall was in progress.</li> <li>• Terrace # 04 Retaining wall was in progress.</li> <li>• Terrace # 07 Retaining wall was in progress.</li> <li>• Terrace # 07 Retaining wall was in progress.</li> <li>• Terrace # 9 Retaining was in Progress.</li> </ul> <p><b>Back filling by Layer Including Cut and Fill Quantities:</b></p> <p>Total Cut volume percentage was 71.2 and fill volume percentage was 87.8.</p>
10	ICB No. DASU-RAR-02	18.6	68.4	76.1	1.2	<p>The major construction activities undertaken during this Quarter were:</p> <ul style="list-style-type: none"> <li>• Excavation and blasting works are on-going from K13+200 to K13+700. Backfill with gabion work is on-going at K13+250.</li> <li>• Excavation work is on-going from k32+600 to k33+00.</li> </ul>
11	ICB No. DASU-KKH-02	6.6	27.5	14.6	1.2	<p>The major construction activities undertaken during this Quarter were:</p> <ul style="list-style-type: none"> <li>• Excavation work has been completed at access roads on K27 Kaigah and K34, K 31 and K36 access Road. The work on new access road at K45 has been started.</li> <li>• The Contractor has mobilized manpower and Equipment to the Kaigah Contractor's camp.</li> <li>• The Contractor has started excavation of Main KKH-02 alignment at all access roads.</li> <li>• The DID team from WAPDA has started the drilling work at tunnel portals.</li> </ul>

- Elapsed time of each contract/package is from commencement until the end of the reporting period.
- Scheduled progress of KKH-01 is based on EOT-02. The Contractor is preparing revised schedule (EOT-03) for re-alignment (new tunnels)

- & bridges)
- The contractor is preparing revised schedule (EOT-4 for the remaining works of RAR-01 including VO of Komila bypass
- The revised schedule of TL-01 (EOT-4) is under preparation with the contractor
- Revised schedules (EOT-02) of LBRV-10&12 is based on change in scope of non-handover sites is under process.
- Revised schedule (EOT-1) of Dasu –RV based on change in scope is under progress.

## 1.6 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. Similarly, Sr. Environment specialist from LADP staff will be shifted to DHC Environment section.

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

Sr. No.	Position	Staff Status
<b>A</b>	<b>PMU</b>	
1	Director	Vacant
2	Deputy Director	Imran Tariq
3	Assistant Director Environment	Vacant
4	Deputy Director Ecology	Farhat Ali Khan
5	Assistant Director Ecology	Liaqat Ali
6	Supervisor Ecology	Vacant
7	Supervisor Env &OHS	Junaid
8	Supervisor Env &OHS	Arslan
<b>B</b>	<b>DHC</b>	
1	Chief Environmentalist	Zafar Iqbal Chaudhry
2	Sr. Environment Specialist	Sardar Alam
3	Sr. Environment Specialist	Awais Hassan
4	Jr. Environment Specialist	Vacant
5	Supervisor	Nasir Khan
6	Supervisor	Hidayatullah
7	Supervisor	Mehmood Khan
8	Environmental Advisor	Venkata Nukala

## 1.7 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	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 8	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.
Chapter 9	EM-01	Progress of implementing other contracts (EM-01), environmental inspections And monitoring carried out, and key environmental issues and non-compliances noticed during implementation.
Chapter 10	Other Environmental Aspects	Status of solid waste disposal site, WB Mission other important Meetings
Annex A		Minutes of Environmental progress review meetings during the quarter
Annex B		Results of monthly Environmental Spot monitoring
Annex C		Photo log

## 2 Main Works Contracts (MW-01 & 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**

Sr. 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	Original 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 17 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**

Sr. No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>			
1	Chinese Workers Camp(MW-01)	Barseen	About 208 workers live in this camp	
2	Chinese Workers Camp(MW-02)	Barseen	About 255 workers live in this camp	
3	Pakistan Workers Camps(MW-01)	Barseen & Uchar	About 1286 workers live in this camp	
4.	Pakistan Workers Camps(MW-02)	Barseen & Uchar	About 1183 workers live in this camp	
<b>B.</b>	<b>Crushing/Batching Plants</b>			
1	Crushing Plant	Uchar	A small plant with 120 tons/hr capacity	
2	Crushing plant	Uchar	250 tons/hr	Under construction
3	Batching plant	Uchar	60 m <sup>3</sup> /hr capacity	
4	Batching plant	Khoshe	240 m <sup>3</sup> /hr capacity	
5	Pozzolan Plant	Chillas	-Construction of Chillas Pozzolan milling plant- 87% completed -Equipment Installation of Chillas pozzolan milling plant- 70% completed	

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

Sr. No.	Position	MW-01 Contract	MW-02 Contract	Remarks
1	Director EHS	Sun Kang	Sun Kang	
2	Environmental Officer	Vacant	Vacant	The contractor has been instructed to fill the vacant positions for each contract
3	Environment supervisor	Izhar	Vacant	The contractor has been instructed to fill the vacant positions for each contract

## 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**

Sr. No.	Work Site	Details of Works	Remarks
	Diversion Tunnel A	Excavation	87.41% Completed
1	Diversion Tunnel A	Dewatering	90% Completed
	Diversion Tunnel B	Excavation	88% Completed
2	Diversion Tunnel B	De Watering	90% Completed
3	Adit Tunnels	Excavation works	90% Completed
5	Left bank traffic diversion Tunnel	Excavation works	62.48% Completed
6	Chilas Pozzolan Plant	Equipment Installation	70 Completed

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

Sr. No.	Work Site	Details of Works	Remarks
1	Surge Chamber VAT	Excavation	87.7% completed
2	STA	Excavation	88.5 % completed
3	GIS Room access tunnel	Excavation	87.8% completed
4	Underground powerhouse Crown portion	Excavation	8.5% completed
5	Underground Transformer cavern Crown portion	Excavation	23.5% completed
6	Drain tunnel	Excavation	87.36% completed
7	Penstock Adit tunnel No.1	Excavation	90 % completed
7	Chilas 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 weekly 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 60**

Report No. E-60

Date of Issuance: 05-10-2022-

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
60.1	04-10-2022 Power house Cavern	Solid Waste		<p>Contractor is instructed to install the waste bins at the site, collect the solid waste from different place and put them to the bins at the site After that dump the litter into the proper dumping site.</p>	Immediate		Waste bins kept inside tunnels, 04-11-2022
60.2	03-10-2022 MW-02 TC Tunnel	Oil spill		<p>The contractor is instructed to remove the contaminated soil from site and replace it with fresh soil. Follow SOPs provided in ECPs; Volume-08 of EMAP.</p>	Immediate		04-11-2022








60.3	03-10-2022 MW-02 STA Panastic junction	Inadequate Toilet Facilities		The contractor is instructed to provide toilet facility and also install the sewage within the underground system. Increase the numbers of toilets at different locations as per ration 1 toilet for 10 people.	Immediate		All raised facility issues provided. 04-11-2022
60.4	04-10-2022 MW-02; TC Tunnel	Dust and suffocation		Contractor is instructed to the extend the ventilation duct to the actual working face in order to Overcome dust and suffocation.	Immediate	In going it will take a week to install exhaust fans inside tunnels.	04-11-2022




Table 2.7: Walk-Through Environmental Inspection Report 61

Report No. E-61

Date of Issuance: 20-10-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
61.1	18-10-2022 CR9 generator room	Inadequate housekeeping		The contractor is instructed maintain good housekeeping on site and manage construction material properly according to ECPs.	immediate		04-11-2022

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61.2	18-10-2022 CR9 generator room+works hop	Oil spill	  	<p>The contractor is instructed to remove the oil spill from the site by replacing contaminated soil with fresh soil and follow the ECP's provided in the contract agreement and train the workers to avoid sprinkling water on oil spill when sprinkling water it flows and contaminate more soil.</p>	<b>Immedi ately</b>	  	<p>04-11-2022</p> <p>04-11-2022</p> <p>04-11-2022</p>
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61.3	18-10-2022 CR9 generator room's slop	Solid waste		<p>The contractor is instructed to place the waste bin at the site.</p> <p>And aware the workers and staff to put the solid waste in the waste bin rather than thrown everywhere.</p> <p>After that dispose the waste at the final disposal site approved by the engineers.</p>	<b>immediate</b>		04-11-2022
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Table 2.8: Walk-Through Environmental Inspection Report 62



Report No. E-62



Date of Issuance: 30-10-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
62.1	29-10-2022 switch yard	Inadequate housekeeping		The contractor is instructed to maintain good housekeeping on site and place the oil drums at their designated place which should be in Accordance to procedures given in ECPs.	immediate		Used oil drums removed from site , 04-11-2022

62.2	29-10-2022 switch yard	Oil spill		The contractor is instructed to remove the contaminated soil having oil spill by replacing it with clean and fresh soil.	<b>immediate</b>		04-11-2022
	29-10-2022 switch yard	Oil spill			<b>immediate</b>		



62.3	29-10-2022 switch yard	Used Chemical Tank being used for humans water usage		<p>The contractor is instructed that it is strictly prohibited to use of chemical tank for hand washing or any other human usage like ablution and washroom purposes. Install a domestic type of water tank for staff and workers.</p>	<p style="text-align: center;"><b>Immediate</b></p>		<p>Officially informed to site management to provide water tanks as required.</p> <p>04-11-2022</p>
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<p>62.4</p>	<p>29-10-2022                  switch yard</p>	<p>Improper                  dustbin                  (Only one)</p>		<p>The contractor is instructed to provide the proper dustbins at the site. Increase the numbers of dustbins at the site. Follow SOPs and ECPs.</p>	<p><b>Immediate</b></p>		<p>Sufficient dustbins provided.</p>
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<p>62.5</p>	<p>29-10-2022                  switch yard                  Khushi                  access road</p>	<p>Heavy dust</p>	 <p>Oct 29, 2022 10:51:59 AM                  148° SE                  Index number: 3773</p>	<p>The contractor is instructed to ensure water sprinkling. Increase the frequency of water sprinkling to at least four time a day.</p>	<p><b>Immediate</b></p>		<p>Inform to HT team to sprinkle water as schedule of daily basis.</p>
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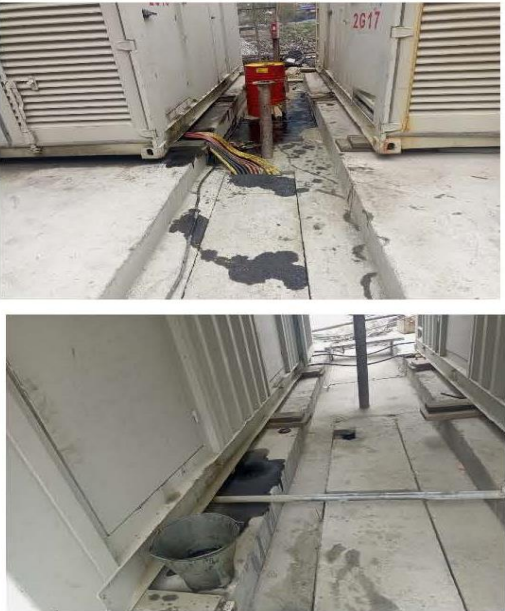



Table 2.9: Walk-Through Environmental Inspection Report 63


Report No. E-63


Date of Issuance: 04-11-2022-

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
63.1	2-11-2022 CR-09 MAT slope	Littering		<p>This observation was highlighted in walk through report NO#E73 at 31-10-2022 but until not rectified. Again it send for you as a reminder.</p> <p>the Contactor is instructed to place waste bins at the site. collect the solid waste from different place and put them into the bins at the site</p> <p>After that dump the litter at designated site.</p>	immediate		

63.2	31-10-2022 CR-9 generator Room	Oil spill		The contractor is instructed to remove the oil spill from the site by replacing fresh soil and store toxicity soil in a drum temporary then transport to the designated site.	immediate		
63.3	31-10-2022 CR-09 A-3 portal	Inadequate Housekeeping		This observation was highlighted in previous walk through report but until now it is still not rectified. Again it is being send for you as a reminder. The contractor is instructed to maintain good housekeeping at site. Manage construction material as per ECPs	immediate		



63.4	2-11-2022 CR9 main workshop	Improper placement of oil drums		The contractor is instructed to put individual oil drum on drip tray as shown in the picture.			
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63.5	2-11-2022 MAT sedimentati on pound	Untreated water		<p>At MAT Pond it is observed that water is directly discharged from first basin into river. In the last AFI it was observed that the pH value of first basin was very high so it needed to connect with second basin the contractor is instructed to open way for water from first basin to second basin and after proper treatment then discharge in local water body.</p>			
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**Table 2.10: Walk-Through Environmental Inspection Report 64**

**Report No. E-64**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
64.1	19-11-2022 CT-2 Tunnel	Sludge		Sludge thrown nearby sedimentation pond. Contractor is instructed to dispose off the sludge as per SOPs provided in ECP.	Immediate		



<p>64.2</p>	<p>19-11-2022 CT-2 Tunnel and CR-9</p>	<p>Inadequate housekeeping</p>		<p>It is instructed the contractor keep maintain good housekeeping at all sites. Clean and clear all the sites ASAP.</p>	<p><b>Immediate</b></p>		
							



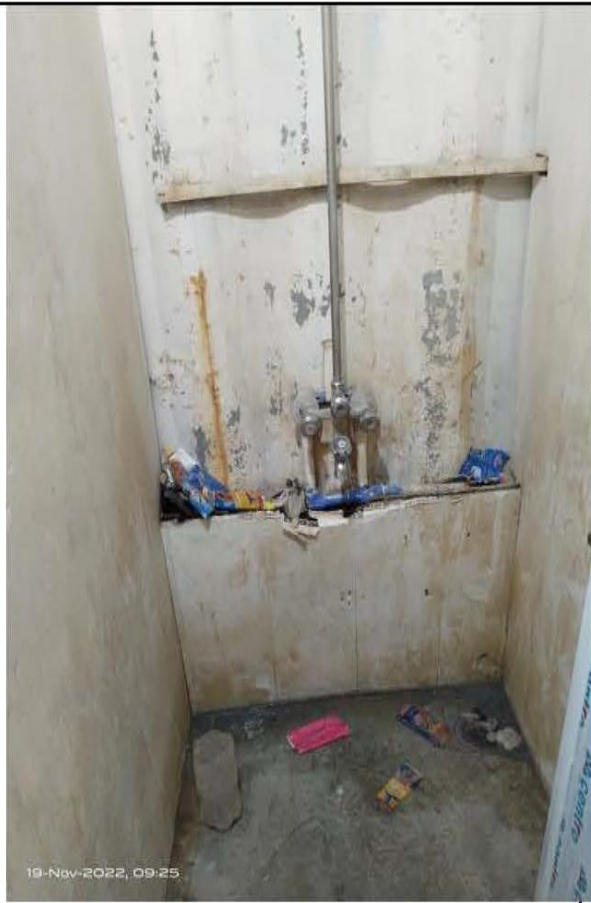



<p>64.3</p>	<p>19-11-2022 CT-2 Tunnel And CR-9 Workshop</p>	<p>Oil spill</p>		<p>The Contractor is instructed to constructed concrete floored and bunded fuel storage site.</p> <p>The Contractor is also Instructed to Clean and Clear the Contaminated soil with fresh and clean Soil as per SOPs provided in ECP.</p>	<p>Within 3 days</p> <p>immediate</p>	
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64.4	19-11-2022 CT-2 Tunnel	Fuel wood used for cooking Purpose	 <p>19-Nov-2022, 09:26</p>	The Contractor is strictly instructed to use LPG cylinders for cooking purposes only.	Immedia te	
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64.5	19-11-2022 CT-2 Tunnel	Bad conditi on of Washr ooms	 <p>19-Nov-2022, 09:25</p>	Instructed the Contractor to keep clean the washrooms and provide hot water facility for work force.	Within 3 days	
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<p>64.6</p>	<p>19-11-2022 CR-9</p>	<p>Works hop Waste/ Oil</p>		<p>It has been observed that Workshop Waste/Oil directly going to Indus River. It is Strictly Instructed the contractor stop this practice immediately and rectify ASAP and report within 2 days.</p>	<p>Within 2 days</p>		
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Table 2.11: Walk-Through Environmental Inspection Report 65

Report No. E-65

Date of Issuance: 25-11-2022-

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
65.1	25-11-2022 MAT MT Rest Room + Batching Plant back side	Littering		The Contactor is instructed to place waste bins at the site. collect the solid waste from different place and put them into the bins at the site After that dump the litter at designated site.	Immediate		

65.2	25-11-2022 front of MAT ET Store	Inadequate Housekeepin g		The contractor is instructed to maintain good housekeeping at site. Manage construction material as per ECPs. and shift raw material to designated site	immediate		
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65.3	25-11-2022 MAT portal	Improper Drainage		The contractor is instructed to remove sludge from the drainage line and keep stock pile away from drainage channels as far as possible	Immediate		
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Table 2.12: Walk-Through Environmental Inspection Report 66






Report No. E-66

Date of Issuance: 30-11-2022-

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
66.1	30-11-2022 CR-02	Littering, solid waste.	 <p style="text-align: right; font-size: small;">New 30, 2022 04:57:06 AM 034° NW Index number: 4685</p>	The Contactor is instructed to place waste bins at the site for Collection of solid waste from different place. Follow Waste Management ECP's.	Immediate		



<p>66.2</p>	<p>30-11-2022 CR-02 Near sedimentation pond (A1)</p>	<p>Inadequate Housekeeping</p>		<p>The contractor is instructed to maintain good housekeeping at site. Manage construction material as per ECPs and shift raw material to designated site.</p>	<p>Immediate</p>	
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66.3	30-11-2022 CR-02 Sedimentation pond (A1).	Untreated water		During routine supervision it was observed that fresh water is stopped in pond. The contractor is instructed to keep always open fresh water in pond.	Reminder		
66.4	30-11-2022 CR-02 Batching plant.  30-11-2022	Inadequate handling and storage of chemical and oil drums	 	The contractor is instructed to make a proper concrete pavement with boundary for oil and chemicals drums. Place dip tray for each drums to avoid oil spilling and leaking.	Immediate		






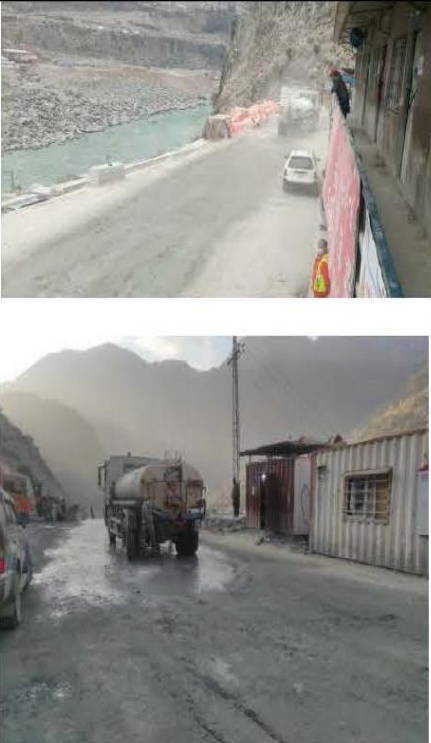




66.5	CR-02	Oil spill	 <p>Nov 30, 2022 9:48:47 AM 102° E Index number: 4036</p>	The contractor is instructed to remove the contaminated soil from the site by replacing fresh soil and deal with the toxic soil as per SOP's provided in ECP's.	Immediate	
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Table 2.13: Walk-Through Environmental Inspection Report 67

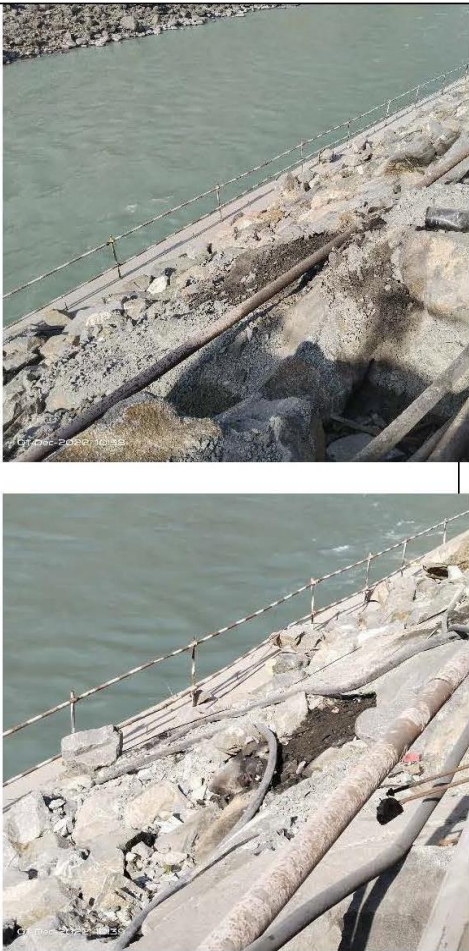

Date of Issuance: 01-12-2022

Report No. E-67

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
67.1	01-12-2022 CR-9	Fugitive Dust		Contractor is instructed to ensure water sprinkling daily with at least frequency of 3, 4 times a days	Immediate		Regular water sprinkling ensured at site as per the weather condition

67.2	01-12-2022 CR-9 Workshop	Inadequate housekeeping		Contractor is instructed to maintain good housekeeping at all sites. Clean and clear all the sites ASAP.	<b>Immediate</b>		Cleaning done at site and reinforce with the team to comply
67.3	01-12-2022 CR-9 Workshop	Oil spill		Instructed the Contractor construct the Paved Concrete Floor for fuel storage ASAP.	<b>7 Days</b>		Cleaning done at site and reinforce with the team to comply



<p>67.4</p>	<p>01-12-2022 CR-9</p>	<p>Fuel/ Oil on Slop Backside at Generators</p>		<p>The contractor is instructed to replace the contaminated soil with clean and fresh soil as per SOPs provided in ECP.</p>	<p><b>Immediate</b></p>		<p>Cleaning done at site and reinforce with the team to comply</p>
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## 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. There were 16 Letters issued to main works Contractor during the reporting period of Oct-Dec 2023. (Details are added in chapter 10)

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

The Contractor has not yet conducted any Quarterly environmental monitoring. Negotiations with an third-party environmental monitoring laboratory (Bureau Veritas) were underway during 3<sup>rd</sup> and 4<sup>th</sup> quarter of 2022 which had to be approved from “The Engineer” on behalf of Contractor CGGC. The Third-Party Environmental Monitoring Laboratory i.e., Bureau Veritas has failed to produce KP-EPA Registration certificate. After a long session of discussions among the concerned parties as well as with WAPDA Environmental Staff, Contractor (CGGC) had requested to provide a new time frame for the new Third Party Laboratory i.e. Bureau Veritas for quarterly environmental monitoring. So far the Bureau Veritas has failed to produce Registration Certificate from Federal EPA nor from KPK EPA. Therefore the matter is still pending with the contractor CGGC.

## 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 in 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. Parameter of pH level in most of the samples showed high alkalinity due to the use of admixture chemical 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**

Sr.no	Location	Coordinates
<b>Surface water</b>		
1	Upstream Indus River at Uchar	35° 20' 31.83" N 73° 12' 17.76" E
2	Downstream Indus River near Kass area truss bridge	35° 17' 27.27" N 73° 13' 14.83" E
<b>Wastewater</b>		
1	Uchar crusher plant sedimentation pond	35° 20' 25.56" N 73° 12' 17.76" E
2	Uchar Batching plant sedimentation pond	35° 18' 31.9" N 73° 12' 01.71" E
3	Sedimentation tank near Adit-1	35° 18' 16.87" N 73° 10' 57.78" E
4	Sedimentation tank near MAT	35° 17' 21.15" N 73° 10' 35.55" E
5	Sedimentation tank at Khoshe batching plant	35° 17' 07.72" N 73° 10' 48.27" E

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

Sr. No.	Quarter	Location	Turbidity (NTU)	Conductivity (uS/cm)	pH	DO mg/l	Temperature, °C	visual presence of Petroleum	Remarks
1	Oct	Uchar crusher plant sedimentation pond	77.4	52.2	9.7	4.7	18.7	No	
		CR-02 Batching plant sedimentation pond	122.1	1030	10.7	6.3	16.8	No	
		Sedimentation tank near Adit-1	703	933	7.8	7.5	20	Nil	
2	Nov	Uchar crusher plant sedimentation pond	97.3	44.7	10.1	9.6	11.2	Nil	
		CR-02 Batching plant sedimentation pond	171.7	733	10.4	6.4	9.5	Nil	
		Sedimentation tank near Adit-1	67.1	278	9.7	7.6	14.1	Nil	
		CT-02 sedimentation Pond	570	1359	11.7	7.2	16.6	Nil	
3	Dec	Uchar crusher plant sedimentation pond	-	-	-	-	-	Nil	Sedimentation Tank was full of sludge and froth and required cleaning prior to sampling.
		CR-02 Batching plant	65.8	1770	12.1	5.5	8.4	Nil	

		sedimentation pond Sedimentation tank near Adit-1	106	105	9.2	7.2	10.1	Nil	The tank was full of nonfunctional, as a waste water sedimentation tank. The tank was used by contractor for river water storage until all water lines were restored.
		CT-02 sedimentation Pond	-	-	-	-	-	Nil	The Sedimentation Tank was non-functional at the time of visit
		NEQS	200NTU		6-8		<40		

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

Sr. No.	Quarter	Location	Turbidity (NTU)	Conductivity (uS/cm)	pH	DO mg/l	Temperature, °C	The visual presence of Petroleum Product	Remarks
1	Oct	Sedimentation tank near MAT	102.4	802	10.2	4.22	20.2	Nil	
		Sedimentation tank at Khoshe batching plant	900	177.7	8.7	6.3	20.3	Nil	
2	Nov	Sedimentation tank near MAT	-	-	-	-	-	Nil	
		Sedimentation tank at Khoshe batching plant	24	483	11.2	8	13.3	Nil	
3	Dec	Sedimentation tank near MAT	57.1	388	11.1	9.5	10.5	Nil	
		Sedimentation tank at Khoshe batching plant	-	-	-	-	-	Nil	
NEQS			200 NTU		6-8		<40		

## 2.6 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**

Sr. 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	Quarterly	Quarterly 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 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 Bureau Veritas (B.V) Environmental laboratory to conduct the third-party environmental monitoring. But till the end of this Quarter (Oct-Dec 2022) B.V failed to submit certificate of registration from EPA KPK neither from Feral EPA.
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, NO2, SO2, CO2, 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	Air quality monitoring for 24 hours for the parameters specified in NEQS 2000	Quarterly	The Contractor is in negotiation with Bureau Veritas (B.V) Environmental laboratory to conduct the third-party environmental monitoring. But till the end of this Quarter (Oct-Dec 2022) B.V failed to submit certificate of registration from EPA KPK neither from Feral EPA.

		locations recommended by the CSC.			
6	Emissions from plant and equipment	At all the construction sites for dam, KKH and tunnels	Visual Inspection	Quarterly	Quarterly 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 Bureau Veritas (B.V) Environmental laboratory to conduct the third-party environmental monitoring. But till the end of this Quarter (Oct-Dec 2022) B.V failed to submit certificate of registration from EPA KPK neither from Feral EPA.
8	Waste Management	At the designated rock disposal area	Visual inspection on spoil disposal in accordance with EMP Sub plan on Waste Management	Quarterly	The Contractor is disposing the spoil in the designated spoil dumping site at Khoshe and is also transporting the spoil to the crushing plant at Uchar as raw material for aggregate
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Quarterly	Quarterly 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	Quarterly	Quarterly 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	Quarterly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Quarterly	Quarterly 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	Quarterly	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 Filtered water in large water coolers to the workers at the sites.

## 2.7 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**

Sr. 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 exceeding values against 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 8.2: 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	Exceeding values against NEQS (air, noise, water, etc.)	Other Indicators	Remarks
1. Contractor Mobilization and Demobilization	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
	2.7 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		3				
	4.5 Water pollution						
	4.6 Air Quality	Nil					
	4.7 Health and Safety					Covered under OHS	Covered under OHS report
	4.7 Noise and vibration						-do-
	4.8. Landscape and visual Intrusion	Nil					Nil
4.9. Vegetation Loss	Nil				The number of trees felled:0 The number of saplings planted:0 The survival rate of samplings after one	-do-	



						year: 0	
	4.10. 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-
	4.17. Social conflicts due to labour influx						Covered under Social Report
	4.18 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	Nil					No quarry operation started
	5.6 Health and Safety 5.7 Noise and Vibration 5.7 Landscape and Visual Intrusion 5.8 Vegetation loss 5.9 Fauna / Wildlife 5.10 Damage to infrastructure 5.12 Damage to PCRs						
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		7				7 incidences of waste management are mentioned in WTEIRs of this quarter

## 2.8 NCR Issued in this Quarter

During the quarter various NCRs were issued the contractor.

**Table 2.20: Non-conformance reports issued during the quarter**

Sr. No.	Contract	Subject	Issuance Date
1	MW-01	Failure to Hire & Mobilize Environmental Officer	06/11/2022
2	MW-02	Failure to Hire & Mobilize Environmental Officer	06/11/2022
3	MW-01	Failure to Keep Conformance with NEQS of Wastewater	07/11/2022
4	MW-02	Failure to Keep Conformance with NEQS of Wastewater	07/11/2022
5	MW-02	Use of Chemical Drums for storage of Water & Onward Human Consumption	07/11/2022
6	MW-01	Failure to submit remaining CEAP Plans	12/11/2022
7	MW-02	Failure to submit remaining CEAP Plans	12/11/2022
8	MW-02	Modification in sedimentation tank Near Adit-03	19/11/2022
9	MW-01	Delay in Quarterly Water Quality Monitoring	22/11/2022

## 2.9 Overall Compliance Status – Tri-Partite monthly Meetings

During the quarter 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.

