

# Environmental Monitoring Report

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#15 Semestral Report  
Project Number: 44458-013  
Reporting period: July - December 2022  
Date: January 2023

## UZB: Amu Bukhara Irrigation System Rehabilitation Project

**Loan No. 3025/3026 - UZB**  
**(Financed by the Asian Development Bank)**

Prepared by Project Implementation Unit of Amu Bukhara Irrigation System Rehabilitation Project for the Ministry of Water Resources of the Republic of Uzbekistan and Asian Development Bank

#### CURRENCY EQUIVALENTS

(as of 31 December, 2022) <sup>1</sup>

Currency unit	–	uzs (лв)
лв 1.00	=	\$ 0.0000890
\$1.00	=	лв 11,225.46

#### ABBREVIATIONS

ABIS	–	Amu Bukhara Irrigation System
ABISRP	–	Amu Bukhara Irrigation System Rehabilitation Project
ADB	–	Asian Development Bank
BISA	–	Basin Irrigation System Administration
CNTIC	–	China National Technical Import and Export Corporation
EEC	–	Environmental expert of consultant
EIA	–	Environmental impact assessment
EHS	–	Environmental health and safety
EMP	–	Environmental management plan
EMMP	–	Environmental management and monitoring plan
EMR	–	Environmental monitoring report
GTS	–	General Technical Specification of Contract
GoU	–	Government of Uzbekistan
HGME	–	Hydrogeological Meliorative Expedition
IA	–	Implementing agency
IEE	–	Initial environmental examination report
ISA	–	Irrigation System Administration
JICA	–	Japan International Cooperation Agency
MWR	–	Ministry of Water Resources of the Republic of Uzbekistan
M&ES	–	Monitoring and evaluation specialist
OHS	–	Occupational Health and Safety
PIU	–	Project implementation unit
SAEMR	–	Semi - annual environmental monitoring report
CSC	–	Construction Supervision consultant
SE	–	Site Engineer
SSEMP	–	Site-specific environmental management plan
SPS	–	Safeguard Policy Statement
PNPC	–	Provincial level of State Committee for Nature Protection (Oblkompriroda)
PPE	–	Personal protective equipment
PS(s)	–	Pump station(s)
WCA	–	Water Consumers' Association

#### {WEIGHTS AND MEASURES}

dB	–	Decibel
dBA	–	Decibel A Scale
ha	–	hectare
m <sup>3</sup>	–	cubic meter

<sup>1</sup> [Archives of Exchange Rates | The Central Bank of the Republic of Uzbekistan](#)

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## GLOSSARY

Emergency Response Plans	– Plan to address contingencies associated with process upset and accidental circumstances. They include clearly assigned responsibilities for the assessment of the degree of risk to life and property with procedures on whom to communicate different types of emergencies and how.
Environmental Assessment	– A generic term used to describe a process of environmental analysis and planning to address the environmental impacts and risks associated with a project. The assessment may take the form of an EIA, IEE, environmental audit, or Matrix of Environmental Impacts.
Environmental Audit	– An instrument to determine the nature and extent of all environmental areas of concern at an existing facility or a facility under construction. The audit identifies and justifies appropriate measures to mitigate the areas of concern, estimates the cost of the measures, and recommends a schedule of implementation. For certain projects, the environmental assessment report may consist of an environmental audit alone; in other cases, the audit is part of the environmental assessment documentation.
Environmental Management Plan (EMP)	– A plan that guides the implementation of environmental management and mitigation measures. It contains the following key elements: mitigation measures, implementation and monitoring program, cost estimates, resource requirements, budget, and institutional arrangements.
Environmental Monitoring Plan	– A plan that details environmental monitoring and reporting requirements, including parameters to be measured, methods, sampling locations, frequency of measurements, detection limits, and definition of thresholds that will signal the need for corrective actions; typically, a part of an EMP.
Hazardous Waste	– Substances classified as hazardous waste possess at least one of four characteristics - ignitability, corrosivity, reactivity, or toxicity - or appear on special lists.

## NOTE

- (i) In this report, "\$" refers to United States dollars unless otherwise stated.

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## 1 INTRODUCTION

### 1.1 Preamble

1. This is the 15<sup>th</sup> Semi - Annual Environmental Monitoring Report (SAEMR) for AMU BUKHARA IRRIGATION SYSTEM (ABIS) REHABILITATION PROJECT (ABISRP).

### 1.2 Headline Information

2. In order to realize a sustainable and reliable water supply in Amu Bukhara Irrigation System (ABIS), the Project is expected to achieve the following outputs:

- a) Construction of one new pump station, and modernization and rehabilitation of four existing ones.
- b) Increase in the conveyance efficiency of the main canal of ABIS.
- c) Increase in the capacity of Basin Irrigation System Administration (BISA), Irrigation System Administrations (ISAs), water consumers' associations (WCAs), and farmers to adapt to climate change, and
- d) Efficient management of project and ABIS.

3. The Ministry of Water Resources of the Republic of Uzbekistan (MWR) has agreed to implement the Environmental Management Plan (EMP) and submit regular reports on its implementation. The Initial Environmental Examination Report (IEE), including the EMP, has been published on the Asian Development Bank (ADB) website.<sup>2</sup> JICA will provide parallel financing of \$100.0 million equivalent for the costs of (i) two turnkey contracts (Modernization and Rehabilitation of Kizil-Tepa 1 Pump Station and Modernization and Rehabilitation of Amu-Bukhara 2 Pump Station) under output 1 of the project; and (ii) the consulting services required for the design and construction supervision of item (i) above. JICA will fully administer the scope of works of its parallel financing. During project implementation, ADB and Japan International Cooperation Agency (JICA) will each be responsible for safeguard compliance in their respective project activities.

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<sup>2</sup> [Amu Bukhara Irrigation System Rehabilitation Project: Initial Environmental Examination | Asian Development Bank \(adb.org\)](https://www.adb.org/projects/404001201/initial-environmental-examination)

## 2 PROJECT DESCRIPTION AND CURRENT ACTIVITIES

### 2.1 Project Description

4. The site of ABISRP is in the central part of Uzbekistan on the right bank of Amu Darya River bordering to Turkmenistan. Bukhara is 563 km far from the capital Tashkent. The project covers lands of Bukhara and Navoi provinces. The ABIS is very important for the area and gives life as an oasis.

5. The ABIS supplies water to already irrigated lands, cities, settlements, and industries in Bukhara and Navoi provinces through a series of large cascading pump stations and thousands of kilometers of conveyance canals. It also drains the excess water through drainage system outside of the project area.

6. The ABIS, with a command area of 315,000 ha, serves the irrigated lands of the Bukhara Zarafshan and Karakul oases and the Karaul Bazar massif. The population in the ABIS command area is about 1,788,000 people, including 1,550,000 in Bukhara and 239,000 in two districts of Navoi, of which 68% live in rural areas and fully rely on irrigated agriculture. It is particularly important to supply reliable water to these people in the region. ABIS also supplies water for municipal and industrial purposes.

7. The aim of the Project is to improve the irrigated agriculture and water resources management in the ABIS, with the goal of promoting sustainable economic and social welfare of communities dependent upon ABIS. The Project objectives are:

- a) modernization and rehabilitation of obsolete pump stations.
- b) increase of conveyance efficiency in ABIS main canal.
- c) increase climate change adaptation capacity; and
- d) increase efficiency of project management and irrigation system management.

### 2.2 Project Contracts and Management

8. Summary of civil works contracts and works' progress is summarized in Table 2-1.

9. According to ADB standards, ADB defined the Amu Bukhara Irrigation System Rehabilitation Project as Category B and in accordance with the Government EIA requirements, this project is classified as Category 3 project<sup>3</sup>.

10. Supervision Consultant prepared IEE and updated on October 2015 in English and Russian. Russian version of IEE was used as a national EIA report and submitted to State Committee for Nature Protection of the Republic of Uzbekistan in June 2016. The positive conclusion of State Ecological Expertise (SEE) was obtained in October 2016. The conclusion outlines following main conditions during the realization of the Project:

- provision of construction activities only during day-time;
- establishing a traffic route for construction vehicles at least 50-100m distance from residential buildings
- provision for dust suppression of dumps and access roads;
- considering the allocation of work sites, parking and maintenance areas in line with the Resolution of Cabinet of Ministers No.174 dated from April 07, 1992;
- development of measures on reducing of noise and vibration during construction activities, as well as a schedule for noise measuring near to residential areas.

11. All awarded contracts included EMPs cleared by ADB and conditions of applicable national EIA (Environmental Impact assessment)/IEE clearance.

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<sup>3</sup> [Amu Bukhara Irrigation System Rehabilitation Project: Initial Environmental Examination | Asian Development Bank \(adb.org\)](https://www.adb.org/)



**Table 2-1. Summary of Civil Works Contracts and works' progress**

Package	Scope	Contractor	Signed Date	Approval Date			Name of personnel		Civil Work		Progress as of %	
				SSEMP	COVID-19 HSMP	ERP	Environmental officer	Health and safety officer	Start Date	End Date	30 Jun, 2022	31 Dec, 2022
ABISRP 01	Construction of Amu Bukhara 1 NEW Pump Station	China National Technical Import and Export Corporation (CNTIC)	02/08/19	06/10/21	08/12/20	08/12/20	Egamov Murod	Bekmuradov Hasan	05/09/19	04/09/23	40.07	53.94
ABISRP 02	Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures	Consortium LLC "Kogon Suv Kurilish" and JSC "Amubukhorokanalkurilish"	16/03/16	15/02/17	22/11/21	22/11/21	Ibadov Rasul	Ibadov Rasul	27/04/16	29/12/23*	58.50	59.00
ABISRP 03 Lot 1	Modernization & Rehabilitation of Kuyu Mazar Pump Station	JV Hebei Construction Group Co, LTD & Hebei Water Conservancy Eng. Bureau	21/12/16	20/02/18	09/12/20	09/12/20	Juraev Aziz	Juraev Aziz	20/09/17	22/04/21**	97.87	97.87
ABISRP 03 Lot 2	Modernization & Rehabilitation of Kizil Tepa Pump Station	JV Hebei Construction Group Co, LTD & Hebei Water Conservancy Eng. Bureau	21/12/16	20/02/18	09/12/20	09/12/20	Juraev Aziz	Juraev Aziz	20/09/17	29/07/21***	99.53	99.53
ABISRP 04	Civil Works for Inter-farm and On-farm Irrigation System Rehabilitation	LLC "Kogon Suv Kurilish"	30/06/16	15/02/17	Not issued	Not issued	Izamov Amin Ashurovich	Izamov Amin Ashurovich	22/08/16	10/09/17	100	100
ABISRP 07/A	Additional Works for Modernization and Rehabilitation of Kizil Tepa Pump Station	China National Technical Import and Export Corporation (CNTIC)	06/06/22	Not approved yet	Not approved yet	Not approved yet	Not assigned yet	Not assigned yet	04/07/22****	31/12/23	0	0

SSEMP = Site-Specific Environmental Management Plan  
HSMP = Health and Safety Management Plan  
ERP = Emergency Response Plan

\* Extended Completion Date

\*\* Completion and Operational Acceptance dates are contractually different dates. This Contract was extended to 29.05.2021. Actual Completion date of this Contract is 22.04.2021 and the Completion Certificate for this Contract was issued on 24.05.2021 with minor deficiencies. Progress being less than 100% means that the minor deficiencies issued with the Completion Certificate are being eliminated. Upon relevant deficiencies are %100 eliminated, Operational Acceptance Certificate will be issued and the progress will be updated as 100%.

\*\*\* Completion and Operational Acceptance dates are contractually different dates. This Contract was extended to 29.07.2021 and the extended completion date of this Contract is given in the table. Contractor notified that the Works had been completed, and applied for the issuance of Completion Certificate on 14.06.2021, contractually, the Functional Guarantee Tests of pumps had to be carried out after issuance of the Completion Certificate. The Employer asked the Contractor to carry out relevant tests before issuance of Completion Certificate. Tests were carried out first in October 2021 and second time in March 2022, and will be repeated after ongoing irrigation season due to discrepancies in the flowrates. Upon satisfactory completion of the relevant tests, Completion Certificate will be issued taking into account the completion date as 14.06.2021. Then the completion date in the table will be updated accordingly as a actual completion date. Progress being less than 100% means that there are minor deficiencies. Until satisfactory completion of the tests, these minor deficiencies may be 100% eliminated and both Completion and Operational Acceptance Certificates may be consecutively issued. When the Operational Acceptance Certificate is issued, the progress will be updated as 100%.

\*\*\*\* This is the effective date of the Contract in accordance with the Contract conditions; however, the advance payment was made in the second half of November 2022, and the Contract has been in the detailed design phase since then. Civil works are expected to start after approval of SSEMP and detailed designs.

12. A list of main organizations involved in the project and relevant to Environmental Safeguards is given in **Ошибка! Источник ссылки не найден.** below.

**Table 2-2. Personnel relevant to Environmental Safeguards**

	Organization's Name	Job Title	Name	e-mail address
<b>Executing Agency</b>	Ministry of Water Resources (MWR)	Director	Khamraev Shavkat Rakhimovich	mwr@minwater.uz
<b>Implementing Agency</b>	Center for Implementation of Foreign Investment Projects in Water Sector under MWR	Director	Bakhtiyor Bakhodirovic Kamalov	agency@minwater.uz
		Environmental Specialist	Sardor Pulatov	abisr@mail.ru
<b>Construction Supervision Consultant</b>	Temelsu International Engineering Services Inc. Sheladia Associates Inc. JV	Team Leader	Nurettin Demir	nurettin.demir@temelsu.com.tr
		Site Engineer	Mustafa Engel	mustafa.engel@temelsu.com.tr
		International Environmental Specialist (8 PMs)	Alper Parlak	alper.parlak@temelsu.com.tr
		National Environmental Specialist (16 PMs)	Sanatulin Sherzod Alisherovich	shonic1987@mail.ru

PM = person-months

13. The following organizations and/or staff will be responsible for environmental monitoring:

- Basin Irrigation System Authority of Regions
- Contractor of any Subcomponent
- Civil Engineer of Consultant
- Climate Change Mitigation Specialist
- Environmental Expert of Consultant (EEC)
- Electrical Engineer of Consultant
- Ministry of Health
- Project Manager of Consultant
- Project Implementation Unit
- Water Consumer Associations

14. The key staff for the environmental management and monitoring activities is Mr. Sardor Pulatov, as PIU's Monitoring and Evaluation Specialist (M&ES). He has all responsibilities and tasks related to environment, land, social (including involuntary resettlement and indigenous people), and poverty and gender aspects in accordance with the environment and social safeguard documents and Summary Poverty Reduction and Social Strategy, all of which are project linked documents.

15. Specifically, PIU Monitoring and Evaluation Specialist:

- takes responsibility for monitoring and evaluating performance targets and indicators with baselines indicated in the Design and Monitoring Framework of the project document for all dimensions with support from the implementation consultant.

- provides necessary guidance to the Poverty, Social and Gender Officer in the PIU of Bukhara to collect relevant information on poverty, gender, and social aspects in relation to the Design and Monitoring Framework of the project document and Summary Poverty Reduction and Social Strategy.

16. Additionally, in relation to the environmental aspects, with the support from the international and national Environmental Experts of the Consultants (EECs) of the supervision consultant, the PIU Environmental Monitoring and Evaluation Specialist will:

- ensure that Environmental Management Plan (EMP) is updated during detailed design completed,
- ensure that bidding documents include all requirement to implement IEE and its EMP.
- ensure that the bidder selected will have adequate resources to implement and update EMP.
- undertake safeguards monitoring activities and prepare safeguard reports to be submitted to ADB.
- ensure that all construction works will be taken place in the permanent land possession of BISA.
- if additional land required for construction works, ensure that land acquisition and resettlement plan is prepared in accordance with ADB SPS (Safeguard Policy Statement) 2009 as well as the Government law and regulation related with land acquisition; and
- ensure that other project-related tasks are complied with ADB SPS 2009 and Government requirement.
- review and approve Site-Specific and Topic Specific Management Plans prepared by Construction Contractor.

