Semi-annual Environmental Monitoring Report

#15 Semiannual Report

(Reporting Period: July-December 2023)

Project Number: 43405-026

GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 4)

(FINANCED BY THE ASIAN DEVELOPMENT BANK)

Prepared by: Ketevan Chomakhidze, Environmental Specialist, "United Water Supply Company of Georgia", Tbilisi, Georgia

For: The Ministry of Regional Development and Infrastructure of Georgia and the Asian Development Bank

January 2024

ABBREVIATIONS

ADB	Asian Development Bank
CAP	Corrective Action Plan
DC	Design Consultant
DEPP	Department of Environmental protection and Permit
DFPMD	Donors Funded Project Management Department
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP/ SSEMP	Environmental Management Plan/ Site-Specific Environmental Management Plan
ERP	Emergency Response Plan
ES/ EMS	Environmental Specialist/ Environmental Monitoring Specialist
GoG	Government of Georgia
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IPMO	Investment Program Management Office
USIIP	Urban Services Improvement Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
LLC	Limited Liability Company
MFF	Multi-tranche Financing Facility
MoEPA	Ministry of Environment Protection and Agriculture
MoRDI	Ministry of Regional Development & Infrastructure
NEA	National Environmental Agency
SAEMR	Semi-Annual Environmental Monitoring Report
SC	Supervision Consultant
SIEE	Supplementary Initial Environmental Examination
USIIP	Urban Sector Improvement Investment Program
UWSCG	United Water Supply Company of Georgia
WS	Water Supply
WSS	Water Supply &Sanitation
WWTP	Waste Water Treatment Plant

Contents

1. INTRODUCTION

1.1 Preamble

1. This report represents the Semi-Annual Environmental Monitoring Review (SAEMR) for "Urban Services Improvement Investment Program" (USIIP), Tranche 4 and describes the period of July-December 2023.

2. This report is the 16th Semi-Annual EMR for the T4 of USIIP.

1.2 Headline Information

3. During the reporting period, constructions works under USIIP/T4 were carried out for the POT-01 (LOT-01, LOT-02, LOT-03), JVARI-01 and GUD-02 and therefore, this report describes the activities implemented under these sub-projects. More detailed information about the implementation status of these projects are presented in Chapter 2 below.

2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

4. The Urban Services Improvement Investment Program was developed as the Government's response to the lack of adequate and/or safe water supply, sewerage and sanitation in urban areas of Georgia. This is intended to optimize social and economic development in selected urban areas through improved urban water and sanitation services, and is financed by the ADB through its Multi-tranche Financing Facility. The Ministry of Regional Development and Infrastructure is the Executing Agency and the "United Water Supply Company of Georgia", LLC is the Implementing Agency of the Investment Program. UWSCG is a 100% state-owned company.

5. The Investment Program improves infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sanitation) in one town. Sub-projects rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works include sewer network, pumping stations, main collectors and waste water treatment plants.

6. Tranche 4 of the Investment Program includes:

- Construction of Water Supply System in Zugdidi – ZUG-01
- Construction of Sewerage System in Poti – POT-01
- Construction of Wastewater Treatment Plant in Poti - POT-02
- Construction of Water Supply System in Jvari - JVARI-01
- Construction of Sewage Collection and Water Supply System in Gudauri - GUD-02

7. **Construction of Water Supply System in Zugdidi (ZUG 01)**. The project comprised of the construction of 1 water supply pumping station – 1,170 m^3, construction of new reservoirs (3,300 m^3x3); distribution network - laying of approximately 220 km water supply pipelines; approximately 15 km transmission main; wells - drilling of 10 drinking water wells.

8. The contract ZUG-01 was signed on October 26, 2015 with AS Inshaat–N, LLC (Azerbaijan), the construction works were completed in September 2018 and further extended until October 2021. All construction works under ZUG-01 sub-project were competed in March 2022.

Post-Construction Environmental Audit

9. **The Post-construction Environmental Audit** within the framework of the ZUG-01 subproject was carried out by the Supervisory Consultant of USIIP/T4 - "SAFEGE France with Engineering Solution LLC Georgia" and the Post-construction Environmental Audit Report was submitted to UWSCG for approval in October 2023.

10. The main findings of the report are as follows: In 2016-2022, in the construction phase of the Zugdidi water supply sub-project, environmental monitoring and audit were regularly carried out by Supervision Consultant, Construction Contractor and UWSCG/USIIP Environmental Specialist and ADB. A total of 94 non-compliances were identified at the environmental monitoring stage in 2016-2022.