The Major pending issues are:

- Third party environmental monitoring
- Adaptive measures for the closure of NCRs
- Status of Air dispersion modelling for the proposed Seo crusher plant
- Appointment of Environmental Officer

## 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**

Sr. 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**

Sr. No.	Facility	Location	Details	Remarks
<b>A. Worker's Camps</b>				
1	Chinese Workers Camp	Uchar/Shaal/Chuchang/Dasu/Zaal	About 110 workers live in this camp	
2	Pakistan Workers Camps	Uchar/K4/K8/K3/K4	About 653 workers live in these camp	
<b>B. Crushing/Batching Plants</b>				
1	Crushing Plant	Uchar	A small plant with 2 ton/day capacity	Submerged in July & Aug 2022 Floods
2	Batching plant	Uchar		Submerged in July & Aug 2022 Floods. Now recovering in Bits and Pieces and planning to install at Chuchang
<b>C. Other Facilities</b>				
1	Construction Yard	Uchar		
2.	Explosive Magazine	Barseen	20 Ton capacity	

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

Sr. No.	Position	KKH-01 Contract	Remarks
1	Manager EHS	Manzoor Hussain	
2	Environmental Officer	Vacant	
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**

Sr. No.	Work Site	Details of Works	Remarks
1	K3 Tunnel	Seismic reinforcement wall at K3 tunnel	Continued during the quarter
2	Khoshe K6+400	Plant erection at K 6 +400 started and continued in this quarter.	Continued during the quarter
3	Khoshe K8 camp	Improvement of the Camp at K8 and batching plant commissioning started and Continued during the 3 <sup>rd</sup> quarter. Tunnel Shotcreting as well as Mouth of Tunnel Completed and 9m progress inside the tunnel from mouth of the tunnel	Continued during the quarter
4	Zero Point	Slope Protection work at zero point third bench continued this quarter	Continued during the quarter
5	K4+631	Slope Protection work for outlet of tunnel portal K4+631	Continued during the quarter

		continued this quarter	
<b>6</b>	K5+90	Camp Construction in progress	Continued during the quarter
<b>7</b>	Uchar Camp Area	Removal of Flood Material and recovery of buried equipment and machinery from camp / workshop/ plant areas is in progress.	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 34





Report No. E-34

Date of Issuance: 03-10-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
34.1	03-10-2022 K9 tunnel	Inadequate housekeeping		The contractor is instructed maintain good housekeeping on site and manage construction as per EMAP and ECP's.	Immediate		15-10-2022

34.2	03-10-2022 K4 tunnel	Solid Waste Littering		The contractor is instructed to place waste bins at the site and provide Training to their workers to use the bins.	Immediate		15-10-2022
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34.3	03-10-2022 K9 tunnel	Oil spill		<p>The contractor is instructed to remove the contaminated soil and replace it with clean and fresh soil. Follow Spill procedures as provided in EMAP and ECPs.</p>	Immediate		15-10-2022
	K4 Tunnel	Oil spill		<p>The contractor is instructed to remove the contaminated soil and replace it with clean and fresh soil. Follow Spill procedures as provided in EMAP and ECPs.</p>	Immediate		





34.4	03-10-2022 In front of K9 tunnel	Solid waste		<p>The contractor is instructed to place the waste bin at the site.</p> <p>And aware the workers and staff to put the solid waste in the waste bin rather than littering.</p> <p>Furthermore ECP for Waste management should be followed in true letter and spirit</p>	Immediate		15-10-2022
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Table 3.6: Walk-Through Environmental Inspection Report 35



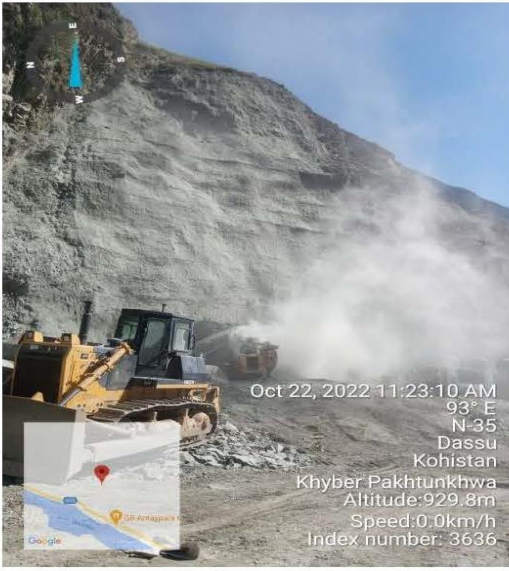

Report No. E-35

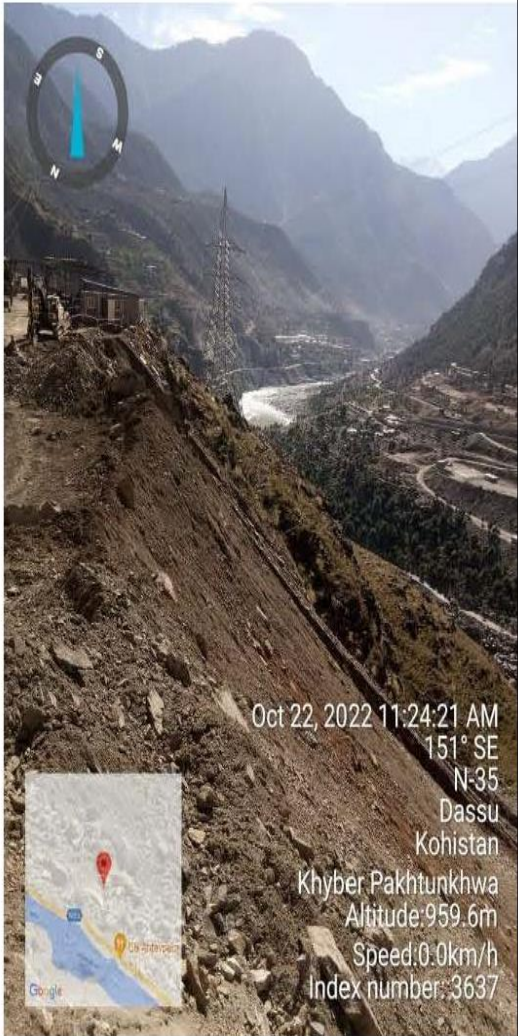

Date of Issuance: 23-10-2022-

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
35.1	21-10-2022 k-09 store camp toilets	Littering		<p>Contractor is instructed to place waste bins at the site. collect the solid waste from all the littered places and put them to the waste bins at the site Ensure training of the contractor staff on waste management ECP's.</p>	immediate		

35.2	22-10-2022 k-04 workshop	Oil spill	 <p>Oct 22, 2022 11:26:51 AM 69° E N-35 Dasu Kohistan Khyber Pakhtunkhwa Altitude:926.2m Speed:0.8km/h Index number: 3638</p>	<p>The contractor is instructed to remove the oil spill from the site by replacing fresh soil and store toxicity soil in a drum or tank temporary then deal with the contaminated soil as per ECP's of Oil Spill.</p>	<p><b>immediate</b></p>	
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35.3	21-10-2022 k-09 Pakistani camp	Poor welfare facility		The contractor is instructed to ensure the provision of proper toilet facility i.e., Commode with Flushing system for workers. Workers are using pit toilets in camp which is noncompliance to ECP's	<b>immediate</b>		
35.4	22-10-2022 k-04 tunnel	Heavy dust		The contractor is instructed to ensure wet drilling and maintain equipment good condition. the crawling machine dust collector exhaust is not functional repair as soon as possible.	<b>immediate</b>	 <p style="text-align: center;"><b>Drill Machine generating dust is removed from site</b></p>	



35.5	22-10-2022 k-04 slope	Excavated spoil thrown downwards		<p>Contractor is instructed to dump the excavated spoil at the proper designated spoil disposal site approved by the engineers rather than thrown abruptly downwards to existing KKH road. Follow SOPS given in ECPs.</p>	<p><b>immediate</b></p>		
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**Table 3.7: Walk-Through Environmental Inspection Report 36**

**Report No. E-36**

**Date of Issuance: 28-10-2022**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
36.1	27-10-2022 k-09 store+K-04	Littering of Solid Waste		<p>Contractor is instructed to place waste bins at the site. collect the solid waste from all the littered places and put them into the waste bins at the site Provide Awareness/ Training to your staff/ Labor not to through away solid waste here and there but put it in waste bins.</p>	Immediate		30-10-2022



36.2	27-10-2022 k-04 workshop+k -09	Oil spill		<p>The contractor is instructed to remove oil spill contaminated soil from the site by replacing it with clean and fresh soil and follow SOP's provided in the ECP's.</p>	<b>Immediate</b>		30-10-2022
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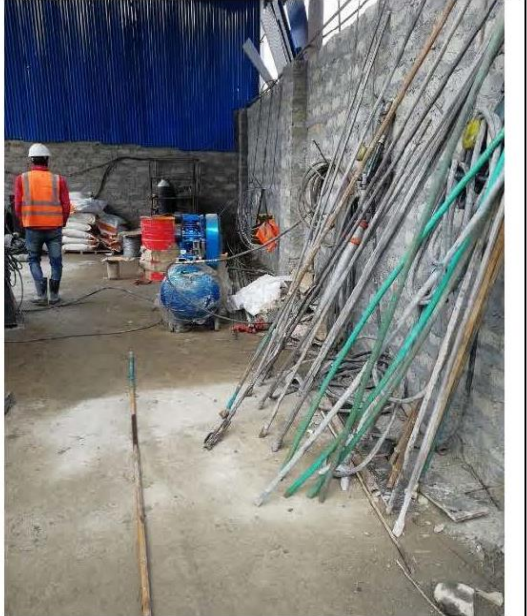


Table 3.8: Walk-Through Environmental Inspection Report 37

Report No. E-37

Date of Issuance: 04-11-2022-

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor
37.1	2-11-2022 K-04	Littering		<p>the Contactor is instructed to place waste bins at the site.</p> <p>collect the solid waste from different place and put them into the bins at the site</p> <p>After that dump the litter at designated site.</p>	immediate	

37.2	02-11-2022 K-04 ET store	Oil spill	 <p style="text-align: right; font-size: small;">Nov 2, 2022 9:53:46 AM 237 SW Index number: 3849</p>	<p>The contractor is instructed to remove oil spill from site by replacing fresh soil and store toxicity soil in a drum temporary then transport to the designated site.</p>	immediate	
37.3	02-11-2022 K-09	Inadequate Housekeeping	 <p style="text-align: right; font-size: small;">Nov 2, 2022 10:21:56 AM 245 NW Index number: 3853</p>	<p>The contractor is instructed to maintain good housekeeping at site. Manage construction material as per ECPs</p>	immediate	














37.4	2-11-2022 k-04	Improper placement of oil drums	 	The contractor is instructed to put individual oil drum on drip tray as shown in the picture.	Immediate	 
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Table 3.9: Walk-Through Environmental Inspection Report 38

Report No. E-38



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
38.1	20-11-2022 K4 Tunnel Portal	Fuel/ Oil Spills Spillage at slope		<p>The Contractor is instructed to place drip trays while refueling or changing Mobil oil. The Contaminated soil should be removed and replace with fresh soil.</p> <p>Ensure spill kits availability at the site.</p> <p>Dispose of the toxicities Soil in a drum.</p> <p>Dispose of the contaminated soil as per SOPs provided in ECP</p>	Immediate		25-11-2022



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
38.2	20-11-2022 K9 Tunnel Portal	Improper placement of fuel drums		The Contractor is instructed to construct bunded concrete flooring for fuels drums.	24 <sup>th</sup> Nov 2022		25-11-2022
38.3	20-11-2022 K4 Tunnel Portal	Littering of Solid waste	 	The contractor is instructed to keep the site clean and tidy and place waste bins at all sites.	Immediate		25-11-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
38.4	20-11-2022 K4 Tunnel Portal	Inadequate housekeeping		Contractor is instructed to keep construction material properly and maintain good housekeeping on site. Install large bins at site as well. Conduct a session with worker for adequate housekeeping of camp and site.			25-11-2022



Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
38.5	20-11-2022 K4 Tunnel Camp	Littering along the slope		<p>It is very unfortunate that after spending more than 6 years at site, the Contractor is not aware of proper waste mgt protocols. The Contractor is Instructed to remove the waste from slopes and ensure placement of bins at site. Arrange an awareness session with the labours regarding solid waste management. And prepare a temporary solid waste disposal site near by the camp.</p>	Immediate		25-11-2022





Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
38.6	20-11-2022 K9	Oil spill		<p>Contractor is instructed to replace the soil with clean and fresh soil immediate basis. And use spill kits for oil spill on the site. Dispose of the toxicities Soil in a drum.</p>			25-11-2022



Table 3.10: Walk-Through Environmental Inspection Report 39

Report No. E-39



Date of Issuance: 13-12-2022-

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
39.1	12-12-2022 K-04 tunnel portal slope	Littering		The Contactor is instructed to place waste bins at all sites of KKH-01 contract. Collection, segregation must be done as per SOP's provided in ECP's.	<b>Immediate</b>		22-12-2022




39.2	12-112-2022 k-09 tunnel portal	Oil spill	 <p>Dec 12, 2022 10:58 Index numb</p>	<p>The contractor is instructed to remove oil spill from site by replacing fresh soil and store toxicity soil in a drum temporary then transport to the designated site.</p>	immediate		22-12-2022
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<p>39.3</p>	<p>02-11-2022 K-09</p>	<p>Inadequate PPEs (Protective Shield)</p>		<p>As worker working with welding work having no protective glasses. The contractor is instructed to provide proper PPEs to the workers as per SOPs.</p>	<p><b>Immediate</b></p>		<p>22-12-2022</p>
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<p>39.4</p>	<p>12-12-2022 k-09 tunnel portal</p>	<p>Improper placeme nt of oil drums</p>	 	<p>The contractor is instructed to construct a concrete pavement underneath the storage area for oil drums and put individual oil drums inside drip tray as shown in the picture, to avoid further soil contamination.</p>	<p><b>immediate</b></p>	 	<p>22-12-2022</p>
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39.5	12-112-2022 k-0 tunnel portal	No signage & No Barricading.		The contractor is instructed to install proper signage and Barricading Tape around this Machine as per SOPs given in ECP's.		Compressor machine is removed from the location	22-12-2022
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### 3.5.2 Notices and Letters

Nine Letters were issued to the KKH-01 Contractor other than issuance of six WTEIRs by the Engineer during the reporting quarter.

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

During the quarter the scope of the work was i.e., breast wall construction, K4, K3, K8 Tunnel working camps establishment work was going on etc. The KKH-01 has balance quantities for Environmental monitoring which will be utilized once the construction works starts momentum.

### 3.6 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 3.11: Status of Contractor's Effect Monitoring**

Sr. 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. Slope stabilization works were in place during the quarter
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Quarterly	Quarterly 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. If the Work pace is enhanced in next quarter then it might re start again.
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 Real time Whats App 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 constructions 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	Quarterly	Quarterly 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	24-hour noise monitoring	Quarterly	Not done due to the current limited scope of work



		locations of sampling can be same locations of baseline air quality or new locations 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	Quarterly	The Contractor is disposing the spoil in the designated spoil dumping site at Khoshe and is also transporting the spoil to the crushing plant at Uchar as a raw material for aggregate
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Quarterly	Quarterly monitoring was carried out. The Contractor is temporarily storing the waste at the camp. The Organic waste is dumped in a pit at Uchar 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	Quarterly	Quarterly 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	Quarterly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Quarterly	This aspect was also monitored on Quarterly 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	Quarterly	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.

### 3.7 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.

**Table 3.12: Key Performance Indicators for compliance with mitigation measures**

Sr. 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 instances where parameters values exceeded 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>4</sup> See Table 8.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 3.13: 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	Exceeding in values against NEQS (air, noise, water, etc.)	Other Indicators	Remarks
1. Contractor Mobilization and Demobilization	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						4 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	
	4.7 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	4				
	7.5 Air Quality	Nil	3				Fugitive dust issues were monitored and raised in the What's app group as well as in WTEIR were issued to the contractor and rectified by the contractor and provided above
	7.6 Health and Safety						Covered under OHS
	7.7 Noise and Vibration	Nil					
	7.7 Landscape and Visual Intrusion	Nil					
	7.8 Vegetation loss	Nil					Not reported during the quarter
	7.9 Fauna / Wildlife	Nil					Not reported during the quarter
7.10 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
	7.14 Disturbance of Visual Landscape and Natural Habitats	Nil					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						
	7.17 Increased Load on Local Services and Supplies						
7. Quarry Operation	7.1 Changes to topography 7.2 Landslide 7.3 Soil erosion						No quarry operation has started. The excavated rock is used as a raw material for aggregate.
	7.4 Soil and water contamination 7.5 Air Quality 7.6 Health and Safety 7.7 Noise and Vibration 7.7 Landscape and Visual Intrusion 7.8 Vegetation loss 7.9 Fauna / Wildlife 7.10 Damage to infrastructure 7.12 Damage to PCRs						
8. Spoil Area Management	8.1 Changes to topography 8.2 Landslide 8.3 Soil erosion 8.4 Air Quality 8.5 Landscape and Visual Intrusion 8.6 Vegetation loss	Nil					
12. Waste Management	12.1 Soil and water contamination 12.2 Odor		6				6 incidence of Waste management which were reported in WTEIR by The Engineer and rectified by the contractor.

### 3.8 Non-conformance report (NCR) issued in this Quarter

During the quarter the two NCRs were issued for the non-compliances observed at site.

**Table 3.14: Non-conformance reports issued during the quarter**

Sr. No.	Contract	Subject	Issuance Date
1	KKH-01	Improper spoil disposal at Uchaar Nullah area.	20/11/2022
2	KKH-01	Improper spoil disposal at Uchaar along the slopes	26/12/2022

### 3.9 Overall Compliance Status – Tri-Partite Monthly Meetings

During the quarter three 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. The following were the major issues discussed during the meetings:

- Ensure water sprinkling at Khoshe access Road
- Ensure solid waste management
- Oil spillages removal
- Proper disposal of used oils and other chemical vessels



## 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**

Sr. 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**

Sr. No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>			
1	Chinese Workers Camp	Zaal	About 19 workers live in this camp	
2	Pakistan Workers Camps	Zaal	About 82 workers live in this camp	
<b>B.</b>	<b>Crushing/Batching Plants</b>			
1	Crushing Plant	Kass	The crushing plant has now been removed	
2	Batching plant	Kass	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	Kass	20 Ton capacity	

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

Sr. No.	Position	RAR-01 Contract	Remarks
1	Manager EHS	Junaid Gillani	
2	Environmental Officer	Vacant	
3	Environmental Supervisor	Kifayatullah	

### 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**

Sr. No.	Work Site	Details of Works	Remarks
1	Komila Bypass K0+500-K1+000 and K2+270	Excavation, drilling and blasting works, formwork, reinforcement and concrete works for foundation of breast wall	In progress
2	K8+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 15

Report No. E-15

Date of Issuance: 01-11-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
15.1	01-11-22 RAR-01 Kamila bypass	Inadequate housekeeping		The contractor is instructed to manage construction material properly according to ECPs. The site may result in accidents.	immediate		02-11-2022 Material stacking ensured. Housekeeping carried out

15.2	01-11-22 RAR-01 Kamila bypass	Littering		The contractor is instructed to keep waste bins on the site and collect solid waste in those waste bins. Follow the instructions given in ECP for Waste Management.	Immediate		02-11-2022 Waste collected and disposed of properly.
15.3	01-11-22 RAR-01 Kamila bypass	Improper installation of sign board		The contractor is instructed to install sign boards properly and keep construction material in an orderly manner. Follow the ECP's in true letter and spirit.	immediate		02-11-2022 Damaged sign board repaired and placed properly.



**Table 4.6: Walk-Through Inspection Report 16**

**Report No. E-16**

**Date of Issuance: 1-11-2022**







Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor
16.1	10-11-22 RAR-01 Kamila bypass	Inadequate housekeeping		The contractor is instructed to ensure housekeeping	immediate	  Housekeeping Done 12-11-2022
16.2	10-11-22 RAR-01 Kamila bypass	Littering of waste		The contractor is instructed to place waste bins at site and sensitize the staff to use it.	immediate	  The contractor provided waste bins for waste collection 12-11-2022




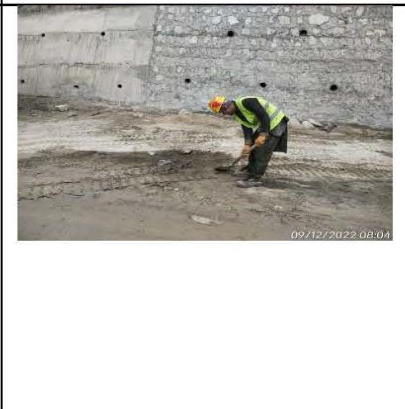


Table 4.7: Walk-Through Inspection Report 17

Report No. E-17

Date of Issuance: 08-12-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
17.1	08-12-2022 RAR-01 Kamila bypass	Inadequate housekeeping		The contractor is instructed to manage construction material properly according to ECPs and ensure good housekeeping at site.	immediate		Housekeeping of the area has been done. Construction Material Has been stacked accordingly 09-12-2022

17.2	08-12-2022 RAR-01 Kamila bypass	Littering		<p>The Contactor is instructed to place waste bins at the site. collect the solid waste from different place and put them into the bins at the site After that dump the litter at designated site.</p>	Immediate		<p>Waste collected and disposed off. 09-12-2022</p>
17.3	08-12-2022 RAR-01 Kamila bypass	Oil spill		<p>The contractor is instructed to remove the oil spill from the site by replacing contaminate soil with fresh soil and follow SOP's given in ECP..</p>	immediate		<p>Contaminated soil has been removed and area filled with fresh soil 09-12-2022</p>

#### 4.5.2 Notices and Letters

Four Letters have been issued to the Contractor during the reporting quarter other than three WTEIRs issued by The Engineer..

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

No quarterly environmental monitoring was conducted during the quarter

#### 4.5.4 NCR's Issued in this Quarter

No NCR is issued in this quarter for RAR-01 Contract.

#### 4.6 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 4.8: Status of Contractor's Effect Monitoring**

Sr. 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	Quarterly	Quarterly 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. If the work pace is enhanced in next quarter then it might re start again.
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 Real time 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	Quarterly	Quarterly 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
	Waste Management	At the designated rock disposal area	Visual inspection on spoil disposal in accordance with EMP Sub plan on	Quarterly	The Contractor is disposing the spoil in the designated spoil dumping site at Kass area

			Waste Management		
8	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Quarterly	Quarterly monitoring was carried out. The Contractor is temporarily storing the waste at the camp. The Organic waste is dumped in a pit at Uchar 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.
9	Spills from Hydrocarbon	Material storage sites and construction yards	Visual Inspection for leaks and spills	Quarterly	Quarterly monitoring was carried out. The spills were recorded during the quarter were communicated to the contractor through the walkthrough environmental inspection reports.
10	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	Quarterly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Quarterly	This aspect was also monitored on Quarterly 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	Quarterly	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.

#### 4.7 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 4.9: Key Performance Indicators for compliance with mitigation measures**

Sr. 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 parameters exceeding over NEQS	The number of parameters in ambient air and noise quality, drinking water, Waste water 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 8.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project



**Table 4.10: 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	Exceeding Parameters against Standards (air, noise, water, etc.)	Other Indicators	Remarks
1. Design/Pre-Construction Stage							Not relevant
3. Contractor Mobilization and Demobilization	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	
	4.7 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						No issue reported in this quarter
	5.3 Air Quality						No issue reported in this quarter
	5.4 Noise	Nil					No issue reported in this quarter
	5.5 Public Safety					Number of trainings provided:	No issue reported in this quarter
	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		2				No issue reported in this quarter
	7.5 Air Quality						No issue reported in this quarter
	7.6 Health and Safety						Covered under OHS Report
	7.7 Noise and Vibration						Covered under OHS Report
	7.7 Landscape and Visual Intrusion						
	7.8 Vegetation loss					Number of trees felled: 0	No issue reported in this quarter
	7.9 Fauna / Wildlife						No issue reported in this quarter
	7.10 Mortality of Fish	Nil					No issue reported in this quarter
	7.12 Damage to infrastructure	Nil					No issue reported in this quarter
	7.13 Damage to PCRs	Nil					No issue reported in this quarter
	7.14 Disturbance of Visual Landscape and Natural Habitats	Nil					No issue reported in this quarter
	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
	7.17 Increased Load on Local Services and Supplies						
8. Spoil Area Management	8.1 Changes to topography 8.2 Landslide 8.3 Soil erosion 8.4 Air Quality 8.5 Landscape and Visual Intrusion 8.6 Vegetation loss	Nil					
12. Waste Management	12.1 Soil and water contamination 12.2 Odor	Nil	3				3 incidences of improper waste management and 3 incidences of inadequate housekeeping was reported through WTEIR for rectification

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

During the quarterly three 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. The major environmental issues discussed during the meetings were:

- Solid waste management procedures 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**

Sr. 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 of China Ltd (PCCL)
4	Commencement Date	November 02, 2015
5	Contract Completion Date	June 18, 2016
6	Updated Completion Date	November 18, 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**

Sr. No.	Facility	Location	Details	Remarks
<b>A. Worker's Camps</b>				
1	Chinese Workers Camp	Dasu	About 04 workers live in this camp	
2	Pakistan Workers Camps	Dasu	About 32 workers live in this camp	
<b>B. Crushing/Batching Plants</b>				
1	Crushing Plant	Nil		
2	Batching plant	Nil		
<b>C. 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**

Sr. No.	Position	TL-01 Contract	Remarks
1	Manager EHS	Mr. Waleed	
3	Environmental Supervisor	vacant	

### 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**

Sr. No.	Work Site	Details of Works	Remarks
1	Grid Station	Block Masonry work of Control House	In progress
2	Chuchang	Excavation/ cutting for access road to grid station and transformer foundation	In progress
3	T-137B, T-138A and T-204A	Erection work completed	In progress

### 5.5 Construction Supervision and Environmental Compliances

#### 5.5.1 Site Inspections and Rectifications

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. The active site work was mainly restricted to the grid station with no major environmental non-



compliances during these Quarters. The small scale environmental non compliances are being referred to the contractor directly conveyed to the relevant staff on the site, others are conveyed to the contractor via what's app group which is more effective method for rectification of site issues. The contractor has rectified these mistakes and submitted the report with the actions taken. Although the rectification was done at site, but the reports were not submitted to the Engineer due to non-hiring of the environmental manager.

### 5.5.2 Notices and Letters

No notices/Letters were issued to the contractor by the Engineer.

### 5.5.3 Non-Conformance Report issued in this quarter

Two NCRs were issued to the non-conformance during the quarter.

**Table 5.5: Non-Conformance report issued during the quarter**

Sr. No.	Contract	Subject	Issuance Date
1	TL-01	Failure to Hire & Mobilize Environmental Officer	10/11/2022
2	TL-01	Failure to attend Quarterly environmental progress review meeting	02/12/2022

### 5.6 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 5.6: Status of Contractor's Effect Monitoring**

Sr. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	NA
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Quarterly	Quarterly 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 (PM <sub>10</sub> , 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	N.A
6	Emissions from plant and equipment	At all the construction sites for dam, KKH and tunnels	Visual Inspection	Quarterly	Quarterly 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	Quarterly	Small scaled project do not produce large amount of Waste and if produced then Spoil is being dumped at the Khoshe disposal site
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Quarterly	Quarterly visual inspection was carried out. The Contractor is temporarily storing the waste at the camp. The Contractor is disposing the spoil in the waste bins 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	Quarterly	Quarterly 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	Quarterly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Quarterly	Quarterly 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	Quarterly	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.