17. PIU as responsible implementing agency for the project, recruited a Construction Supervision Consultant (CSC) – joint venture: «Temelsu International Engineering Services Inc» and «Sheladia Associates Inc.». The International EEC (Mr. Alper Parlak) and national EEC (Mr. Sherzod Sanatulin) assist M&ES of PIU in the supervision of the construction activities under the Project.

18. The part of the work of the EEC is to develop a capacity building training program for Contractor's Environmental Officers in order to increase the implementation efficiency of environmental monitoring. The timing of this program is just before the commencement of civil works. EECs will develop the content of training.

## 2.3 Project Activities During Current Reporting Period

### 2.3.1 Contract ABISRP 01 - Construction of Amu Bukhara 1 New Pump Station

19. During the reporting period, the progress of Works in **Contract ABISRP 01 - Construction of Amu Bukhara 1 New Pump Station** were as followings:

- The overall detailed design progress has reached approximately 90%,
- Reinforced concrete works of the aboveground part (superstructure) of the pump station building (auxiliary building) have been 60% completed,
- Reinforced concrete works of the trashrack structure and the transportation bridge at the intake of the pump station building have been completed,
- Steel structure of the aboveground part (superstructure) of the pump station building (pump house) and the 50t overhead crane have been installed,
- Coating of the spiral casings of the main pumps #4-#8 has been completed,
- 15t overhead crane in the main valves' hall has been installed,
- Discharge pipes and the main discharge shut-off valves of the main pumps in the pump station building have been installed,

- Installation of the elbow penstock (discharge pipe) of the main pumps just at the downstream of the pump station building has been completed,
- Reinforced concrete works of the maintenance valves' chamber at the downstream of the pump station building has been 50% completed,
- Maintenance valves at the downstream of the pump station building have been installed,
- 3 more main motors (6 out of 8 in total) have been delivered to site,
- Progress in on-site penstock fabrication is as follows:  $\Phi$ 4100-190 m and  $\Phi$ 2200-500 m,
- Excavation works on the route of discharge pipeline have been 90% completed,
- Reinforced concrete works of the intermediate supports of the discharge pipeline have been 50% completed,
- Reinforced concrete works of the siphon and outlet structures have been 40% completed,
- Excavation works on the outlet canal have commenced,
- Procurement of the following elements is in progress:
  - Materials/equipment/auxiliary equipment for technical water supply system, oil supply and discharge system, compressed air system and emergency drainage system.

### 2.3.2 Contract ABISRP 02 - Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures

20. During the reporting period, the Contractor of **Contract ABISRP 02 - Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures** mainly engaged with the following works:

- Completion of the rehabilitation works on small regulating structures Gijduvan, Mayta and Okrabad at Hydrosystem Tashrabad,
- Construction works of bypass structure ABK-1 at Hydrosystem Troynik,
- Construction works of bypass structure ABK-2 at Hydrosystem Troynik.

### 2.3.3 Contract ABISRP 03 - Modernization & Rehabilitation of Kuyu Mazar and Kizil Tapa Pump Stations

21. Under the Modernization and Rehabilitation of Kuyu Mazar and Kizil Tapa Pump Stations (PS(s)) (ABISRP 03) there are two contracts: **Modernization & Rehabilitation of Kuyu Mazar Pump Station (ABISRP 03 Lot 1)** and **Modernization & Rehabilitation of Kizil Tapa Pump Station (ABISRP 03 Lot 2)**. Contracts were signed in December 2016 and became effective in September 2017.

22. **Kuyu Mazar PS:** After examining the facilities with the **Working Commission** and seeing that the Works at KM PS had practically been completed with minor deficiencies, and all the pump units met the specified functional requirements (guaranteed efficiencies); the **Completion Certificate** of the **Contract ABISRP 03 Lot 1** was issued by the CSC on May 24, 2021. The pump station is under the operational acceptance stage. The operational acceptance will be realized after delivery of the remaining spare parts, which is expected to be completed by February 2023. The delay is mainly related to manufacturing of spare impeller blades. During the reporting period, the Contractor mainly engaged with the procurement of missing spare parts.

23. **Kizil Tapa PS:** Contractor, notifying that the main Works had been completed, applied for the issuance of Completion Certificate on 14.06.2021 (before the expiry of the extended completion date, i.e., before 29.07.2021). Contractually, the Functional Guarantee Tests (Performance Tests) of pumps had to be carried out after issuance of the Completion Certificate. The Employer asked the Contractor to carry out relevant tests before issuance of

Completion Certificate. Performance tests of the main pumps at KT PS were performed from September 30 to October 09, 2021 in accordance with the "Pump Performance Test Procedure" prepared by the main pumps' manufacturer (Andritz). According to the performance test results, 8 of the pumps at KT PS have failed in attaining the functional guarantees specified in the Contract. The Contractor and Pump Manufacturer claimed that the calibration of the ultrasonic flowmeters long ago, and the silt accumulated at the intake chambers of pumps and the forebay of the pump station caused the tests to fail. According to the Contract, *in case any of the pumps fails to meet the functional guarantees specified in the Contract, the Contractor shall make changes, modification and/or additions to the Plant or any part thereof as may be necessary to meet at least the minimum level of functional guarantees within 90 days (i.e., in our case until January 12, 2022).* Accordingly, the Contractor was asked to take all necessary remedial actions within specified duration and to repeat the tests latest from January 12, 2022. The tests were repeated on March 21-25, 2022; however, during the repetition of the tests, it was observed that the flowrates measured with the flowmeters of the *Expert Council of Diagnostic Center of State Inspectorate "Gosvodkhoznadzor"* were lower than those of measured with the flowmeters installed by the Contractor. After intense discussions with the Employer and Operator, at the meeting held with the Contractor on May 24, 2022 at the Operator's office in Bukhara; it was decided to replace the worn seal rings of pumps, re-calibrate the flowmeters in a certified laboratory in China and to repeat the functional guarantee tests after upcoming irrigation season (i.e., after September 2022). During the reporting period, the Contractor mainly engaged with the following works:

- Maintenance of the main pumps #8 and #10 and replacement of their worn seal rings,
- Dismantling and delivery of the flowmeters to China for calibration,
- Replacement of the impellers of the main pumps #3 and #4 with the spare impellers and delivery of the main impellers to Austria for recoating.

### 2.3.4 Contract ABISRP 07/A - Additional Works for Modernization and Rehabilitation of Kizil Tapa Pump Station

24. **Contract ABISRP 07/A - Additional Works for Modernization and Rehabilitation of Kizil Tapa Pump Station** was signed on June 6, 2022 and became effective on July 4, 2022. However, the advance payment was made in the second half of November 2022, and the Contract has been in the detailed design phase since then.

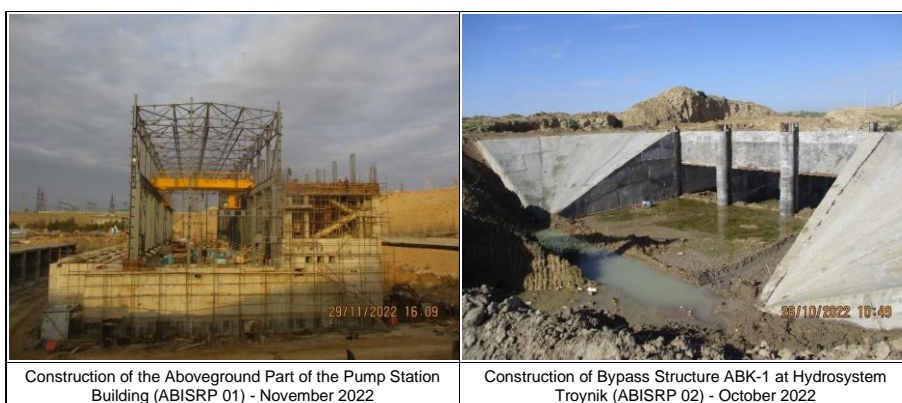
### 2.3.5 Summary

25. The main project activities carried out during the reporting period include the following:

**Table 2-3. Main Construction Activities Carried out During the Reporting Period (July - December 2022)**

Site	Construction Activity	Number of Workers	
		Max.	Min.
<b>Construction of Amu Bukhara 1 New Pump Station (ABISRP 01)</b>			
Bukhara-Alat	Various construction works on various structures as given under para. 19	310	200
<b>Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures (ABISRP 02)</b>			
Hydrosystem Troynik	Concrete works of bypass structures ABK-1 and ABK-2	15	5
<b>Modernization and Rehabilitation of Kuyu Mazar Pump Station (ABISRP 03 Lot 1)</b>			
Bukhara-Kuyu Mazar	No construction activity was carried out, main activity was the procurement of spare parts	2	2
<b>Modernization and Rehabilitation of Kizil Tapa Pump Station (ABISRP 03 Lot 2)</b>			
Navoi-Kizil Tapa	No construction activity was carried out, main activity was the maintenance of the main pumps	10	5
<b>Additional Works for Modernization and Rehabilitation of Kizil Tapa Pump Station (ABISRP 07/A)</b>			
Navoi-Kizil Tapa	Construction activity has not started yet	0	0

26. The construction works at Amu Bukhara 1 New Pump Station started in May 2020 in the 10<sup>th</sup> reporting period (January - June 2020) and are in progress.
27. The construction works within the scope of the Contract ABISRP 02 started in late 2017 and are still in progress.
28. The construction works at Kuyu Mazar and Kizil Tapa Pump Stations started in the 6th reporting period (January - June 2018) and have been completed.
29. Photos of construction works are given in Annex 1. **Photos.**
30. All photos were taken during the current reporting period.



#### 2.4 Description of Any Changes to Project Design

31. There has been no change during the reporting period in the design of the project which was assessed in the Impact Assessment phase of the project and was set out in the Initial Environmental Examination/Environmental Impact Assessment.

#### 2.5 Description of Any Changes to Agreed Construction methods

32. No changes to any construction processes have been observed during the construction period.

### 3 ENVIRONMENTAL SAFEGUARD ACTIVITIES

#### 3.1 General Description of Environmental Safeguard Activities

33. The activities carried out during the reporting period by the environmental staff who are related to the project activities have been summarized in the following Table 3-1.

**Table 3-1. Environmental Safeguards Activities Carried out During Reporting Period (July - December 2022)**

Environmental Safeguard Activities
<b>The International environmental expert (Alper Parlak) of Supervision Consultant (EEC)</b> - Mobilized for the first time for the ABISR project at the beginning of July 2022 and conducted inspections at the project sites on July 2-7, 2022. - Visited the project sites on July 26-28, 2022 with the ADB Safeguard Mission. - Contributed in preparation of the previous SAEMR.
<b>The National environmental expert (Sherzod Sanatulin) of Supervision Consultant (EEC)</b> - Visited the project sites on July 26-28, 2022 with the ADB Safeguard Mission. - Conducted inspections at the project sites on December 19-21, 2022.
<b>Construction of Amu Bukhara 1 New Pump Station (ABISRP 01)</b> <b>(Responsible Environmental Staff: Egamov Murod)</b> - Conducted regular HS trainings as well as induction trainings throughout the reporting period. - Carried out noise measurements periodically. - Submitted EMR integrated to Monthly Progress Reports (July, August, September, October, November, December 2022)
<b>Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures (ABISRP 02)</b> <b>(Responsible Environmental Staff: Ibadov Rasul)</b> - Submitted EMR only once covering the period June - October 2022 at the end of October 2022.
<b>Modernization and Rehabilitation of Kuyu Mazar Pump Station (ABISRP 03 Lot 1)</b> <b>(Responsible Environmental Staff: Juraev Aziz)</b> - The work at KMPS has been completed, therefore, environmental safeguard activities are no longer being carried out.
<b>Modernization and Rehabilitation of Kizil Tapa Pump Station (ABISRP 03 Lot 2)</b> <b>(Responsible Environmental Staff: Juraev Aziz)</b> - The work at KTPS has been completed, therefore, environmental safeguard activities are no longer being carried out.
<b>Additional Works for Modernization and Rehabilitation of Kizil Tapa Pump Station (ABISRP 07/A)</b> <b>(Responsible Environmental Staff: Not assigned yet)</b> - Work has not started yet.

#### 3.2 Site Audits

34. Site inspections were carried out during the reporting period by the national SE and also by the national and international EEC to check up implementation of environmental protection measures parallel to civil works inspection as indicated below:

**Table 3-2. Environmental Inspections Carried out During Reporting Period (July - December 2022)**

Date	Conducted by	Purpose	Findings	Corrective Actions (CA)	Responsible for CA
02-07/07/2022- 26-28/07/2022	Supervision Consultant international EEC	Ensure compliance with General, Environmental and OHS (Occupational health and safety) requirements	Nonconformities observed during inspections have been specified in Table 6-1	Corrective actions have been specified in Table 6-1	HSE Staffs of the Contractors

Date	Conducted by	Purpose	Findings	Corrective Actions (CA)	Responsible for CA
26-28/07/2022- 19-21/12/2022	Supervision Consultant national EEC	Ensure compliance with General, Environmental and OHS (Occupational health and safety) requirements	Nonconformities observed during inspections have been specified in Table 6-1	Corrective actions have been specified in Table 6-1	HSE Staffs of the Contractors
Daily Routine site visits	Supervision Consultant Site Engineers (SE)	Ensure compliance with General, Environmental and OHS (Occupational health and safety) requirements	PPE (Personal protective equipment-particularly safety harness) has not been used by labors working at height (on scaffoldings) and very poor housekeeping	Provision of required PPE to labors and daily control of the use of PPE and immediate action to make housekeeping regularly	HSE Staffs of the Contractors

EEC = environmental expert of consultant, OHS = occupational health and safety, PPE = personal protective equipment

35. Mr. Egamov Murod Kuchkorovich (a local expert) is acting as a *part-time* Health, Safety and Environmental manager of the Contract ABISRP 01 (Amu Bukhara 1 New Pump Station), while Mr. Bekmuradov Hasan (a local expert) is acting as the Health and Safety staff of the Contract ABISRP 01 (Amu Bukhara 1 New Pump Station) on a *full-time* basis.

36. Mr. Ibadov Rasul is acting as the Health, Safety and Environmental staff of the Contract ABISRP 02 (ABMC Regulation Structures).

37. Mr. Miao Guowang (a Chinese expert) was the Health, Safety and Environmental Manager and Mr. Juraev Aziz was the local Health, Safety and Environmental expert of the Contract ABISRP 03 (Lot 1-Kuyu Mazar Pump Station and Lot 2-Kizil Tapa Pump Station). *Both experts left the project, as work was completed at both pump stations.*

38. During the international and national EECs' site inspections in the reporting period, a few nonconformities related with Environmental and OHS requirements were observed at the site of Contract ABISRP 01 as given in **Table 6-1**, and the Contractor was asked to take required actions to eliminate relevant nonconformities. The Contractor has shown effort on applying corrective actions on time, and therefore environmental performance of the Contractor is considered to be good in the reporting period.

39. During the international and national EECs' site inspections in the reporting period, a few nonconformities related with Environmental and OHS requirements were observed at the site (Hydrosystem Troynik) of Contract ABISRP 02 as given in **Table 6-1**, and the Contractor was asked to take required actions to eliminate relevant nonconformities. Environmental performance of the Contractor is considered to be poor in this reporting period too.

40. During the national EEC's site inspections in December 2022, it was observed that the works at both pump stations of Contract ABISRP 03 were over and there were only a few personnel to keep the pump stations in operable condition. CSC has prepared and will issue a "Post-Construction Environmental Audit Report" for Modernization and Rehabilitation of Kuyu Mazar Pump Station (ABISRP 03 Lot 1). However, since a new contract (ABISRP 07/A - Additional Works for Modernization and Rehabilitation of Kizil Tapa Pump Station) was signed for Kizil Tapa Pump Station; CSC will prepare the "Post-Construction Environmental Audit Report" for this facility, after completion of the works under the scope of the new contract.