### 5.7 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 5.7: Key Performance Indicators for compliance with mitigation measures**

Sr. 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 parameters exceeding against NEQS values.	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 8.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 5.8: 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	Exceeding values against NEQS (air, noise, water, etc.)	Other Indicators	Remarks
1.Design/Pre- Construction Stage							Not relevant
2. Contractor Mobilization and Demobilization	3.1 Traffic Management	Nil					
	3.2 Soil Erosion and Contamination	Nil	3				3 incidences of Oil spillage reported through WTEIR
	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 fallen= 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	
	4.7 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	Nil					
	5.4 Noise	Nil					
	5.5 Public Safety					Number of trainings provided:0	
	5.6 Damage to infrastructure	Nil					
5. Spoil Area Management	8.1 Changes to topography	Nil					
	8.2 Landslide						
	8.3 Soil erosion						
	8.4 Air Quality						
	8.5 Landscape and Visual Intrusion						
	8.6 Vegetation loss						
6. Waste Management	12.1 Soil and water contamination	Nil				Waste management and oil spill management training imparted by the Engineer	No WTEIR issued in this quarter nor any waste issue reported in this month.
	12.2 Odor						

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

During the Quarter three 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 Annexure. The Major issues discussed during the meetings were:

- Non-appearance of TL-01 Staff in Monthly meeting ( NCR was issued in this regard)
- Maintaining Good Housekeeping
- Dust suppression measures
- Provision of Drinking water to Labor and staff at site.
- Prevention of Oil Spills at site



## 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**

Sr. 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 17, 2017
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**

Sr. No.	Facility	Location	Details	Remarks
A.	Worker's Camps			
1	Chinese Workers Camp	Chuchang	About 10 workers live in this camp	
2	Pakistan Workers Camps	Chuchang	About 35 workers live in this camp	
B.	Crushing/Batching Plants			
1	Crushing Plant	Chuchang		Not operational
2	Batching plant	Chuchang		Not operational
C.	Other Facilities			
1	Construction Yard	Chuchang		

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

Sr. No.	Position	PCI-01R Contract	Remarks
1	Manager EHS	Mr. Fazal Mabood	
2	Environmental Officer	Vacant	
3	Environmental Supervisor	Vacant	

### 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**

Sr. No.	Work Site	Details of Works	Remarks
1	DHPP Project Office	Internal Electrification Activities	In progress
2	DHPP Project Office	Cleaning and clearing	In progress
3	DHPP Colony	Electrical Pole Fixing	In progress
4	DHPP Project Office	Lawn area filling	In progress
5	DHPP Colony	Laying of water supply Pipes	In progress
6	Category 2 Houses	Roof Treatment, Marble Tile Fixing, Painting	In progress
7	Category 1 Houses	Filing of Lawns, Boundary wall plastering, plinth protection, Main gates installation	In progress
7	DHPP Colony	External Boundary Wall Construction is in progress.	In progress
8	Category 3 & 4	Block Masonry and Slab concreting in remaining houses	In progress

### 6.5 Construction Supervision and Environmental Compliances

#### 6.5.1 NCR's issued in this Quarter

Two NCRs were issued during the reporting quarter which are presented in the following table:

**Table 6.5: Non-Conformance reports issued the Contractor**

Sr. No.	Contract	Subject	Issuance Date
1	PCI-01R	Failure to produce License for Fuel Storage	07/11/2022
2	PCI-01R	Use of Fuel wood at Kitchens of labour camps	09/12/2022

### **6.5.2 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 6.6: Walk-Through Inspection Report-No.37**

Date of Issuance: 19-10-2022

Date of Response: 29-10-2022

Report No. E-37

Sr. No	Date and Location of Inspection	EHS observations	Before Rectification Picture	Action Taken by the Contractor	After Rectification picture
37.1	19-10-2022 Labour +FC camp	Littering		<p>Removed the scattered waste from site and dispose off at designated site .also place sufficient numbers of waste bins at different location to avoid littering.</p>	



<p>37.2</p>	<p>19-10-2022 Camp generator</p>	<p>Oil spill</p>		<p>Clean the spill replace the contaminated soil with fresh soil .and contaminated soil is stored as hazardous waste.placed all oil drums on banded concrete floor.</p>	
<p>37.3</p>	<p>19-10-2022 adjacent sector with labor Camp</p>	<p>Inadequate Housekeeping</p>		<p>Collected all the scattered construction material from site and stored at material yard and proper stacking</p>	



37.4 19-10-2022  
Labor camp +FC camp

Fuel wood



The contractor has strictly instructed to incharge of F.C to use LPG as fuel for cooking and heating purpose .wood as fuel is strictly prohibited at project site.



37.5	19-10-2022 labor camp	Untreated water		Opened the chocked pipe of washrooms and maintained proper drainage system .	
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**Table 6.7: Walk-Through Inspection Report-No.38**

Date of Issuance: 19-10-2022

Date of Response :30-10-2022

Report No. E-38

Sr. No	Date and Location of Inspection	EHS observations	Before Rectification Picture	Action Taken by the Contractor	After Rectification picture
38.1	28-10-2022 Category-01	Littering		<p>Removed the scattered waste from site and disposed off at designated site, place sufficient number of waste bins at different locations and install signage's, posters to communicate awareness among workers.</p>	

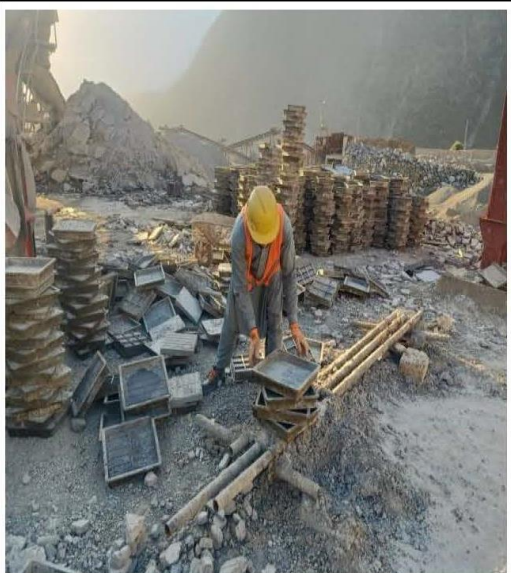
38.2

28-10-2022  
Crusher  
plant

housekeeping



Construction material are stacked properly and maintained housekeeping at site.



SSS




**Table 6.8: Walk-Through Inspection Report-No.39**



**Date of Issuance: 28-11-2022**

**Report No. E-39**

**Date of Response:09-1-2023**

Sr. No	Date and Location of Inspection	EHS Observations	Before Picture	Action Taken by the Contractor	After rectification picture
39.1	28-11-2022 WAPDA colony Chuchang	Littering, solid waste		Removed the solid waste from site and disposed off at designated waste disposal site	

<p>39.2</p>	<p>28-11-2022 WAPDA colony chuchang</p>	<p>No water sprinkling</p>		<p>Water sprinkling is contentious process contractor is sprinkle water at dust prone areas 2-3 times in a days</p>	
<p>39.3</p>	<p>28-11-2022 WAPDA colony chuchang</p>	<p>Inadequate Housekeeping</p>		<p>Removed the construction material from site and and stored at material storage area</p>	

39.4	28-11-2022 WAPDA colony chuchang	Open burning of wooden, cement bags, and packaging	 <p>Nov 28, 2022 11:25:13 AM 275° W Index number: 4030</p>	Collect the cement bags from site and stored at cement store also instruct the worker in morning TBT to avoid open burning at site	
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### 6.5.3 Notices and Letters

In addition to the WTEIRs discussed in the previous section, the Engineer also issues Notices and Letters as in this quarter 2 Letters/ notices were issued.

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

5th 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.

### 6.6 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 6.9: Status of Contractor's Effect Monitoring**

Sr. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	NA
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Quarterly	Quarterly 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	5th 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, NO2, SO2, CO2, 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	5th 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	Quarterly	Quarterly 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	5th Quarterly Environmental monitoring was postponed with the consent of Employer due to limited construction work i.e., 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	Quarterly	Spoil (if any) is being dumped at the Khoshe disposal site
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Quarterly	Quarterly 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	Quarterly	Weekly and Quarterly 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	Quarterly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Quarterly	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	Quarterly	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.

## 6.7 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 6.10: Key Performance Indicators for compliance with mitigation measures**

Sr. 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 exceeding values 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 8.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 6.11: 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	Exceeding values against NEQS (air, noise, water, etc.)	Other Indicators	Remarks
1. Design/Pre- Construction Stage							Not relevant
2. Contractor Mobilization and Demobilization	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		3				3 incidences of minor oil spill 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	
	4.7 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	8.1 Changes to topography	Nil					
	8.2 Landslide						
	8.3 Soil erosion						
	8.4 Air Quality						
	8.5 Landscape and Visual Intrusion						
	8.6 Vegetation loss						
6. Construction Colony	9.1 Change in topography	Nil					
	9.2 Landslide						
	9.3 Soil erosion						
	9.4 Soil and water contamination		1				1 incident of Oil spillage, 4 incidences of inadequate housekeeping reported through WTEIR for rectification
	9.5 Air Quality						
	9.6 Health and Safety						
	9.7 Noise and Vibration						
9.7 Landscape and Visual Intrusion							

	9.8 Vegetation loss 9.9 Fauna / Wildlife 9.10 Damage to infrastructure 9.12 Damage to PCRs 9.13 Access						
7. Waste Management	12.1 Soil and water contamination 12.2 Odor		2				2 incidences reported through WTEIRs for rectification

## 6.8 Overall Compliance Status – Tri-Partite Monthly Meetings

During the quarter three 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. The major issues discussed during the meetings were:

- Submission NOC for Fuel storage license
- Housekeeping
- Dust control
- Welfare facilities to contractor labor camp like provision of gas cylinders for cooking and heating, Janitors for Cleaning of Toilets and common areas like kitchen, availability of More Toilets and provision of proper drainage pipes from ablution area and toilets/ bath rooms.
- Drainage Issue
- Extension of sedimentation tank chambers to increase retention time.



## 7 RAR-02 Contract

### 7.1 Overview of Contracts

A brief overview of the RAR-02 contract is given in Table 7.1. The RAR-02 contract works are related to the construction of construction of Right bank access road that is starting from dam site up to Uttar Gah.

**Table 7.1: Overview of RAR-02 Contract**

Sr. 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 17, 2023

### 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**

Sr. No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps</b>			
1	Chinese Workers Camp	Kaigah	About 20 workers live in this camp	
2	Pakistan Workers Camps	Kaigah	About 98 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 Kass area is being used for the construction work	

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

Sr. No.	Position	RAR-02 Contract	Remarks
1	Manager EHS	Liaqat Ali Khan	Contractor has been instructed to engage environmental officer along with supervisory staff
2	Environmental Officer	vacant	
3	Environmental Supervisor	vacant	

### 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 RAR-02 Contract**

Sr. No.	Work Site	Details of Works	Remarks
1	K13+080 to K13+400	Excavation and Blasting	In progress
2	K20+580	Cableway foundation concrete	In progress
3	Seer Gayal & Kandia	Access Road working	In progress

### 7.5 Construction Supervision and Environmental Compliances

#### 7.5.1 Non-Conformance Reports (NCRs) issued in this Quarter

Two NCRs were issued to the contractor for the non-conformance noted at site. They are presented the following table:

**Table 7.5: Non-conformance report issued during the quarter**

Sr. No.	Contract	Subject	Issuance Date
1	RAR-02	Failure to Hire & Mobilize Environmental Officer	10/12/2022
2	RAR-02	Absence of septic tanks at Kandia labour camp	10/12/2022

#### 7.5.2 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. 9**

Report No. E-09

Date of Issuance: 20-10-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
9.1	19-10-2022 Kandia bypass Working face	Heavy dust		The contractor is instructed to ensure water sprinkling at least four time a day Follow the SOPs given in ECPs.	<b>Immediate</b>	in progress	
9.2	19-10-2022 Kandia bypass. Labor camp	Wood being used as Fuel		The contractor is instructed that burning of wood as a fuel is strictly prohibited. Therefore use alternate source like LPG gas cylinders for cooking and heating purposes	<b>immediate</b>		

9.3	19-10-2022 Kandia bypass. Labor camp	Open discharge of sewage water	 <p style="text-align: right; font-size: small;">Oct 19, 2022 11:30:27 AM 335° NW Index number: 3615</p>	<p>The contractor is instructed to avoid discharge of sewage waste water from washrooms and connect the sewerage water to the septic tank.</p>	<p><b>Immediate</b></p>		
9.4	19-10-2022 Kandia bypass. Labor camp	Absurd Toilet arrangement s	 <p style="text-align: right; font-size: small;">Oct 19, 2022 11:28:22 AM 13° N Index number: 3614</p>	<p>The contractor is instructed to place bucket. And install proper Commodes in the toilet with proper r flushing purposes.</p>	<p><b>immediate</b></p>	 <p style="text-align: right; font-size: small;">Jan 14, 2023 10:50:07 AM 30° NE Index number: 4595</p>	



**Table 7.7: Walk-Through Inspection Report No.10**

Report No. E-10

Date of Issuance: 24-10-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
10.1	24-10-2022 Kandia bypass Labor camp	Inadequate housekeeping		The contractor is instructed to maintain good housekeeping on site and manage construction material properly.	immediate		25/10/022
10.2	24-10-2022 Kandia bypass Labor camp	Fuel wood Burning		The contractor is instructed to halt the wood burning at site because it is stickily prohibited to burn wood as fuel at construction site as well as in the camps. Provide LPG gas cylinders for cooking and heating purposes	immediate		25/10/022






<p>10.3</p>	<p>24-10-2022 Kandia bypass Labor Camp</p>	<p>Poor Toilet facility</p>		<p>During routine supervision it was observed that there is no septic tank and workers are using pit toilet. The contractor is instructed to provide Proper toilet facility for workers with Proper Commode and flushing system and construct a septic tank for this toilet as well. .</p>	 <p style="text-align: center;"><b>Immediate</b></p>	 <p style="text-align: right; font-size: small;">Jan 14, 2023 10:50:07 AM 30° NE Index number: 4595</p>	
<p>10.4</p>	<p>24-10-2022 Kandia bypass Labor camp</p>	<p>Oil spill</p>		<p>The contractor is instructed to remove oil spill from site by replacing contaminated soil with clean and fresh soil. Follow the procedure for disposing off contaminated soil as given in Waste Management ECP</p>			






Table 7.8: Walk-Through Inspection Report No.11

Report No. E-11

Date of Issuance: 26-10-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
11.1	26-10-2022 RAR-02 k-13	Oil spill		The contractor is instructed to remove oil spill from site by replacing contaminated soil with clean and fresh soil. EHS Manager for RAR-02 from CGGC has to Provide training to all Staff regarding Use of Spill Kits in case of Oil spill and use of drip trays/ buckets etc and spill sheets underneath to avoid oil/chemical penetration in to the soil.	Immediate		27-10-2022





							
11.2	26-10-2022 RAR-02 k-13	Littering		The contractor is instructed to avoid littering dispose off properly and put more waste bins on site and give a refresher training for all work force and discuss matters pertaining to Solid Waste Management, Oil Spill, and Wood Burning.	Immediate		27-10-2022





**Table 7.9: Walk-Through Inspection Report No.12**

**Report No. E-12**

**Date of Issuance: 01-11-2022**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
12.1	01-11-22 RAR-02 k-12	Oil spill		The contractor is instructed remove the contaminated soil by replacing clean and fresh soil and follow ECP's in true letter and spirit	<b>immediate</b>		
12.2	01-11-22 RAR-02 k-12	Inadequate housekeeping		The contractor is instructed maintain good housekeeping on site and manage construction material in an orderly manner follow SOPs provided in ECP.	<b>immediate</b>		

<p>12.3</p>	<p>01-11-22 RAR-02 k-12</p>	<p>Excavation of spoil downwards to river</p>		<p>The contractor is instructed stop the Spoil rolling down the slope and rather comply with haulage of spoil to Spoil disposal designated sites.</p>	<p><b>immediate</b></p>	<p>Contractor will submit the plan about it</p>	
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<p>12.4</p>	<p>01-11-22 RAR-02 k-12</p>		 <p>The top photograph shows two red drums on a rocky surface. A blue drum is partially visible in the background. A timestamp at the bottom of the image reads: "Nov 1, 2022 10:36:53 AM 192° S Index number: 3838".</p> <p>The bottom photograph shows a blue drum placed on a black plastic drip tray.</p>	<p>The contractor is instructed to keep individual drums in drip trays/ secondary containment (as shown in picture Blue drum) to contain any leakage/ oil spills. Keep designated place clean as per SOPs provided in ECPs. Follow procedure shown with blue drum to avoid Oil Spill.</p>	<p>immediate</p>	<p>In progress</p>	
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**Table 7.105: Walk-Through Inspection Report No.13**

**Report No. E-13**

**Date of Issuance: 21-11-2022**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
13.1	16-11-2022 Kandia bypass labor camp	Littering of solid waste		The contractor is instructed to place wastebins and sensitize the labors to use bins for waste	immediate		
13.2	16-11-2022 Kandia bypass labor camp	Inadequate housekeeping		The contractor is instructed to maintain good housekeeping on site and manage construction material properly also follow SOPs and ECP. Place the oil drums at their designated place.	immediate		
13.3	16-11-2022 Kandia bypass	Open burning		Contractor is instructed to stop the burning of solid waste. Collect the waste into waste bins rather than burnt openly Follow SOPs and ECPs.	immediate		





13.4	16-11-2022 kandia bypass labor camp	Poor welfare facility		<p>Workers are using pit latrine in resident camp which is difficult to clean and having high chances of smell and septic tank is also not available. The contractor is instructed to provide clean toilet(WC) for workers and construct proper septic tank as soon as possible</p>	26 <sup>th</sup> Nov 2022		
13.5	16-11-2022 Kandia bypass labor camp	Fuel wood		<p>The contractor is instructed to provide LPG cylinders for cooking.</p>	reminder		

Table 7.11: Walk-Through Inspection Report No.14

Report No. E-14

Date of Issuance: 29-11-2022




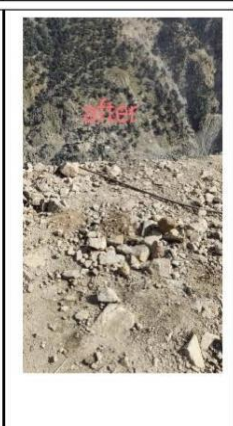
Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
14.1	28-11-2022 K12	Oil spill		The contractor is instructed remove the oil spill from the site by replacing fresh soil as per SOPs provided in ECP.	<b>Immediate</b>		01-12-2022

			 <p>The top photograph shows a dirt path with several large, dark rocks scattered across it. The bottom photograph shows a dirt road with several motorcycles parked in a row on the left side. A white vehicle is visible in the background.</p>			 <p>The top photograph is a close-up view of a steep, rocky slope. The bottom photograph shows a wider view of a similar rocky slope, with a small structure visible in the distance on the right side.</p>	
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14.2	28-11-2022 RAR-02 K12	No spill kit		The contractor is Instructed to provide proper spill kit & drip trays to each of your mechanical maintenance team and train them for oil spills.	<b>Immediate</b>		01-12-2022
14.3	28-11-2022 K12	Discarded Tyres		It is Instructed remove the discarded tyres from site ASAP	<b>Immediate</b>		01-12-2022



<p>14.4</p>	<p>28-11-2022 K12</p>	<p>Improper placement of drums</p>		<p>The Contractor is instructed to Concrete the bounded area for fuel/Oil Drums within a week.</p>	<p>Within a week</p>		<p>01-12-2022</p>
							

**Table 7.12: Walk-Through Inspection Report No. 15**

**Report No. E-15**



**Date of Issuance: 08-12-2022**

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
15.1	08-12-2022 RAR-02 k12+930	Oil spill		<p>Today observed leakage from bucket jack pipe of excavator machine.</p> <p>The contractor is instructed to repair jack pipe and remove oil spill by removing contaminated soil with fresh soil and follow SOP's given in ECPs.</p>	<b>Immediate</b>		




**Table 7.13: Walk-Through Inspection Report No. 16**

Report No. E-16





Date of Issuance: 13-12-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
16.1	12-12-2022 Kandia bypass labor camp	Poor Sanitation Facilities		The contractor is instructed to provide clean and sufficient sanitation facilities for workers as soon as possible.	Immediate		



16.2	12-12-2022 kandia bypass labor camp	Fuel wood		<p>The contractor is instructed to provide alternate source of energy for cooking purposes e.g. Bio mass plant or save electric stove or oven. If not possible then provide LPG cylinders with stoves.</p>	<b>Immediate</b>		
16.3	12-12-2022 Kandia Bypass labor camp	Inadequate storage		<p>The contractor is instructed to manage construction material properly according to ECPs and ensure good housekeeping in camp.</p>	<b>immediate</b>		



16.4	12-12-2022 Kandia bypass labor camp.	littering		The contractor is instructed to install waste bins at different places in camp. Increase the numbers of waste bins. Educate workforce and staff regarding waste disposal. Follow SOPs given in ECPs.	immediate		
16.5	12-12-2022 Gayal access Road	Heavy dust		The contractor is instructed to repair dust collector of crawling machine and reduce dust emissions and ensure wet drilling at construction site.			

### 7.5.3 Notices and Letters

There were four letters issued to the contractor other than WTEIRs during the reporting quarter. The details of the letters are reflected in chapter -10 table.

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

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

### 7.6 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 7.14: Status of Contractor's Effect Monitoring**

Sr. 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	Quarterly	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, 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, NO2, SO2, CO2, 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	Quarterly	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	Quarterly	Spoil is being dumped along the slope of designated spoil dump area.
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Quarterly	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	Quarterly	Quarterly 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	Quarterly	Supervised by OHS
12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Quarterly	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	Quarterly	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.

### 7.7 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 7.15: Key Performance Indicators for compliance with mitigation measures**

Sr. 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 exceeding values against 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 8.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 7.16: 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	Exceeding values against NEQS (air, noise, water, etc.)	Other Indicators	Remarks
1. Design/Pre- Construction Stage							Not relevant
2. Contractor Mobilization and Demobilization	3.1 Traffic Management	Nil					
	3.2 Soil Erosion and Contamination	Nil	3				3 occurrence of Minor oil spill reported through WTEIR for rectification
	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						
	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 PCR's	Nil				Number of chance finds: 0	
	4.7 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	4				4 times soil contamination through oil spill was reported and rectified
	5.3 Air Quality		8				8 occurrence of dust reported through WTEIRs which were rectified
	5.4 Noise	Nil					
	5.5 Public Safety	Nil				Number of trainings provided:	
	5.6 Damage to infrastructure	Nil					
5. Spoil Area Management	5.1 Changes to topography	Nil					
	5.2 Landslide						
	5.3 Soil erosion						
	5.4 Air Quality						
	5.5 Landscape and Visual Intrusion						
	5.6 Vegetation loss						
6. Waste Management	6.1 Soil and water contamination		6				6 times issues were reported through the WTEIR and rectified by the contractor later on
	6.2 Odor						



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

During the quarter three 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 Annexure. The major environmental issues discussed during the meeting were:

- Hiring of environmental officer
- Submission of Quarterly MPR
- Oil Spillage
- Suppression of dust
- Proper haulage of spoil
- Use of Wood as Fuel for Cooking & Heating

## 8 KKH-02 Contract

### 8.1 Overview of Contracts

A brief overview of the KKH-02 contract is given in Table 8.1. The KKH-02 contract work is related to the construction of construction of relocated road that is starting from Kaigah 25 RD up to Lachi Nullah.

**Table 8.1: Overview of KKH-02 Contract**

Sr. 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

### 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. 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.

### 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**

Sr. No.	Facility	Location	Details	Remarks
A	Worker's Camps (Kaigah)			
1	Chinese Workers Camp	Kaigah	About 45 workers in this camp	
2	Pakistan Workers Camps	Kaigah	About 5 workers in this camp in Dec but in Nov and Oct the figure was: 22 & 32	The work was closed in Dec 2022 due to stoppage of Work by Safety Department of The Engineer.
B	Crushing/Batching Plants	Nil		
1	Crushing Plant	Nil		
2	Batching plant	Nil		
C	Other Facilities			
1	Construction Yard	Nil		
2	Explosive magazine	Barseen	20 ton capacity	

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

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

### 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 KKH-02 Contract**

Sr. No.	Work Site	Details of Works	Remarks
1	K27 Kaigah, K31 and K34 Panibah Access Road	Excavation and Blasting	In progress
2	K27+450 to K27+700, K31+000 to K31+250 and K33+520 to K34+59	Excavation for ROW	In progress

### 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. 6

Report No E-06

Date of Issuance: 24-10-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
6.1	24-10-2022 KKH-02 K-34	Oil spill		The contractor is instructed to remove oil spill from site by replacing fresh soil and then store toxicity soil temporary in a pit or drum then transport to final designated dumping site which is approved by the engineers.	immediate	 The oil spill is removed through fresh soil and the toxic soil is stored for few days in excavated pit and finally transported for dumping in designated area as per instruction of DHC inspector	29/10/22





6.2	24-10-2022 KKH-02 K -34	Improper spoil management		<p>The contractor is instructed stop the throwing spoil downwards the slope and in to the river Dump the spoil at the designated dumping site approved by "The Engineer".</p>	Immediate	 <p>The spoil being loaded on dumpers and transported to designated dumping sites. Sometimes small amount throw to downsides because of road opening urgency</p>	
6.3	24-10-2022 KKH-02 K -34	Littering		<p>Contactore is instructed to place waste bins at the site. collect the solid waste from all work sites and put them to the bins at the site</p>	Immediate	 <p>The specific site solid waste produced at the sites are collected and put into the dustbin and the dustbins are intalled already</p>	



Table 8.6: Walk-Through Inspection Report No. 7

Report No E-07

Date of Issuance: 01-11-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
7.1	31-10-2022 KKH-02 K -34	Oil spill		<p>The contractor is instructed to remove the contaminated soil and replace it with clean and fresh soil. Arrange an awareness session for oil spills on site for all staff of CGGC KKH-02 Component. Follow ECP's regarding Oil Spill.</p>	immediate	 <p>The earthen ridges and bunds were immediately made around the oil spill to protect the runoff by raining water for the protection of water resources. In the meantime, fresh soil was added for the replacement of the oil spill, and the contaminated soil was stored for dumping in the designated place.</p>	2-11-2022



7.2	31-10-2022 KKH-02 K -34	Excavation of spoil downwards to Indus river		<p>The contractor is instructed stop rolling down the slope of excavated material. KKH-02 component The Engineer has identified four spoil disposal sites. Contractor is instructed to transport spoil material to designated sites.</p>	<b>Immediate</b>	 <p>During the excavation and blasting some of the excavated materials and stones rolled down the slope. Actually the excavated materials loaded on the dumpers and haulage in designated area. The rolled down materials could not enter in to the river because of long distance. There is also temporary dumping site and later the haulage is done to main dumping site.</p>
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7.3	31-10-2022 KKH-02 K-36 slope	Littering, solid waste		<p>Contactor is instructed to place waste bins at the site. Collect the solid waste from different place and put them to the waste bins at the site</p> <p>Train your staff/ labor to throw all discarded materials in the waste bins as per ECP's of Waste Management</p>	Immediate	  <p>Waste bin placed at the site and conducted TBTs on waste management and segregation in the same site for the awareness of the employees. The employees trained through a series of trainings about the environment issues.</p>	
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Table 8.7: Walk-Through Inspection Report No. 8

Report No E-08

Date of Issuance: 14-11-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor
8.1	12-11-2022 KKH-02 K -34	Oil spill		<p>1.The contractor is instructed to submit Environmental incident report of the Oil spill.</p> <p>2.The contractor is also instructed remove the oil spill from the site by replacing fresh soil and dump properly.</p> <p>3.Drip trays should be used</p>	Reminder	 <p>The environmental incident report is submitted with official letter. The spilled oil is removed through fresh soil and stored in proper place for dumping in designated site. Training has been conducted for the mechanics on oil spill and proper use of drum, drip tray and oil spill sheet.</p>




8.2	31-10-2022 KKH-02 K -36	Excavation of spoil downwards to Indus river		The contractor is instructed haul the spoil to designated disposal site and stop the haulage of spoil downwards to river	Reminder	 <p>The access road was narrow and it was difficult to loading and turns back the dumper. Later on the access road has been on opened and the excavated spoil loaded on the dump truck and transported to designated site.</p>
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Table 8.8: Walk-Through Inspection Report No. 9

Report No E-09

Date of Issuance: 02-12-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeliness	Action Taken by the Contractor	Completion Date
09.1	02-12-2022 KKH-02 K-34	Oil spill		The contractor is instructed to remove contaminated soil by replacing clean and fresh soil and deal with contaminated soil as per SOP's provided in ECP's.	<b>Immediate</b>	 <p>The earthen ridges made around the oil spill to protect the runoff by raining water for the protection of water resources. In the meantime, fresh soil was added for the replacement of the oil spill, and the contaminated soil was stored for dumping in the designated place.</p>	4/12/22

09.2	02-12-2022 KKH-02 K -34	Inadequate housekeeping		The contractor is instructed to maintain Good housekeeping at site according to ECPs.	<b>Immediate</b>	  <p>The specific site solid waste produced at the sites are collected and put into the dustbin and the dustbins are installed properly at the site for the collection of wastes.</p>	
09.3	02-12-2022 KKH-02 K -34 + K-36	No warning signage	 	The contractor is instructed to install proper warning signboards and barricading tape to highlight the sides of the jeep able track built by them, near every construction site.	<b>Immediate</b>	  <p>the signboards are installed at the starting point of k-34 and k-36 sites for awareness of the employees and road runners on main KKH</p>	





<p>09.4</p>	<p>02-12-2022 KKH-02 K -34</p>	<p>Improper spoil disposal</p>		<p>The contractor is instructed to ensure proper haulage of spoil to the dumping site. Install signboards and barricading material at construction site as well as dumping site.</p>	<p><b>Immediate</b></p>	 <p>The spoil being loaded on dumpers and transported to designated dumping sites. Sometimes small amount throw to downsides because of road opening urgency. Signboard is installed downside before starting the activity site for the awareness. The barrication could not be do as the site is working area of excavator</p>	
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Table 8.9: Walk-Through Inspection Report No. 10

Report No E-10

Date of Issuance: 13-12-2022

Sr. No	Date and Location of Inspection	EHS observations	Picture	Instructions to the Contractor	Timeline	Action Taken by the Contractor	Completion Date
10.1	12-12-2022 KKH-02 K -34	Oil spill		The contractor is instructed to remove oil spill by replacing fresh soil and store contaminated soil in a drum or pit or tank than transport to designated site which is approved by engineers.	Immediate	 <p>The oil spill replaced with fresh soil and contaminated soil transported to designated place</p>	15-12-2022



10.2	12-12-2022 KKH-02 K-34	Improper spoil disposal, i.e., Rolling of excavated material down the slope.		The contractor is instructed to ensure proper haulage of excavated material on the 5 designated dumping sites which is approved by engineers and install dumping signboards at dumping site.	<b>Reminder</b>	 <p>The access road was narrow and it was difficult to load the dumper. Later on, the excavated spoil loaded on the dump truck and transported to designated site</p>	
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### 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.

### 8.6 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 8.10: Status of Contractor's Effect Monitoring**

Sr. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	NA at the moment in the areas of construction.
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Quarterly	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 given in NEQS (river water quality 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 – 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, NO2, SO2, CO2, 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	Quarterly	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	Quarterly	Spoil is being dumped at the designated spoil disposal sites along KKH, If not then WTEIR was issued for non compliance
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Quarterly	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	Quarterly	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	Quarterly	Supervised by OHS
		Approach Roads	Visual inspection to ensure	Quarterly	Regular monitoring was carried



12	Local Roads		local roads are not damaged		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	Quarterly	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.

### 8.7 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 8.11: Key Performance Indicators for compliance with mitigation measures**

Sr. No	Key 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 exceeding values against 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 8.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 8.12: 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	Exceeding values against NEQS (air, noise, water, etc.)	Other Indicators	Remarks
1. Design/Pre- Construction Stage							Not relevant
2. Contractor Mobilization and Demobilization	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					
	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	
	4.7 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	8.1 Changes to topography	Nil	2				2 incidences were reported to contractor through WTEIRs for rectification
	8.2 Landslide						
	8.3 Soil erosion						
	8.4 Air Quality						
	8.5 Landscape and Visual Intrusion						
	8.6 Vegetation loss						
6. Waste Management	12.1 Soil and water contamination						1 occurrence of soil contamination reported through WTEIR
	12.2 Odor						
7. KKH-2 Construction	7.1 Changes to topography						
	7.2 Landslides	Nil					
	7.3 Soil erosion						
	7.4 Soil and water contamination	Nil	1				1 incidence of minor oil spill were reported to contractor through WTEIRs for rectification

	7.5 Air Quality	Nil	2				2 Incidences reported to contractor through WTEIRs for rectification
	7.6 Health and Safety						Covered under OHS
	7.7 Noise and Vibration	Nil					
	7.7 Landscape and Visual Intrusion	Nil					
	7.8 Vegetation loss	Nil					
	7.9 Fauna / Wildlife	Nil					Not reported during the quarter
	7.10 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
	7.14 Disturbance of Visual Landscape and Natural Habitats	Nil					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						
	7.17 Increased Load on Local Services and Supplies						

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

During the quarter three 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 Annexure. The major environmental issues discussed during the meeting were:

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



## 9 Electromechanical Works (EM-01)

### 9.1 Overview of Contracts

A brief overview of the EM-01 contract is given in Table 9.1. The EM-01 contract work is related to the electromechanical works.

**Table 9.1: Overview of EM-01 Contract**

Sr. No.	Item	Data
1	Contract Number	ICB No. Dasu- EM-01
2	Contract Name	Electromechanical Works EM-01
3	Contractor	JV Power China & Zhongnan Engineering Corporation limited
4	Commencement Date	May 20, 2020
5	Contract Completion Date	June 18, 2025

### 9.2 Contractor Environmental Action Plan

The Contractor has submitted a draft 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.

### 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**

Sr. No.	Facility	Location	Details	Remarks
<b>A.</b>	<b>Worker's Camps (Kass)</b>			Under construction at Kass. While the staff is living in a rented building at Dasu
1	Chinese Workers Camp	Dasu	About 2 workers in this camp	
2	Pakistan Workers Camp	Dasu	About 5 workers in this camp	
<b>B.</b>	<b>Crushing/Batching Plants</b>	Nil		
1	Crushing Plant	Nil		
2	Batching plant	Nil		
<b>C.</b>	<b>Other Facilities</b>			
1	Construction Yard	Nil		
2	Explosive magazine	Nil		

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

Sr. No.	Position	KKH-02 Contract	Remarks
1	Manager EHS	Asad Abbas	Contractor has been instructed to engage environmental officer along with supervisory staff
2	Environmental Supervisor	Zarar	

### 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 EM-01 Contract**

Sr. No.	Work Site	Details of Works	Remarks
1	Kass	Excavation and levelling	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). Currently the work has just been started at site, so No observation were taken or reported during the quarter.

**9.5.2 Notices and Letters**

No notices or letters were issued to the contractor 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. Because the contract has just started.

**9.6 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 9.5: Status of Contractor’s Effect Monitoring**

Sr. No.	Parameter	Location	Means Monitoring	Frequency	Status
1	Landslides	37 identified landslide prone areas in EIA	Visual Inspection on stability of landslides	Fortnightly	NA
2	Erosion	Earthwork areas and material storage sites	Visual inspection of erosion prevention measures and occurrence of erosion	Quarterly	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, NO2, SO2, CO2, 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	Quarterly	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	Quarterly	No spoil is generated during the activities at site. However, the spoil disposed by RAR-01 at Kass was used in levelling of the under construction camp.
9	Construction camps and construction management		Visual inspection that solid waste is disposed of at designated site	Quarterly	Under-construction
10	Spills from Hydrocarbon	Material storage sites and construction yards	Visual Inspection for leaks and spills	Quarterly	Regular monitoring was carried out. No incident observed
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	Quarterly	Supervised by OHS

12	Local Roads	Approach Roads	Visual inspection to ensure local roads are not damaged	Quarterly	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	Quarterly	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.

## 9.7 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 9.6: Key Performance Indicators for compliance with mitigation measures**

Sr. 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 exceeding values against 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 8.2: Mitigation Plan for Construction Stage of ESA of Dasu Hydropower Project

**Table 9.7: 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	Exceeding values against NEQS (air, noise, water, etc.)	Other Indicators	Remarks
1. Design/Pre- Construction Stage							Not relevant
2. Contractor Mobilization and Demobilizations	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					
	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	
	4.7 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	8.1 Changes to topography	Nil					
	8.2 Landslide						
	8.3 Soil erosion						
	8.4 Air Quality						
	8.5 Landscape and Visual Intrusion						
	8.6 Vegetation loss						
6. Waste Management	12.1 Soil and water contamination						Not reported during the quarter
	12.2 Odor						
7. EM-01 Camp 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					
	7.6 Health and Safety						Covered under



							OHS
	7.7 Noise and Vibration	Nil					
	7.7 Landscape and Visual Intrusion	Nil					
	7.8 Vegetation loss	Nil					
	7.9 Fauna / Wildlife	Nil					Not reported during the quarter
	7.10 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
	7.14 Disturbance of Visual Landscape and Natural Habitats	Nil					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						
	7.17 Increased Load on Local Services and Supplies						

### **9.8 Overall Compliance Status- Tri-Partite monthly Meetings**

No monthly meetings have been conducted with the contractor during the quarter. However it will be started from the coming quarter.

## 10 Other Environmental Activities

### 10.1 Visit Conducted during the Quarter

#### 10.1.1 Visit to Kuzabanda Service Area for Traffic Management Planning

The Environment team (ET) DHC visited the Kuza Banda service area of CPEC road on 24-12-2022 and inspected the latest available facilities. The service area Manager (Mr. Saeed ur Rehman: his contact number is: 0314-2773520) was not available at the time of visit. Only one electrician was available who opened the hotel rooms available for rent. The hotel includes 12 unfurnished rooms (5 on ground floor and 7 on first floor). The rooms have attached baths and toilets. The water supply is available. The electricity is also available but unreliable.

The service area at Kuz Banda has a petrol station under construction with structures erected, but the underground tank and fuel dispensing machines are yet to arrive on site. The mosque is functional with water supply; and the bathrooms are functional.

There are two tuc shops in the process of setting up, selling soft drinks, biscuits etc.

The ET met Kuza Banda Toll Plaza manager by the name Mr. Nasir Khan at his office cum residence at NHA office. He disclosed that the current traffic flow is exceptionally low, and the current operation at Toll Plaza is financially uneconomic. He was a thorough gentleman and the ET thanked him for the courtesy shown.

The current operation of CPEC road and the Hazara motorway by NHA implies the observance of strict SOPs on axle load. Any failure to meet the load restriction results in a fine on each section of the CPEC and Hazara Motorway used. This has resulted in shifting of most of truck traffic on old KKH.

In one discussion with the Contract Engineer (DHC) EM-01 contract, the Contract Engineer informed that all equipment of the EM-01 contract shall travel via Hazara Motorway as per the contract document. Some of the equipment has already arrived from overseas and is at Karachi port. It will be brought to Ghazi Brotha store after custom clearance for storage and later brought to Dasu.

In this circumstance, the setting up of a material loaded truck traffic control point at Kuza Banda is in disarray. Two such stations shall be required to cope with traffic on KKH and CPEC roads since the station at Kuza Banda will not record truck traffic at KKH.

#### 10.1.2 Recommendations for WAPDA

The Kuza Banda station shall not be able to record all truck traffic because the truck traffic appears to favor the old KKH route (because of various facilities available along the route e.g. repair, fuel stations, food restaurants and absence of load restriction implementations). Kuza Banda service area traffic control workstation shall only record the construction material from overseas reaching Karachi. The other options need to be looked into. These are as follows:

The development of Shang area. Here two areas were previously available, one on the river side of KKH and the second on the mountain side of KKH. The mountain side area is walled up now and possibly may not be available now. The area on river side is still intact and may be available. More research and contacts are required.

The CPEC road joins the old KKH at the first tunnel exit to Thakot end. The area about 500m from this first tunnel has limited potential to be used as a Traffic Control Station to control the construction material loaded truck movement. This location has a petrol station and a local restaurant for drivers and road users. Some research will be required to fine-tune the details.

#### 10.1.3 Station for Prime Mover at Pattan

The prime mover: 2 units are proposed to be stationed at Pattan to handle any broken-down vehicles. The proposed location at Pattan is unused and available if WAPDA decides in its favor. WAPDA will have to lease it from the owner. Previously it was in use of World Food Program and Chinese Contractor rehabilitation of KKH. Its location is a few kilometers from Pattan towards Besham.

## **10.2 Solid Waste Disposal Area**

Land acquisition section surveyed the area and the case has been forwarded to collector office for land acquisition in Dec 2022. The revenue department started its preliminary investigations regarding land owners and the survey team has been constituted for the revenue survey of the Land.

## **10.3 Meetings Conducted During the Quarter**

### **10.3.1 Meeting with MSC Consultants**

A meeting was called upon by Project Manager MSC on 15th October 2022 in their office to discuss the reporting and monitoring mechanism. A presentation was delivered by Dr. Venkata on the DHPP and updated MSC from the start date and onwards. It was informed to MSC that EMAP documents are superseded by ESA which was prepared by Independent Environmental consultants Dr. Koffman and Mr. Omar Khalid and approved by World Bank. A presentation was delivered by Dr. Anura Widana regarding the scope of their work. The MSC stressed that the contractor reports should be critically reviewed. The rectification work of contractor should be verified and each contract should be covered with approved CEAP. DHC informed that all contracts are covered by CEAP whereas the CEAP documents for KKH-02 and EM-01 are under review and revision by the contractor.

Another meeting was called upon by Project Manager MSC on 14th November 2022 in their office regarding Formats of the reports by the DHC, the formats of the contractors.

### **10.3.2 Meeting with CGGC**

A meeting was conducted with CGGC HSE staff represented by Mr. Sun Kang in October 2022 to discuss the status of pending environmental issues. Deadline was provided to the contractor for compliance.

Another meeting was conducted with CGGC HSE staff on 20th November 2022 to discuss the quarterly environmental monitoring. Mr. Sun Kang, Mr. Yang and Lab representative participated in the meeting. They were briefed regarding the additional parameters for water quality and Air quality and were instructed to submit their rates for the additional parameters.

Another meeting was also conducted on 27th Nov 2022 represented by Mr. Izhar and Mr. Asad to discuss the status of pending environmental issues. Deadline was provided to the contractor for compliance.

### **10.3.3 Meeting with WAPDA**

A meeting was called upon by Chief S&D WAPDA and Director Environment WAPDA on 14<sup>th</sup> of December 2022 in their office regarding Non compliances by the contractors at DHPP Sites. The agenda was regarding closure of NCR's, Hiring of dedicated Environmental Managers by CGGC, TL and PCI-01. There were other non-compliances like oil spills, Solid Waste Management Disposal Site.

### **10.3.4 Meeting with RAR-02 EHS Team**

A meeting was conducted with RAR-02, CGGC EHS staff dated: 12<sup>th</sup> of Dec 2022. The meeting was attended by of Mr. Liaqat Ali Khan and discussed the status of pending environmental NCR's closure. Deadline was provided to the contractor for compliance before 20th of Dec 2022 joint visit by WAPDA and DHC.

### **10.3.5 Meeting with CGGC EHS Director & proposed 3<sup>rd</sup> Party Monitoring Lab named as Bureau Veritas Lab (on behalf of CGGC)**

A meeting was conducted with CGGC EHS Director dated: 08th of Dec 2022. CGGC's 3rd Party BV-Lab was again brought in by EHS Director CGGC for a detailed presentation on their profile and overview of their equipment's(which they had brought in with them), calibration certificates and experienced staff Resume's. The only thing missing in their profile was "Certificate of Registration" from KP-EPA or Federal Environmental Protection Agency, Ministry of Climate Change. CGGC EHS Director was told that without this certificate and relevant technical qualifications No Lab is allowed to conduct Environmental Monitoring on DHPP Sites.



### 10.3.6 Quarterly Environmental progress review meetings with all Contractors

Quarterly Progress Review meeting for the Quarter of October-December 2022 were held during the quarter. Pending issues were discussed and new environmental non-compliances were also part of the discussion. Minutes of Meeting was prepared and issued to all stakeholders.

### 10.4 Meeting with World Bank (WB) Implementation Support Mission (ISM)

The World Bank Mission came twice to Dasu Hydropower Project in this 4<sup>th</sup> quarter of 2022. 1<sup>st</sup> Mission came in Oct 2022 from 09<sup>th</sup>– 13<sup>th</sup> of Oct 2022 and second ISM came in 22<sup>nd</sup> Dec 2022 to 24<sup>th</sup> Dec 2022. The environment team of DHC prepared three presentations for the World Bank Team which are given as follows:

- (i) Presentation on DHPP Traffic management Plan; Oct. 2022 & Dec 2022
- (ii) Presentation on EMAP for WB Mission; Oct 2022 & Dec 2022

#### 10.4.1 WB Mission Details

A three membered World Bank mission arrived on 9<sup>th</sup> October 2022. DHC Environment Team along with DHC international Environment advisor Dr. Venkata Nukala attended meetings and accompanied the mission during site visits. Updated status of pending issues like Air dispersion modelling, 3<sup>rd</sup> party environmental monitoring of CGGC, solid waste disposal site and traffic management plan was discussed. The mission went back on 13<sup>th</sup> October 2022.

Second World Bank Environment mission visited Dasu Hydropower Project in December 2022. The Implementation Support Mission (ISM) visited from 21<sup>st</sup> -23<sup>rd</sup> of Dec and WB Environment Team left on 23<sup>rd</sup> of Dec 2022. On 21<sup>st</sup> of Dec “The Engineers” Environment Team delivered presentation to the WB Environment Team. Agenda points are described as follows:

- Organogram for the implementation of EMAP
- Status of Pending Issues managed since October 2022 WB mission
- Efforts made to resolve the issues
- Spoil disposal sites
- Working relationship with M&E consultants
- Trainings
- Update on Traffic Management Plan

On 22<sup>nd</sup> of Dec 2022 WB team visited all construction sites(Site visit Photographs are attached in Annexure C: Photo Log.

#### 10.4.2 NCR issued to the Contractors

During the quarter non-compliance reports were issued to contractors for their long pending issues.

Sr. No.	Contract	Subject	Issuance Date
1	MW-01	Failure to Hire & Mobilize Environmental Officer	06/11/2022
2	MW-02	Failure to Hire & Mobilize Environmental Officer	06/11/2022
3	MW-01	Failure to Keep Conformance with NEQS of Waste Water	07/11/2022
4	MW-02	Failure to Keep Conformance with NEQS of Waste Water	07/11/2022
5	MW-02	Use of Chemical Drums for storage of Water & Onward Human Consumption	07/11/2022
6	PCI-01R	Failure to produce License for Fuel Storage	07/11/2022
7	KKH-02	Failure to Hire & Mobilize Environmental Officer	08/11/2022
8	TL-01	Failure to Hire & Mobilize Environmental Officer	10/11/2022
9	MW-01	Failure to submit remaining CEAP Plans	12/11/2022
10	MW-02	Failure to submit remaining CEAP Plans	12/11/2022
11	MW-02	Modification in sedimentation tank Near Adit-03	19/11/2022
12	KKH-01	Improper spoil disposal at Uchaar Nullah area.	20/11/2022
13	MW-01	Delay in Quarterly Water Quality Monitoring	22/11/2022
14	TL-01	Failure to attend Quarterly environmental progress review meeting	02/12/2022
15	PCI-01R	Use of fuelwood at Kitchens of labour camps	09/12/2022
16	RAR-02	Failure to Hire & Mobilize Environmental Officer	10/12/2022
17	RAR-02	Absence of septic tanks at Kandia labour camp	10/12/2022
18	KKH-01	Improper spoil disposal at Uchaar along the slopes	26/12/2022

### 10.5 Letters/ Reports sent to Contractors and WAPDA

Sr. No.	Subject	Date
1	Letter to WAPDA regarding Sedimentation Tank at CT-02	09-11-2022
2	Letter to contractor regarding training on communicable diseases especial focus on HIV	10-11-2022

3	Letter to SGS for getting Quotations for Additional parameters	11-11-2022
4	Letter to KKH-01 contractor on Water Quality Monitoring Resumption	16-11-2022
5	Reviewed CEAP and Comments sent on of RAR-02	21-11-2022
6	Letter to KKH-02 Contractor for repeated Environmental Non-Compliances	07-12-2022
7	Reviewed CEAP of EM-01 and Comments sent to contractor	14-12-2022
8	31st Environmental Quarterly Progress Report ( July 2022 – Sep 2022 shared with WAPDA	15-12-2022
9	Sent letters to all contractors to arrange awareness session reg protection of flora and fauna	15-12-2022
10	Sent letter to MW-01 to inspect their generators and report back	16-12-2022
11	Sent letter to KKH-02 reg their prolong closure of road	23-12-2022
12	Engineers Reply to WAPDA regarding Utilization Record for Coarse and Fine Aggregates	25-12-2022
13	Sent letter to KKH-01 to rectify environmental issues near K4 and K9 tunnel	25-12-2022
14	Sent letter to KKH-01 to ensure housekeeping at K4	25-12-2022
15	Sent letter to KKH-01 to submit NOC and license for fuel storage near K9	25-12-2022
16	Sent letter to CGICOP to stop washing of transit mixers near water body at Chuchang	26-12-2022
17	Letter to WAPDA for seeking advice on Change in Contractual Matter; Lessening of Experience required for Hiring of Environmental Director by CGGC	26-12-2022
18	Letter to WAPDA development of Traffic Management Station at Kuza Banda and related matters; urgent actions, analysis & recommendation	27-12-2022
19	Letter to KKH-01 contractor regarding Non-Compliance report: In appropriate Washing Facility of Concrete Batching Plant at K-9 Site.	28-12-2022
20	Letter to KKH01 regarding Conditional Approval of ES-PAK Laboratory for third Party Monitoring on KKH-01 Sites for Air, Noise, Water Parameters	30-12-2022

### 10.6 Joint Inspection by EHS Teams of WAPDA and DHC

In the Quarter of November it was mutually agreed between EHS Teams of WAPDA and DHC on 11<sup>th</sup> of Nov 2022 for all contractor sites as per an agreed schedule. Following Inspection Visits are completed as per schedule.

Sr. No.	Contract Name	Date Scheduled	Status of Inspection (Done/Not Done)
01	MW-01	15 Nov 2022	Done
02	MW-02	22 Nov 2022	Done
03	KKH-01	29th Nov 2022	Done
04	PCI-01 & TL-01	06th Dec 2022	Done
05	MW-02	13th Dec 2022	Done
06	KKH-01	20th Dec 2022	Done
07	KKH-02	27 <sup>th</sup> Dec 2022	Not Done: The work on this component is closed due to Special Safety issues due to unstable slopes after the 24th December 2022 fatality.

### 10.7 Trainings Conducted during the 4<sup>th</sup> Quarter of 2022

#### 10.7.1 Training sessions for Contractors

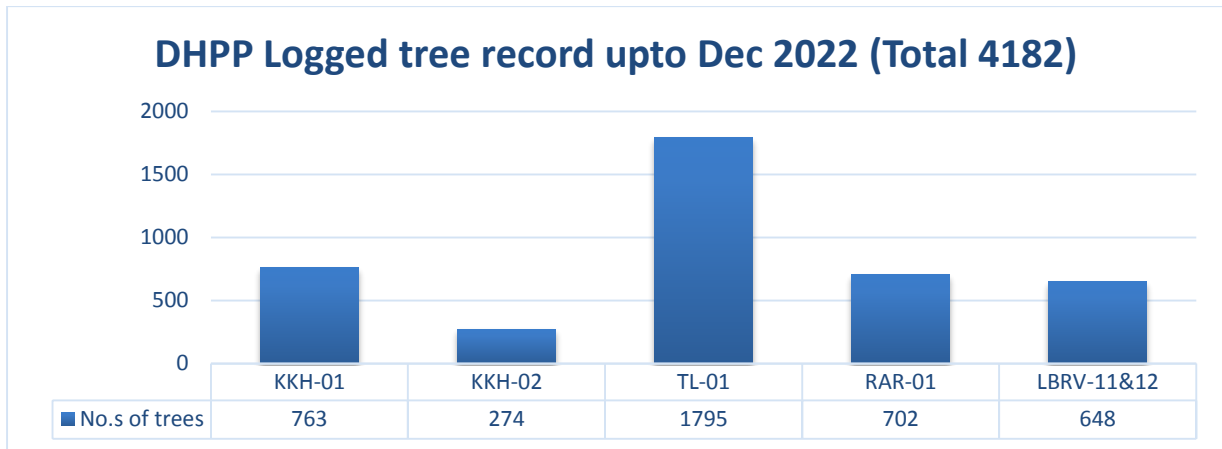
DHC Environment section in collaboration with M&E consultants arranged a training session for the Contractor environment staff regarding monitoring and reporting on 17<sup>th</sup> November 2022 at WAPDA PMU hall. WAPDA Deputy Director Environment along with his staff also attended the training session. Another training session was arranged by Mr. Sardar Alam and Mr. Awais Hassan Khan on 19<sup>th</sup> December 2022 for EHS Managers/ Supervisors of all contractor regarding Protection of flora and fauna and Oil spill management. WAPDA PMU environment team also participated in the session.

#### 10.8 Training session with CGGC

DHC Environment section arranged a training session on 19<sup>th</sup> November 2022 for the environmental technicians of CGGC engaged for water testing. Presentation was delivered by DHC Chief Environmentalist on water sampling and monitoring techniques. WAPDA environment staff also participated in the training session.

#### 10.9 Tree Removal Data

Total trees cut down due to construction of DHPP components or associated activities are 4182 up till Dec 2022



### 10.10 Physical Cultural Resources (PCR)

No Physical Cultural Resources found on any construction site of DHPP till date..

### 10.11 Grievance Redressal Mechanism

There is a one tier Independent Grievance Redressal Committee which is headed by a retired Additional Deputy Commissioner (A.D.C). The Engineer's Environment Section is in close liaison with this IGRC and till date there has been no grievances regarding Environmental component of DHPP.








# Annexures

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**Annexure A: Minutes of Quarterly Environmental Progress Meetings**  
(MW-01 & 2, KKH-01 & 02, RAR01 & 02, TL-01, PCI-01R & LBRV-10&12)

(Minutes of Meeting for Quarter of Dec 2022)

<p>DASU HYDROPOWER PROJECT MINUTES OF MEETING (MW-01&amp; MW-02) December 2022</p>		<p>29<sup>th</sup> Dec 2022</p>
<p>Employer: WAPDA (DHPP)</p>		
<p>Engineer: Dasu Hydropower Consultants (DHC)</p>		
<p>Contractor: China Gezhouba Group Co., LTD (CGGC)</p>		
<p>Subject: Monthly Environment Progress Review Meeting for MW-01&amp;02. Date: 29<sup>th</sup> Dec 2022 Time: 09:20 am-10:00 am Place: DHC meeting Hall Exhibit: Attendance Sheet</p>	<p>Agenda: Monthly Environmental Progress Review Meeting of MW-01&amp;02.</p>	
<p>Attendees See the attached attendance sheet</p>		
<p>Distributed (Softcopy) to:</p> <ol style="list-style-type: none"><li>Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu</li><li>Engineer - DHC RE MW-01&amp;02, Dasu</li></ol>	<ol style="list-style-type: none"><li>Contractor, CGGC</li><li>Office File / Circulation</li></ol>	
<p>Agreed by:</p>		
<p><u>Employer</u> Date: 03-01-2023</p> 	<p><u>Engineer</u> Date:</p>  Anwaris Hassan Sr. Environment Specialist	<p><u>Contractor</u> Date: 03/01/2023</p> 
<p>Representative of Employer- WAPDA (DHPP)</p>	<p>Representative of Engineer (DHC)</p>	<p>Representative of Contractor(CGGC).</p>

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



Project	MW-01& MW-02			Location	DHC Office		
Employer	WAPDA			Date of Meeting	29 <sup>th</sup> Dec 2022		
Engineer	DHC			Place of meeting	DHC Meeting Hall		
Contractor	CGGC			Time	09:20 am-10:00 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>

						profile before mobilization of the environmental laboratory
						05/04/2022 “The Engineer” will write a letter to contractor for updated status about the Third-Party Monitoring Laboratory Hiring Status.
				√		28/05/2022 <b>Not Done:</b> Contractor shared its decision that SGS Laboratory is finalized by the CGGC but number of parameters is still under discussion.
						30/06/2022 <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.
						29/09/2022 The contractor has decided to take SGS on board for the third party monitoring purpose but there is a meeting scheduled in 13 <sup>th</sup> October 2022 in order to discuss and finalize the Parameters to be performed.
						02/11/2022 <b>Not Done:</b> The contractor informed that the certification and equipment list of another lab will be shared with the Engineer for their approval by 12 <sup>th</sup> Nov 2022.
						30/11/2022 <b>Not Done:</b> The contractor informed that they are in search of a lab and they will submit by 12 <sup>th</sup> of Dec 2022.
						29/12/2022 <b>Not Done:</b> CGGC has again come up with Bureau Veritas Environmental Laboratory. The contractor has agreed to re submit the technical profile of M/s Bureau Veritas with all requisite documents especially certificate of registration from PK EPA. The engineer with consent from WAPDA has agreed to re consider this organization with all complete documentation and proof of all statutory



							requirements to be submitted by CGGC up till 25 <sup>th</sup> of January 2022.
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  28/05/2022  30/06/2022	<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><b>Not done</b></p> <p><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.</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> <p><b>Partially Done:</b> NCR cannot be closed now till "The Engineer" receives AFI for Inspection from the contractor.</p> <p><b>Partially done.</b> NCR regarding the sedimentation tank of Uchar 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.</p>

					29/09/2022	
					02/11/2022	AFI will be submitted by the contractor to close the NCR in October 2022.
					30/11/2022	<b>Not Done.</b> The Contractor informed that an AFI will be submitted by 10 <sup>th</sup> November 2022
						<b>Not Done.</b> The Contractor informed that an AFI will be submitted by 12 <sup>th</sup> December 2022
					29/12/2022	<b>Done:</b>
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	<b>Not done.</b> Contractor informed that search for suitable candidate is still in progress.
					28/05/2022	<b>Not Done:</b> The matter is still pending; Contractor has assured to share CV of suitable candidate who has some practical experience.
					30/06/2022	<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.
					29/09/2022	<b>Note Done:</b> The contractor will submit the resume of the nominated person 14 <sup>th</sup> Oct 2022
					02/11/2022	<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 17 <sup>th</sup> November 2022.
					30/11/2022	<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 12 <sup>th</sup> December 2022.
					29/12/2022	<b>Not Done:</b> The contractor was informed that this matter is also discussed with WB and the

							WB is also of the view that in case of non-availability of 15 years' experienced person the experience may be reduced to 10 years. On this issue the Engineer has already sought approval from WAPDA. The contractor has agreed to find a suitable candidate and submit his/her resume before 23 <sup>rd</sup> of Jan 2023.
53	Ensure Water Sprinkling in the Khoshe Area previously managed by Zhongmei			√	Immediate	02/11/2022  30/11/2022  29/12/2022	<b>Partially Done:</b> Ensure Water Sprinkling in the Khoshe area allocated to CGGC as well as Zhongmei  <b>Partially Done</b> Ensure Water Sprinkling in the Khoshe area allocated to CGGC as well as Zhongmei  <b>Partially Done:</b> Contractor has agreed to ensure compliance of Water Sprinkling. Ongoing activity,
54	Oil Spills: Work Shop area @ CR-09 near bailey bridge			√	Immediate	29/12/2022	It has been observed that the mechanics in workshops drain hydraulic fluids as well as used oils directly on open soil. This practice must be stopped immediately by contractor staff. Therefore, CGGC contractor have agreed to impart training to 100% of their staff regarding oil spill before 25 <sup>th</sup> of January 2022. If the oil spill practice is still observed on the sites than the person responsible for oil spill will be fined. Fines will be collected by the contractor's management through deductions in their salary.
55	Used oil and New Oil Storage Training			√	Immediate	29/12/2022	Contractor has agreed to imparted training to all off its staff on how to handle/ change the oil of different equipment's/ vehicles/ machinery on site and off site. Similarly special bounded storage areas (having concrete foundations) will be established by the contractor in-order to avoid any oil spillage. All used oils will be

							stored in 200 litre drums which will be placed on concrete foundations and bounded with at least the capacity of the oil storage vessels itself.
56	Water Quality of Sedimentation tanks			√	Immediate	29/12/2022	The contractor has agreed to impart methods of introduction of acid to lower the pH of the sedimentation ponds on all sites of MW-01 & MW-02.
57	Inadequate Housekeeping @ CR-09; Work shop adjacent to aggregate storage area inside CR-09, almost 100m from the gate.			√	Immediate	29/12/2022	The contractor has agreed to ensure good housekeeping @ CR-09 Store and Workshop areas.
58	CR-09 Batching Plant			√	Immediate	29/12/2022	Concrete Mixer trucks are washed up at MW-02 Batching plant adjacent to CR-09 soil disposal area. The waste water is directly going in to the Indus River. This practice is strictly prohibited. All waste water should be released after appropriate retention in the sedimentation ponds as well as the pH of the Waste water should be under NEQS Limit i.e., 6-9.
59	Contractors Local Staff Residential Facility Inspection required			√	Immediate	29/12/2022	The engineer will conduct meeting among Environment and OHS Sections and then decide that who will be conducting this inspection and with what frequency. During the inspection Workers Welfare facilities will be monitored as per provisions in the contract.
60	Sedimentation plant @ Uchar Crush Plant			√	Immediate	29/12/2022	The sedimentation Tank is very dirty and contains lot of sediments and sludgy froth is on top of the water. Therefore contractor has to clear the sedimentation tank before 16 <sup>th</sup> of Jan 2023 and submit an AFI to The Engineer for inspection
61	Installation of Wet Scrubbers on Uchar Crush Plant			√	Immediate	29/12/2022	The contractor has agreed to install sprinkling system on the conveyor belt of the Uchar Crushing Plant(wet scrubbers) Therefore contractor has agreed to install Wet scrubbers before 23 <sup>rd</sup> of Jan 2023 and submit an AFI to The Engineer for inspection



62	Zero Tolerance policy for animals at site			√	Immediate	29/12/2022	<p>No animal are allowed on the construction site by any staff member of CGGC at any construction site. The contractor has agreed to remove all animals from all construction sites before 16 Jan, 2023. {*Note: If Chinese Nationals want to keep dogs, they should be kept in special cages in Chinese part of Barseen Camp) and properly vaccinated for rabies and other communicable diseases.}</p>
63	Welfare facilities @ CR-02			√	Immediate	29/12/2022	<p>The contractor has agreed to hire a dedicated janitor for every site who will be responsible for cleaning the toilets at least three time a day in one shift. Additionally the Toilet at CR-02 are choked up, therefore they will be cleared of any sludge and the septic tank will also be cleared along with the toilets. The contractor has also agreed to install flushing system at CR-02.</p>

**Confirmed by:**



The Employer

Name:

Fashat Ali

Position:

Dy. Director (DIM/Bio)

Date:

03-01-2023.