41. Status of Non-Conformities revealed for previous period are given in Table 3-3 below:



**Table 3-3. Status of Non-Conformities**

No	Site/Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
1	ABISRP 02 Camp Site	19/01/18	Environment	Sewage not disposed properly	Comply with the national legislation and contract requirements	N1	Major	31/03/18	Low	Contractor	Closed	22/06/19
2	ABISRP 02 and ABISRP 04 Construction Sites	19/01/18	Environment	Hazardous waste collection area doesn't exist	No need for corrective actions. Since the maintenance of equipment and vehicles are outsourced, waste collection area doesn't exist	N2	Minor	26/01/18	Low	Contractor	Closed	26/01/18
3	ABISRP 02 Construction Sites	19/01/18	Environment	Record of old tires and accumulators have not been kept	Provide the necessary data	N3	Minor	01/03/18	Medium	Contractor	Closed	22/06/19
4	ABISRP 02 Construction Sites	19/08/17	Safety	Labeling doesn't exist for hazardous areas	Comply with the national legislation and contract requirements	N4	Major	01/03/18	High	Contractor	Closed	22/06/19
5	ABISRP 02 Construction Sites and Camps	19/01/18	Environment	Separation of hazardous and solid waste	Sort solid waste separately	N5	Minor	12/02/18	Low	Contractor	Closed	22/06/19
6	ABISRP 02 Construction Sites	19/01/18	Environment	Soil contamination with oil leakage	Remove all waste and contaminated soil. Contaminated soil should be disposed in special drums and transferred to the licenced sub-contractor for further treatment	N6	Minor	12/02/18	Low	Contractor	Closed	19/01/18
7	ABISRP 02 Construction Sites	19/01/18	Health	Hygienic conditions, protection against climatological conditions and light conditions poor	Comply with contract requirements	N7	Minor	12/02/18	Low	Contractor	Closed	22/06/19
8	ABISRP 02 Camp Site	19/01/18	Safety	Firefighting equipment or fire extinguisher doesn't exist	Comply with contract requirements	N8	Major	12/02/18	High	Contractor	Closed	22/06/19
9	ABISRP 03 Lot1 Kuyu Mazar	26/11/17	Environment	National environmental expert has not been hired	Hire the national environmental expert	N9	Major	01/03/18	High	Contractor	Closed	14/02/18
10	ABISRP 03 Lot2 Kizil Tapa	26/11/17	Environment	National Environmental expert has not been hired	Hire the national environmental expert	N10	Major	01/03/18	High	Contractor	Closed	14/02/18

Добавлено примечание ([D1]): Please dont change the orientation of this table from "landscape" to "portrait"!

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No	Site/Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
11	ABISRP 03 Lot1 Kuyu Mazar	26/11/17	Environment	SSEMP not prepared	Prepare SSEMP	N11	Major	20/12/17	High	Contractor	Closed	14/12/17
12	ABISRP 03 Lot2 Kizil Tapa	26/11/17	Environment	SSEMP not prepared	Prepare SSEMP	N12	Major	20/12/17	High	Contractor	Closed	14/12/17
13	ABISRP 03 Lot1 Kuyu Mazar	26/11/17	Environment	Environmental Record System has not been established	Establish the environmental recording system and record the environmental monitoring activities	N13	Major	31/12/17	High	Contractor	Closed	14/05/18
14	ABISRP 03 Lot2 Kizil Tapa	26/11/17	Environment	Environmental Record System has not been established	Establish the environmental recording system and record the environmental monitoring activities	N14	Major	31/12/17	High	Contractor	Closed	14/05/18
15	ABISRP 03 Lot1 Kuyu Mazar	26/11/17	Social	Grievance Redress Mechanism has not been established	Establish the GRM and logbooks	N15	Major	31/01/18	High	Contractor	Closed	14/05/18
16	ABISRP 03 Lot2 Kizil Tapa	26/11/17	Social	Grievance Redress Mechanism has not been established	Establish the GRM and logbooks	N16	Major	31/01/18	High	Contractor	Closed	14/05/18
17	ABISRP 02 Contractor	18/07/18	Environment	EMR prepared per two months	Prepare and submit EMR monthly	N17	Minor	10/08/18	Medium	Contractor	Closed	13/12/21
18	ABISRP 03 Lot1 Kuyu Mazar	17/12/18	Environment	Hazardous wastes observed at site	Follow the rules stated in Hazardous Waste Management Plan, regularly check the site	N18	Major	30/06/19	High	Contractor	Closed	18/06/19
19	ABISRP 03 Lot2 Kizil Tapa	17/12/18	Environment	Oil Spills observed at site	Clean and regularly check the site	N19	Major	30/06/19	High	Contractor	Closed	17/06/19
20	ABISRP 03 Lot2 Kizil Tapa	17/12/18	Environment	The dust formation has been observed at unpaved roads	Spray the unpaved roads with water and regularly check the site	N20	Minor	30/06/19	High	Contractor	Closed	17/06/19
21	ABISRP 03 Lot1 Kuyu Mazar	18/12/18	Environment	The replacement of Environmental Manager has not been declared	Inform PIU/CSC	N21	Minor	01/02/19	Low	Contractor	Closed	04/02/19
22	ABISRP 03 Lot2 Kizil Tapa	18/12/18	Environment	The replacement of Environmental Manager has not been declared	Inform PIU/CSC	N22	Minor	01/02/19	Low	Contractor	Closed	04/02/19
23	ABISRP 03 Lot1 Kuyu Mazar	18/12/18	Environment	The permission for the disposal site of the dredged	Obtain the permission	N23	Major	01/02/19	High	Contractor	Closed	22/04/19

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No	Site/Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
				material has not been obtained					High		Closed	
24	ABISRP 03 Lot2 Kizil Tepa	18/12/18	Environment	The permission for the disposal site of the dredged material has not been obtained	Obtain the permission	N24	Major	01/02/19	High	Contractor	Closed	21/02/19
25	ABISRP 03 Lot1 Kuyu Mazar	31/12/18	Environment	EMR has not been submitted regularly	All previous EMR's will be send	N25	Major	01/02/19	High	Contractor	Closed	15/01/19
26	ABISRP 03 Lot2 Kizil Tepa	31/12/18	Environment	EMR has not been submitted regularly	All previous EMR's will be send	N26	Major	01/02/19	High	Contractor	Closed	15/01/19
27	ABISRP 03 Lot2 Kizil Tepa	17/06/19	Environment	Hazardous waste storage area doesn't exist	Hazardous waste storage area shall be constructed	N27	Major	27/06/19	High	Contractor	Closed	28/09/19
28	ABISRP 03 Lot2 Kizil Tepa and ABISRP 03 Lot1 Kuyu Mazar	17/06/19	Safety	HSE training records couldn't be presented to ADB mission	Conduct training for Kuyu Mazar & Kizil Tepa Contractor's	N28	Major	30/06/19	High	Supervision Consultant	Closed	22/06/19
29	ABISRP 03 Lot1 Kuyu Mazar	18/06/19	Environment	Hazardous material/waste storage area hasn't been constructed according to standards	Hazardous material/waste storage shall be re-constructed according to the standards	N29	Major	30/07/19	High	Contractor	Closed	28/09/19
30	ABISRP 03 Lot1 Kuyu Mazar	18/06/19	Health	Smoke has been formed in the welding area	Ventilation shall be provided in welding area	N30	Major	30/07/19	High	Contractor	Closed	28/09/19
31	ABISRP 02 Construction Sites	21/06/19	Safety	PPE not used by the staff at Kharkhur Construction Site	Daily check, and immediate cautions to the Contractor	N31	Major	01/08/19	High	Supervision Consultant	Closed	28/12/19
32	ABISRP 03 Lot1 Kuyu Mazar	18/06/19	Environment	Dredged material storage area left without leveling (GTS of Contract Chapter 11 Article 11.12) and planting as defined in the Permission	Level the area and plant	N32	Major	19/10/20	High	Contractor	Closed	18/11/21
33	ABISRP 03 Lot2 Kizil Tepa	17/06/19	Environment	Dredged material storage area left without leveling (GTS of Contract Chapter 11 Article 11.12) and planting as defined in the Permission	Level the area and plant	N33	Major	19/10/20	High	Contractor	Closed	19/11/21
34	ABISRP 01 Amu-Bukhara 1	26/12/19	Environment	SSEMP not completed	Finalize SSEMP	N34	Major	31/01/20	High	Contractor	Closed	06/10/21

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No	Site/Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
35	ABISRP 03 Lot2 Kizil Tapa	27/12/19	Safety	Some fire extinguishers' expiration date passed	Replace the fire extinguishers which are expired	N35	Major	31/01/20	High	Contractor	Closed	10/01/20
36	ABISRP 03 Lot2 Kizil Tapa	27/12/19	Safety	Health and safety training records not kept regularly	Keep the record regularly	N36	Minor	04/01/20	High	Contractor	Closed	10/01/20
37	ABISRP 03 Lot2 Kizil Tapa	27/12/19	Environment	Demolished concrete left in site	Dispose the demolished waste to a site shown by the authorities	N37	Major	27/02/20	High	Contractor	Closed	10/01/20
38	ABISRP 03 Lot1 Kuyu Mazar	28/12/19	Environment	Solid waste disposal records not kept regularly	Keep the record regularly	N38	Minor	04/01/20	High	Contractor	Closed	10/01/20
39	ABISRP 03 Lot1 Kuyu Mazar	28/12/19	Environment	Hazardous solid waste collection and separation not active	Put in progress again hazardous solid waste collection and separation	N39	Major	11/01/20	High	Contractor	Closed	06/01/20
40	ABISRP 03 Lot1 Kuyu Mazar	28/12/19	Safety	Safety measures properly not applied	Conduct additional health and safety training for the staff	N40	Major	31/01/20	High	Contractor	Closed	10/01/20
41	ABISRP 02	31/03/21	Health	Health and Safety Plan against COVID-19 including Emergency Response Plan not prepared	Prepare Health and Safety Plan against COVID-19 including Emergency Response Plan and submit health and safety records of the staff	N41	Major	30/04/21	High	Contractor	Closed	22/11/21
42	ABISRP 02	25/12/21	Environment	The toilet facilities exist at Hydrosystems Prokop and Troynik. But their conditions are poor. Since the number of workers are less in number, the wastewater produced during the daily activities have been directly filtered to the ground. The contamination risk of these effluents to the canals are low	Either portable toilets should be used or a cesspit should be built for existing on-site toilets	N42	Major	31/05/22	High	Contractor	Closed	01/05/22
43	ABISRP 02	25/12/21	Environment	The Contractor does not provide information related to the monitoring activities in EMR	Provide monitoring information	N43	Major	15/06/22	High	Contractor	Closed	16/06/22

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No	Site/Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
44	ABISRP 02	25/12/21	Environment	The Contractor has no record about the type, quantity of solid waste produced and disposed (pending from SAEMR #13)	Keep a log regarding every kind of wastes generated at site	N44	Major	31/07/22	High	Contractor	Open	-
45	ABISRP 03 Lot1 Kuyu Mazar	25/12/21	Environment	The Contractor has not provided monthly EMR in the reporting period (Jul-Dec 2021)	Provide EMR on the monthly basis until end of the Contract, as provided in the previous periods	N45	Major	10/06/22	High	Contractor	Closed	30/05/22
46	ABISRP 03 Lot2 Kizil Tapa	25/12/21	Environment	The Contractor has not provided monthly EMR in the reporting period (Jul-Dec 2021)	Provide EMR on the monthly basis until end of the Contract, as provided in the previous periods	N46	Major	10/06/22	High	Contractor	Closed	29/05/22
47	ABISRP 01	01/07/2022	Environment	Lack of a specific place for the storage of construction waste (uncontrolled storage of timber of used formwork and residual scraps of metal formwork elements) at the construction site	Designate a temporary location at site (e.g., on the north-eastern part of the pumping station excavation pit) using a fencing in the form of signal tape and store relevant construction waste there	N48	Major	15/07/22	High	Contractor	Closed	05/08/22
48	ABISRP 01	01/07/2022	Environment	Lack of waste bins for general waste (plastic bottles of drinks, gloves, general rubbish) of workers at the construction site	Provide plastic bins to collect waste and conduct training on "Waste collection and storage at the construction site" to the workers	N49	Minor	15/07/22	Low	Contractor	Closed	30/07/22
49	ABISRP 01	01/07/2022	Environment	Inadequate dust suppression, especially on the windy days	Perform wet dust suppression at construction site at least 2 times per shift	N50	Minor	15/07/22	Low	Contractor	Closed	30/07/22
50	ABISRP 01	01/07/2022	Environment	Lack of a secondary containment vessel of the diesel fuel storage tank to protect against emergency leakage and soil contamination	Rise the diesel fuel storage tank up on a concrete pond	N51	Major	30/09/22	High	Contractor	Closed	15/11/22
51	ABISRP 01	01/07/2022	Safety	Inadequate use of PPE for those working with	Provide the workers with overalls, safety shoes,	N52	Major	15/07/22	High	Contractor	Closed	25/07/22

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No	Site/Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
				hot2bitumen, lack of a fire extinguisher where the bitumen is boiled	special gloves and other PPE to avoid burns while working with hot bitumen Provide at least one fire extinguisher to the place where the bitumen is boiled				High			
52	ABISRP 01	01/07/2022	Safety	Not using PPE (safety harness) when working at height on the scaffolding	Provide the workers working on scaffolding with safety harnesses and make sure workers use these safety harnesses	N53	Major	15/07/22	High	Contractor	Closed	25/07/22
53	ABISRP 01	01/07/2022	Safety	Inadequate use of PPE for those working at pipeline fabrication site	Provide the workers with special shoes with Impact Resistant Toe to prevent damage to the feet Provide the workers carrying out welding work in confined spaces with a respirator to avoid vapor poisoning during welding	N54	Major	15/07/22	High	Contractor	Closed	25/07/22
54	ABISRP 02	01/07/2022	Safety	Absence of firefighting equipment at construction site and temporary camp (Hydrosystem Troynik)	Provide the construction site and temporary camp with firefighting equipment	N55	Major	05/08/22	High	Contractor	Closed	05/08/22
55	ABISRP 02	01/07/2022	Environment	Spilling of concrete residues on the ground adjacent to the construction site (Hydrosystem Troynik)	Remove all the concrete residues. Concrete pumps will not be allowed to stop or operate where out of concrete pouring areas	N56	Minor	01/08/22	Medium	Contractor	Closed	05/08/22
56	ABISRP 02	01/07/2022	Safety	Lack of fence around the deep construction pit (Hydrosystem Troynik)	Fence the deep construction pit with signal tape and putting hard barriers where needed	N57	Major	05/08/22	High	Contractor	Closed	05/08/22
57	ABISRP 03 Lot1 Kuyu Mazar	01/07/2022	Environment	Inadequate housekeeping and maintenance of the temporary camp territory of KMPS	Waste disposal on timely basis and Housekeeping regularly on the territory basis. Personnel training to be	N58	Minor	05/08/22	High	Contractor	Closed	05/08/22

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No	Site/Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
					conducted to increase environmental awareness							
58	ABISRP 02	01/07/2022	Environment	No training record by ABISRP 02 Contractor	All training records should be kept	N59	Minor	30/10/22	High	Contractor	Open	-
59	ABISRP 02	01/07/2022	Environment	Monthly environmental monitoring report by ABISRP 02 Contractor not submitted on the monthly basis	EMR should be submitted to CSC on the monthly basis	N60	Minor	30/12/22	High	Contractor	Closed	30/10/22

42. Non-Conformities recorded in the previous periods related to the construction activities of project components have been tracked in the current reporting period (July-December 2022). Table 3-3 shows the present situation on these tracked non-conformity notices.

43. Contract ABISRP 01 - Contractor regularly inspects the site, prepares environmental monitoring report and submits to the CSC. All the nonconformities observed in the previous period

44. Contract ABISRP 02 - Contractor submitted an environmental monitoring report for June-October 2022. Thus, non-conformity on relevant issue has been closed. However, since the Contractor still does not keep any records regarding solid waste disposal and personnel training; there is no proper information about relevant issues in the so-called environmental monitoring report they submitted to CSC. Therefore, nonconformities 44 and 58 are still open.

45. Contract ABISRP 03 - Contractor is no longer expected to submit environmental monitoring reports, as the construction and installation works at both pump stations were completed in 2021.

46. Contract ABISRP 07/A - SSEMP, HSP and ERP submitted by the Contractor were reviewed and commented by the EEC of the CSC. Since the Contractor has not yet started mobilization due to delay in the advance payment, work has not yet started and HSE staff has not yet been assigned.

### **3.3 Unanticipated Environmental Impacts or Risks**

47. During the current reporting period, COVID-19 pandemic has not affected working conditions. In the previous periods, Environmental Impact and Health and Safety Plans of all the main Contractors were issued incorporating also the Emergency Response Plans against COVID-19 pandemic. As of 7<sup>th</sup> of June 2022, all the restrictions related to COVID-19 outbreak have been lifted and returned to the previous living conditions in Uzbekistan.

48. No cases of COVID-19 have been reported during the monitoring period.



## 4 STATUS OF COMPLIANCE WITH COVENANTS

49. Status of compliance with environmental safeguards related covenants in the Project's Loan Agreement signed between Republic of Uzbekistan and ADB on 21 November 2013<sup>4</sup> is summarized in Table 4-1.

**Table 4-1. Loan Agreement Compliance Status**

Schedule	Paragraph	Covenant	Compliance Status
4	6	<p><u>Conditions for Award of Contract</u> The Borrower shall not award any Works contract which involves environmental impacts until: (a) the IEE has been approved by the appropriate authority of the Borrower; and (b) the Borrower has incorporated the relevant provisions from the EMP into the Works contract.</p>	<p>Complied with. (a) State Committee for Nature Protection of the Republic of Uzbekistan provided State Ecological Expertise (SEE) in October 2016 (para. 10 on page 2). (b) All awarded contracts included EMPs cleared by ADB and conditions of the SEE listed under para. 11 on page 2.</p>
5	9 (a)	<p><u>Environment</u> The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with all applicable laws and regulations of the Borrower relating to environment, health and safety.</p>	<p>Being complied with all applicable laws and regulations of the Republic of Uzbekistan.</p>
5	9 (b)	<p><u>Environment</u> The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with the Environmental Safeguards.</p>	<p>Being complied with Environmental Safeguard Policy Statement (June 2009)</p>
5	9 (c)	<p><u>Environment</u> The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with all measures and requirements set forth in the IEE and the EMP and any corrective or preventative actions set forth in a Safeguards Monitoring Report or which are subsequently agreed between ADB and the Borrower.</p>	<p>Being complied with IEE and EMP. Implementation of any corrective or preventative actions set forth in the Semiannual Environmental Monitoring Reports are being strictly followed.</p>
5	12	<p><u>Human and Financial Resources to Implement Safeguards Requirements</u> The Borrower shall make available necessary budgetary and human resources to fully implement the EMP.</p>	<p>Being complied with. The borrower makes available the budgetary and human resources to fully implement the EMP whenever required.</p>

<sup>4</sup> [ADB Loan Agreement \(Special Operations \[Concessional\]\) for Loan Amu Bukhara Irrigation System Rehabilitation Project \(21 Nov. 2013\)](#)

Schedule	Paragraph	Covenant	Compliance Status
5	13 (a)	<p><u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u></p> <p>The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to comply with the measures relevant to the contractor set forth in the IEE and the EMP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in a Safeguards Monitoring Report;</p>	<p>Being complied with.</p> <p>Bidding documents and contracts for various works under the project have been prepared include the necessary provisions envisaged in the IEE and EMP.</p> <p>During the construction whenever required necessary corrective or preventive actions have been applied.</p>
5	13 (b)	<p><u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u></p> <p>The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to make available a budget for all such environmental measures.</p>	<p>Being complied with.</p> <p>The bidding documents include the relevant provisions. The borrower makes available the budget for environmental measures whenever required.</p>
5	13 (c)	<p><u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u></p> <p>The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to provide the Borrower and MOTC with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE and the EMP.</p>	<p>Being complied with.</p> <p>The bidding documents include the relevant provisions. No environmental, resettlement or indigenous people's risks or impacts issues have been arisen during the implementation of the Project including Jan-Jun 2022 reporting period.</p>
5	13 (d)	<p><u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u></p> <p>The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction;</p>	<p>Complied.</p> <p>Bidding and contract documents contain provisions that require contractors to adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction.</p>
5	13 (e)	<p><u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u></p> <p>The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>	<p>Being complied with.</p> <p>The bidding documents include the relevant provisions. For the completed project components, pathways, other local infrastructure, and agricultural land is being restored to at least their pre-project condition.</p>

Schedule	Paragraph	Covenant	Compliance Status
5	14 (a)	<u>Safeguards Monitoring and Reporting</u> The Borrower shall submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;	Being complied with ( <u>despite the delay in disclosing at MWR website</u> ). Semiannual Environmental Monitoring Report has been prepared and disclosed at ADBs website regularly <sup>5</sup> . A brief summary of the previous SAEMR (for Jan-Jun 2022) prepared in Russian language <sup>6</sup> was disclosed on MWR's website in November 2022.
5	14 (b)	<u>Safeguards Monitoring and Reporting</u> The Borrower shall if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE and the EMP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan;	Being complied with. To address unanticipated impact (COVID-19 pandemic), COVID-19 health and safety management plans were prepared by each contractor and approved by the PMU and the supervision consultant. Control measures including the training and regular tests have been applied for protection against COVID-19. The results of activities have been reported regularly. No cases of COVID-19 have been registered among the workers during the monitoring period.
5	14 (c)	<u>Safeguards Monitoring and Reporting</u> The Borrower shall report any actual or potential breach of compliance with the measures and requirements set forth in the EMP promptly after becoming aware of the breach.	During the project implementation period no actual or potential breach of that compliance with the measures and requirements set forth in the EMP has been observed.

<sup>5</sup> [Amu Bukhara Irrigation System Rehabilitation Project: Environmental Monitoring Report \(January-June 2022\) | Asian Development Bank \(adb.org\)](#)

<sup>6</sup> [Amu Bukhara Irrigation System Rehabilitation Project: Environmental Monitoring Report \(January-June 2022\) | Ministry of Water Resources of the Republic of Uzbekistan \(water.gov.uz\)](#)

## 5 RESULTS OF ENVIRONMENTAL MONITORING

### 5.1 Overview of Monitoring Conducted during Current Period

50. Contractor of Construction of Amu Bukhara 1 New Pump Station (ABISRP 01) has two experts, one of whom is environmental and the other is occupational health and safety. Site manager is following the issues through relevant experts. They submit EMR regularly, trying to close the NCR in the shortest time possible, conducting trainings, monitoring environmental and health and safety conditions regularly. Communication of the Contractor with CSC, and the environmental, social and health and safety performance of the Contractor is considered to be good in the reporting period.

51. Contractor of Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) submitted an EMR for June-October 2022; however, since it does not keep any records regarding solid waste disposal and personnel training; there is no proper information about relevant issues in the so-called environmental monitoring report they submitted to CSC. The Contractor's performance in all aspects (including implementation of the works in the scope of the Contract) is very poor. Due to the incompetence of the existing staff, Contractor does not properly monitor site conditions and does not take NCR issues seriously.

52. Contractor of Modernization and Rehabilitation of Kuyu Mazar and Kizil Tapa Pump Stations (ABISRP 03 Lot 1 and Lot 2) completed the works at both pump stations in 2021 and there are only a few labors as indicated in **Table 2-3** to maintain the pumps and to keep the pump stations in operable condition. Therefore, Contractor is no longer expected to submit environmental monitoring reports.

53. According to EMP, Contractors are responsible for conduction of environmental monitoring activities for environmental impacts caused during the construction. These monitoring activities are based on visual observations. There are no more requirements on environmental monitoring included in EMR and in SSEMPs submitted by the Contractors.

54. During the reporting period, no complaints were received from people living in nearby residential areas for any construction site. In case of receiving such complains, further elaboration in environmental monitoring activities and solving and or settling the problematic issues needed.

#### 5.1.1 Air Emissions and Ambient Air Quality

55. At all the construction sites, appropriate measures were taken to prevent the pollution of atmospheric air, to limit the dust level from working vehicles and enforce strict observance of safety rules at main road crossing, along main roads, the mahalla streets and near sub-project construction sites.

56. CSC has observed that the Contractor of AB-1 New PS (Contract ABISRP 01) sprays water, when necessary, in order to prevent dust generation. However, no matter how well they do it, completely suppressing the dust is a little bit difficult to because campsite and workplace are in the desert.

57. Transportation of excavation material from the construction site of AB-1 New PS (Contract ABISRP 01) to the dump site is ongoing. The dump site is close to the construction site and average transportation distance is about 1 km. The soil excavated is mostly wet and therefore no additional environmental measure such as using tarpaulins to cover the transported soil while transporting from the site by truck is being taken. In order to prevent dust generation, water is sprayed, as indicated above in paragraph 56.

58. Inspection of exhaust emissions of vehicles and machinery used has been controlled in Uzbekistan with a regulation named "Implementation of Mandatory Technical Inspection of Vehicles and the Machinery" and numbered 54 which is in force since January 31<sup>st</sup>, 2003.

Each Contractor should hold a valid permission for the vehicles and machineries used in the construction activities. Therefore, the vehicles and machineries used in construction activities do not exceed limits as far as they hold a valid permission from relevant Government authorities.

59. According to the IEE, the nature of the project activities, will not generate significant quantities of emissions, therefore visual monitoring of dust has been envisaged at the EMP of the project. Since there is no any change in the main project activities, no need for monitoring of air quality except the method stated in Environmental Management Plan given at IEE.

### 5.1.2 Wastewater and Ambient Water Quality

60. Closed septic tanks and toilet facilities exist at Amu Bukhara 1 New Pump Station (ABISRP 01) camp site. The collected sewage has been transferred by septic tank trucks to disposal site. In the working field, workers use temporary toilets. The name of the accredited waste collector company is OLOTBOD LLC in Alat region.

61. Having obtained official permission of the Operator on 01.05.2022, the Contractor (Contract ABISRP 02) is using the Operator's permanent toilets and bathrooms at Hydrosystem Troynik, where the works of relevant Contract are currently ongoing.

62. Closed septic tanks and toilet facilities exist both at Kuyu Mazar Pump Station (ABISRP 03 Lot 1) and at Kizil Tepa Pump Station (ABISRP 03 Lot 2) camp sites. The collected sewage has been transferred by septic tank trucks to disposal site. In the working field, workers use toilets located in the existing pump stations.

63. In the reporting period, the PIU received irrigation water quality analyzes from Uzhdromet. Results of the relevant analyzes provided in mid of December 2022 are as follows:

Component	Upstream of Hydrosystem Dvoynik	Tudakul Lake	Zarafshan River	MPC for fishery reservoirs
pH	<b>6,54</b>	<b>6,94</b>	<b>6,82</b>	7-8
Biochemical oxygen consumption (BOD), mg O/l	1,61	1,89	1,84	3
COD, mg O/l	6,7	<b>38,8</b>	<b>18,7</b>	15
Nitrite nitrogen, mg N/l	<b>0,012</b>	0,004	<b>0,026</b>	0,02
Nitrate nitrogen, mg N/l	0,39	0,66	1,38	9,1
Ammonium nitrogen, mg N/l	0,02	0,02	0,03	0,39
Phosphates, mg R/l	0	0	0,018	0,35
Hardness, mg-eq/l	<b>2,7</b>	<b>14,5</b>	<b>19</b>	7
Chlorides, mg/l	55,3	207,9	146,9	300
Phenols, mg/l	0	0	0	0,001
Sodium, mg/l	85,9	89,8	<b>124</b>	120
Oil products, mg/l	0	0,0	0,02	0,05

64. Based on the results of the analysis of water taken from the first water distribution point (upstream of Hydrosystem Dvoynik), conclusion of Uzhydromet regarding water quality is as follows: water has a slightly alkaline reaction, it belongs to moderately fresh water (water of medium hardness). The content of the main cations and anions, biogenic elements (compounds of nitrogen and phosphorus) and stable organic substances, mainly of biogenic origin, are absent or do not exceed MPC (maximum permissible concentrations).

65. Based on the results of the analysis of water taken from Tudakul lake, conclusion of Uzhydromet regarding water quality is as follows: water has a slightly alkaline reaction, it belongs to low-mineralized water. The content of the main cations and anions exceeds the MPC (maximum permissible concentration) several times. Water is very hard water. Concentrations of biogenic components (compounds of nitrogen and phosphorus) do not exceed MPC. The water contains organic matter.

66. Based on the results of the analysis of water taken from Zarafshan river, conclusion of Uzhydromet regarding water quality is as follows: water has a slightly alkaline reaction, it belongs to low-mineralized water. The content of the main cations and anions exceeds the MPC (maximum permissible concentration) several times. Water is very hard water. Concentrations of biogenic components (with the exception of nitrite nitrogen) are within MPC. The water contains organic matter.

### 5.1.3 Noise

67. The Contractors have fit the daily regular working hours. Since no grievance has been received from the public, it has been considered that noise level does not have any effect on public.

68. The Uzbek national construction noise norms that are relevant to all stages of the construction phase are provided by law KMK 2.01.08-96 - Protection from noise, detailed in Table 5-1.

**Table 5-1. Uzbek construction noise norms (KMK 2.01.08 19 - Protection from noise)**

Premises and territories	Time	Equivalent sound pressure levels, $L_{eq}$ (dB)									Level of Sound, (dBA)
		31,5	63	125	250	500	1000	2000	4000	8000	
Territories directly adjacent to residential houses, recreation facilities, nursing homes and homes for the elderly and disabled	7.00-23.00	90	75	66	59	54	50	47	45	44	70
	23.00-7.00	83	67	57	49	44	40	37	35	33	60

Premises and territories	Time	Equivalent sound pressure levels, $L_{eq}$ (dB)									Level of Sound, (dBA)
		31,5	63	125	250	500	1000	2000	4000	8000	
Territories directly adjacent to the recreation areas of polyclinics, schools and other general educational institutions, preschools, neighborhoods and groups of residential buildings	-	90	75	66	59	54	50	47	45	44	70

69. The Sanitarian Rules and Norms on providing allowed noise level into the living building, public building, and territory of living area (SanR&N No.0267-09) establish the maximum admissible noise level into the living areas, both inside and outside buildings, given in the Table 5-2.

**Table 5-2. Admissible noise level into the living area, both inside and outside the buildings (SanR&N No.0267-09)**

Name of Location		Level of sound pressure, octave bands with average geometric mean frequencies (dB)								Level of Sound, (dBA)
		63	125	250	500	1000	2000	4000	8000	
Living room of flats, bedrooms of resorts (inside)	Daytime 07:00-23:00	63	52	45	39	35	32	30	28	40
	Night-time 23:00-07:00	55	44	35	29	25	22	20	18	30
Territories adjacent to living houses (outside)	Daytime 07:00-23:00	75	66	59	54	50	47	45	43	55
	Night-time 23:00-07:00	67	57	49	44	40	37	35	33	45

70. The World Bank's "Environmental, Health and Safety General Directives, 2007 (EHS)" is functional instead of PPAH (Pollution Prevention and Abatement Handbook). EHS stipulates that noise at any activity shall not exceed the levels given in the

71. Table 5-3 for given receptors, nor shall they result in a greater increase of ambient noise than 3 dB at the nearest receiving area outside the site. Besides, permissible noise level in the workplaces which is specified in the Sanitary Norms (San R&N No. 0325-16) of the Republic of Uzbekistan has also been given in the actual noise level measurement table below (Table 5-4) for comparison.

**Table 5-3. Noise Level Guideline (EHS)**

Receptor	One Hour $L_{Aeq}$ (dBA)	
	Day time 07:00-22:00	Night time 22:00-07:00
Residential; institutional; educational	55	45
Industrial; commercial	70	70

72. Nearest Receptors to the Working Areas are as listed below:

- The nearest receptor to the Amu Bukhara 1 New Pump Station (ABISRP 01) construction site is the settlement area (houses) which has been located approximately 250 m northwest.
- The nearest receptor to the Kuyu Mazar Pump Station (ABISRP 03 Lot 1) construction site is settlement area (houses), which has been located approximately 750 m southwest.
- The nearest receptor to the Kizil Tapa Pump Station (ABISRP 03 Lot 2) construction site is settlement area (houses), which has been located approximately 500 m west.