The Engineer/Consultant

Aunis Hassan Khan

Sr. Environment Specialist

31-12-2022



The Contractor

Liaqat Ali Khan

OHSO- RAR-02

03-01-2023

Annexure-01: Attendance Sheet



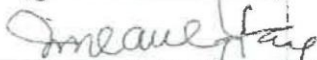



Dasu Hydropower Project

DHC Office, Dasu

Meeting attendance sheet

Monthly Environmental Progress review: KKH-01/RAR-01/TL-01/MW-01/MW-02/LBRV\_11&12/PCI-01R

Date: 29-12-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01.	AWAIS HASSAN	ENVIRONMENT SECTION DHC	Sr Environment Specialist	0333-6363675	
02.	Yanjijing	Chal- Env: Environmental management	env: Environmental management	03428508619	
03.	Imran Tariq	Wapda	Dy. Director	0321-5181114	
04.	Saeed ul Hassan	CGGC	OH&O MW-01	03219812722	
05.	Rahmat Ali	CGGC	Env. Supervisor	03554279961	
06.	Nasir Khan	DHC	Field Insp. Env	0345-9577742	
07.					

DASU HYDROPOWER PROJECT  
MINUTES OF MEETING (KKH-01) December 2022

29<sup>th</sup> Dec 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: 29<sup>th</sup> Dec 2022  
Time: 11:00am-11:30am  
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:

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

- Contractor, KKH-01
- Office File / Circulation

Agreed by:

Employer

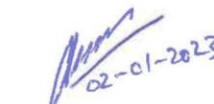
Date: 03-01-2023.



Representative of  
Employer- WAPDA (DHPP)

Engineer

Date:

  
02-01-2023  
Avcies Hassan  
Sr. Environment Specialist

Representative of  
Engineer (DHC)

Contractor

Date: 3/1/2023



Representative of  
Contractor(CCECC)

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



Project	KKH-01			Location	DHC Dasu Office		
Employer	WAPDA			Date of Meeting	29/12/2022 (11:00am-11:30 am)		
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 29/09/2022 02/11/2022 30/11/2022 29/12/2022	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. <b>Partially done</b>  <b>Partially done</b>  The employer instructed DHC to Re-send designated area to KKH-01. The Engineer will share the re allocation of the area.  The contractor has agreed to ensure water sprinkling on regular basis on all allocated sites. These will also include 200 m portion of Zhongmei contractor.
47	Proper Disposal of Used Engine/ Equipment Oils and other chemicals			√	Immediate	28/05/2022 30/06/2022 29/09/2022 02/11/2022	Please add details of this activity in the MPR of May 2022 with photographic records as well for before spillage and after spillage. Note Done; Photographic record should be maintained by the contractor and proper write up should be added to the next month's MPR. <b>Not Done;</b>  <b>Partially Done</b>



						30/11/2022	<b>Not Done:</b> The contractor will share record by 5 <sup>th</sup> of Dec 2022
						29/12/2022	Partially Done: The area where the used engine oil is temporarily stored should be bounded with atleast 12 inch barricading so that the in case of leakage of oil from drums it will not go outside the storage area.
52	Newly Established K9 CCECC Camp's Kitchen, Dinning, toiletry and washing facility with attached septic tanks along with residence facility details with pictorial evidence is required in MPR of September 2022.			√	12 Dec 2022	29/09/2022	All SOP's provided in EMAP and ECP's should be followed in true letter and spirit.
						02/11/2022	<b>Not Done</b>
						30/11/2022	<b>Not Done:</b> Commodes with flushing system and septic tank not installed
						29/12/2022	<b>Done:</b> The contractor has agreed to maintain cleanliness by appointing a dedicated janitor for the K-9 Labor camp facilities.
53	Construction of Septic Tank at K4			√	Immediate	02/11/2022	<b>Not Done</b>
						30/11/2022	<b>Done:</b> Formal submission to be made by the contractor up till 05 <sup>th</sup> of Dec 2022
						29/12/2022	<b>Not Done:</b> Contractor has agreed to comply by 16 <sup>th</sup> of January 2023
54	Availability of hot Water at K4 and K3 Camps			√	Immediate	30/11/2022	Contractor will make arrangements up till 12 <sup>th</sup> of Dec 2022
						29/12/2022	<b>Done</b>
55	Housekeeping is inadequate at K4			√	Immediate	30/11/2022	Contractor will do the compliance up till 5 <sup>th</sup> of Dec 2022
						29/12/2022	<b>Done</b>
56	Scrap Removal from K-09 up till 20 <sup>th</sup> Dec 2022			√	Immediate	30/11/2022	Contractor will do the compliance up till 20 <sup>th</sup> of Dec 2022
						29/12/2022	<b>Not Done</b>

57	Temporary oil storage to be provided by contractor		√	Immediate	30/11/2022	Contractor will prepare a temporary oil storage to be provided by contractor by 7 <sup>th</sup> of Dec 2022
58	Cleaning of Washing Rooms frequency to be increased at least 3 times a day at K-4 and K-9		√	Immediate	29/12/2022	<b>Done</b>
59	Housekeeping is inadequate K-9		√	Immediate	29/12/2022	
60	License for fuel storage at K-9		√	Immediate	29/12/2022	
61	Hiring of Dedicated Environmental Manager and Environmental Supervisor for KKH-01 Site.		√	Immediate	29/12/2022	
62	Batching Plant washing/ waste water effluent just releasing in Chuchang Nullah. Concrete Mixer washing in Chuchang Nullah(K4 & K9)		√	Immediate	29/12/2022	
63	All generators do not have canopies. Noise levels should remain under NEQS i.e., 85 dB		√	Immediate	29/12/2022	
64	Batteries are to be installed inside generators and not outside or on open soil.K4 & K9.		√	Immediate	29/12/2022	
65	Used Oil Filters Storage & record to be shared by 6 <sup>th</sup> Jan 2023.		√	Immediate	29/12/2022	

Confirmed by:



The Employer



The Engineer



The Contractor

Name: Falhat Ali

Awaiz Hassan

Li Yonghong

Position: Dy. Director (DIM/Bio)

Sr. Environment sp

Engineer

Date: 03-01-2023.

02-01-2023

3/1/2023

Annexure-01: Attendance Sheet


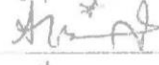
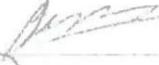
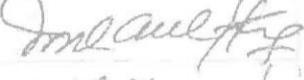

Dasu Hydropower Project

DHC Office, Dasu

Meeting attendance sheet

Monthly Environmental Progress review: KKH-01/RAR-01/TL-01/MW-01/MW-02/LBRV\_11&12/PCI-01R

Date: 29-12-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
1	Sajid Mahmood	HSE/CCECC	HSE Manager	0336 9563710	
2	ARIF HUSSAIN	HSE/CCECC	EHS	0345-2848920	
3	Awwais Hassan	ENV SECTION DHC	Sr. ENV Specialist	03336563615	
4	Imran Tariq	wapda	Dy. Director	0321-5181114	
5	Zhang HuiXiang	CCEC	HSE Director		张辉祥
6	Nasir Khan	DHC	Field insp.		

DASU HYDROPOWER PROJECT  
MINUTES OF MEETING (RAR-01) December 2022

29<sup>th</sup> Dec 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: 29<sup>th</sup> December 2022  
Time: (10:30 am-10:59 am)  
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:

Employer  
Date: 03-01-2023

Engineer  
Date:

Contractor  
Date: 3/1/2023



Representative of  
Employer- WAPDA (DHPP)



02/11/2023  
Axius Hassan  
Sr. Environmentalist

Representative of  
Engineer (DHC)



Representative of  
Contractor(CCECC)



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



Project	RAR-01	Location	DHC Office				
Employer	WAPDA	Date of Meeting	29/12/2022 (10:30 am-10:59 am)				
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.			
36	Fugitive Dust Suppression Measures during Drilling			√	Immediate	05/11/2022  29/12/2022	<b>Not Done</b>  <b>Partially Done:</b> This is a continuous activity and should be continued till the end of the project.
37	Oil Spill			√	Immediate	29/12/2022	Contractor has agreed to impart training to all staff especially mechanics and before 23 <sup>rd</sup> of Jan, 2023. Contractor has also agreed to impose fines to all of its staff who so ever will be responsible of oil spillage after 30 <sup>th</sup> of Jan 2023.
38	Inspection of Welfare Facilities		√		15 <sup>th</sup> of Jan 2022	29/12/2022	To be conducted by "The Engineer"
39	Concrete Mixer / Truck Washing at Nearby Nullah/ Water body				Immediate	29/12/2022	The contractor agreed to train their drivers and maintenance staff not to wash their concrete mixers and other dumping vehicles in or Nearby Nullah/ Water body

Confirmed by:

The Employer

Name: Farhat Ali

Position: Dy. Director

Date: 03-01-2023

The Engineer/Consultant

Aamir Hassan

Sr. Environmentalist

DHC 02/01/2023

The Contractor

Li Yonghong

Engineer

3/1/2023



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

29<sup>th</sup> Dec2022

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: 29<sup>th</sup> December 2022  
Time: (12:10pm-12:35pm)  
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:

Employer  
Date: 03-01-2023



Representative of  
Employer- WAPDA (DHPP)


Engineer  
Date: 02/01/2023



Awais Hassan Khan  
Sr. Environment Specialist

Representative of  
Engineer (DHC)

Contractor  
Date: 03/01/2023



Liaqat Ali Khan  
OHSO-RAR-02

Representative of  
Contractor(CGGC)

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



Project	RAR-02	Location	DHC Office				
Employer	WAPDA	Date of Meeting	29/12/2022 (12:10pm-12:35pm)				
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 29/09/2022 02/11/2022 30/11/2022 29/12/2022	<b>Not done.</b> The Contractor informed that they will share CV of a relevant candidate to be considered for the post. <b>Not Done;</b> Contractor is instructed to submit the resume by 17 <sup>th</sup> of Oct 2022. <b>Not Done;</b> Contractor is instructed to submit the resume by 17 <sup>th</sup> of Nov 2022. <b>Not Done;</b> Contractor is instructed to submit the resume by 15 <sup>th</sup> of Dec 2022, otherwise an NCR will be issued against this non-compliance. <b>Not Done:</b> The contractor has been shared with grave concern by the Engineer to submit a suitable candidate resume by 17 <sup>th</sup> of Jan 2023. Already an NCR is issued on 10 <sup>th</sup> of Dec 2022.
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 29/09/2022 02/11/2022	<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. <b>Not Done:</b> The contractor informed that the track to the working faces is narrow and dumper and water bowser cannot reach the working face of the site therefore contractor is given time up till 30 <sup>th</sup> of Oct 2022 to improve accessibility of the track. <b>Not Done:</b> The contractor is instructed to ensure water sprinkling on all working faces of all the



						30/11/2022	sites. The narrow track issue is still prevailing and contractor has been given time up till 14 <sup>th</sup> of Nov 2022.
						29/12/2022	<b>Not Done:</b> The contractor is instructed to ensure water sprinkling on all working faces of all the sites. The narrow track issue is still prevailing and contractor has been given time up till 27 <sup>th</sup> of Dec 2022.
							<b>Not Done:</b> The excavated material is rolled down the slope by the contractor creating a huge dust cloud. The contractor has agreed to install water pumps which will lift water from nearby stream/ river to sprinkle it upon the slopes as well as the excavated material so that there is no fugitive dust.
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	<b>Not done.</b> The Contractor is strictly instructed to ensure haulage of the spoil to designated spoil disposal area
						29/09/2022	<b>Not Done;</b> The contractor informed that at the moment the spring which was nearby is dried up and the path to the working face is narrow, due to which the dumper cannot reach the exact working face. As soon as the dumper can reach the working face the haulage of excavated material will be started.
						02/11/2022	<b>Not Done:</b> The contractor is instructed to haul the excavated material to the designated spoil disposal site and not to roll down any spoil material along the slope
						30/11/2022	<b>Not Done:</b> The contractor has requested to give him time up till 27 <sup>th</sup> of Dec 2022 which was agreed by the Engineer.

					29/12/2022	<b>Not Done:</b> The contractor is instructed to haul the excavated material to the designated spoil disposal site and not to roll down any spoil material along the slope endangering habitat along the slopes as well as aquatic life form and Nearby Human Settlements.
05	Oil spill should be removed			√	29/09/2022	<b>Not Done</b>
					02/11/2022	<b>Partially Done:</b> The contractor agreed to submit Environment incident Report by 14 <sup>th</sup> Nov 2022
					30/11/2022	<b>Partially Done:</b> The oil spill is removed but the Environment Incident report is still pending from contractor side.
					29/12/2022	<b>Not Done:</b> Contractor has agreed to impart training to all staff especially mechanics and before 23 <sup>rd</sup> of Jan, 2023. Contractor has also agreed to impose fines to all of its staff who so ever will be responsible of oil spillage after 30 <sup>th</sup> of Jan 2023.
07	Stop use of Fuel Wood at Kandia Working Face of RAR-02.			√	02/11/2022	The contractor is instructed to stop the use of wood as fuel immediately and share proof of provision of LPG cylinders to the Labor and Staff up till 15 Nov 2022.
					30/11/2022	<b>Not Done:</b> The contractor requested to enhance the date for provision of LPG cylinders to the Labor and Staff up till 15 Dec 2022.
					29/12/2022	<b>Done:</b>
08	Proper Toilets with Commodes, Flushing System and septic Tank at RAR-02 camp in Kandia to be provided.			√	02/11/2022	The contractor is instructed to provide details up till 30 <sup>th</sup> of Nov 2022
					29/12/2022	
					30/11/2022	<b>Not Done:</b> The contractor requested to give more time up till 20 <sup>th</sup> of Dec 2022
					29/12/2022	<b>Done</b>

09	Designated Spoil disposal Plan submission required by the Contractor		√	16 <sup>th</sup> of Jan 2023	30/11/2022  29/12/2022	The contractor is instructed to submit the spoil disposal plan up till 15 <sup>th</sup> of Dec 2022.  <b>Not Done:</b> The contractor has agreed to submit Spoil Disposal Plan by 16 <sup>th</sup> of Jan 2023
10	Oil Spillage		√	23 Jan 2023	29/12/2022	Submit record for oil spillage at RAR-02 (Sigloo Side). {Contractor has agreed to impart training to all staff especially mechanics and before 23 <sup>rd</sup> of Jan, 2023. Contractor has also agreed to impose fines to all of its staff who so ever will be responsible of oil spillage after 30 <sup>th</sup> of Jan 2023.}
11	Drinking Water Supply Record Submission required by RAR-02 EHS Team for all working faces.		√	09 <sup>th</sup> Jan 2023	29/12/2022	The contractor has agreed to submit by 09 Jan 2023.
12	Spoil Disposal Plan		√	20 <sup>th</sup> Jan 2023	29/12/2022	The contractor has agreed to submit a proper spoil disposal plan which will not only highlight the location map of spoil disposal areas but complete methodology that which work faces will use which spoil disposal site and what amount of excavated material will be excavated as well as what number of dumpers are required to haul the spoil material. Date for submission of Spoil Disposal Plan is 20 <sup>th</sup> Jan 2023

Confirmed by:



The Employer

Name: Fashat Ali

Position: Dy. Director (DIM/Bio)

Date: 03-01-2023



The Engineer/Consultant

AWAIS HASSAN

SR. ENVIRONMENT SPECIALIST

02-01-2023



The Contractor

Liaqat Ali Khan

OHSD-RAR-02

03-01-2023


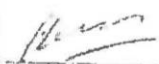
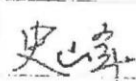



Annexure-01: Attendance Sheet  
Dasu Hydropower Project

DHC Office, Dasu

Meeting attendance sheet

Monthly Environmental Progress review: KKH-01/RAR-01/TL-01/MW-01/MW-02/LBRV\_11&12/PCI-01R (RAR-02)

Date: 29-12-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Imran Tariq	Wapda	Dy. Director	0321-5181114	
02	Awaiz Hassan	DHC	Sr. Env. Specialist	0333-6563675	
03	Shi Feng	CGGC	DM - RAR-02		
04	Saeed ul Hasan	CGGC	OH&O M	0321 9812722	
05	Nasir Khan	DHC	Field Insp. ENV	0345-457742	
06	Liaqat Ali Khan	CGGC	OHSD RAR-02	0344-9734735	



DASU HYDROPOWER PROJECT  
MINUTES OF MEETING (TL-01) December 2022

29<sup>th</sup> December 2022

**Employer:**  
WAPDA (DHPP)

**Engineer:**  
Dasu Hydropower Consultants (DHC)

**Contractor:**  
Power China Construction Co., LTD (PCCC)

Subject: Monthly Environmental Progress  
Review Meeting for TL-01.  
Date: 29<sup>th</sup> December 2022  
Time: (12:30 pm-12:55 pm)  
Place: DHC Meeting Hall  
Exhibit: Attendance Sheet

Agenda:  
Monthly Environmental Progress Review  
Meeting of TL-01.

**Attendees**

See the attached attendance sheet

Distributed (Softcopy) to:

- Employer
  - DHP WAPDA GM/PD, Dasu
  - DHP WAPDA Director (Environment), Dasu
- Engineer
  - DHC RE TL-01, Dasu

- Contractor, PCCC
- Office File / Circulation

**Agreed by:**

Employer  
Date: 03-01-2023



Representative of  
Employer- WAPDA (DHPP)

Engineer  
Date: 02-01-2023



Aziz Hassan  
Sr. Environment Specialist  
Representative of  
Engineer (DHC)

Contractor  
Date:



Representative of  
Contractor(PCCC)


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



Project	132 KV TL-01	Location			DHC Office		
Employer	WAPDA	Date of Meeting			29/12/2022 (12:30 pm-12:55 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			
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	The contractor informed that full shifting to the camp has not yet started.
						29/09/2022	Inspection done but the camp is still under construction therefore will require a new inspection.
						02/11/2022	Contractor failed to attend meeting
						30/11/2022	Contractor failed to attend meeting Therefore NCR is issued by the Engineer.
						29/12/2022	The Joint Inspection will be done by the Engineer and WAPDA Environment Teams on 11 <sup>th</sup> of Jan 2023.
38	Ensure water sprinkling with in the TL-01 Sites as well as all allocated and access roads.			√	Immediate	29/09/2022	<b>Partially Done</b>
						02/11/2022	Contractor failed to attend meeting
						30/11/2022	Contractor failed to attend meeting Therefore NCR is issued by the Engineer.
						29/12/2022	<b>Not Done:</b> On-going activity and contractor agreed to conduct it as per previous frequency i.e. 3 times a day in winter and 4 times a day in summer.

40	Awareness session regarding ECP's on TL-01 implementation at Site			√	Immediate	29/09/2022  02/11/2022 30/11/2022 29/12/2022	To be conducted by the contractor PCC but 1 day prior information will be shared with the Engineer so that the session can be witnessed by The Engineer's staff.  Contractor failed to attend meeting  Contractor failed to attend meeting Therefore NCR is issued by the Engineer.  <b>Done</b>
41	Waste Management Practices to be reflected in MPR.			√	Immediate	29/09/2022  29/12/2022	<b>Not Done</b>  <b>Not Done:</b> The contractor has agreed to share the record of waste management practices currently being followed at site and for the camp area with cover letter and also to be included in MPR. The timeline for this compliance is 10 <sup>th</sup> of Jan 2023.
42	Oil Spills			√	Immediate	29/12/2022	Contractor has agreed to impart training to all staff especially mechanics and before 23 <sup>rd</sup> of Jan, 2023. Contractor has also agreed to impose fines to all of its staff who so ever will be responsible of oil spillage after 30 <sup>th</sup> of Jan 2023.

**Confirmed by:**

The Employer 

Name: Fashal Ali

Position: Dy. Director (DIN/Bid)

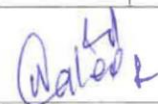
Date: 03-01-2023

The Engineers Representative 

Name: Awaiz Hassan Khan

Position: Sr. Environment Specialist

Date: 02-01-2023

The Contractor 

Name: M. Wakeed

Position: EHS Manager

Date: 03-01-2023





DASU HYDROPOWER PROJECT  
MINUTES OF MEETING (KKH-02) December, 2022

29<sup>th</sup> Dec, 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: 29<sup>th</sup> Dec 2022  
Time: (11:30am-11:55am)  
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:


Employer  
Date: 03-01-2023.

Engineer  
Date: 02-01-2023

Contractor  
Date:



Representative of  
Employer- WAPDA (DHPP)



Awais Hassan  
Sr. Environment Specialist

Representative of  
Engineer (DHC)



Representative of  
Contractor(CGGC)

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



Project	KKH-02	Location	DHC Office				
Employer	WAPDA	Date of Meeting	29/12/2022 (11:30am-11:55am)				
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 KKH-02 Component			√	20/07/2022	29-09/2022	<b>Not Done</b>
						02/11/2022	<b>Not Done:</b> The employer instructed the Engineer to issue NCR to contractor for Non compliance
						30/11/2022	<b>Not Done:</b> NCR has been Issued by the Engineer
						29/12/2022	<b>Not Done</b> The contractor has agreed to share Resume of Suitable candidate by 23 <sup>rd</sup> of Jan 2023 so that NCR closure procedure can be proceeded with.
02	Submission of CEAP as per the Engineers Comments			√	16 <sup>th</sup> of Jan 2023	29/09/2022	<b>Not Done</b>
						02/11/2022	<b>Not Done</b>
						30/11/2022	<b>Partially Done:</b> The contractor needs to update the CEAP as per new design changes
						29/12/2022	<b>Not Done:</b> The contractor needs to update the CEAP as per new design changes i.e. addition of New Tunnels and Bridges and improve the shortcomings in the CEAP as commented by the Engineer by 20 <sup>th</sup> of Jan 2023.
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	29-09/2022	<b>Not Done</b>
						02/11/2022	<b>Not Done</b> The Contractor was instructed to submit spoil disposal and sprinkling plan by 14 <sup>th</sup> of Nov 2022

						30/11/2022	<b>Partially Done:</b> The contractor needs to cover the Jeep able tracks as well during the water sprinkling activity. The Information has been added to the MPR but the information is in adequate as The Engineer want to have a clear picture about Spoil disposal, and Water Sprinkling Therefore it is instructed to the contractor to re write the Spoil Disposal and Water Sprinkling Plan.
						29/12/2022	<b>Not Done:</b> The contractor is advised by the Engineer to prepare a Water Tank along the existing KKH and pump water from that tank at lower elevation to the higher elevations for fugitive dust suppression works. Timeline for this implementation is 23/01/2023
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	29/-09/2022	The contractor informed that the passage to the site is very narrow and the dumper cannot reach in that very location resulting in some of the material being rolled over the slope. In future as the path is widened enough that the dumper can reach at the very location of where work is under progress haulage activity will start immediately.
						02/11/2022	<b>Not Done:</b> The Contractor was instructed to submit spoil disposal and sprinkling plan by 14 <sup>th</sup> of Nov 2022
						30/11/2022	<b>Partially Done:</b> The Information has been added to the MPR but the information is in adequate as The Engineer want to have a clear picture about Spoil disposal, and Water Sprinkling issues. Therefore it is instructed to the contractor to re write the Spoil Disposal and Water Sprinkling Plan.
						29/12/2022	<b>Not Done:</b> New date for compliance of slope protection and haulage of excavated material is agreed with the contractor as 23 <sup>rd</sup> of Jan 2023

06	Ensure environmental topics to be covered in TBT			√	Immediate	29/-09/2022 02/11/2022 30/11/2022 29/12/2022	<p><b>Not Done</b></p> <p><b>Not Done</b> The contractor informed that TBT will be covered in the MPR which will be submitted by 14<sup>th</sup> of November 2022</p> <p><b>Partially Done:</b> The contractor has given information in the MPR i.e. Table 2 of Introduction Chapter but This table should have separate explanation and proper write up should be developed for it.</p> <p><b>Not Done:</b> The contract have to comply by 16<sup>th</sup> of Jan 2023 especially, oil Spills, Waste Management, Housekeeping, dust suppression measures, cleanliness and hygiene among workers, communicable diseases, protection of flora and fauna, Protection of Water Bodies from Pollution. Soil Protection, Slope Protection.</p>
07	Solid Waste Management procedures especially segregation should be ensured at site with proper reporting in the next MPR.			√	Next MPR of Sep 2022	29/-09/2022 02/11/2022 30/11/2022 29/12/2022	<p><b>Not Done</b></p> <p><b>Not Done:</b> The contractor informed that solid waste management procedures will be covered in the MPR which will be submitted by 14<sup>th</sup> of November 2022</p> <p><b>Partially Done:</b> The information is provided in the MPR but the write up needs a strong review and re phrasing.</p> <p><b>Partially Done:</b> The information is provided in the MPR but the write up needs a strong review and re phrasing.</p>
09	The contractor is instructed to coordinate with other contractor for ease of local community passing through the road. Traffic			√	Immediate	30/11/2022	<p><b>Partially Done:</b> Only K45 &amp; K47 still possess traffic closure issues.</p>



	management Plan should also be reflected in MPR of Oct 2022					29/12/2022	<b>Partially Done:</b> Traffic Management especially closing of traffic and release of traffic should be synchronized within KKH-02 jurisdiction as well as RAR-02 Kandia Side so that it may not hinder movement of the traffic on the existing KKH. Contractor has agreed to undertake the above measures after resumption of work.
10	Loose Material from Slopes			√	<del>Immediate</del> 23/01/2023	29/12/2022	Contractor has agreed to remove all Boulders & other Loose Rocks from the Slopes By 23 <sup>rd</sup> Jan 2023
11	Oil Spill			√	Immediate	29/12/2022	Contractor has agreed to impart training to all staff especially mechanics and before 23 <sup>rd</sup> of Jan, 2023. Contractor has also agreed to impose fines to all of its staff who so ever will be responsible of oil spillage after 30 <sup>th</sup> of Jan 2023.
12	Used Drums, Spill Sheets, Drip trays procurement			√	Immediate	29/12/2022	KKH-02 Representative Mr. Hou Fei has agreed to conduct procurement of Drip trays, Spill Sheets, Spill Kits, PPE's Necessary for Oil Change and Spillage for KKH-02 contract. Training of all staff is required by 23 <sup>rd</sup> of Jan 2023 for all staff having topic: " In case of Oil/Chemical Spillage, how to use Spill Kit on site"

Confirmed by:



The Employer

Name: Fashat Ali  
Position: Dy. Director (DM/Bio)  
Date: 03-01-2023




The Engineer/Consultant

Awaiz Hassan Khan  
Sr. Environment Specialist  
02-01-2023

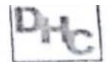
The Contractor

Syed Usman Iftikhar  
OH&O KKH-02  
03-01-2023



<b>DASU HYDROPOWER PROJECT</b> <b>MINUTES OF MEETING (PCI-01R) December 2022</b>		29 <sup>th</sup> Dec, 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: 29 <sup>th</sup> Dec 2022 Time: (11:55am- 12:30pm ) 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: 03-01-2023  	<u>Engineer</u> Date: 02/01/2023  AWAIS HASSAN SR. ENVIRONMENT SPECIALIST DHC	<u>Contractor</u> Date: 03/01/2023  Fazal Mabood. HSIE Manager CGICOP
Representative of Employer- WAPDA (DHPP)	Representative of Engineer (DHC)	Representative of Contractor(CGICOP)

MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING (PCI-01R) December 2022



Project	PCI-01R			Location	DHC Office		
Employer	WAPDA			Date of Meeting	29/12/2022 (11:55 am- 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.			√	15/08/2021	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>



						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.
						01/08/2022	<b>Not Done:</b> The Engineer will issue a reminder letter to the contractor regarding NOC from Inspector of Explosives.
						29/09/2022	<b>Partially Done:</b> The contractor has agreed to pursue the case and up till 15 <sup>th</sup> of Oct 2022 he will submit.
						02/11/2022	<b>Partially Done:</b> An NCR will be issued to the contractor for the non-compliance.
						30/11/2022	<b>Not Done:</b> NCR is issued on 7 <sup>th</sup> of Nov 2022. The contractor has not closed the NCR yet.
						29/12/2022	<b>Not Done:</b>
47	Water Sprinkling Issue. Contractor is instructed to ensure adequate water sprinkling inside the colony area as well as the allocated portion of Khoshe access road.			√	Immediate	29/09/2022	<b>Not Done;</b>
						02/11/2022	<b>Partially Done:</b> Contractor agreed that Increase in frequency of water sprinkling is much need
						30/11/2022	<b>Partially Done;</b> The sprinkling issue is partially resolved by contractor i.e., half of the road is always dry as well as the frequency needs to be increased.
						29/12/2022	<b>Partially Done:</b> The contractor agreed to increase the frequency and coverage of the Water sprinkling area.
48	MPR Should reflect Waste/ discarded materials section describing used batteries and tires and used oil with their quantities and disposal method /vendor details.			√	Immediate	29/09/2022	<b>Not Done;</b>
						02/11/2022	<b>Partially done</b> The details of used tires and Batteries are not provided in the MPR of Oct 2022
						30/11/2022	<b>Not Done:</b> The contractor has agreed to submit by 08 <sup>th</sup> of Dec 2022
						29/12/2022	<b>Partially Done:</b> The write up needs to be updated and the record needs to be shared by

							the contractor with cover letter to which the contractor has agreed upon to share by 10 <sup>th</sup> of January 2023.
49	Proper Fuel Storage Area should be ensured			√	8 <sup>th</sup> Dec 2022	02/11/2022 30/11/2022 29/12/2022	The contractor is instructed to complete it by 11 <sup>th</sup> of Nov 2022 <b>Not Done:</b> The contractor is given time line up to 8 <sup>th</sup> of Dec 2022 <b>Done:</b>
50	Dengue Spray should be ensured in camp, washrooms, material storage area.			√	8 <sup>th</sup> Dec 2022	02/11/2022 30/11/2022 29/12/2022	<b>Partially Done:</b> The contractor is instructed to ensure Dengue Spray at the identified locations <b>Partially Done:</b> <b>Done:</b>
51	Hiring of dedicated Janitor for toilets and camps			√	12 Dec 2022	30/11/2022 29/12/2022	The contractor agreed to hire a dedicated janitor by 12 <sup>th</sup> of December 2022. <b>Done</b>
52	Hot Water Availability for Labor , Security and all other Staff			√	12 Dec 2022	30/11/2022 29/12/2022	The contractor has agreed to install Geysers in the Camp <b>Not Done</b>
53	Availability of More Wash rooms for Camp area			√	15 Dec 2022	30/11/2022 29/12/2022	The contractor has agreed to provide more toilets to the Labor, Staff and other employees up till 15 <sup>th</sup> of Dec 2022 <b>Not Done:</b>
54	Use of Wood as fuel for cooking and heating purpose.			√	12 Dec 2022	30/11/2022 29/12/2022	The contractor has agreed to provide gas cylinders to their staff/labor for the cooking and heating <b>Done</b>
55	Oil Spills			√		29/12/2022	Contractor has agreed to impart training to all staff especially mechanics and before 23 <sup>rd</sup> of Jan, 2023. Contractor has also agreed to impose fines to all of its staff who so ever will be responsible of oil spillage after 30 <sup>th</sup> of Jan 2023.
56	Living Conditions (Welfare Facilities)			√		29/12/2022	The Environment Section and OHS Section of DHC will decide this matter after an internal meeting that which section of DHC will do the monthly inspections.

57	Treatment of Sedimentation Pond water before release inn to the drain.			√		29/12/2022	The contractor has agreed to treat its sedimentation pod water before its release in to the drain.
58	Concrete Mixer Truck Washing at Chuchang Nullah			√		29/12/2022	The contractor agreed to train their drivers and maintenance staff not to wash their concrete mixers and other dumping vehicles in or near the Chuchang Nullah.

Confirmed by:



The Employer

Name: Farhat Ali

Position: Dy. Director (DIM/Bio)

Date: 03-01-2023

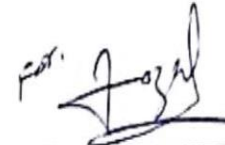


The Engineer

AWAIS HASSAN KHAN

SR. ENVIRONMENT SPECIALIST

02-01-2023



The Contractor


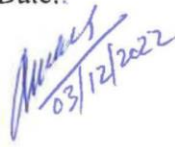
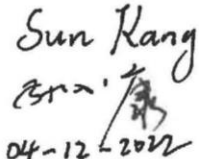

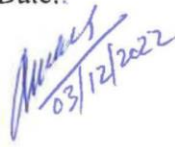
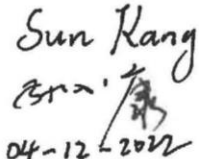

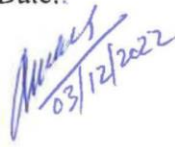
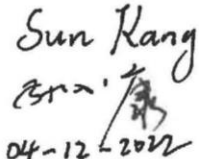
Fozal Mabood

HSE Manager

03/01/2023



(Minutes of Meeting for Quarter of Nov 2022)

<p>DASU HYDROPOWER PROJECT MINUTES OF MEETING (MW-01&amp; MW-02) November 2022</p>		<p>30<sup>th</sup> Nov 2022</p>						
<p>Employer: WAPDA (DHPP)</p>								
<p>Engineer: Dasu Hydropower Consultants (DHC)</p>								
<p>Contractor: China Gezhouba Group Co., LTD (CGGC)</p>								
<p>Subject: Monthly Environment Progress Review Meeting for MW-01&amp;02. Date: 30<sup>th</sup> Nov 2022 Time: 09:20 am-10:00 am Place: DHC meeting Hall Exhibit: Attendance Sheet</p>	<p>Agenda: Monthly Environmental Progress Review Meeting of MW-01&amp;02.</p>							
<p>Attendees See the attached attendance sheet</p>								
<p>Distributed (Softcopy) to:</p> <p>1. Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu</p> <p>2. Engineer - DHC RE MW-01&amp;02, Dasu</p>	<p>3. Contractor, CGGC 4. Office File / Circulation</p>							
<p>Agreed by:</p> <table style="width: 100%;"><tr><td style="text-align: center;"><p><u>Employer</u> Date:</p></td><td style="text-align: center;"><p><u>Engineer</u> Date:</p> 03/12/2022</td><td style="text-align: center;"><p><u>Contractor</u> Date:</p> 04-12-2022</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(CGGC)</p></td></tr></table>			<p><u>Employer</u> Date:</p> 	<p><u>Engineer</u> Date:</p>  03/12/2022	<p><u>Contractor</u> Date:</p>  04-12-2022	<p>Representative of Employer- WAPDA (DHPP)</p>	<p>Representative of Engineer (DHC)</p>	<p>Representative of Contractor(CGGC)</p>
<p><u>Employer</u> Date:</p> 	<p><u>Engineer</u> Date:</p>  03/12/2022	<p><u>Contractor</u> Date:</p>  04-12-2022						
<p>Representative of Employer- WAPDA (DHPP)</p>	<p>Representative of Engineer (DHC)</p>	<p>Representative of Contractor(CGGC)</p>						



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



Project	MW-01& MW-02		Location		DHC Office		
Employer	WAPDA		Date of Meeting		30 <sup>th</sup> Nov 2022		
Engineer	DHC		Place of meeting		DHC Meeting Hall		
Contractor	CGGC		Time		09:20 am-10:00 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	“The Engineer” 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.
						29/09/2022	<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.
						02/11/2022	The contractor has decided to take SGS on board for the third party monitoring purpose but there is a meeting scheduled in 13 <sup>th</sup> October 2022 in order to discuss and finalize the Parameters to be performed.
						30/11/2022	<b>Not Done:</b> The contractor informed that the certification and equipment list of another lab will be shared with the Engineer for their approval by 12 <sup>th</sup> Nov 2022.
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	<b>Not done.</b> <b>Not done.</b> The Contractor informed that the rectification will be done immediately and the NCR closure will be requested within a week. <b>Not done</b> <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.
						29/09/2022	AFI will be submitted by the contractor to close the NCR in October 2022.
						02/11/2022	<b>Not Done.</b> The Contractor informed that an AFI will be submitted by 10 <sup>th</sup> November 2022
						30/11/2022	<b>Not Done.</b> The Contractor informed that an AFI will be submitted by 12 <sup>th</sup> November 2022
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	<b>Not done.</b> Contractor informed that search for suitable candidate is still in progress.

						28/05/2022	<b>Not Done:</b> The matter is still pending; Contractor has assured to share CV of suitable candidate who has some practical experience.
						30/06/2022	<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.
						29/09/2022	<b>Note Done:</b> The contractor will submit the resume of the nominated person 14 <sup>th</sup> Oct 2022
						02/11/2022	<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 17 <sup>th</sup> November 2022.
						30/11/2022	<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 12 <sup>th</sup> December 2022.
52	Details of used batteries, tires lubricants to be included in MPR			√	immediate	29/09/2022	The contractor should include in the next MPR
						02/11/2022	<b>Not Done:</b>
						30/11/2022	<b>Done:</b>
53	Ensure Water Sprinkling in the Khoshe Area previously managed by Zhongmei				Immediate	02/11/2022	<b>Partially Done:</b> Ensure Water Sprinkling in the Khoshe area allocated to CGGC as well as Zhongmei
						30/11/2022	<b>Partially Done</b> Ensure Water Sprinkling in the Khoshe area allocated to CGGC as well as Zhongmei



Confirmed by:



The Employer

Name:

Gagat Ali

Position:

AD

Date:

5/12/22

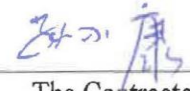


The Engineer/Consultant

Awaiz Hassan Khan

Sr. Environmentalist

03-12-2022



The Contractor

Sun Hong

NSE Director

04-12-2022




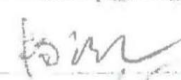

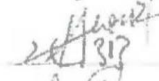

Annexure-01: Attendance Sheet  
Dasu Hydropower Project


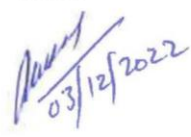

Dasu Hydropower Consultants

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: 30-11-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Awais Hassan Khan	DHC	Environment Specialist		
02	Nasir Khan	DHC	Field Insp.	0345-9577742	
03	Farhat Ali	WAPDA	Dy. Director	0344 9596431	
04	Yunus Khan	CGCL	Environment Specialist	0342-3508619	
05	Usaid Ali	WAPDA	Env - ecology	0345-9610585	
	Izhar Aziz	CGCL	Environment Supervisor	0344 7623614	
	ASAD ALI	CGCL	C.HSO-MW-2	0345-7176126	

<p>DASU HYDROPOWER PROJECT MINUTES OF MEETING (KKH-01) November 2022</p>		<p>30<sup>th</sup> Nov 2022</p>
<p>Employer: WAPDA (DHPP)</p>		
<p>Engineer: Dasu Hydropower Consultants (DHC)</p>		
<p>Contractor: China Civil Engineering Construction Co., LTD (CCECC)</p>		
<p>Subject: Monthly Environment Progress Review Online Meeting for KKH-01. Date: 30<sup>th</sup> Nov 2022 Time: 11:00am-11:30am Place: DHC Meeting Hall Pages: 02 Exhibit: Attendance Sheet</p>	<p>Agenda: Monthly Environmental Progress Review Meeting of KKH-01.</p>	
<p>Attendees See the attached attendance sheet</p>		
<p>Distributed (Softcopy) to:</p> <ol style="list-style-type: none"><li>Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu</li><li>Engineer - DHC RE Roads, Dasu</li></ol>	<ol style="list-style-type: none"><li>Contractor, KKH-01</li><li>Office File / Circulation</li></ol>	
<p>Agreed by:</p>		
<p><u>Employer</u> Date:</p> 	<p><u>Engineer</u> Date:</p> 	<p><u>Contractor</u> Date:</p> 
<p>Representative of Employer- WAPDA (DHPP)</p>	<p>Representative of Engineer (DHC)</p>	<p>Representative of Contractor(CCECC)</p>

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






Project	KKH-01	Location			DHC Dasu Office		
Employer	WAPDA	Date of Meeting			30/11/2022 (11:00am-11:30 am)		
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	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.
						30/06/2022	<b>Partially done</b>
						29/09/2022	<b>Partially done</b>
						02/11/2022	The employer instructed DHC to Re-send designated area to KKH-01.
						30/11/2022	The Engineer will share the re allocation of the area.
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.



						30/06/2022	Inspection done. The observation was that Solid waste management practice should be properly done as per Waste Management ECP's guidance
						29/09/2022	Uchaar Camp of CCECC is inundated due to recent floods. Therefore, new camp observations will be provided after inspection of camp.
						02/11/2022	The contractor informed that details of new camp regarding waste management practices will be provided in 2022 Oct's MPR.
						30/11/2022	<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.
						30/06/2022	Note Done; Photographic record should be maintained by the contractor and proper write up should be added to the next month's MPR.
						29/09/2022	<b>Not Done;</b>
						02/11/2022	<b>Partially Done</b>
						30/11/2022	<b>Not Done:</b> The contractor will share record by 5 <sup>th</sup> of Dec 2022
51	Details of recyclable wastes to be added in MPR of September 2022				MPR of Nov2022	29/09/2022	All SOP's provided in EMAP and ECP's should be followed in true letter and spirit.
						02/11/2022	<b>Not Done</b>
						30/11/2022	<b>Done:</b>
52	Newly Established K9 CCECC Camp's Kitchen, Dinning, toiletry and washing facility with attached septic tanks along with residence facility details with pictorial evidence is required in MPR of September 2022.			√	12 Dec 2022	29/09/2022	All SOP's provided in EMAP and ECP's should be followed in true letter and spirit.
						02/11/2022	<b>Not Done</b>
						30/11/2022	<b>Not Done:</b> Commodes with flushing system and septic tank not installed
53	Construction of Septic Tank at K4			√	10 <sup>th</sup>	02/11/2022	<b>Not Done</b>

						30/11/2022	<b>Done:</b> Formal submission to be made by the contractor up till 05 <sup>th</sup> of Dec 2022
54	Availability of hot Water at K4 and K3 Camps					30/11/2022	Contractor will make arrangements up till 12 <sup>th</sup> of Dec 2022
55	Housekeeping is inadequate at K4					30/11/2022	Contractor will do the compliance up till 5 <sup>th</sup> of Dec 2022
56	Scrap Removal from K-09 up till 20 <sup>th</sup> Dec 2022					30/11/2022	Contractor will do the compliance up till 20 <sup>th</sup> of Dec 2022
57	Temporary oil storage to be provided by contractor					30/11/2022	Contractor will prepare a temporary oil storage to be provided by contractor by 7 <sup>th</sup> of Dec 2022

Confirmed by:

 _____ The Employer	 _____ The Engineer	 _____ The Contractor
Name: <u>Liaqat Ali</u>	Name: <u>Awaiz Hassan Khan</u>	Name: <u>CCECC</u>
Position: <u>AD</u>	Position: <u>Sr. Environment Sp</u>	Position: <u>HSE Director</u>
Date: <u>5/12/2022</u>	Date: <u>03/12/2022</u>	Date: <u>5/12/2022</u>

Annexure-01: Attendance Sheet







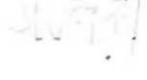
Dasu Hydropower Project

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: 30-11-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
1	Farhat Ali	WAPDA	Dy. Director	0344 9596 431	
2	MANZOOR	CCECC	HSE Manager	0345-5687757	
3	JUNAID Ahmed	CCECC/HSE	HSE Manager	0345-9601987	
4	LIAGAT ALI	wapda	AD	0345-9610585	
5	Awaiz Hassan Khan	DHC	Sr Env Sp.	0333-0563695 0345-9577742	
6	Nasir Khan	DHC	Field Insp	03450577742	
7	Zhang Junying	CCECC	HSE Director		

DASU HYDROPOWER PROJECT  
MINUTES OF MEETING (KKH-02) November, 2022

30<sup>th</sup> Nov, 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> Nov 2022  
Time: (10:00am-10:30am)  
Place: DHC Meeting Hall  
Pages: 01  
Exhibit: Attendance Sheet

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

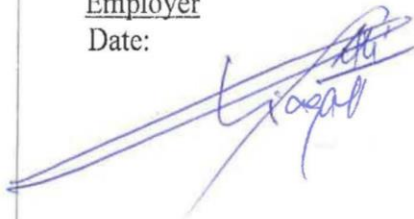
Attendees  
See the attached attendance sheet

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:

Employer  
Date:



Representative of  
Employer- WAPDA (DHPP)

Engineer  
Date:



Representative of  
Engineer (DHC)



Contractor

Date: 4/12/2022

Representative of  
Contractor(CGGC)



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



Project	RAR-02	Location		DHC Office			
Employer	WAPDA	Date of Meeting		30/11/2022 (10:00am-10:30am)			
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 <i>KKH-02</i>			√	20/07/2022	29/-09/2022  02/11/2022  30/11/2022	<b>Not Done</b>  <b>Not Done:</b> The employer instructed the Engineer to issue NCR to contractor for Non compliance  <b>Not Done:</b> NCR has been Issued by the Engineer
02	Submission of monthly environmental progress report			√	Immediate	29/-09/2022  02/11/2022  30/11/2022	<b>Not Done</b>  <b>Not Done</b> The contractor ensured to submit the MPR by 14 <sup>th</sup> of Nov 2022  <b>Done</b>
03	Submission of revised CEAP as per the Engineer's comments			√	07/07/2022	29/09/2022 02/11/2022  30/11/2022	<b>Not Done</b> <b>Not Done:</b> The contractor ensured to submit the MPR by 20 <sup>th</sup> of Nov 2022  <b>Done</b>
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	29/-09/2022  02/11/2022  30/11/2022	<b>Not Done</b>  <b>Not Done</b> The Contractor was instructed to submit spoil disposal and sprinkling plan by 14 <sup>th</sup> of Nov 2022  <b>Partially Done:</b> The contractor needs to cover the Jeep able tracks as well during the water sprinkling activity. The Information has been added to the MPR but the information is in adequate as The Engineer want to have a clear picture about Spoil disposal, and Water Sprinkling Therefore it is instructed to the

							contractor to re write the Spoil Disposal and Water Sprinkling Plan.
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	29/-09/2022	The contractor informed that the passage to the site is very narrow and the dumper cannot reach in that very location resulting in some of the material being rolled over the slope. In future as the path is widened enough that the dumper can reach at the very location of where work is under progress haulage activity will start immediately.
						02/11/2022	<b>Not Done:</b> The Contractor was instructed to submit spoil disposal and sprinkling plan by 14 <sup>th</sup> of Nov 2022
						30/11/2022	<b>Partially Done:</b> The Information has been added to the MPR but the information is in adequate as The Engineer want to have a clear picture about Spoil disposal, and Water Sprinkling issues. Therefore it is instructed to the contractor to re write the Spoil Disposal and Water Sprinkling Plan.
06	Ensure environmental topics to be covered in TBT			√	Immediate	29/-09/2022	<b>Not Done</b>
						02/11/2022	<b>Not Done</b> The contractor informed that TBT will be covered in the MPR which will be submitted by 14 <sup>th</sup> of November 2022
						30/11/2022	<b>Partially Done:</b> The contractor has given information in the MPR i.e. Table 2 of Introduction Chapter but This table should have separate explanation and proper write up should be developed for it.
07	Solid Waste Management procedures especially segregation should be ensured at site with proper reporting in the next MPR.			√	Next MPR of Sep 2022	29/-09/2022	<b>Not Done</b>
						02/11/2022	<b>Not Done:</b> The contractor informed that solid waste management procedures will be covered in

						30/11/2022	the MPR which will be submitted by 14 <sup>th</sup> of November 2022  <b>Partially Done:</b> The information is provided in the MPR but the write up needs a strong review and re phrasing.
08	Tree record should be maintained and reported in the MPR's on regular basis			√	Next MPR of Sep 2022	29/-09/2022 02/11/2022 30/11/2022	<b>Not Done</b>  <b>Not Done</b>  <b>Done:</b> Tree record is shared with the Engineer separately but it should be part of the MPR.
09	The contractor is instructed to coordinate with other contractor for ease of local community passing through the road. Traffic management Plan should also be reflected in MPR of Oct 2022			√		30/11/2022	<b>Partially Done:</b> Only K45 & K47 still possess traffic closure issues.

Confirmed by:



The Employer

Name:

Usama Ali

Position:

AD

Date:

5/12/2022

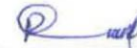


The Engineer/Consultant

Awaiz Hassan Khan

Sr. Environment Sp

03-12-2022



The Contractor

Dr. Fajal Ur Rehman

Enviro. Officer (acting)

4/12/2022

Annexure-01: Attendance Sheet







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: 30-11-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
1	Farhad Ali	WAPDA	Jy. Director	03449596431	
2	Dr. Fajal ul Rehman	KKH-02	Envir. Officer	03474846528	
3	Usman Iftikhar	"	CHSO	03004226072	
4	LINGAT ALI	WAPDA	AD	0345-7610585	
5	Azees Hassan Khan	DHC	Sr. Env. Sp.		
6	Nasir Khan	DHC	Field msp	0345-9577742	



DASU HYDROPOWER PROJECT  
MINUTES OF MEETING (PCI-01R) November 2022

30<sup>th</sup> Nov, 2022

Employer:  
WAPDA (DHPP)

Engineer:  
Dasu Hydropower Consultants (DHIC)

Contractor:  
China Gansu Co., LTD (CGICOP)

Subject: Monthly Environmental Progress  
Review Meeting for PCI\_01R.  
Date: 30<sup>th</sup> Nov 2022  
Time: (11:30am- 11:59am )  
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:

Employer  
Date:



Representative of  
Employer- WAPDA (DHPP)

Engineer  
Date:



03/12/2022

Representative of  
Engineer (DHC)

Contractor  
Date: 4/12/2022



Representative of  
Contractor(CGICOP)

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



Project	PCI-01	Location			DHC Office		
Employer	WAPDA	Date of Meeting			30/11/2022 (11:30 am- 11:59 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.			√	15/08/2021	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>

						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.
						01/08/2022	<b>Not Done:</b> The Engineer will issue a reminder letter to the contractor regarding NOC from Inspector of Explosives.
						29/09/2022	<b>Partially Done:</b> The contractor has agreed to pursue the case and up till 15 <sup>th</sup> of Oct 2022 he will submit.
						02/11/2022	<b>Partially Done:</b> An NCR will be issued to the contractor for the non-compliance.
						30/11/2022	<b>Not Done:</b> NCR is issued on 7 <sup>th</sup> of Nov 2022. The contractor has not closed the NCR yet.
47	Water Sprinkling Issue. Contractor is instructed to ensure adequate water sprinkling inside the colony area as well as the allocated portion of Khoshe access road.			√	Immediate	29/09/2022	<b>Not Done;</b>
						02/11/2022	<b>Partially Done:</b> Contractor agreed that Increase in frequency of water sprinkling is much need
						30/11/2022	<b>Partially Done;</b> The sprinkling issue is partially resolved by contractor i.e., half of the road is always dry as well as the frequency needs to be increased.
48	MPR Should reflect Waste/ discarded materials section describing used batteries and tires and used oil with their quantities and disposal method /vendor details.			√	Immediate	29/09/2022	<b>Not Done;</b>
						02/11/2022	<b>Partially done</b> The details of used tires and Batteries are not provided in the MPR of Oct 2022
						30/11/2022	<b>Not Done:</b> The contractor has agreed to submit by 08 <sup>th</sup> of Dec 2022
49	Proper Fuel Storage Area should be ensured			√	8 <sup>th</sup> Dec 2022	02/11/2022	The contractor is instructed to complete it by 11 <sup>th</sup> of Nov 2022
						30/11/2022	<b>Not Done:</b> The contractor is given time line up to 8 <sup>th</sup> of Dec 2022
50	Dengue Spray should be ensured in camp, washrooms, material storage area.			√	8 <sup>th</sup> Dec 2022	02/11/2022	<b>Partially Done:</b> The contractor is instructed to ensure Dengue Spray at the identified locations

51	Hiring of dedicated Janitor for toilets and camps		√	12 Dec 2022	30/11/2022	<b>Partially Done:</b> The contractor agreed to hire a dedicated janitor by 12 <sup>th</sup> of December 2022.
52	Hot Water Availability for Labor , Security and all other Staff		√	12 Dec 2022	30/11/2022	The contractor has agreed to install Geysers in the Camp
53	Availability of More Wash rooms for Camp area		√	15 Dec 2022	30/11/2022	The contractor has agreed to provide more toilets to the Labor, Staff and other employees up till 15 <sup>th</sup> of Dec 2022
54	Use of Wood as fuel for cooking and heating purpose.		√	12 Dec 2022	30/11/2022	The contractor has agreed to provide gas cylinders to their staff/labor for the cooking and heating

**Confirmed by:**

The Employer

Name:

Position:

Date:

The Engineer

Name:

Position:

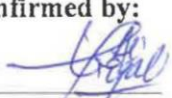
Date:

The Contractor

Name:

Position:

Date:





*Cragar Ad*

*Awaiz Hassan Khan*

*Abuzal Kamin*

*AD*

*Sr. Environment Sp*

*Planning Manager*

*5/12/22*

*03-12-2022*

*04/12/2022*






Annexure: Attendance Sheet of Participants

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: 30-11-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Awais Hassan	DHC	Env. Eng. Specialist	0305-0563075	
02	Farhat Sb	Wapda	Dep. Director	0344 9596431	
03	Fozal Mahmood	CG-CCP	Environmentalist	0344140431	
04	Uzair Sb	Wapda	AO	0344-9610576	
05	Nasir Khan	DHC	Field Insp		

<b>DASU HYDROPOWER PROJECT</b> <b>MINUTES OF MEETING (RAR-01) November 2022</b>		30 <sup>th</sup> Nov 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> November 2022 Time: (10:30 am-10:59 am) 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: 	<u>Engineer</u> Date:  03/12/2022	<u>Contractor</u> Date:  05/12/2022
Representative of Employer- WAPDA (DHPP)	Representative of Engineer (DHC)	Representative of Contractor(CCECC)

### MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING (RAR-01) November 2022



Project	RAR-01	Location	DHC Office				
Employer	WAPDA	Date of Meeting	30/11/2022 (10:30 am-10:59 am)				
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.			
36	Fugitive Dust Suppression Measures during drilling			√		05/11/2022	Not Done

Confirmed by:

The Employer

Name:

Liaqat Ali

Position:

AD

Date:

05/12/22

The Engineer/Consultant

Awais Hassan Khan

Sr. ENVIRONMENT SP

03/12/2022

The Contractor

UT/L

HSE director



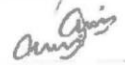

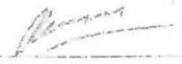

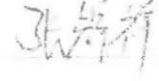
05/12/2022

Annexure: Attendance Sheet of the Participants


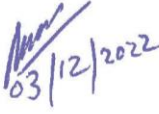

Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting Attendance Sheet

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

Date: 30-11-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
①	Faslat Ali	WAPDA	Dy. Director	0344 9596 431	
②	MANZOOK	CCECC	HSE Manager	0345-5687751	
③	JUNAID Ahmed	CCECC/HSE	HSE Manager	0345-9601987	
④	Liaqat Ali	wapda	AD	0345-9610525	
⑤	Awas Hassan Khan	DHC	Sr Env Sp	0343-6503695 0343 9577242	
⑥	Nasir Khan	DHC	Field Insp	0345957742	
⑦	Zhang Hui Xiang	CGIL	HSE Director		



<b>DASU HYDROPOWER PROJECT</b> <b>MINUTES OF MEETING (RAR-02) November 2022</b>			30 <sup>th</sup> Nov2022
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> November 2022 Time: (12:10pm-12:35pm) 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:  	<u>Engineer</u> Date:   03/12/2022	<u>Contractor</u> Date:   2022.12.28	
Representative of Employer- WAPDA (DHPP)	Representative of Engineer (DHC)	Representative of Contractor(CGGC)	

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



Project	RAR-02	Location		DHC Office			
Employer	WAPDA	Date of Meeting		30/11/2022 (12:10pm-12:35pm)			
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	<b>Not done.</b> The Contractor informed that they will share CV of a relevant candidate to be considered for the post.
						29/09/2022	<b>Not Done;</b> Contractor is instructed to submit the resume by 17 <sup>th</sup> of Oct 2022.
						02/11/2022	<b>Not Done;</b> Contractor is instructed to submit the resume by 17 <sup>th</sup> of Nov 2022.
						30/11/2022	<b>Not Done;</b> Contractor is instructed to submit the resume by 15 <sup>th</sup> of Dec 2022, otherwise an NCR will be issued against this non-compliance.
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.
						29/09/2022	<b>Not Done:</b> The contractor informed that the track to the working faces is narrow and dumper and water bowser cannot reach the working face of the site therefore contractor is given time up till 30 <sup>th</sup> of Oct 2022 to improve accessibility of the track.
						02/11/2022	<b>Not Done:</b> The contractor is instructed to ensure water sprinkling on all working faces of all the sites. The narrow track issue is still prevailing and contractor has been given time up till 14 <sup>th</sup> of Nov 2022.

						30/11/2022	<b>Not Done:</b> The contractor is instructed to ensure water sprinkling on all working faces of all the sites. The narrow track issue is still prevailing and contractor has been given time up till 27 <sup>th</sup> of Dec 2022.
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	<b>Not done.</b> The Contractor is strictly instructed to ensure haulage of the spoil to designated spoil disposal area
						29/09/2022	<b>Not Done;</b> The contractor informed that at the moment the spring which was nearby is dried up and the path to the working face is narrow, due to which the dumper cannot reach the exact working face. As soon as the dumper can reach the working face the haulage of excavated material will be started.
						02/11/2022	The contractor is instructed to haul the excavated material to the designated spoil disposal site and not to roll down any spoil material along the slope
						30/11/2022	<b>Not Done:</b> The contractor has requested to give him time up till 27 <sup>th</sup> of Dec 2022 which was agreed by the Engineer.
05	Oil spill should be removed				√	29/09/2022	<b>Not Done</b>
						02/11/2022	<b>Partially Done:</b> The contractor agreed to submit Environment incident Report by 14 <sup>th</sup> Nov 2022
						30/11/2022	<b>Partially Done:</b> The oil spill is removed but the Environment Incident report is still pending from contractor side.
06	Tree record should be maintained and submitted in every MPR.			√		29/09/2022	<b>Not Done:</b>
						02/11/2022	<b>Not Done:</b> The contractor informed that the data will be submitted by 14 Nov 2022

					30/11/2022	Done
07	Stop use of Fuel Wood at Kandia Working Face of RAR-02.			√	02/11/2022  30/11/2022	The contractor is instructed to stop the use of wood as fuel immediately and share proof of provision of LPG cylinders to the Labor and Staff up till 15 Nov 2022.  <b>Not Done:</b> The contractor requested to enhance the date for provision of LPG cylinders to the Labor and Staff up till 15 Dec 2022.
08	Proper Toilets with Commodes, Flushing System and septic Tank at RAR-02 camp in Kandia to be provided.			√	02/11/2022  30/11/2022	The contractor is instructed to provide details up till 30 <sup>th</sup> of Nov 2022  <b>Not Done:</b> The contractor requested to give more time up till 20 <sup>th</sup> of Dec 2022
09	Designated Spoil disposal Plan submission required by the Contractor			√	30/11/2022	The contractor is instructed to submit the spoil disposal plan up till 15 <sup>th</sup> of Dec 2022.

Confirmed by:

  
The Employer

  
The Engineer/Consultant

  
The Contractor

Name: \_\_\_\_\_

Awas H. Khan

Yang Jianjun

Position: \_\_\_\_\_

Sr. Environmentalist

Environment Manager

Date: \_\_\_\_\_

03-12-2022

2022.12.28



Annexure-01: Attendance Sheet


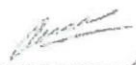
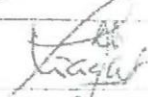
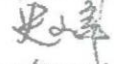


Dasu Hydropower Project

Dasu Hydropower Consultants

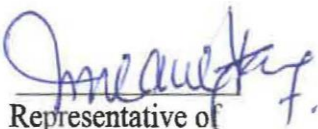
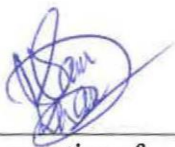
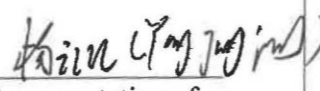
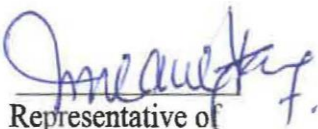
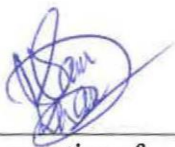
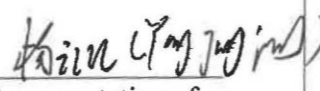
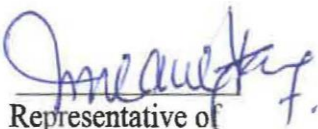
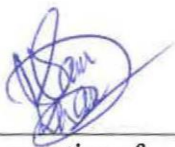
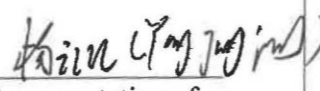
Meeting Attendance Sheet

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

Date: 30-11-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Fazhal Ali	WAPDA	Dy. Director	0344 9596 431	
02	Aziz Hassan	DHC	Sr. Env. Sp	03736563675	
03	Liaqat Ali	Wapda	AO-	0345-9610585	
04	Shi Feng	CGIC	PM-RAR-02	0362 858488	
05	Liaqat Ali Khan	HSED/CGIC	DHSD-RAR-02	0344-9734735	
06	Nasir Khan	DHC	Field inspector	0345-9577798	

(Minutes of Meeting for Quarter of Oct 2022)

<p>DASU HYDROPOWER PROJECT MINUTES OF MEETING (MW-01&amp; MW-02) October 2022 02<sup>nd</sup> November 2022</p>				
<p>Employer: WAPDA (DHPP)</p>				
<p>Engineer: Dasu Hydropower Consultants (DHC)</p>				
<p>Contractor: China Gezhouba Group Co., LTD (CGGC)</p>				
<p>Subject: Monthly Environment Progress Review Meeting for MW-01&amp;02. Date: 02<sup>nd</sup> Nov 2022 Time: 09:30 am-10:30 am Place: DHC meeting Hall Exhibit: Attendance Sheet</p>	<p>Agenda: Monthly Environmental Progress Review Meeting of MW-01&amp;02.</p>			
<p>Attendees See the attached attendance sheet</p>				
<p>Distributed (Softcopy) to:</p> <ol style="list-style-type: none"><li>Employer - DHP WAPDA GM/PD, Dasu - DHP WAPDA Director (Environment), Dasu</li><li>Engineer - DHC RE MW-01&amp;02, Dasu</li></ol>	<ol style="list-style-type: none"><li>Contractor, CGGC</li><li>Office File / Circulation</li></ol>			
<p>Agreed by:</p> <table style="width: 100%;"><tr><td style="text-align: center;"><p><u>Employer</u> Date: 10/11/2022</p><p>Representative of Employer- WAPDA (DHPP)</p></td><td style="text-align: center;"><p><u>Engineer</u> Date: 10/11/2022</p><p>Representative of Engineer (DHC)</p></td><td style="text-align: center;"><p><u>Contractor</u> Date: 11.11.2022</p><p>Representative of Contractor(CGGC)</p></td></tr></table>		<p><u>Employer</u> Date: 10/11/2022</p>  <p>Representative of Employer- WAPDA (DHPP)</p>	<p><u>Engineer</u> Date: 10/11/2022</p>  <p>Representative of Engineer (DHC)</p>	<p><u>Contractor</u> Date: 11.11.2022</p>  <p>Representative of Contractor(CGGC)</p>
<p><u>Employer</u> Date: 10/11/2022</p>  <p>Representative of Employer- WAPDA (DHPP)</p>	<p><u>Engineer</u> Date: 10/11/2022</p>  <p>Representative of Engineer (DHC)</p>	<p><u>Contractor</u> Date: 11.11.2022</p>  <p>Representative of Contractor(CGGC)</p>		

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



Project	MW-01& MW-02		Location		DHC Office		
Employer	WAPDA		Date of Meeting		02th Nov 2022		
Engineer	DHC		Place of meeting		DHC Meeting Hall		
Contractor	CGGC		Time		09:30 am-10:30 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>

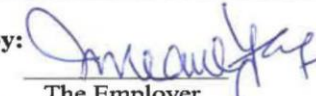


				√		<p>05/04/2022 profile before mobilization of the environmental laboratory</p> <p>“The Engineer” will write a letter to contractor for updated status about the Third-Party Monitoring Laboratory Hiring Status.</p> <p>28/05/2022 <b>Not Done:</b> Contractor shared its decision that SGS Laboratory is finalized by the CGGC but number of parameters is still under discussion.</p> <p>30/06/2022 <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.</p> <p>29/09/2022 <b>Not done.</b> The contractor has decided to take SGS on board for the third party monitoring purpose but there is a meeting scheduled in 13<sup>th</sup> October 2022 in order to discuss and finalize the Parameters to be performed.</p> <p>02/11/2022 <b>Not done.</b> The Contractor informed that the certification and equipment list of the another Lab will shared with the Engineer for their approval by 12<sup>th</sup> November 2022</p>
24	Proper adaptive/mitigation measures for the closure of two NCRs issued in November 2020			√	20/05/2021	<p>02/06/2021 <b>Not done.</b></p> <p>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.</p> <p>26/10/2021 <b>Not done</b></p> <p>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.</p> <p>30/12/2021 The Contractor informed that by 5<sup>th</sup> January AFI will be sent to the Engineer to check the rectification.</p>



						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.
						29/09/2022	<b>Partially done.</b> AFI will be submitted by the contractor to close the NCR in October 2022.
						02/11/2022	<b>Partially done.</b> The Contractor will submit AFI by 10 <sup>th</sup> November 2022 and will close the issue
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.

				√		<p>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.</p> <p>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.</p> <p>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.</p> <p>28/05/2022 <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 Haigler &amp; Bailey will be engaged to conduct the Air Dispersal Modelling.</p> <p>30/06/2022 <b>Not done.</b> Contractor informed that IEE has been revised and resubmitted to EPA for grant of NOC which is expected on 15<sup>th</sup> July 2022. After getting NOC Haigler Bailey will be engaged.</p> <p>29/09/2022 The Contractor informed that Haigler Bailey will be coming on 23<sup>rd</sup> Oct 2022.</p> <p>02/11/2022 <b>Closed.</b> The Consultant Haigler Bailey is mobilized to site since 1<sup>st</sup> November 2022 for Environmental monitoring.</p>
36	Appointment of Environment Director			√	16 <sup>th</sup> January 2021	<p>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.</p> <p>01/03/2022 <b>Not done.</b> Contractor informed that search for suitable candidate is still in progress.</p>

						28/05/2022	<b>Not Done:</b> The matter is still pending; Contractor has assured to share CV of suitable candidate who has some practical experience.
						30/06/2022	<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.
						29/09/2022	<b>Note Done:</b> The contractor will submit the resume of the nominated person 14 <sup>th</sup> Oct 2022
						02/11/2022	<b>Note Done.</b> The Contractor informed that feedback will be given by 17 <sup>th</sup> November 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. 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.			√	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.
						29/09/2022	<b>Partially done</b>
						02/11/2022	<b>Done</b>
51	Disposal of sludge from diversion tunnels as sludge was accumulated during the recent floods of July 2022 and Aug 2022			√	29/09/2022	29/09/2022	All sludge should be disposed of at designated spoil disposal sites.
						02/11/2022	<b>Done</b>
52	Details of used batteries, tires lubricants to be included in MPR			√	immediate	29/09/2022	The contractor should include in the next MPR
						02/11/2022	<b>Not done.</b>
53	Ensure water sprinkling in the Khoshe area previously managed by Zhongmei			√			

<p><b>Confirmed by:</b> </p> <p>The Employer</p> <p>Name: <u>Imran Javidi</u></p> <p>Position: <u>Dy Director</u></p> <p>Date: <u>10/11/2022</u></p>	<p></p> <p>The Engineer/Consultant</p> <p><u>Sardar Alam</u></p> <p><u>Sr. Environmentalist</u></p> <p><u>10/11/2022</u></p>	<p></p> <p>The Contractor</p> <p><u>Environmental Engineer</u></p> <p><u>11/11/2022</u></p>
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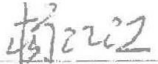


Annexure-01: Attendance Sheet  
Dasu Hydropower Project

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: 02-11-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01.	Junaid Iftikhor	Env/WAPDA	Sub-Engineer	0305-5961458	
02.	Coajal slo	WAPDA	AD-WAPDA	0345-960585	
03.	Saeed ul Hassam	CGGC	Officer MW-01	0321-9812722	
04.	Yunus Jinn	CGCL	Manager MW-02	0342-858639	
05.	Nasir Khan	DHC ENV	Field Inspector	0345-9577742	
06.	Awas H. Khan	ENV DHC	Env specialist.		



**DASU HYDROPOWER PROJECT**  
**MINUTES OF MEETING (KKH-02) October, 2022**

02<sup>nd</sup> November, 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: 02<sup>nd</sup> Nov 2022  
Time: (10:00am-10:30am)  
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

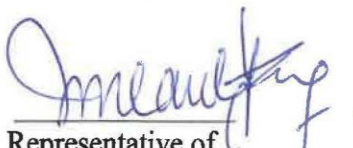
3. Contractor, CGGC  
4. Office File / Circulation

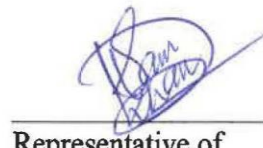
Agreed by:

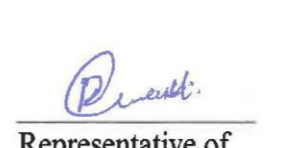
Employer  
Date: 10/11/22

Engineer  
Date: 10/11/22

Contractor  
Date: 12/11/22

  
Representative of  
Employer- WAPDA (DHPP)

  
Representative of  
Engineer (DHC)

  
Representative of  
Contractor(CGGC)

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



Project		RAR-02		Location		DHC Office	
Employer		WAPDA		Date of Meeting		02/11/2022 (10:00am-10:30am)	
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 KKH-02 Component			√	20/07/2022	29/-09/2022 02/11/2022	<b>Not Done</b> <b>Not Done.</b> The Employer instructed Engineer to issue NCR to contractor for non-compliance
02	Submission of monthly environmental progress report			√	Immediate	29/-09/2022 02/11/2022	<b>Not Done</b> <b>Not Done.</b> The Contractor ensured to submit the CEAP by 14 <sup>th</sup> November 2022
03	Submission of revised CEAP as per the Engineer's comments			√	07/07/2022	29/09/2022 02/11/2022	<b>Not Done</b> <b>Not Done.</b> The Contractor ensured to submit the CEAP by 20 <sup>th</sup> November 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	29/09/2022 02/11/2022	<b>Not Done</b> <b>Not done.</b> The contractor was instructed to submit spoil disposal and sprinkling plan by 14 <sup>th</sup> November 2022
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	29/-09/2022  02/11/2022	<b>Not Done.</b> The contractor informed that the passage to the site is very narrow and the dumper cannot reach in that very location resulting in some of the material being rolled over the slope. In future as the path is widened enough that the dumper can reach at the very location of where work is under progress haulage activity will start immediately.  <b>Not done.</b> The contractor was instructed to submit spoil disposal and sprinkling plan by 14 <sup>th</sup> November 2022
06	Ensure environmental topics to be covered in TBT			√	Immediate	29/09/2022 02/11/2022	<b>Not done</b> <b>Not done.</b> The contractor informed that TBT will be covered in the MPR which will be submitted by 14 <sup>th</sup> November 2022

07	Solid Waste Management procedures especially segregation should be ensured at site with proper reporting in the next MPR.		√	Next MPR of Sep 2022	29/09/2022 02/11/2022	<b>Not done.</b> <b>Not done.</b> The contractor informed that solid waste management procedure will be covered in the MPR which will be submitted by 14 <sup>th</sup> November 2022
08	Tree record should be maintained and reported in the MPR's on regular basis		√	Next MPR of Sep 2022	29/09/2022 02/11/2022	<b>Not done</b> <b>Not done.</b> The contractor informed that by 15 <sup>th</sup> November 2022 the record will be submitted
09	The contractor is instructed to coordinate with other contractor for ease of local community passing through the road. Traffic management plan should also be reflected in the MPR		√	Immediate		

Confirmed by:

  
The Employer

  
The Engineer/Consultant

  
The Contractor

Name: Mansoor Tariq

Position: Dy. Director

Date: 10/11/2022

Sardar Alam  
Sr. Environmentalist

10/11/2022

Fozal ur Rehman  
Envir. Officer (Acting)

12/11/2022

Annexure-01: Attendance Sheet

Dasu Hydropower Project

Dasu Hydropower Consultants

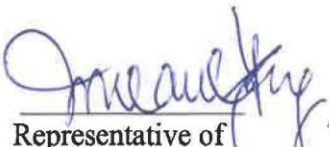

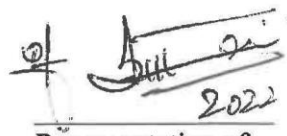
Meeting attendance sheet

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

Date: 02/11/2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01.	Imran Tariq	Wapda	Dy. Director	0321-5181114	
02.	Uzgat Ali	Wapda	AD-	0365-9610585	
03.	Awaiz Hassan Khan	Sr. Env. Specialist	DHC	0333-6563675	
04.	Junaid Iftikhar	Walde	Sub-Engineer	0305-5961458	
05.	KKH-02 Zhengjun			0348-7779359	
06.	Dr. Sogal W. Rehman	HSE	Envl. Officer	03474846528	
07.	Naseer Khan	DHC	Env Insp.		



<b>DASU HYDROPOWER PROJECT MINUTES OF MEETING (PCI-01R) October</b>		02 <sup>nd</sup> November, 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: 02 <sup>nd</sup> Nov 2022 Time: (03:00pm- 03:35pm ) 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: 10/11/2022	<u>Engineer</u> Date: 10/11/2022	<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) October 2022**



Project		PCI-01			Location		DHC Office	
Employer		WAPDA			Date of Meeting		02/11/2022 (03:00 pm- 03:35 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.			√	15/08/2021	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>	

						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.
						01/08/2022	<b>Partially done.</b> The Engineer will issue a reminder letter to the contractor regarding NOC from Inspector of Explosives.
						29/09/2022	<b>Partially done.</b> An NCR will be issued to the contractor for the non-compliance
45	Ensure dust control at the crusher plant			√	Immediate	01/08/2022	<b>Partially Done;</b> The crusher Plant is not operational at the moment because no concrete pouring is required at PCI-01R Contract.
						29/09/2022	<b>Partially Done;</b> Ensure Water sprinkling at least 3 times a day or install water sprinklers/ wet scrubbers on the conveyor belt.
						02/11/2022	<b>Closed</b>
47	Water Sprinkling Issue. Contractor is instructed to ensure adequate water sprinkling inside the colony area as well as the allocated portion of Khoshe access road.			√	Immediate	29/09/2022	<b>Not Done;</b>
						02/11/2022	<b>Partially done</b>
48	MPR Should reflect Waste/ discarded materials section describing used batteries and tires and used oil with their quantities and disposal method /vendor details.			√	Immediate	29/09/2022	<b>Not Done;</b>
						02/11/2022	<b>Partially done.</b> The details for used tyres and batteries were not provided in the MPR. The contractor was instructed to incorporate the details in the next MPR.
49	Proper fuel storage area should be ensured			√	11/11/2022		
50	Dengue spray should be ensured at the camp, material storage site and washrooms			√	immediate		

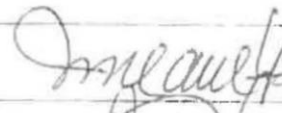
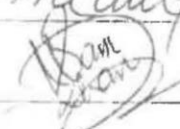


<b>Confirmed by:</b> The Employer	<b>Confirmed by:</b> The Engineer	<b>Confirmed by:</b> The Contractor
Name: <u>Imran Tariq</u>	Name: <u>Sardar Alam</u>	Name: <u>Admin manager - CGICOP</u>
Position: <u>Dy Director</u>	Position: <u>Sr. Environmentalist</u>	Position: <u>Admin manager - CGICOP</u>
Date: <u>10/11/2022</u>	Date: <u>10/11/2022</u>	Date: <u>2022-11-13</u>

Annexure: Attendance Sheet of Participants  
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: 02-11-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Imran Tariq	Wapda	Dy. Director	0321-5181114	
02	Sardar Alam	DHC	Sr. Environment Sp		
03	Nasir Khan	DHC	Field msp env	0345-9577742	
04	Fazal Mabood	CGICOP	Jr. Environmentalist	03441190431	



**' DASU HYDROPOWER PROJECT**  
**MINUTES OF MEETING (RAR-01) October 2022**

02<sup>nd</sup> November 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: 02<sup>nd</sup> Nov 2022  
Time: (11:30 am-12:00 am)  
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:

Employer  
Date: 10/11/2022

Engineer  
Date: 10/11/2022

Contractor  
Date: 2022/11/13



Representative of  
Employer- WAPDA (DHPP)



Representative of  
Engineer (DHC)



Representative of  
Contractor(CCECC)


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



Project	RAR-01		Location	DHC Office			
Employer	WAPDA		Date of Meeting	02/11/2022 (11:30 am-12:00 am)			
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.			
23	Implement demobilization of ECP at K4			√	Immediate	01/04/2022  28/05/2022  30/06/2022  01/08/2022  29/09/2022  02/11/2022	<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> <p><b>Partially Done:</b> The contractor informed that the site has been handed over to WAPDA</p> <p><b>Partially Done:</b> The contractor is instructed to provide proof of handing over of K4 site</p> <p>Submit documents of handling over 12<sup>th</sup> of Oct 2022.</p> <p><b>Closed.</b> The document was submitted through email on 29<sup>th</sup> September 2022</p>
27	Proper disposal of spoil at designated spoil disposal site only			√	immediate	01/08/2022  29/09/2022  02/11/2022	<p>Contractor informed that 62% excavated material has already been dumped and agreed for the proper disposal of the Spoil at designated site.</p> <p>Contractor informed that 80 % excavation completed. Despite some excavated material is used by the E&amp;M contractor.</p> <p><b>Done</b></p>
29	Removal of wildlife (Monkey) seen in the vicinity of Zaal camp. Engineer should be invited to witness the release			√	immediate	01/08/2022	<p>Contractor was informed that a meeting was held on among Asst. Director Environment WAPDA, Environment Specialist of DHC and SDFO Wild Life Department in which wild life department agreed to take over the responsibility of the monkey but a required a formal discussion and agreement on handing over procedures first and then the wild life department will take over the</p>

						29/09/2022	<i>Rhesus macaque</i> in another meeting in which the DFO wild life will be present himself.
						02/11/2022	The Monkey has left the camp and is currently not residing in Zaal Camp. <b>Closed.</b>
32	Arrangement for an awareness session on oil spill and solid waste management by 15 Aug 2022.			√	immediate	01/08/2022	<b>Not done</b>
						29/09/2022	As per contractors provided information one session was held on 12/08/2022 and second session was conducted on 10/09/2022.
						02/11/2022	<b>Done</b>
34	MPR Should reflect Waste/ discarded materials section describing used batteries and tires and used oil with their quantities and disposal method /vendor details.				√	29/09/2022	<b>Not Done</b>
						02/11/2022	<b>Done.</b>
35	An awareness session to be arranged by the contractor regarding protection of Flora and Fauna to its staff/ labor working at RAR-01				√	29/09/2022	<b>Not Done;</b> The session may be arranged on 15 <sup>th</sup> of Oct 2022
						02/11/2022	<b>Done.</b> The session has been arranged and will be reflected in the MPR

Confirmed by:



The Employer

Name:

Immanuel Tarig

Position:

Dy. Director

Date:

10/11/2022



The Engineer/Consultant

Saedat Alam

Sr. Environmentalist

10/11/2022



The Contractor

Engineer

2022/11/13

Annexure: Attendance Sheet of the Participants

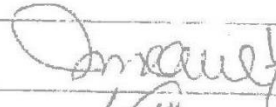





Dasu Hydropower Project

Dasu Hydropower Consultants



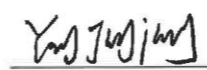
Meeting attendance sheet

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

Date: 02-11-2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Imran Tariq	Wapda	Dy. Director	0321-5181114	
02	Usaf Ali	wapda	AO -	0345-966888	
03	Junaid Iftikhar	wapda	Sd - Engineer	0305-5961458	
04	JUNAD Ahmed.	HSE/CECC	HSE manager	0345-9601987	
05	Awais Hassan	DHC	Sr. Environment specialist	03336563675	
06.	Nasir Khan	DHC	Field Imp. Env	0345-9577742	



<b>DASU HYDROPOWER PROJECT</b> <b>MINUTES OF MEETING (RAR-02) October 2022</b>		02 <sup>nd</sup> November 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: 02 <sup>nd</sup> November 2022 Time: (11:30pm-12:05pm) 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: 10/11/2022   Representative of Employer- WAPDA (DHPP)	<u>Engineer</u> Date: 10/11/2022   Representative of Engineer (DHC)	<u>Contractor</u> Date: 11/11/2022   Representative of Contractor(CGGC)

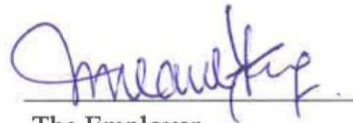
**MINUTES OF THE MONTHLY ENVIRONMENTAL PROGRESS REVIEW MEETING (RAR-02) October 2022**



Project	RAR-02	Location			DHC Office		
Employer	WAPDA	Date of Meeting			02/11/2022 (11:30pm-12:05pm)		
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 29/09/2022 02/11/2022	<b>Not Done.</b> The Contractor informed that they will share CV of a relevant candidate to be considered for the post. <b>Not Done;</b> contractor is instructed to submit the resume by 17 <sup>th</sup> of Oct 2022. <b>Not Done.</b> The Contractor informed that by 17 <sup>th</sup> Nov 2022 CV will be shared.
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 29/09/2022 02/11/2022	<b>Not Done.</b> The Contractor asked to share report template <b>Not Done;</b> Contractor agreed to submit MPR up till 15 <sup>th</sup> of Oct 2022. <b>Done.</b> The contractor submitted MPR
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 29/09/2022 02/11/2022	<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. <b>Not done</b> <b>Not done.</b> The Contractor was instructed to haul the spoil material to reduce the dust generated during throwing of the debris along the slopes. The Contractor informed to submit haulage plan and water sprinkling by 14 <sup>th</sup> November 2022
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 29/09/2022	<b>Not done.</b> The Contractor is strictly instructed to ensure haulage of the spoil to designated spoil disposal area  <b>Not Done;</b> The contractor informed that at the moment the spring which was nearby is dried up and the path to the working face is narrow, due to

						02/11/2022	which the dumper cannot reach the exact working face. As soon as the dumper can reach the working face the haulage of excavated material will be started. <b>Not done.</b> The Contractor was instructed to haul the spoil material to reduce the dust generated during throwing of the debris along the slopes. The Contractor informed to submit haulage plan and water sprinkling by 14 <sup>th</sup> November 2022
05	Oil spill should be removed			√	immediate	29/09/2022 02/11/2022	<b>Not done</b> <b>Partially done.</b> The contractor informed to submit the Environment incident report by 14 <sup>th</sup> November 2022.
06	Tree record should be maintained and submitted in every MPR.			√	immediate	29/09/2022 02/11/2022	<b>Not done</b> <b>Not done.</b> The Contractor informed that the data will be submitted by 14h November 2022.
07	Stop use of fuel wood used at Kandia working face of RAR-02. Provide LPG cylinder s for cooking and heating			√	15 <sup>th</sup> Nov 2022		
08	Proper toilets with commode and flushing system and septic tank at RAR-02 camp in Kandia site			√	30 <sup>th</sup> Nov 2022		

Confirmed by:



The Employer

Name:

Imran Tawky

Position:

Dy. Director

Date:

10/11/2022



The Engineer/Consultant

Sardar Alam  
Sr. Environmentalist

10/11/2022



The Contractor

Yusuf Iqbal

environment manager

11/11/2022

Annexure-01: Attendance Sheet

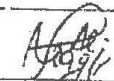
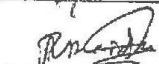
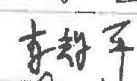
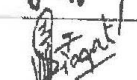
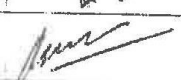

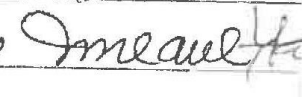
Dasu Hydropower Project

Dasu Hydropower Consultants

Meeting attendance sheet

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

Date: 2/11/2022

Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
1	Liaqat Ali	WAPDA	AD-	0345-9610885	
2	Junaid Iftakher	WAPDA	Sub-Engineer	0305-5961458	
3	Li Heping	CGCL	E HSED		
4	Liaqat Ali Khan	CGCL	OHSD-RAR-02	0344-973475	
5	Awas Hassan Khan	DHC	Env. Specialist		
6	Nasir Khan	DHC	Env Field msp	0345 9577742	
7	Imran Tariq	Wapda	Dy. Director	0321-5181114	



DASU HYDROPOWER PROJECT  
MINUTES OF MEETING (KKH-01) October 2022

02<sup>nd</sup> November 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: 02<sup>nd</sup> Nov 2022  
Time: 09:00am-09:30am  
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