73. Contractor (ABISRP 01) has monitored the noise levels at the location given in Table 5-4. Applicable standards are indicated both in IFC guidelines (please see paragraph 70 and Table 5-3) and in the Sanitary Norms (San R&N No. 0325-16) of the Republic of Uzbekistan. The measured noise levels have exceeded neither the permissible noise level specified in the referenced IFC guideline nor that of specified in the Sanitary Norms (San R&N No. 0325-16) of the Republic of Uzbekistan. Although the CSC observed that the noise levels are not measured at the nearest receptors; since no grievance has been received from the public (please see paragraph 67), it has been considered that noise level does not have any effect on public.

**Table 5-4. Noise Level Measurements at Amu Bukhara 1 New Pump Station (ABISRP 01) Construction Area**

Date	Noise Level, dB(A)	Applicable IFC Standard (EHS)	Permissible noise level in workplaces (San R&N No.0325-16)
Jul 2022	54	70	80
Aug 2022	55	70	80
Sep 2022	53	70	80
Oct 2022	53	70	80
Nov 2022	54	70	80
Dec 2022	52	70	80

74. CSC has not received any noise measurement result from the Contractor (ABISRP 02) for the current reporting period. Closest settlement to Troynik where the construction works are ongoing is Kogon district, whose air distance from Troynik is 20 km. Therefore, and since there is no noisy construction works at Troynik, it is not considered as a noncompliance.

75. Contractor (ABISRP 03 Lot 1) is no longer expected to monitor noise levels as the works have already been completed.

76. Contractor (ABISRP 03 Lot 2) is no longer expected to monitor noise levels as the works have already been completed.

#### 5.1.4 Material Resources Utilization

##### 5.1.4.1 Current Period

77. The utilization of electricity, water and other materials during the reporting period at the construction site of Amu Bukhara 1 New Pump Station (ABISRP 01) is given in Table 5-5.



**Table 5-5. Material Resources Utilization at the Construction Site of Amu Bukhara 1 New Pump Station**

Resources	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total
Water (m <sup>3</sup> )	540	438	186	414	468	200	2246
Cement (tons)	1048	8851	361	804	909	388	12361
Iron (tons)	103.7	164.6	52.2	182.1	170.7	110.5	783.8
Fuel (m <sup>3</sup> )	29.06	42.02	34.72	35.16	32.28	27.8	201.04
Electricity (kwh)	127944	124020	117701	126149	137570	146686	780070
Sand (m <sup>3</sup> )	1907	1548	657	1464	1654	707	7937

78. The utilization of electricity, water and other materials during the reporting period at the construction sites of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) is given in Table 5-6.

**Table 5-6. Material Resources Utilization at the Construction Sites of Amu Bukhara Main Canal Regulation Structures**

Resources	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total
Water (m <sup>3</sup> )	118.5	128.9	119.25	120.47	125.3	128.2	740.62
Cement (tons)	86.2	80.5	102	57.2	154.4	23.3	503.6
Iron (tons)	5.65	4.58	3.8	3.5	5.62	3.2	26.35
Fuel (m <sup>3</sup> )	4.25	3.95	3.58	2.58	2.15	1.45	17.96
Electricity (kwh)	2560	2351	2554	2884	2751	3125	16225
Sand (m <sup>3</sup> )	96	89	120	60	15	25	405

79. Information on the periodic utilization of electricity, water and other materials is no longer required for Kuyu Mazar Pump Station (ABISRP 03 Lot 1) and Kizil Tepa Pump Station (ABISRP 03 Lot 2); as work at both pump stations has already been completed.

#### 5.1.4.2 Cumulative Resource Utilization

80. The resources utilization records have been kept starting from the 10<sup>th</sup> SAEMR. The data given in Table 5-7 covers the cumulative utilization of the material resources at the construction site of Amu Bukhara 1 New Pump Station (ABISRP 01) until end of current reporting period.

**Table 5-7. Cumulative Material Resources Utilization at the Construction Site of Amu Bukhara 1 New Pump Station**

Resources	Reporting Period						Total
	10	11	12	13	14	15	
Water (m <sup>3</sup> )	20	1596	2850	6950	3413	2246	<b>17075</b>
Cement (tons)	40	42	1370	3370	1986	12361	<b>19169</b>
Iron (tons)	-	-	320	468	593.8	783.8	<b>2165.6</b>
Fuel (m <sup>3</sup> )	15	247	249	527	163.1	201.04	<b>1402.14</b>
Electricity (Mwh)	7	951	1223.3	819.6	709.8	780.07	<b>4490.77</b>
Sand (m <sup>3</sup> )	65	57	-	9124	3611	7937	<b>20794</b>

81. The data given in Table 5-8 covers the cumulative utilization of the material resources at the construction sites of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) until end of current reporting period.

**Table 5-8. Cumulative Material Resources Utilization at the Construction Sites of Amu Bukhara Main Canal Regulation Structures**

Resources	Reporting Period					Total	
	10	11	12	13	14		15
Water (m <sup>3</sup> )	13	-	-	1092	494.5	740.62	<b>2340.12</b>
Cement (tons)	840	-	-	504	449.06	503.6	<b>2296.66</b>
Iron (tons)	6.4	-	-	32.09	56.43	26.35	<b>121.27</b>
Fuel (m <sup>3</sup> )	12	5	5	14.5	30.6	17.96	<b>85.06</b>
Electricity (Mwh)	1.7	-	-	16.334	15.333	16.225	<b>49.592</b>
Sand (m <sup>3</sup> )	912	-	-	573	1327	405	<b>3217</b>

82. Information on the cumulative utilization of electricity, water and other materials is no longer required for Kuyu Mazar Pump Station (ABISRP 03 Lot 1) and Kizil Tepa Pump Station (ABISRP 03 Lot 2); as work at both pump stations has already been completed.

### 5.1.5 Waste Management

83. The Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01) submitted Waste Management Plan and Hazardous Waste Management Plan which were integrated into the SSEMP. The final version of the Waste Management Plan and the Hazardous Waste Management Plan were given in the SSEMP approved in Oct-2021.

84. The solid waste disposal area of the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01) is the Alat Solid Waste Disposal Area. The Contractor declared in the Monthly Progress Reports that the solid wastes were collected and disposed of by Alat Local Authority (Olot Obod LLC).

85. The solid waste disposal area of the Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) is the Kuyu Mazar Solid Waste Disposal Area. The Contractor declared in 2021 that he signed an agreement with the Toza-Khudud Municipal Unitary Enterprise for waste disposal.

86. The Contractor of Kuyu Mazar Pump Station (ABISRP 03 Lot 1) submitted a Waste Management Plan on 11<sup>th</sup> May 2018 and Hazardous Materials Management Plan on 10<sup>th</sup> May 2018 (Semi-annual EMR R.06). The solid waste disposal area of the Contractor of Kuyu Mazar Pump Station (ABISRP 03 Lot 1) was declared as Kuyu Mazar Solid Waste Disposal Area which is approximately 3 km away from the Kuyu Mazar Pump Station. Information on waste generation is no longer available, as work at the pump station has already been completed.

87. The Contractor of Kizil Tepa Pump Station (ABISRP 03 Lot 2) submitted a Waste Management Plan on 11<sup>th</sup> May 2018 and Hazardous Materials Management Plan on 10<sup>th</sup> May 2018 (Semi-annual EMR R.06). The solid waste disposal area of the Contractor of Kizil Tepa Pump Station (ABISRP 03 Lot 2) was declared as a local Solid Waste Disposal Area which is approximately 6 km away from the Kizil Tepa Pump Station. Information on waste generation is no longer available, as work at the pump station has already been completed.

#### 5.1.5.1 Current Period

88. During the current reporting period (July - December 2022), the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01) has dumped domestic solid waste to the site defined by Olot Obod LLC. Waste disposal records kept by the Contractor are given in Table 5-9 below. The transfer and disposal of domestic solid waste has been realized by Olot Obod LLC firm.

**Table 5-9. Solid waste transfer records**

Date of Solid Waste Transfer	Volume of Solid Waste (m <sup>3</sup> )					Storage Area
	Type I Very Hazardous	Type II Hazardous	Type III Medium Hazard	Type IV Slightly Hazardous	Type V Nearly No Hazard	
July 2022					40	Alat Solid Waste Disposal Area
August 2022					40	
September 2022					40	
October 2022					45	
November 2022					45	
December 2022					40	
<b>EMR-15 TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>250</b>	

89. During the current reporting period (July - December 2022), the Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) has no record about the type, quantity of solid waste produced and disposed. Some dangerous waste such as carelessly thrown away bitumen has been observed at the construction and camping sites at Hydrosystems Troynik and Tashrabad.

90. Information on the solid waste generation is no longer available for Kuyu Mazar Pump Station (ABISRP 03 Lot 1) and Kizil Tepa Pump Station (ABISRP 03 Lot 2); as work at both pump stations has already been completed.

#### 5.1.5.2 Cumulative Waste Generation

91. During the current reporting period (July - December 2022), a total of 250 m<sup>3</sup> solid waste was generated (recorded amount) within the scope of Amu Bukhara Irrigation System Rehabilitation Project, all originating from the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01).

92. The cumulative solid waste generation volume reached to 1538.40 m<sup>3</sup> during the current reporting period, including 42.00 m<sup>3</sup> of recycled or reused solid waste. Approximately 2.7% of this cumulative waste volume has been restored for reuse and recycling purposes. The progress in solid waste disposal has been shown in Table 5-10 below.

**Table 5-10. Total waste disposal amounts**

EMR Report Number	Total Volume (m <sup>3</sup> )	
	Disposed	Recycled or reused
6	6.90	0
7	54.62	42.00
8	29.88	0
9	123.00	0
10	201.50	0
11	28	0
12	305.50	0
13	252	0
14	287	0
15	250	0
<b>Total</b>	<b>1538.40</b>	<b>42.00</b>

**Table 5-11. Distribution of total waste disposal amounts**

EMR Report Number	Amu Bukhara 1 New		Kuyu Mazar		Kizil Tapa		Total	
	Disposed	Recycled or reused	Disposed	Recycled or reused	Disposed	Recycled or reused	Disposed	Recycled or reused
6			3	0	3.90	0	6.90	0
7			42.62	0	12	42	54.62	42
8			11.88	0	18	0	29.88	0
9			53	0	70	0	123	0
10			53.50	0	148	0	201.50	0
11			16	0	12	0	28	0
12	181	0	9.50	0	115	0	305.50	0
13	252	0	0	0	0	0	252	0
14	240	0	0	0	47	0	287	0
15	250	0	NA	NA	NA	NA	250	0
<b>Total</b>	<b>923</b>	<b>0</b>	<b>189.50</b>	<b>0</b>	<b>425.90</b>	<b>42</b>	<b>1538.40</b>	<b>42</b>

93. During the 15<sup>th</sup> reporting period, no hazardous waste has been produced at construction sites.

#### 5.1.6 Health and Safety

##### 5.1.6.1 Community Health and Safety

94. During the current reporting period, there were no incidents occurred within the scope of Community Health and Safety issues, including the traffic accidents and COVID-19 cases.

##### 5.1.6.2 Worker Health and Safety

95. All the Contractors have the Approved Health and Safety Plans, including Emergency Response Plans with COVID-19 risk assessment.

96. COVID-19 measures were successfully applied by the Contractors and necessary trainings were conducted during the peak period of COVID-19 outbreak.

97. No cases of COVID-19 have been reported during the monitoring period. As of 7<sup>th</sup> of June 2022, all the restrictions related to COVID-19 outbreak have been lifted and returned to the previous living conditions in Uzbekistan.

98. CNTIC, the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01), generally follows the Occupational Health and Safety rules. Restricted area demarcations are implemented successfully, PPE is used; however, they have shown some weakness on access tools used between the high structures such as pump station building and the ground. They use wooden access tools which are not properly manufactured and installed. This may endanger the workers during work.

99. Based on Health and Safety Plan and control measures, the following information has been reported by CNTIC, about the measures related to COVID-19 pandemic.

**Table 5-12. Personal Protective Equipment (PPE) Usage and Nucleic Acid Test Numbers (ABISRP 01)**

PPE type / Test	Unit	Used by (pcs)					
		Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Medical Mask	pcs	12830	13620	12420	16430	9740	6760
FFPZ-FFP3- N95 Mask	pcs	-	-	-	-	-	-
Face Shield	pcs	-	-	-	-	-	-
Glove	pcs	6295	7040	6210	7950	9740	6760
Disinfectant	liter	40	45	50	45	20	20

PPE type / Test Month	Unit	Used by (pcs)					
		Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Nucleic acid test	1/month	203	227	207	265	314	218
	2/month	8	8	6	6	0	0

100. Kogon Suv Kurilish, the Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02), due to either absence or frequent replacement the HSE personnel, has difficulty in following the Occupational Health and Safety rules at site. CSC observed that PPE was not used at site, accommodation facilities and kitchens were in very poor condition.

101. HBCG, the Contractor of both Kuyu Mazar Pump Station (ABISRP 03 Lot 1) and Kizil Tapa Pump Station (ABISRP 03 Lot 2), has a few labors at sites to maintain the pumps and to keep the pump stations in operable condition, since the construction activities have been completed. Therefore, occupational health and safety issues to be discussed in this section are no longer available.

**5.2 Summary of Monitoring Outcomes**

102. Monitoring has been carried out regularly by the Contractors, site engineers of the Consultant, and by national and international environmental experts of the Consultant. CNTIC may be considered to be sufficient in terms of monitoring; however, Kogon Suv Kurilish is expected to show a little bit more effort in following the occupational health and safety and environmental rules and in carrying out monitoring activities.

103. During the reporting period, there were no complaints arising from environmental or social issues.

104. Based on the visual inspections and EMRs; the air, noise and water quality conditions have not considerably changed during the project construction span.

105. Implementation status of corrective actions proposed for the nonconformities opened in the previous period is given in Table 5-13 below.

**Table 5-13. Implementation Status of Corrective Actions proposed in the last environmental monitoring report**

Issue	Required Action	Responsibility	Timing (Target Dates)	Description of Resolution and Timing (Actual)	If not yet resolved, indicate the reason why and specify further required action and timeframe
1. The Contractor has no record about the type, quantity of solid waste produced and disposed (pending from SAEMR #13)	Keep a log regarding every kind of wastes generated at site	Contractor (ABISRP 02) <sup>7</sup>	15.06.2022 15.09.2022 15.02.2023	<b>OPEN</b>	Previous HSE staff of the Contractor did not keep any record, new HSE staff has been instructed to arrange logs until 15/09/22, <b>but unfortunately there is still no action.</b>
2. Lack of a specific place for the storage of construction waste (uncontrolled storage of timber of used formwork and residual scraps of metal formwork elements) at the construction site	Designate a temporary location at site (e.g., on the north-eastern part of the pumping station excavation pit) using a fencing in the form of signal tape and store relevant construction waste there	Contractor (ABISRP 01) <sup>8</sup>	15.07.2022	Resolved as required. <b>Closed on 05.08.2022</b>	
3. Lack of waste bins for general waste (plastic bottles of drinks, gloves, general rubbish) of workers at the construction site	Provide plastic bins to collect waste and conduct training on "Waste collection and storage at the construction site" to the workers	Contractor (ABISRP 01)	15.07.2022	Resolved as required. <b>Closed on 30.07.2022</b>	
4. Inadequate dust suppression, especially on the windy days	Perform wet dust suppression at construction site at least 2 times per shift	Contractor (ABISRP 01)	15.07.2022	Resolved as required. <b>Closed on 30.07.2022</b>	
5. Lack of a secondary containment vessel of the diesel fuel storage tank to protect against emergency leakage and soil contamination	Rise the diesel fuel storage tank up on a concrete pond	Contractor (ABISRP 01)	30.09.2022	Resolved as required. <b>Closed on 15.11.2022</b>	
6. Inadequate use of PPE for those working with hot bitumen, lack of a fire extinguisher where the bitumen is boiled	Provide the workers with overalls, safety shoes, special gloves and other PPE to avoid burns while working with hot bitumen Provide at least one fire extinguisher to the place where the bitumen is boiled	Contractor (ABISRP 01)	15.07.2022	Resolved as required. <b>Closed on 25.07.2022</b>	
7. Not using PPE (safety harness) when working at height on the scaffolding	Provide the workers working on scaffolding with safety harnesses and make sure workers use these safety harnesses	Contractor (ABISRP 01)	15.07.2022	Resolved as required. <b>Closed on 25.07.2022</b>	

<sup>7</sup> Modernization and Rehabilitation of Amu Bukhara Main Canal Regulating Structure

<sup>8</sup> Construction of Amu Bukhara 1 New Pump Station

Issue	Required Action	Responsibility	Timing (Target Dates)	Description of Resolution and Timing (Actual)	If not yet resolved, indicate the reason why and specify further required action and timeframe
8. Inadequate use of PPE for those working at pipeline fabrication site	Provide the workers with special shoes with Impact Resistant Toe to prevent damage to the feet Provide the workers carrying out welding work in confined spaces with a respirator to avoid vapor poisoning during welding	Contractor (ABISRP 01)	15.07.2022	Resolved as required. <b>Closed on 25.07.2022</b>	
9. Absence of firefighting equipment at construction site and temporary camp (Hydrosystem Troynik)	Provide the construction site and temporary camp with firefighting equipment	Contractor (ABISRP 02)	05.08.2022	Resolved as required. <b>Closed on 05.08.2022</b>	
10. Spilling of concrete residues on the ground adjacent to the construction site (Hydrosystem Troynik)	Remove all the concrete residues. Concrete pumps will not be allowed to stop or operate where out of concrete pouring areas	Contractor (ABISRP 02)	01.08.2022	Resolved as required. <b>Closed on 05.08.2022</b>	
11. Lack of fence around the deep construction pit (Hydrosystem Troynik)	Fence the deep construction pit with signal tape and putting hard barriers where needed.	Contractor (ABISRP 02)	05.08.2022	Resolved as required. <b>Closed on 05.08.2022</b>	
12. Inadequate housekeeping and maintenance of the temporary camp territory of KMPS	Waste disposal on timely basis and Housekeeping regularly on the territory basis. Personnel training to be conducted to increase environmental awareness	Contractor (ABISRP 03 Lot 1) <sup>9</sup>	05.08.2022	Resolved as required. <b>Closed on 05.08.2022</b>	
13. The last SAEMR #13 (for Jul-Dec 2021) has not been disclosed on MWR's website yet.	PIU to organize disclosure job of SAEMR 13 by MWR	PIU	30.09.2022	A brief summary of the previous SAEMR (for Jan-Jun 2022) prepared in Russian language was disclosed on MWR's website in November 2022. <b>Closed on 30.11.2022</b>	
14. No training record by ABISRP 02 Contractor	All training records should be kept	Contractor (ABISRP 02)	30.10.2022 15.02.2023	<b>OPEN</b>	Previous HSE staff of the Contractor did not keep any record, new HSE staff has been instructed to arrange logs until 30/10/22, <b>but</b>

<sup>9</sup> Modernization and Rehabilitation of Kuyu Mazar Pump Station (ABISRP 03 Lot 1)

Issue	Required Action	Responsibility	Timing (Target Dates)	Description of Resolution and Timing (Actual)	If not yet resolved, indicate the reason why and specify further required action and timeframe
					unfortunately there is still no action.
15. Monthly environmental monitoring report by ABISRP 02 Contractor not submitted on the monthly basis	EMR should be submitted to CSC on the monthly basis	Contractor (ABISRP 02)	30.12.2022	The Contractor submitted EMR for June - October 2022. <b>Closed on 30.10.2022</b>	

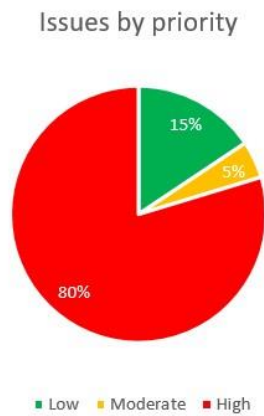


106. SAEMR for Jan-Jun 2022 in English<sup>10</sup> language, and a brief SAEMR for relevant periods in Russian<sup>11</sup> language was disclosed on MWR's website in November 2022.
107. During the current reporting period (July - December 2022) four (4) new nonconformity issues have been recorded. In the reporting period, 13 out of 15 nonconformity issues from the previous reporting period were closed. Total number of nonconformity issues observed in the Project until end of current reporting period is 64, out of which 91% have been closed.

**Table 5-14. Summary of Issues Tracking Activity for Current Period**

<b>Total Number of Issues for Project</b>	64
<b>Number of Open Issues</b>	6
<b>Number of Closed Issues</b>	58
<b>Percentage Closed</b>	91%
<b>Issues Opened in This Reporting Period</b>	4
<b>Issues Closed in This Reporting Period</b>	13

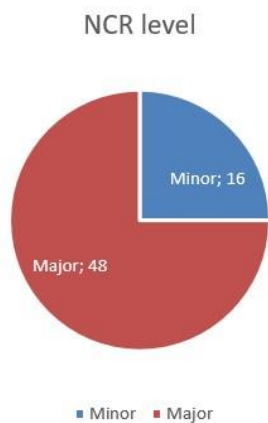
108. The distribution of nonconformity issues based on priority is shown in Figure 5-1 and nonconformity level in Figure 5-2.



**Figure 5-1. Summary of Issues by Priority**

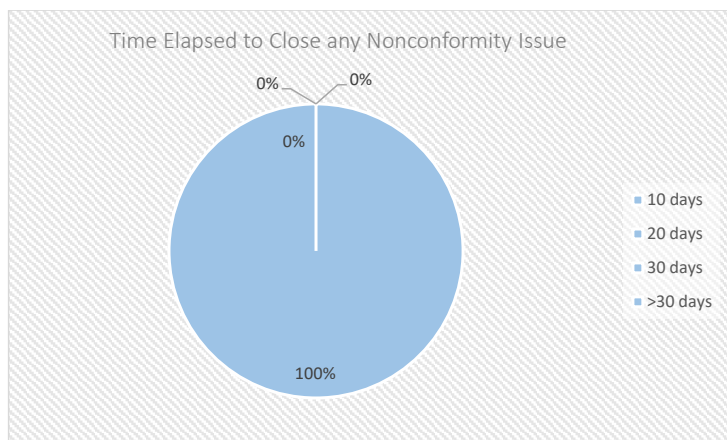
<sup>10</sup> [Amu Bukhara Irrigation System Rehabilitation Project: Environmental Monitoring Report \(January-June 2022\) | Ministry of Water Resources of the Republic of Uzbekistan \(water.gov.uz\)](#)

<sup>11</sup> [Amu Bukhara Irrigation System Rehabilitation Project: Environmental Monitoring Report \(January-June 2022\) | Ministry of Water Resources of the Republic of Uzbekistan \(water.gov.uz\)](#)



**Figure 5-2. Summary of Issues by Nonconformity Level**

109. Duration to close any issue takes more than 30 days. The distribution of days required to close any issue has been shown in Figure 5-3.



**Figure 5-3. Time Elapsed to Close any Nonconformity Issue**

110. Based on the record time, the trends of issues closed are as follows:

**Table 5-15. Status of NCR (Trend of NCR Closure)**

Semi-annual Report No	Total Number of Issues opened in Reporting Period	% of issues closed on time	% of issues closed late
6	7	29%	71%
7	10	50%	50%
8	7	17%	83%
9	7	57%	43%
10	0	NA	NA
11	0	NA	NA
12	1	0%	100%
13	5	60%	20%
14	14	70%	22%
15	4	0%	100%

### 5.3 Training

111. CNTIC, the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01), has conducted regular health, safety and environmental and induction trainings for all staff working in construction site during the reporting period (See **Annex 2. A Few Examples of OHS Training Records (ABISRP 01)** for training logs).

112. No training record has been presented to CSC by Kogon Suv Kurilish, the Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02).

113. HBCG, the Contractor of Kuyu Mazar and Kizil Tepa Pump Stations (ABISRP 03 Lot 1 and Lot 2), completed the works and no longer has staff to train labors who are available at both pump stations only for the maintenance of the pumps.

**Table 5-16. Implementation Status of EMP during the construction period (Packages ABISRP 01, ABISRP 02, ABISRP 03 Lot1, ABISRP 03 Lot2 and ABISRP 04)**

<b>Subject</b>	<b>EMP Requirement</b>	<b>Compliance Attained</b>	<b>Comment on Reasons for Partial or Non-Compliance</b>	<b>Required Action and Target Dates to Achieve Compliance</b>
<b>ABISRP 01</b>				
Awareness campaign	<ul style="list-style-type: none"> <li>Undertake a public awareness campaign to create awareness among farmers of the construction work plan and possible impacts on irrigation delivery.</li> </ul>	Yes		
Introduction of contractor to the site.	<ul style="list-style-type: none"> <li>EMP explained to contractor on-site before any work commences.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Approve the commencement of work only after the contractor understands the EMP</li> </ul>	Partial	SSEMP (Rev.5) completed in August 2021 and approved in October 2021, while the Works commenced in May 2020	
Removal of trees in construction sites	<ul style="list-style-type: none"> <li>Any trees that need to be removed can only be removed after the PNPC/ Hokimiyat has approved their removal.</li> </ul>	Yes		
Site preparation	<ul style="list-style-type: none"> <li>Minimize land clearing and excavation areas, preserving existing ground cover wherever possible, and providing approved ground cover where necessary; plant trees, bushes/grass to minimize rainwater runoff; appropriate stabilizing techniques to prevent cave-ins or earth-slips in excavated areas.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Constructing buildings and facilities following the land protection activities stipulated in Construction Norms and Regulations (CNR) 3.01.01-97 and CNR 3.05.03-97.</li> </ul>	Yes		
Excavation of sites and opening of borrow pits	<ul style="list-style-type: none"> <li>Use borrow material from sides of canals that has been dumped after excavation/ de-silting.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>If borrow pits essential. to be approved by PNPC and Ministry of Geology</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Borrow pits to be closed and landscaped.</li> </ul>	-		
	<ul style="list-style-type: none"> <li>Stockpile excavated materials alongside open trench for backfilling; use for road formation</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Replace excavated material and landscape the area.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Remove all waste and unused pipes.</li> </ul>	Yes		
Rehabilitation activities during cropping season	<ul style="list-style-type: none"> <li>Undertake pump station construction, rehabilitation planning and arranging to supply the minimum water requirements.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Provide water by-pass structures along canal wherever feasible, e.g., provide a detour channel connecting the intake canal to the existing intake chamber behind the rehabilitation site during installation of new pumps (proposed site) to continue uninterrupted supply of irrigation</li> </ul>	Yes		

Removal and disposal of debris	• Debris to be dumped in land fill sites approved by Oblast Gospropridom & Hokimiyat	-	No debris produced	
	• Sell metal-based scrap and equipment to scrap dealers in Alat and Bukhara;	-	There is not much metal-based scrap yet	
	• Land fill sites to be closed and rehabilitated	-	Works not completed yet	
	• Old rising main pipes to be removed and disposed or recycled	-	No old rising main pipes	
	• Any electrical equipment found to contain PCBs is to be disposed of in accordance with Gozeoexpertisa requirements:	-	No electrical equipment	
Storage and Handling of construction materials, fuel and lubricants	• Prepare material/equipment storage areas with facilities not to impair air quality nor contaminate soil or water and placed about 20 m away from water sources at elevated areas without interfering with drainage pattern	Yes		
	• Bund fuel tank storages to 110% of tank capacity. Refuel vehicles and equipment 20 m away from water courses	Partial	Lack of a secondary containment vessel of the diesel fuel storage tank to protect against emergency leakage and soil contamination	Rise the diesel fuel storage tank up on a concrete pond (Closed - 15.11.2022)
	• Dispose of used oil and oil filters to meet accepted industry procedures	Yes		
Noise from construction equipment; e.g., jack hammers, air compressors	• Accidental spill handling action (contingency) plan	Yes		
	• Equipment fitted with approved sound suppression equipment and maintained	Yes		
	• Operators provided with ear protection	Yes		
Dust	• Limit activities to daylight hours	Yes		
	• Contractor to provide water tanker or necessary provisions	Yes		
Worker Health and Safety	• Contractor to spray water on work areas and roads as required	Partial	Inadequate dust suppression, especially on the windy days	Perform wet dust suppression at construction site at least 2 times per shift (Closed - 15.07.2022)
	• Contractor to implement workplace safety awareness program.	Yes		
	• Workers to be provided with safety equipment and instructed in its use.	Partial	<ul style="list-style-type: none"> <li>• Not using PPE (safety harness) when working at height on the scaffolding</li> <li>• Inadequate use of PPE for those working at pipeline fabrication site</li> </ul>	<ul style="list-style-type: none"> <li>• Provide the workers working on scaffolding with safety harnesses and make sure workers use these safety harnesses (Closed - 15.07.2022)</li> <li>• Provide the workers with special shoes with Impact Resistant Toe to prevent damage to</li> </ul>

				the feet (Closed - 15.07.2022) Provide the workers carrying out welding work in confined spaces with a respirator to avoid vapor poisoning during welding (Closed - 15.07.2022)
	• Emergency accident -contingency plan	Yes		
Solid and liquid waste management	• All solid waste collected in containers for safe temporary storage and weekly dispose to safe dumping areas approved by the PE and PNPC	Yes		
Transport of equipment and material in existing roads	• If local roads are used, select routes based on the truck load; divide the load to prevent damages to local roads and bridges; observe speed limits and maintain in the good condition; transport material under cover; avoid peak hours in roads with moderate to high traffic.	Yes		
	• Contractor attends to repair all damaged infrastructure/ roads, if needed, with relevant authorities (Hokimiyat);	Yes		
Rehabilitation and closing of construction sites	• Remove all waste and contaminated soil	-	Works not completed yet	
	• Restore sites by replacing topsoil and re-vegetating area	-	Works not completed yet	
	• Final payment may be withheld until work is completed	-	Works not completed yet	
Inspection and acceptance of construction works before handing over	• Inspection and signed acceptance by Operating Personnel	-	Works not completed yet	
<b>ABISRP 02</b>				
Awareness campaign	• Undertake a public awareness campaign to create awareness among farmers of the construction work plan and possible impacts on irrigation delivery.	Yes		
Introduction of contractor to the site.	• EMP explained to contractor on-site before any work commences.	Yes		
	• Approve the commencement of work only after the contractor understands the EMP	Partial	EMR not prepared properly and on the monthly basis	Prepare EMR properly indicating all the monitoring activities and submit on the monthly basis (Closed - 30.10.2022)
Removal of trees in construction sites	• Any trees that need to be removed can only be removed after the PNPC/ Hokimiyat has approved their removal.	Yes		

Site preparation	• Minimize land clearing and excavation areas, preserving existing ground cover wherever possible, and providing approved ground cover where necessary; plant trees, bushes/grass to minimize rainwater runoff; appropriate stabilizing techniques to prevent cave-ins or earth-slips in excavated areas.	Yes		
	• Constructing buildings and facilities following the land protection activities stipulated in Construction Norms and Regulations (CNR) 3.01.01-97 and CNR 3.05.03-97.	Yes		
Excavation of sites and opening of borrow pits	• Use borrow material from sides of canals that has been dumped after excavation/ de-silting.	Yes		
	• If borrow pits essential. to be approved by PNPC and Ministry of Geology	Yes		
	• Borrow pits to be closed and landscaped.	-		
	• Stockpile excavated materials alongside open trench for backfilling; use for road formation	Yes		
	• Replace excavated material and landscape the area.	Yes		
	• Remove all waste and unused pipes.	Yes		
Rehabilitation activities during cropping season	• Undertake pump station construction, rehabilitation planning and arranging to supply the minimum water requirements.	-		
	• Provide water by-pass structures along canal wherever feasible, e.g., provide a detour channel connecting the intake canal to the existing intake chamber behind the rehabilitation site during installation of new pumps (proposed site) to continue uninterrupted supply of irrigation	Yes		
Removal and disposal of debris	• Debris to be dumped in land fill sites approved by Oblast Gosproidom & Hokimiyat	Partial	Spilling of concrete residues on the ground adjacent to the construction site (Hydrosystem Troynik)	Remove all the concrete residues (Closed - 01.08.2022)
	• Sell metal-based scrap and equipment to scrap dealers in Alat and Bukhara;	Yes		
	• Land fill sites to be closed and rehabilitated	Yes		
	• Old rising main pipes to be removed and disposed or recycled	-		
	• Any electrical equipment found to contain PCBs is to be disposed of in accordance with Gozececoexpertisa requirements:	-		
Storage and Handling of construction materials, fuel and lubricants	• Prepare material/equipment storage areas with facilities not to impair air quality nor contaminate soil or water and placed about 20 m away from water sources at elevated areas without interfering with drainage pattern	Yes		
	• Bund fuel tank storages to 110% of tank capacity. Refuel vehicles and equipment 20 m away from water courses	Yes		
	• Dispose of used oil and oil filters to meet accepted industry procedures	Yes		

Добавлено примечание ([IA2]): Please, provide implementation status of the EMP during the monitoring period. Some of the comments belong to previous periods and were already resolved.