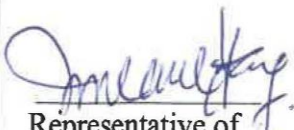
3. Contractor, KKH-01  
4. Office File / Circulation


Agreed by:

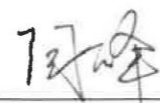
Employer  
Date: 10/11/2022

Engineer  
Date: 10/11/2022

Contractor  
Date:

  
Representative of  
Employer- WAPDA (DHPP)

  
Representative of  
Engineer (DHC)

  
Representative of  
Contractor(CCECC)

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



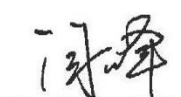


Project		KKH-01			Location		DHC Dasu Office	
Employer		WAPDA			Date of Meeting		02/11/2022 (09:00am-09:30 am)	
Engineer		DHC			Place of Meeting		DHC Meeting Hall	
Contractor		CCECC			Attendance		Attendance Sheet Attached	
Sr.#	Checked Items and Actions Planned	Action By			Target Date for Action	Date 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  29/09/2022 02/11/2022	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. <b>Partially done</b>  <b>Partially done</b> The Employer instructed DHC to send re-designated area to KKH-01	
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 observation was that Solid waste management practice should be properly done as per Waste Management ECP's guidance	

						29/09/2022 02/11/2022	Uchaar Camp of CCECC is inundated due to recent floods. Therefore, new camp observations will be provided after inspection of camp. The contractor informed that the details for the new camp regarding solid waste mgt practices will be provided in the MPR of October 2022
47	Proper Disposal of Used Engine/ Equipment Oils and other chemicals			√	Immediate	28/05/2022 30/06/2022 29/09/2022 02/11/2022	Please add details of this activity in the MPR of May 2022 with photographic records as well for before spillage and after spillage. <b>Note Done;</b> Photographic record should be maintained by the contractor and proper write up should be added to the next month's MPR. <b>Not Done</b> <b>Partially done</b>
48	Current Waste management practices at camp should be highlighted in the MPR with pictorial evidence			√	Next MPR	30/06/2022 20/08/2022 29/09/2022 02/11/2022	<b>Partially Done;</b> Some details of waste management in the camp are given in MPR for July 2022 without pictorial evidence. <b>Done;</b> The CCECC Uchaar Camp is completely damaged and major portion is washed away by recent floods in July 2022 and August 2022. New camp is established at K3 by CCECC and it will be inspected soon. <b>Not done.</b> <b>Done.</b> The Contractor has reflected the waste mgt practices in the MPR
50	Installation of Waste Bins and Segregation of Waste inside the K3 Camp Area. All SOP's provided in EMAP and ECP's should be followed in true letter and spirit.			√	Immediate	29/09/2022 02/11/2022	Partially done.  Done
51	Details of recyclable wastes to be added in MPR of September 2022. All SOP's provided in EMAP and ECP's should be followed in true letter and spirit.			√	MPR of Sep 2022	29/09/2022 02/11/2022	Not done.  <b>Not done</b>
52	Newly Established K3 CCECC Camp's Kitchen, Dinning, toiletry and washing facility with attached septic tanks along with residence facility details			√	MPR of Sep 2022	29/09/2022 02/11/2022	Not done.

	with pictorial evidence is required in MPR of September 2022. All SOP's provided in EMAP and ECP's should be followed in true letter and spirit.						Not done. No commodes and flushing tank are installed. Engineer instructed to install the facility by 20 <sup>th</sup> November 2022
53	Construction of septic tank at K4			√	10 <sup>th</sup> November 2022		

Confirmed by:

 The Employer	 The Engineer	 The Contractor
Name: <u>Km-sam Tawky.</u>	Name: <u>Sadar Alam</u>	Name: <u>Yan Jiangfen</u>
Position: <u>Dy. Director</u>	Position: <u>Sr. Environmentalist</u>	Position: <u>Project Manager</u>
Date: <u>10/11/2022</u>	Date: <u>10/11/2022</u>	Date: <u>16/11/2022</u>

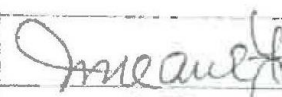
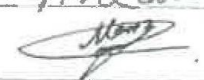
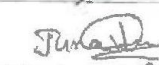
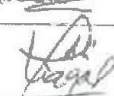

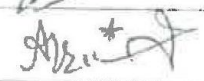



Annexure-01: Attendance Sheet

Dasu Hydropower Project  
Dasu Hydropower Consultants  
Meeting attendance sheet

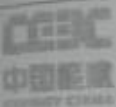

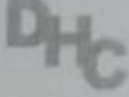

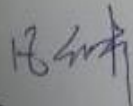

Monthly Progress review meeting: ✓ KKH-01/RAR-01/TL-01/MW-01&2/LBRV-11&12/PCI-01R/RAR-02/KKH-02

Date: 02/11/2022

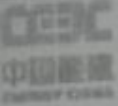

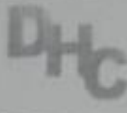

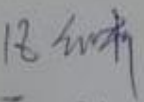
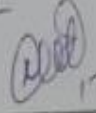
Sr. No	Name of Participant	Dept./Organisation	Designation	Contact No.	Signature
01	Imran Tariq	wapda	Dy. Director	0321-5181114	
02	MANZOR HUSSAIN	CCECC	HSE Manager	0345-5687751	
03	Junaid Iftikhar	wapda	Sub-Engineer	0305-5961458	
04	Usagat Ali	wapda	AD.	0345-9610585	
05	Awas Hassan	DHC	St. Environment Specialist	0333-6563675	
06	ARIF WAQAR	CCECC	EHS	0345-2848920	
07	Nasir Khan	DHC	Field Insp. ENV	0345-9877742	

**Annexure B: Spot Monitoring Results for Quarter of Oct to Dec 2022**

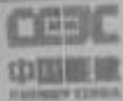

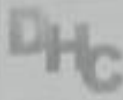
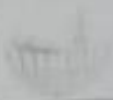
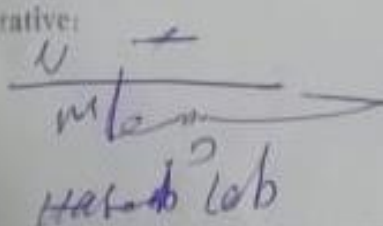

**Spot Monitoring Results for Quarter of Oct 2022**

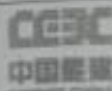

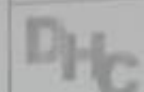
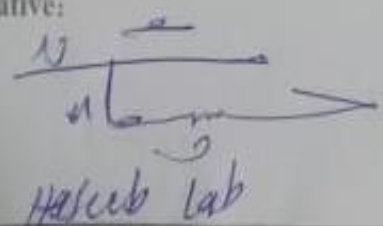
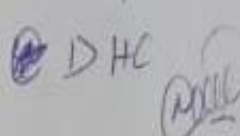
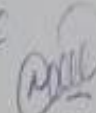
Contractor	DASU HYDROPOWER PROJECT DASU-MW-02		Engineer	Employer
 				
Surface water quality spot measurements Report				
Surface water quality		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>	
Location	Sedimentation pond of Batching plant CR-9.			
Date Of Inspection	17-10-2022	Time Of Inspection	12:52	
Sample points	02	Report No.	MW-02 / SW-74	
Item	Unit	Portable Meter	Result	
Turbidity	NTU	WZB-175	112.4	
Conductivity	µs/cm	DZB-718L	902	
PH	/	DZB-718L	11.2	
DO	mg/L	DZB-718L	4.2	
Temperature	°C	DZB-718L	20.3	
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<p><u>Remarks:</u> The pH value is greater than NEQR limits. it is instructed the contractor add fresh water regularly.</p>				
Contractor Representative:		Witness by:		
 2022.10.17 Fanyin area CR9.		Nasir Khan DHC  17-10-2022		

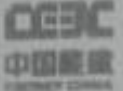

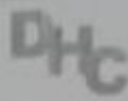

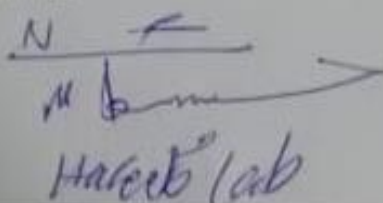
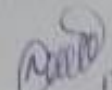
		<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-02</b>		Engineer 	Employer 
Surface water quality spot measurements Report					
Surface water quality			River Water <input checked="" type="checkbox"/>	Waste Water <input type="checkbox"/>	
Location		Indus River downstream CR-9			
Date Of Inspection		17-10-2022	Time Of Inspection		1:05
Sample points		03	Report No.		MW-02/SW-75
Item	Unit	Protobable Meter	Result		
Turbidity	NTU	WZB-175	107.5		
Conductivity	µs/cm	DZB-718L	248		
PH	/	DZB-718L	8.1		
DO	mg/L	DZB-718L	6.9		
Temperature	°C	DZB-718L	16.3		
Visual Petroleum Product			Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks:					
Contractor Representative:  17.10.2022 Faraji on Awar adg.			Witness by: Nasir Khan  DHC  17-10-22		

Contractor		DASU HYDROPOWER PROJECT DASU-MW-02		Engineer	Employer
 					
Surface water quality spot measurements Report					
Surface water quality			River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>	
Location		Sedimentation pond of MAT CR-9.			
Date Of Inspection		17.10.2022	Time Of Inspection		12:35
Sample points		01	Report No.		MW-02/SW-73
Item	Unit	Portable Meter		Result	
Turbidity	NTU	WZB-175		≥1000	
Conductivity	µs/cm	DZB-718L		187.8	
PH	/	DZB-718L		9.7	
DO	mg/L	DZB-718L		6.3	
Temperature	°C	DZB-718L		20.2	
Visual Petroleum Product			Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<p><u>Remarks:</u> The pH value is high of NEQ's limits. add fresh water continuously.</p>					
Contractor Representative:			Witness by:		
 Fan Jiac 2022.10.17.CPP			Nasir Khan DHC  17.10.22		



Contractor		DASU HYDROPOWER PROJECT DASU-MW-01	Engineer	Emp. No.
 				
Surface water quality spot measurements Report				
Surface water quality		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>	
Location	Sedimentation Pond of Adit Tunnel-1			
Date Of Inspection	17-10-2022	Time Of Inspection	11:59 am	
Sample points	084	Report No.	MW-01/SW-114	
Item	Unit	Portable Meter	Result	
Turbidity	NTU	WZB-175	77.4	
Conductivity	µs/cm	DZB-718L	522	
PH	/	DZB-710L	10.7	
DO	mg/L	DZB-718L	4.7	
Temperature	°C	DZB-718L	20	
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<u>Remarks:</u> PH value is greater than NEQS value. Please add fresh water regularly.				
Contractor Representative:  Harsh Lab		Witness by: Nasir Iqbal DHC  17-10-22		

Dasu Hydropower Project			
Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>		Engineer
 			
Surface water quality spot measurements Report			
Surface water quality		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Sedimentation Pond of Batching plant CR-2		
Date Of Inspection	17-10-2022	Time Of Inspection	11:38 am
Sample points	03	Report No.	MW-01/SW-113
Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	122.1
Conductivity	µs/cm	DZB-718L	1130
PH	/	DZB-718L	11.1
DO	mg/L	DZB-718L	6.3
Temperature	°C	DZB-718L	16.8
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><u>Remarks:</u> pH value is high please add fresh water as per requirements of NERs. (NERs range 6-9)</p>			
Contractor Representative:		Witness by:	
 Haseeb Lab		Nasir Khan  DHC  17-10-22	





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	Uchara crushing plant			
Date Of Inspection	17-10-2022	Time Of Inspection	11:00	
Sample points	02	Report No.	MW-01/SW-112	
Item	Unit	Portable Meter	Result	
Turbidity	NTU	WZB-175	703	
Conductivity	µs/cm	DZB-718L	103.3	
PH	/	DZB-718L	8.9	
DO	mg/L	DZB-718L	7.5	
Temperature	°C	DZB-718L	18.7	
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<u>Remarks:</u>  				
Contractor Representative:   Hareeb Lab		Witness by:  Nasir Khan DHC  17-10-22		

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	upstream uchaar crushing plant																										
Date Of Inspection	17-10-2022	Time Of Inspection	10:35																								
Sample points	1	Report No.	MW-01/SW-111																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Item</th> <th style="width: 15%;">Unit</th> <th style="width: 25%;">Portable Meter</th> <th style="width: 35%;">Result</th> </tr> </thead> <tbody> <tr> <td>Turbidity</td> <td>NTU</td> <td>WZB-175</td> <td>100</td> </tr> <tr> <td>Conductivity</td> <td>µs/cm</td> <td>DZB-718L</td> <td>210</td> </tr> <tr> <td>PH</td> <td>/</td> <td>DZB-718L</td> <td>7.7</td> </tr> <tr> <td>DO</td> <td>mg/L</td> <td>DZB-718L</td> <td>9.1</td> </tr> <tr> <td>Temperature</td> <td>°C</td> <td>DZB-718L</td> <td>17.1</td> </tr> </tbody> </table>	Item	Unit	Portable Meter	Result	Turbidity	NTU	WZB-175	100	Conductivity	µs/cm	DZB-718L	210	PH	/	DZB-718L	7.7	DO	mg/L	DZB-718L	9.1	Temperature	°C	DZB-718L	17.1	Visual Petroleum Product	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Item	Unit	Portable Meter	Result																								
Turbidity	NTU	WZB-175	100																								
Conductivity	µs/cm	DZB-718L	210																								
PH	/	DZB-718L	7.7																								
DO	mg/L	DZB-718L	9.1																								
Temperature	°C	DZB-718L	17.1																								
Remarks:																											
Contractor Representative:  Haveli Lab		Witness by: Nasir Khan DHC  17-10-22																									



### Spot Monitoring Results for Quarter of Nov 2022

Dasu Hydropower Project

Contractor  	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-02</b>	Engineer 	Employer 
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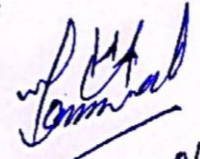

Surface water quality spot measurements Report




Surface water quality	River Water <input checked="" type="checkbox"/> Waste Water <input type="checkbox"/>
Location	<i>Downstream Indus river (CT-2)</i>
Date Of Inspection	<i>24-11-2022</i>
Time Of Inspection	<i>1:20 pm.</i>
Sample points	<i>03</i>
Report No.	

Item	Unit	Protoble Meter	Result
Turbidity	NTU	WZB-175	<i>74.3</i>
Conductivity	µs/cm	DZB-718L	<i>235</i>
PH	/	DZB-718L	<i>9.0</i>
DO	mg/L	DZB-718L	<i>9.4</i>
Temperature	°C	DZB-718L	<i>12.6</i>

Visual Petroleum Product	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--------------------------	---

**Remarks:**



Contractor Representative:  <i>2022-11-24</i>	Witness by: Nasir Icheen DHC  <i>24-11-2022</i>
--	--

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 vchar crushing plant</i>		
Date Of Inspection	<i>24-11-2022</i>	Time Of Inspection	<i>10:30 am</i>
Sample points	<i>01</i>	Report No.	

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	<i>23.9</i>
Conductivity	µs/cm	DZB-718L	<i>290</i>
PH	/	DZB-718L	<i>8.6</i>
DO	mg/L	DZB-718L	<i>5.4</i>
Temperature	°C	DZB-718L	<i>11.0</i>
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:**

Contractor Representative:   <i>2022-11-24</i>	Witness by: <i>Nasir Khan</i> DHC  <i>24-11-2022</i>
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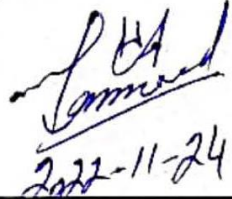






Contractor	 <b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Engineer	Employer
			
Surface water quality spot measurements Report			

Surface water quality	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	<i>Outlet Sedimentation pond vchara crush plant</i>	
Date Of Inspection	<i>24-11-2022</i>	Time Of Inspection <i>10:40</i>
Sample points	<i>021</i>	Report No.

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	<i>108.3</i>
Conductivity	µs/cm	DZB-718L	<i>447</i>
PH	/	DZB-718L	<i>11.1</i>
DO	mg/L	DZB-718L	<i>10.6</i>
Temperature	°C	DZB-718L	<i>11.2</i>
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:** *pH value exceed the permissible value. contractor is instructed add fresh water continuously.*



Contractor Representative:   <i>2022-11-24</i>	Witness by: <i>Nasir Ichan</i> DHC  <i>24-11-2022</i>
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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	<i>Outlet Sedimentation pond CR-2 Batching plant</i>
Date Of Inspection	<i>24-11-2022</i>
Time Of Inspection	<i>11:08</i>
Sample points	<i>03</i>
Report No.	.

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	<i>171.7</i>
Conductivity	µs/cm	DZB-718L	<i>833</i>
PH	/	DZB-718L	<i>11.4</i>
DO	mg/L	DZB-718L	<i>6.4</i>
Temperature	°C	DZB-718L	<i>9.5</i>
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:** *pH value is higher than permissible limits. Contractor is instructed add fresh water, take necessary measures to lower the pH value.*

Contractor Representative:  <i>2022-11-24</i>	Witness by: <i>Nasir Khan</i> DHC  <i>24-11-2022</i>
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Contractor	 <b>DASU HYDROPOWER PROJECT</b> <b>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 of Sedimentation Pond CT-02		
Date Of Inspection	24-11-2022	Time Of Inspection	1:00
Sample points	02	Report No.	

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	570
Conductivity	µs/cm	DZB-718L	1359
PH	/	DZB-718L	11.7
DO	mg/L	DZB-718L	7.2
Temperature	°C	DZB-718L	16.6
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:** PH value is greater NEQs limits. Contractor is instructed to add fresh water continuously and take necessary measures to low the PH.

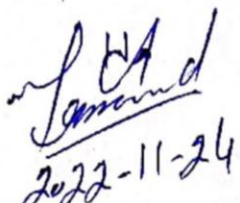
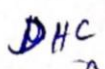

Contractor Representative:   2022-11-24	Witness by: Nasia Khan DHC  24.11.22
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Contractor	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

Surface water quality	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	<i>Sedimentation pond of Adit-1</i>	
Date Of Inspection	<i>24-11-2022</i>	Time Of Inspection <span style="float: right;"><i>11:30</i></span>
Sample points	<i>04</i>	Report No.

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	<i>67.1</i>
Conductivity	µs/cm	DZB-718L	<i>289</i>
PH	/	DZB-718L	<i>10.8</i>
DO	mg/L	DZB-718L	<i>7.6</i>
Temperature	°C	DZB-718L	<i>14.1</i>
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input type="checkbox"/>

Remarks: *pH value is greater than permissible limits. The contractor is instructed add fresh water and take necessary measures to lower the pH value.*

Contractor Representative:  <div style="text-align: center;">   <i>2022-11-24</i> </div>	Witness by:  <div style="text-align: center;"> <i>Nasir Khan</i>      <i>24-11-2022</i> </div>
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Contractor		<b>DASU HYDROPOWER PROJECT</b> <b>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	Sedimentation Pond of MAT CR-9.	
Date Of Inspection	24-11-2022	Time Of Inspection 12:00
Sample points	00	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:** Cleaning ~~required~~ at MAT Sedimentation pond.   
 required

<b>Contractor Representative:</b>   2022-11-24	<b>Witness by:</b>  Nasir Khan DHC 
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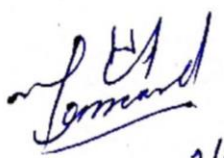



Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-02</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

Surface water quality		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Sedimentation pond of Batching plant CR-9 khesra		
Date Of Inspection	24.11.2022	Time Of Inspection	12:25
Sample points	01	Report No.	


Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	24.0
Conductivity	µs/cm	DZB-718L	483
PH	/	DZB-718L	11.2
DO	mg/L	DZB-718L	8
Temperature	°C	DZB-718L	13.3
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Remarks: pH value is greater than NEQS level. The contractor is instructed add fresh water continuously and take necessary measures to low pH.

Contractor Representative:   2022-11-24	Witness by: Nasir Khan DHC  24-11-2022
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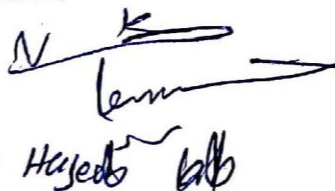
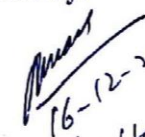
### Spot Monitoring Results for Quarter of Dec 2022


Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-02</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>Down Stream of CT2 Chuchang</i>	
Date Of Inspection	<i>2022-12-16</i>	Time Of Inspection <i>12:50</i>
Sample points	Report No.	

Item	Unit	Protoble Meter	Result
Turbidity	NTU	WZB-175	<i>26.8</i>
Conductivity	µs/cm	DZB-718L	<i>202</i>
PH	/	DZB-718L	<i>8.6</i>
DO	mg/L	DZB-718L	<i>8.0</i>
Temperature	°C	DZB-718L	<i>8.0</i>
Visual Petroleum Product	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

**Remarks:**

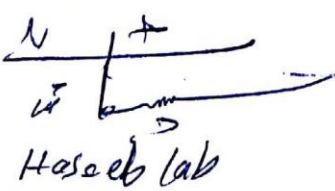
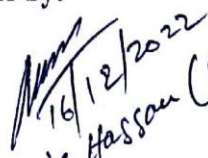
<p>Contractor Representative:</p> <div style="text-align: center;">  <p><i>Hajed kb</i></p> </div>	<p>Witness by:</p> <div style="text-align: center;">  <p><i>16-12-2022</i> <i>Awais Hassan, Sr. Env. SP, DHC</i></p> </div>
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Contractor 	<b>DASU HYDROPOWER 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 type="checkbox"/>
Location	<i>Sedimentation Pond of CT2</i>	
Date Of Inspection	<i>2022-12-16</i>	Time Of Inspection <i>12:35pm</i>
Sample points	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 is not functional. Therefore sample is not taken.*  
*[Signature]*  
*16/12/2022*

Contractor Representative:  Haseeb lab	Witness by:  <i>16/12/2022</i> Awaiz Hassan (Sr. Env. Sp. DHC)
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Contractor	<b>DASU HYDROPOWER PROJECT</b> <b>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	Sedimentation Pond of Batching Plant CRP		
Date Of Inspection	2022-12-16	Time Of Inspection	12:16
Sample points	# 01	Report No.	

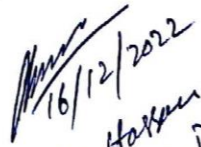
Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	57.1
Conductivity	µs/cm	DZB-718L	388
PH	/	DZB-718L	11.1
DO	mg/L	DZB-718L	9.5
Temperature	°C	DZB-718L	10.5
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:**





**Contractor Representative:**

  
 M. Haseeb

**Witness by:**

  
 16/12/2022  
 Azeem Hassan  
 Sr. Env. Sp., DIAC

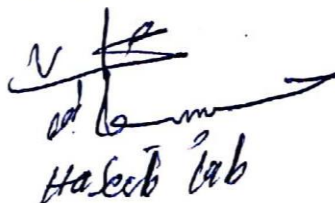
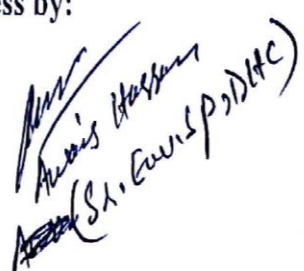


Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-02</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

Surface water quality	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Sedimentation Pond of MAT	
Date Of Inspection	2022-12-16	Time Of Inspection
Sample points		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:** NCR has been Issued on this Sedimentation Tank. The tank needs to be cleaned & Utilized fully i.e., all three Chambers should be retaining waste water only. Contractor is instructed to Re-Issue the AFI after Cleaning/Closing of NCR.  
*[Signature]*  
 16/12/2022

Contractor Representative:  Haseeb Iqbal	Witness by:  (Sh. Gauri P. DHC)
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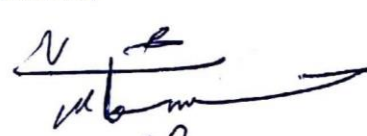
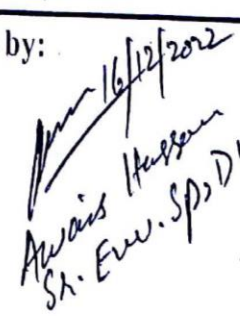


Contractor	<b>DASU HYDROPOWER PROJECT DASU-MW-01</b>	Engineer	Employer
 			
Surface water quality spot measurements Report			

Surface water quality	River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>	
Location	Sedimentation Pond of Adit 1		
Date Of Inspection	2022-12-16	Time Of Inspection	11:37
Sample points	03	Report No.	

Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	106.0
Conductivity	µs/cm	DZB-718L	105.3
PH	/	DZB-718L	9.2
DO	mg/L	DZB-718L	7.2
Temperature	°C	DZB-718L	10.1
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:**

<p>Contractor Representative:</p> <div style="text-align: center; margin-top: 20px;">                   Haseeb - lab             </div>	<p>Witness by:</p> <div style="text-align: center; margin-top: 20px;">                   16/12/2022                  Awaiz Hussain                  Sr. Env. Sp. DHC             </div>
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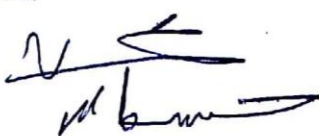
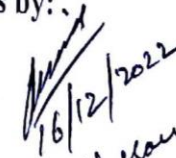
Contractor		DASU HYDROPOWER PROJECT DASU-MW-01	Engineer	Employer
				
Surface water quality spot measurements Report				

Surface water quality		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Sedimentation Pond of Batching Plant (R-2)		
Date Of Inspection	2022-12-16	Time Of Inspection	10:35
Sample points	02	Report No.	



Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	65.9
Conductivity	µs/cm	DZB-718L	1770
PH	/	DZB-718L	12.1
DO	mg/L	DZB-718L	5.5
Temperature	°C	DZB-718L	8.4
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:** pH Value is very High as compared to NEQS. Highly Alkaline Behaviour of water. Contractor is instructed to add large amount of fresh water into sedimentation Pond. If reading doesn't come to 6-9 range than add Acid to neutralize the alkaline Nature.

16/12/2022

Contractor Representative:	Witness by:
 Haseeb Lab	 16/12/2022 Awaiz Hassan (Sr. Env. Sp. DHC)



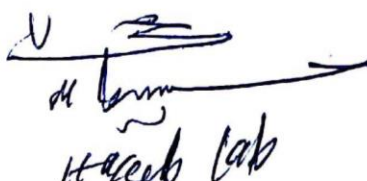
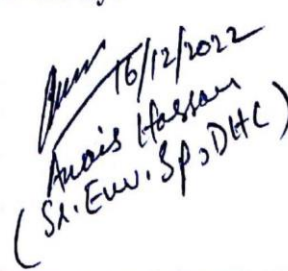
Contractor	<b>DASU HYDROPOWER PROJECT</b> <b>DASU-MW-01</b>	Engineer	Employer
  中国能建 ENERGY CHINA    CBGC			
Surface water quality spot measurements Report			

Surface water quality		River Water <input type="checkbox"/>	Waste Water <input checked="" type="checkbox"/>
Location	Uchar Crushing Plant		
Date Of Inspection	16-12-2022	Time Of Inspection	10:10 am
Sample points		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 Monitoring for Monthly Parameters is not done due to the sedimentation Pond is full of Sludge & froth.

*[Signature]*  
16/12/2022

Contractor Representative:   H. E. Lab	Witness by:   (SA. Ew. Sp. DHC)
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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 checked="" type="checkbox"/>	Waste Water <input type="checkbox"/>	
Location	Upstream Uchar crushing plant		
Date Of Inspection	2022-12-16	Time Of Inspection	09:45
Sample points	01	Report No.	

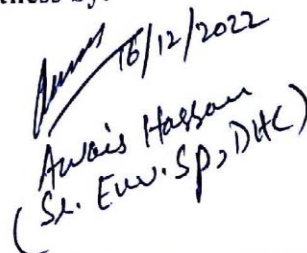
Item	Unit	Portable Meter	Result
Turbidity	NTU	WZB-175	21.5
Conductivity	µs/cm	DZB-718L	226
PH	/	DZB-718L	8.5
DO	mg/L	DZB-718L	9.1
Temperature	°C	DZB-718L	6.6
Visual Petroleum Product		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Remarks:**

Contractor Representative:

  
 Hameed b/b

Witness by:

  
 16/12/2022  
 Awaiz Hassan  
 (Sr. Env. Sp, DHC)



Annexure C: PHOTO LOG



Meeting with World bank mission in 09-13<sup>th</sup> of Oct 2022



Meeting with M&E Consultant



Meeting with CGGC







Supervision of Quarterly environmental spot monitoring



Meeting with MSC Consultant in Dasu on 14<sup>th</sup> of Nov 2022



Training Session Arranged by DHC and M&E Consultant on 17<sup>th</sup> of Nov 2022





Training Session arranged for CGGC regarding Water sampling on 19<sup>th</sup> Nov 2022



Discussion with CGGC regarding Environmental parameters 20<sup>th</sup> Nov 2022







Supervision of Quarterly environmental spot monitoring 23<sup>rd</sup> Nov 2022



Presentation DHC Environment Team to the World Bank in Dasu on 21<sup>st</sup> of Dec 2022







WB Visit to DHPP K-09 Tunnel and Cofferdam Site on 22<sup>nd</sup> of Dec 2022



World Bank Visit on the DHPP Sites dated 22<sup>nd</sup> of Dec 2022