Добавлено примечание ([D3R2]): Revised.

	• Accidental spill handling action (contingency) plan	Yes		
Noise from construction equipment; e.g., jack hammers, air compressors	• Equipment fitted with approved sound suppression equipment and maintained	No	Not required	
	• Operators provided with ear protection	Yes		
	• Limit activities to daylight hours	Yes		
Dust	• Contractor to provide water tanker or necessary provisions	Yes		
	• Contractor to spray water on work areas and roads as required	Yes		
Worker Health and Safety	• Contractor to implement workplace safety awareness program.	Yes		
	• Workers to be provided with safety equipment and instructed in its use.	No	Lack of fence around the deep construction pit (Hydrosystem Troynik)	Fence the deep construction pit with signal tape (Closed - 05.08.2022)
			Absence of firefighting equipment at construction site and temporary camp (Hydrosystem Troynik)	Provide the construction site and temporary camp with firefighting equipment (Closed - 05.08.2022)
	• Emergency accident -contingency plan	Yes		
Solid and liquid waste management	• All solid waste collected in containers for safe temporary storage and weekly dispose to safe dumping areas approved by the PE and PNPC	Yes		
Transport of equipment and material in existing roads	• If local roads are used, select routes based on the truck load; divide the load to prevent damages to local roads and bridges; observe speed limits and maintain in the good condition; transport material under cover; avoid peak hours in roads with moderate to high traffic.	Yes		
	• Contractor attends to repair all damaged infrastructure/ roads, if needed, with relevant authorities (Hokimiyat);	Yes		
Rehabilitation and closing of construction sites	• Remove all waste and contaminated soil	Yes		
	• Restore sites by replacing topsoil and re-vegetating area	Yes		
	• Final payment may be withheld until work is completed	Yes		
Inspection and acceptance of construction works before handing over	• Inspection and signed acceptance by Operating Personnel	-	Works have not been completed yet.	
<b>ABISRP 03 Lot 1</b>				
Awareness campaign	• Undertake a public awareness campaign to create awareness among farmers of the construction work plan and possible impacts on irrigation delivery.	NA		
	• EMP explained to contractor on-site before any work commences.	NA		



Introduction of contractor to the site.	<ul style="list-style-type: none"> <li>Approve the commencement of work only after the contractor understands the EMP</li> </ul>	NA		
Removal of trees in construction sites	<ul style="list-style-type: none"> <li>Any trees that need to be removed can only be removed after the PNPC/ Hokimiyat has approved their removal.</li> </ul>	NA		
Site preparation	<ul style="list-style-type: none"> <li>Minimize land clearing and excavation areas, preserving existing ground cover wherever possible, and providing approved ground cover where necessary; plant trees, bushes/grass to minimize rainwater runoff; appropriate stabilizing techniques to prevent cave-ins or earth-slips in excavated areas.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Constructing buildings and facilities following the land protection activities stipulated in Construction Norms and Regulations (CNR) 3.01.01-97 and CNR 3.05.03-97.</li> </ul>	NA		
Excavation of sites and opening of borrow pits	<ul style="list-style-type: none"> <li>Use borrow material from sides of canals that has been dumped after excavation/ de-silting.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>If borrow pits essential. to be approved by PNPC and Ministry of Geology</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Borrow pits to be closed and landscaped.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Stockpile excavated materials alongside open trench for backfilling; use for road formation</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Replace excavated material and landscape the area.</li> </ul>	NA		
Rehabilitation activities during cropping season	<ul style="list-style-type: none"> <li>Remove all waste and unused pipes.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Undertake pump station construction, rehabilitation planning and arranging to supply the minimum water requirements.</li> <li>Provide water by-pass structures along canal wherever feasible, e.g., provide a detour channel connecting the intake canal to the existing intake chamber behind the rehabilitation site during installation of new pumps (proposed site) to continue uninterrupted supply of irrigation</li> </ul>	NA		
Removal and disposal of debris	<ul style="list-style-type: none"> <li>Debris to be dumped in land fill sites approved by Oblast Gospropridom &amp; Hokimiyat</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Sell metal-based scrap and equipment to scrap dealers in Alat and Bukhara;</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Land fill sites to be closed and rehabilitated</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Old rising main pipes to be removed and disposed or recycled</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Any electrical equipment found to contain PCBs is to be disposed of in accordance with Gozeoexpertisa requirements:</li> </ul>	NA		
Storage and Handling of	<ul style="list-style-type: none"> <li>Prepare material/equipment storage areas with facilities not to impair air quality nor contaminate soil or water and placed about</li> </ul>	NA		

construction materials, fuel and lubricants	20 m away from water sources at elevated areas without interfering with drainage pattern			
	• Bund fuel tank storages to 110% of tank capacity. Refuel vehicles and equipment 20 m away from water courses	NA		
	• Dispose of used oil and oil filters to meet accepted industry procedures	NA		
	• Accidental spill handling action (contingency) plan	NA		
Noise from construction equipment; e.g. jack hammers, air compressors	• Equipment fitted with approved sound suppression equipment and maintained	NA		
	• Operators provided with ear protection	NA		
	• Limit activities to daylight hours	NA		
Dust	• Contractor to provide water tanker or necessary provisions	NA		
	• contractor to spray water on work areas and roads as required	NA		
Worker Health and Safety	• Contractor to implement workplace safety awareness program.	NA		
	• Workers to be provided with safety equipment and instructed in its use.	NA		
	• Emergency accident -contingency plan	NA		
Solid and liquid waste management	• All solid waste collected in containers for safe temporary storage and weekly dispose to safe dumping areas approved by the PE and PNPC	NA		
Transport of equipment and material in existing roads	• If local roads are used, select routes based on the truck load; divide the load to prevent damages to local roads and bridges; observe speed limits and maintain in the good condition; transport material under cover; avoid peak hours in roads with moderate to high traffic.	NA		
	• Contractor attends to repair all damaged infrastructure/ roads, if needed, with relevant authorities (Hokimiyat);	NA		
Rehabilitation and closing of construction sites	• Remove all waste and contaminated soil	NA		
	• Restore sites by replacing topsoil and re-vegetating area	NA		
	• Final payment may be withheld until work is completed	NA		
Inspection and acceptance of construction works before handing over	• Inspection and signed acceptance by Operating Personnel	NA		Works have been completed in 2021 and the Completion Certificate was issued. Supply of missing spare parts is awaited to initiate Operational Acceptance Procedure.
<b>ABISRP 03 Lot 2</b>				

Awareness campaign	<ul style="list-style-type: none"> <li>Undertake a public awareness campaign to create awareness among farmers of the construction work plan and possible impacts on irrigation delivery.</li> </ul>	NA		
Introduction of contractor to the site.	<ul style="list-style-type: none"> <li>EMP explained to contractor on-site before any work commences.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Approve the commencement of work only after the contractor understands the EMP</li> </ul>	NA		
Removal of trees in construction sites	<ul style="list-style-type: none"> <li>Any trees that need to be removed can only be removed after the PNPC/ Hokimiyat has approved their removal.</li> </ul>	NA		
Site preparation	<ul style="list-style-type: none"> <li>Minimize land clearing and excavation areas, preserving existing ground cover wherever possible, and providing approved ground cover where necessary; plant trees, bushes/grass to minimize rainwater runoff; appropriate stabilizing techniques to prevent cave-ins or earth-slips in excavated areas.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Constructing buildings and facilities following the land protection activities stipulated in Construction Norms and Regulations (CNR) 3.01.01-97 and CNR 3.05.03-97.</li> </ul>	NA		
Excavation of sites and opening of borrow pits	<ul style="list-style-type: none"> <li>Use borrow material from sides of canals that has been dumped after excavation/ de-silting.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>If borrow pits essential, to be approved by PNPC and Ministry of Geology</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Borrow pits to be closed and landscaped.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Stockpile excavated materials alongside open trench for backfilling; use for road formation</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Replace excavated material and landscape the area.</li> </ul>	NA		
Rehabilitation activities during cropping season	<ul style="list-style-type: none"> <li>Remove all waste and unused pipes.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Undertake pump station construction, rehabilitation planning and arranging to supply the minimum water requirements.</li> <li>Provide water by-pass structures along canal wherever feasible, e.g., provide a detour channel connecting the intake canal to the existing intake chamber behind the rehabilitation site during installation of new pumps (proposed site) to continue uninterrupted supply of irrigation</li> </ul>	NA		
Removal and disposal of debris	<ul style="list-style-type: none"> <li>Debris to be dumped in land fill sites approved by Oblast Gospropridom &amp; Hokimiyat</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Sell metal-based scrap and equipment to scrap dealers in Alat and Bukhara;</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Land fill sites to be closed and rehabilitated</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Old rising main pipes to be removed and disposed or recycled</li> </ul>	NA		

	<ul style="list-style-type: none"> <li>Any electrical equipment found to contain PCBs is to be disposed of in accordance with Gozeoexpertisa requirements:</li> </ul>	NA		
Storage and Handling of construction materials, fuel and lubricants	<ul style="list-style-type: none"> <li>Prepare material/equipment storage areas with facilities not to impair air quality nor contaminate soil or water and placed about 20 m away from water sources at elevated areas without interfering with drainage pattern</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Bund fuel tank storages to 110% of tank capacity. Refuel vehicles and equipment 20 m away from water courses</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Dispose of used oil and oil filters to meet accepted industry procedures</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Accidental spill handling action (contingency) plan</li> </ul>	NA		
Noise from construction equipment; e.g., jack hammers, air compressors	<ul style="list-style-type: none"> <li>Equipment fitted with approved sound suppression equipment and maintained</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Operators provided with ear protection</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Limit activities to daylight hours</li> </ul>	NA		
Dust	<ul style="list-style-type: none"> <li>contractor to provide water tanker or necessary provisions</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>contractor to spray water on work areas and roads as required</li> </ul>	NA		
Worker Health and Safety	<ul style="list-style-type: none"> <li>Contractor to implement workplace safety awareness program.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Workers to be provided with safety equipment and instructed in its use.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Emergency accident -contingency plan</li> </ul>	NA		
Solid and liquid waste management	<ul style="list-style-type: none"> <li>All solid waste collected in containers for safe temporary storage and weekly dispose to safe dumping areas approved by the PE and PNPC</li> </ul>	NA		
Transport of equipment and material in existing roads	<ul style="list-style-type: none"> <li>If local roads are used, select routes based on the truck load; divide the load to prevent damages to local roads and bridges; observe speed limits and maintain in the good condition; transport material under cover; avoid peak hours in roads with moderate to high traffic.</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Contractor attends to repair all damaged infrastructure/ roads, if needed, with relevant authorities (Hokimiyat);</li> </ul>	NA		
Rehabilitation and closing of construction sites	<ul style="list-style-type: none"> <li>Remove all waste and contaminated soil</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Restore sites by replacing topsoil and re-vegetating area</li> </ul>	NA		
	<ul style="list-style-type: none"> <li>Final payment may be withheld until work is completed</li> </ul>	NA		
Inspection and acceptance of construction works before handing over	<ul style="list-style-type: none"> <li>Inspection and signed acceptance by Operating Personnel</li> </ul>	NA		Works have been completed in 2021. Repetition of the Functional Guarantee Tests is awaited to initiate Operational Acceptance Procedure

**Table 5-17. Implementation Status of EMP during the POST-CONSTRUCTION, OPERATIONS PHASE (INCLUDING DEFECT LIABILITY PERIOD) (Package ABISRP 04)**

<i>Subject</i>	<i>EMP Requirement</i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
[1] i. Regular maintenance of infrastructure ii. Regular maintenance of oil and water separators.	• Pump house & irrigation canals i. Arrange maintenance training programs. ii. Evaluate training programs iii. Arrange irrigation canal and drainage channel maintenance programs iv. Arrange budgets for maintenance. v. Check that oil and water separators are being properly maintained	Yes	-	-
[2] Maintenance of land productivity	• Irrigated Lands Prevent re-use of poor quality drainage water (containing more than 3 g/l mineralization) for irrigation; increase irrigation efficiency by avoiding over-use of irrigation water; enhance drainage in areas with high ground water tables; and regular maintenance of all drainage canals Crop rotation including green manure and introduction of current agricultural practices such as mineral fertilizers applied in a timely fashion, use of improved seed varieties, etc. to enhance fertility and productivity	Yes	-	-
[3] Worker Safety Plan for those involved in irrigation system O&M	• Pump house Implement Worker Safety Plan	<b>Not relevant</b> since it is not a pump station contract	-	-
[4] Maintenance of pump house cleanliness and sanitation	• Pump House Maintenance of water-seal toilets with periodic emptying of cesspits; Waste disposed according to the recommendations of the District Sanitary Epidemic Station either to the regional dump yards, for recycling or re-use depending on the category; Maintenance of a dedicated warehouse for waste such as mercury pollutants (luminescent lamps) for recycling (demercurization) through registered companies.	<b>Not relevant</b> since it is not a pump station contract	-	-
[5] Abstraction of river water exceeding the allowable amount	• At the Intake and the Pump House Adherence to international agreements	<b>Not relevant</b> since it is not a pump station contract	-	-

#### 5.4 Complaints

114. No complaints received during the reporting period.

**Table 5-18. Summary of Complaints received during the monitoring period (and the ones pending since the previous monitoring period(s))**

Details of Complaint	Complainant*	Received			Actions (to be) taken with the target date	Resolution Status***
		Through*	by whom**	date		
None	n/a	n/a	n/a	n/a	n/a	n/a

\*Resident, NGO (non-governmental organization), etc.

\*\*Verbally, letter, complaint box, email, etc.

\*\*\*Contractor, supervision consultant or implementing/executing agency

\*\*\*\*Open or Closed (If closed include date)

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## 6 SUMMARY AND RECOMMENDATIONS

### 6.1 Summary

115. During the current reporting period (July - December 2022) the following environmental safeguard activities have been performed:

- International EEC conducted inspections at the project sites on July 2-7, 2022 and visited the project sites on July 26-28, 2022 with the ADB Safeguard Mission.
- National EEC visited the project sites on July 26-28, 2022 with the ADB Safeguard Mission and conducted inspections at the project sites on December 19-21, 2022.
- Routine daily site visits by Site Engineers of Supervision Consultant including environmental, occupational health and safety issues.

116. The Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01) submitted EMR, conducted trainings, monitored environmental and health and safety conditions regularly during reporting period. Besides, due to prompt response of the Contractor to the nonconformities observed by the CSC, environmental performance of the Contractor is considered to be satisfactory.

117. The Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) prepared the SSEMP just to fulfil its contractual obligations. The Contractor's SSEMP was approved on February 15, 2017. However, the Contractor, for a long time, acted as if he was unaware of existence of SSEMP and did not submit EMR regularly. In the reporting period, the Contractor submitted EMR only once for the period June-October 2022 which does not include any specific information regarding environmental, health and safety monitoring activities. The Contractor's environmental performance is considered to be poor.

118. The works at both pump stations of Contract ABISRP 03 were completed in 2021 and there are only a few labors at site to maintain the pumps and to keep the pump stations in operable condition. CSC has prepared and will issue a "Post-Construction Environmental Audit Report" for this Contract.

119. The issues identified during this monitoring period are summarized in Table 6-1. In this reporting period, 4 nonconformities were observed and duly registered. All discrepancies will be reflected in the next reporting period.

**Table 6-1. Issues Identified During the Monitoring Period (including the pending issues from the previous report(s))**

Issue	Required Action	Responsibility	Preventive Action	Timing (Target Dates)	Status as of 31.01.2023
1. The Contractor has no record about the type, quantity of solid waste produced and disposed (pending from previous SAEMR #13)	Keep a log regarding every kind of wastes generated at site	Contractor (ABISRP 02)		15.06.2022 15.09.2022 15.02.2023	OPEN
2. No training record by ABISRP 02 Contractor	All training records should be kept	Contractor (ABISRP 02)		30.10.2022 15.02.2023	OPEN
3. Housekeeping is very poor, especially in construction area of new pump building	Housekeeping should be made regularly	Contractor (ABISRP 01)	Housekeeping regularly	31.01.2023 15.02.2023	OPEN
4. Hazardous materials such as oil and bitumen are stored on the soil ground without tray	Hazardous materials that are likely to be contaminated to the soil should be stored in a tray on the ground	Contractor (ABISRP 01)	Construct a temporary storage area for hazardous materials	31.01.2023 15.02.2023	OPEN
5. Bar bending machine is without earthing	Earthing should be made	Contractor (ABISRP 01)	It should be earthed and measured regularly	31.01.2023 15.02.2023	OPEN
6. Electrical panels are unprotected against rain. It is open and can get in contact with the water when it rains	All electrical panels should be covered with waterproof materials against rain	Contractor (ABISRP 01)	LOTO procedure should be implemented	31.01.2023 15.02.2023	OPEN



## **6.2 Recommendations**

120. CNTIC should keep better logs for site inspections conducted by its own experts.
121. Kogon Suv Kurilish should increase the awareness against environmental, social and health and safety issues.
122. Routine supervision activities need to be performed by all parties to ensure that EMP of the project, SSEMPs of Contractors have been successfully implemented and environmental safeguard obligations have been fulfilled.

### Annex 1. Photos



**Construction Works of the Aboveground Part (Superstructure) of the Pump Station Building (ABISRP 01)**



**Construction Works of the Trashrack Structure and Transportation Bridge at the Intake of the Pump Station (ABISRP 01)**



**Construction Works of the Outlet Structure of the Pump Station (ABISRP 01)**



**Construction Works of the Intermediate Supports of the Discharge Pipeline  
(ABISRP 01)**



**Manufacturing of Discharge Pipes at the Workshop at Site (ABISRP 01)**



**Construction of the Bypass Structure ABK-1 at Hydrosystem Troynik (ABISRP 02)**



**Construction of the Bypass Structure ABK-2 at Hydrosystem Troynik (ABISRP 02)**





**Rehabilitation of Regulating Structure Gijduvan at Hydrosystem Tashrabad  
(ABISRP 02)**



**Rehabilitation of Regulating Structures Mayta and Okrabad at Hydrosystem Tashrabad (ABISRP 02)**



**Photos from Training at AB-1 New PS (ABISRP 01)**

**Annex 2. A Few Examples of OHS Training Records (ABISRP 01)**

№	Дата проведения инструктажа	Фамилия, имя, отчество инструктируемого	Профессия, должность инструктируемого	Наименование производственного подразделения, в которое направляется инструктируемый	Фамилия, имя, отчество инструктирующего	Подпись	
						Инструктирующего	Инструктируемого
1	2	3	4	5	6	7	8
547	16.06.2022	Бекмуродов Хасан	HSE	CNTIC	Кареевич Иман	<i>[Signature]</i>	<i>[Signature]</i>
548	16.06.2022	Бекмуродов Хасан	HSE	CNTIC	Самриджиев Р	<i>[Signature]</i>	<i>[Signature]</i>
549	17.06.2022	Бекмуродов Хасан	HSE	CNTIC	Мухомидов Хайи	<i>[Signature]</i>	<i>[Signature]</i>
550	17.06.2022	Бекмуродов Хасан	HSE	CNTIC	Ишрафиев Абду	<i>[Signature]</i>	<i>[Signature]</i>
551	07.07.2022	Бекмуродов Хасан	HSE	CNTIC	Политмуродов А	<i>[Signature]</i>	<i>[Signature]</i>
552	13.07.2022	Тубеатов Оразон	HSE	CNTIC	Мухомидов Оразон	<i>[Signature]</i>	<i>[Signature]</i>
553	13.08.2022	Есимов Ибраим	HSE	CNTIC	Бекмуродов	<i>[Signature]</i>	<i>[Signature]</i>
554	06.08.2022	Алимов Тимур	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
555	08.08.2022	Муратов Мурод	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
556	08.08.2022	Эмомов Юсуф	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
557	06.08.2022	Казанов Юнус	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
558	06.08.2022	Сабиров Абдувап	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
559	06.08.2022	Шамшиев Ибраим	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
560	06.08.2022	Ураб Абдуво	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
561	06.08.2022	Мухомидов Мурод	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
562	06.08.2022	Назриджиев Шахрор	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
563	06.08.2022	Шарипов Отабек	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
564	06.08.2022	Самриджиев Садруддин	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
565	06.08.2022	Ишрафиев Радик	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
566	06.08.2022	Абдураманов Юсуф	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>
567	06.08.2022	Рахмонов Мурод	HSE	CNTIC	Бекмуродов Хасан	<i>[Signature]</i>	<i>[Signature]</i>

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№	Дата проведения инструктажа	Фамилия, имя, отчество инструктируемого	Профессия, должность инструктируемого	Наименование производственного подразделения, в которое направляется инструктируемый	Фамилия, имя, отчество инструктирующего	Подпись	
						Инструктирующего	Инструктируемого
1	2	3	4	5	6	7	8
568	06.08.2022	Рахимов Шухрам	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
569	06.08.2022	Алимов Исраи	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
570	06.08.2022	Шушинов Шероф	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
571	06.08.2022	Кобзарев Туроф	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
572	06.08.2022	Шарипов Аббек	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
573	06.08.2022	Ташмуродов Аббек	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
574	06.08.2022	Муродов Омарбек	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
575	06.08.2022	Абдуллоев Санжар	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
576	06.08.2022	Алимов Шир	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
577	06.08.2022	Мамитов Х	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
578	06.08.2022	Шарипов Фарш	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
579	06.08.2022	Абдуллоев Абдулматир	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
580	06.08.2022	Хамидов Турбек	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
581	06.08.2022	Ташмуродов Санжар	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
582	06.08.2022	Султаматов Чихон	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
583	06.08.2022	Бобомуродов Рустам	HSE	CNTIC	Бекмуродов Исаи	<i>[Signature]</i>	<i>[Signature]</i>
584	28.08.2022	Алимов Турбек	HSE	CNTIC	Бекмуродов И	<i>[Signature]</i>	<i>[Signature]</i>
585	28.08.2022	Дурматов Дрид	HSE	CNTIC	Бекмуродов И	<i>[Signature]</i>	<i>[Signature]</i>
586	28.08.2022	Исмаилов Ибрагим	HSE	CNTIC	Бекмуродов И	<i>[Signature]</i>	<i>[Signature]</i>
587	28.08.2022	Алимов Исламбек	HSE	CNTIC	Бекмуродов И	<i>[Signature]</i>	<i>[Signature]</i>
588	28.08.2022	Бегларов Фир	HSE	CNTIC	Бекмуродов И	<i>[Signature]</i>	<i>[Signature]</i>

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№	Дата проведения инструктажа	Фамилия, имя, отчество инструктируемого	Профессия, должность инструктируемого	Наименование производственного подразделения, в которое направляется инструктируемый	Фамилия, имя, отчество инструктирующего	Подпись	
						Инструктирующего	Инструктируемого
1	2	3	4	5	6	7	8
589	28.02.2022	Бекмуродов Ласан	HSE	CNTIC	Набиев Рахмоб	[Signature]	[Signature]
590	28.02.2022	Бекмуродов Ласан	HSE	CNTIC	Рахматов Рахмат	[Signature]	[Signature]
591	28.02.2022	Бекмуродов Ласан	HSE	CNTIC	Хайратов Бобур	[Signature]	[Signature]
592	28.02.2022	Бекмуродов Ласан	HSE	CNTIC	Холматов Давр	[Signature]	[Signature]
593	28.02.2022	Бекмуродов Ласан	HSE	CNTIC	Мовшинов И	[Signature]	[Signature]
594	28.02.2022	Бекмуродов Ласан	HSE	CNTIC	Касанов Юнус	[Signature]	[Signature]
595	02.09.2022	Бекмуродов Ласан	HSE	CNTIC	Абдулов Абду	[Signature]	[Signature]
596	07.09.2022	Бекмуродов Ласан	HSE	CNTIC	Шарипов И	[Signature]	[Signature]
597	14.09.2022	Бекмуродов Ласан	HSE	CNTIC	Хамраев Давр	[Signature]	[Signature]
598	14.09.2022	Бекмуродов Ласан	HSE	CNTIC	Набиев Юнус	[Signature]	[Signature]
599	15.09.2022	Бекмуродов Ласан	HSE	CNTIC	Рахматов Шухрат	[Signature]	[Signature]
600	17.09.2022	Бекмуродов Ласан	HSE	CNTIC	Рахматов Шухрат	[Signature]	[Signature]
601	17.09.2022	Бекмуродов Ласан	HSE	CNTIC	Магомидов Шухрат	[Signature]	[Signature]
602	17.09.2022	Бекмуродов Ласан	HSE	CNTIC	Асадуллаев У	[Signature]	[Signature]
603	17.09.2022	Бекмуродов Ласан	HSE	CNTIC	Осташкин В Ш	[Signature]	[Signature]
604	21.09.2022	Бекмуродов Ласан	HSE	CNTIC	Умаров Индор	[Signature]	[Signature]
605	21.09.2022	Бекмуродов Ласан	HSE	CNTIC	Кузнецов Александр	[Signature]	[Signature]
606	21.09.2022	Бекмуродов Ласан	HSE	CNTIC	Туронов Бунёд	[Signature]	[Signature]
607	21.09.2022	Бекмуродов Ласан	HSE	CNTIC	Кузнецов Александр	[Signature]	[Signature]
608	21.09.2022	Бекмуродов Ласан	HSE	CNTIC	Алимов Саймулло	[Signature]	[Signature]
609	21.09.2022	Бекмуродов Ласан	HSE	CNTIC	Кузнецов Александр	[Signature]	[Signature]

Дата проведения инструктажа	Фамилия, имя, отчество инструктируемого	Профессия, должность	Вид инструктажа (первичный, периодический, внеочередной, разовый)	Тема инструктажа (вопросы по которым проводится инструктаж № инструкции)	Подпись инструктируемого	Инструктаж на рабочем месте прошёл	
						Фамилия, И. О.	Подпись
21.10.2022	Бекмуродов Магомед	Шильи	Первичный инструктаж	Согласно программе	Бекмуродов	Бекмуродов	[Подпись]
22.10.2022	Хоррамаев Ш.	Шильи	Первичный инструктаж	рабочая программа	Бекмуродов	Бекмуродов	[Подпись]
23.10.2022	Рахматиллаев И.	Шильи	Первичный инструктаж	новый инструктаж	Бекмуродов	Бекмуродов	[Подпись]
24.10.2022	Мухамидов Ш.	Шильи	Первичный инструктаж	таблица	Бекмуродов	Бекмуродов	[Подпись]
25.10.2022	Ахмедов Абдухалим	Шильи	Первичный инструктаж	Согласно программе	Бекмуродов	Бекмуродов	[Подпись]
27.10.2022	Хоррамаев Султон	Шильи	Первичный инструктаж	рабочая программа	Бекмуродов	Бекмуродов	[Подпись]
3.10.2022	Самиев Дибек	Шильи	Первичный инструктаж	новый инструктаж	Бекмуродов	Бекмуродов	[Подпись]
3.10.2022	Янчиев Бекмурод	Шильи	Первичный инструктаж	таблица	Бекмуродов	Бекмуродов	[Подпись]
4.10.2022	Мухамед Рустам	Шильи	Первичный инструктаж	Согласно программе	Бекмуродов	Бекмуродов	[Подпись]
4.10.2022	Исроков Норкуд	Шильи	Первичный инструктаж	рабочая программа	Бекмуродов	Бекмуродов	[Подпись]
6.10.2022	Мирзаев Абдул	Шильи	Первичный инструктаж	новый инструктаж	Бекмуродов	Бекмуродов	[Подпись]
5.10.2022	Бозоров Шерзод	Шильи	Первичный инструктаж	таблица	Бекмуродов	Бекмуродов	[Подпись]
5.10.2022	Кутиев Исхандар	погрузчик	Первичный инструктаж	Согласно программе	Бекмуродов	Бекмуродов	[Подпись]
5.10.2022	Хайтов Шахоб	Шильи	Первичный инструктаж	рабочая программа	Бекмуродов	Бекмуродов	[Подпись]
5.10.2022	Валиев Кадамжон	Шильи	Первичный инструктаж	новый инструктаж	Бекмуродов	Бекмуродов	[Подпись]
10.10.22	Ерматов Тошкент	Шильи	Первичный инструктаж	таблица	Бекмуродов	Бекмуродов	[Подпись]
10.10.22	Бегалиев Матмурат	Шильи	Первичный инструктаж	Согласно программе	Бекмуродов	Бекмуродов	[Подпись]
10.10.22	Султонов Ориф	Шильи	Первичный инструктаж	рабочая программа	Бекмуродов	Бекмуродов	[Подпись]
10.10.22	Гайбуллаев Давлат	Шильи	Первичный инструктаж	новый инструктаж	Бекмуродов	Бекмуродов	[Подпись]
10.10.22	Бозоров Нонидек	Шильи	Первичный инструктаж	таблица	Бекмуродов	Бекмуродов	[Подпись]
10.10.22	Бозоров Дибек	Шильи	Первичный инструктаж	Согласно программе	Бекмуродов	Бекмуродов	[Подпись]
10.10.22	Балтаев Собир	Шильи	Первичный инструктаж	программа	Бекмуродов	Бекмуродов	[Подпись]
10.10.22	Рахмонов Дилмурод	Шильи	Первичный инструктаж	первичный	Бекмуродов	Бекмуродов	[Подпись]
10.10.22	Одинаев Рустам	Шильи	Первичный инструктаж	инструктаж	Бекмуродов	Бекмуродов	[Подпись]
10.10.22	Мажидов Давлат	сварщик	Первичный инструктаж	таблица	Бекмуродов	Бекмуродов	[Подпись]

Дата проведения инструктажа	Фамилия, имя, отчество инструктируемого	Профессия, должность	Вид инструктажа (первичный, периодический, внеочередной, разовый)	Тема инструктажа (вопросы по которым проводится инструктаж, № инструкции)	Подпись инструктируемого	Инструктаж на рабочем месте прошёл	
						Фамилия, И. О.	Подпись
1.10.22	Бекмуратов Хусан	Мили	Первичный инструктаж	Семьёно программа	Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2022	Бердиев Эркир	Мили	Первичный инструктаж	на первичный инструктаж	Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
1.2022	Рахмонов Абдурақимов	Мили	Первичный инструктаж	инструктаж	Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2.2022	Чориев Фахрат	Мили	Первичный инструктаж	Семьёно программа	Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2.2022	Чориев Садриддин	Мили	Первичный инструктаж	на первичный инструктаж	Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2022	Миродов Абдулло	Мили	Первичный инструктаж	инструктаж	Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2022	Курьев Отабек	Мили	Первичный инструктаж	Семьёно программа	Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2022	Содилов Шавкат	Мили	Первичный инструктаж	на первичный инструктаж	Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2.2022	Рахмонов Кавказ	Мили	Первичный инструктаж	инструктаж	Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2.2022	Абдуллаев Азим				Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2.2022	Андалов Аскар				Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2.2022	Халиданов Зухриддин				Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2022	Халиданов Водур				Бекмуратов Х	Бекмуратов Х	Бекмуратов Х
2023	Худойбердиев Х						Бекмуратов Х
1.2023	Ташпулатов Санжар						Бекмуратов Х

То Д' 3.762 а м. 10 см