11. The identified non-compliances can be divided into the following main areas: absence or improperly installed warning and prohibition signs - 18 (19.14%), improper management and disposal of waste or hazardous construction materials – 31 (32.97%); violation of the requirements for wearing safety uniforms (PPE) or safety standards – 24 (25,53%); Incorrect management of topsoil – 4 (4.25%); oil spills – 14 (14.89%); violation of IEE/SSEMP requirements in the phase of rehabilitation works - 3 (3,19%).

12. In 2016-2022, corrective actions were developed and realized for all of the above-listed non-compliances. According to semi-annual environmental reports (SAEMRs), and monitoring results of the Post-construction Environmental Audit all non-compliances under the ZUG-01 sub-project have been eliminated by the contractor and by UWSCG. The above mentioned Post Construction Audit Report is attached to this report (please see Annex D)

13. **Construction of Sewerage System in Poti (POT-01).** Pot-01 project includes the construction of 112.4 km of new sewerage pipes, and construction of 28 sewage pumping stations. United Water Supply Company of Georgia signed a contract with TAHAL Group BV on 20 December 2017. Contractual date finished on July 2020 and Contractor was continuing works under Delay Damages and finally the works under POT-01 sub-project was terminated on 07.04.2022 and it was proposed rebidding of work under 3 lots.

14. **The contract for the implementation of the POT-01/LOT-01** has been awarded to Construction Company – "ECETAS Insaat" (Turkey) in October 2022. Brief Description of LOT-01 and scope of works is provided below. The project Completion date is March 2024.

15. **Lot 1: Sewage System:** The new sewage system considers the continuation of the existing system. Therefore, all new sewers are orientated to the new or replaced old pumping stations. The Contractor's works include the following major works:

- Verification of the existing topographical survey and performance of additional topographical survey (if verification reveals need of survey);
- Verification of the existing basic and detailed design prepared by Design Company Kocks as well as the details and shop drawings prepared by the previous contractor and performance of additional design, shop drawings if would be necessary;
- Installation of sewer gravity lines and house connections, including testing and CCTV investigation;
- Installation of pressure lines including testing;
- Road reinstatement and any other related works

16. The new pipes to be laid under this lot include:

- Corrugated DN 150 HDPE-pipes for service connections, ring stiff-ness 8 KN/m²
- Corrugated DN 200 to DN 800 HDPE-pipes for gravity sewers, ring stiffness 8 KN/m²
- PE 100-pipes for OD 140 to OD 500 pressure mains, SDR 17

17. The Post-construction Environmental Audit Report under the POT-01/LOT-01 sub-project will be prepared by the Supervision Consultant SAFEGE and submitted to

UWSCG in April 2024.

18. **Lot 2: Sewage System:** The contract for the implementation of the Lot-02 under POT-01 has been awarded to "MBD Inssat" (Turkey) in October 2022. The project Completion date is March 2024. The new sewage system considers the continuation of the existing system, orientated to the new or replaced old pumping stations. The Contractor's works include the following major works:

- Verification of the existing topographical survey and performance of additional topographical survey (if verification reveals need of survey);
- Verification of the existing basic and detailed design prepared by Design Company Kocks as well as the details and shop drawings prepared by the previous contractor and performance of additional design, shop drawings if would be necessary;
- Installation of sewer gravity lines and house connections, including testing and CCTV investigation;
- Installation of pressure lines including testing;
- Road reinstatement and any other related works;
- All needed crossings

19. The new pipes to be laid under this lot include

- Corrugated DN 150 HDPE-pipes for service connections, ring stiff-ness 8 KN/m²
- Corrugated DN 200 to DN 800 HDPE-pipes for gravity sewers, ring stiffness 8 KN/m²
- PE 100-pipes for OD 140 to OD 500 pressure mains, SDR 17

20. The Post-construction Environmental Audit Report under the POT-01/LOT-02 sub-project will be prepared by the Supervision Consultant SAFEGE and submitted to UWSCG in April 2024.

21. **Lot 3: Sewage System:** The contract for the implementation of the Lot-03 under POT-01 has been awarded to "CHINA NUCLEAR INDUSTRY 23 CONSTRUCTION CO" Ltd (China) in October 2022. The project Completion date is March 2024. The proposed project includes construction and rehabilitation of 28 sewerage Pumping Stations in Poti under POT-01 sub-project.

22. The Post-construction Environmental Audit Report under the POT-01/LOT-03 sub-project will be prepared by the Supervision Consultant SAFEGE and submitted to UWSCG in March 2024.

23. **Construction of Wastewater Treatment Plant in Poti (POT-02).** The project comprises of the construction of new Wastewater Treatment Plant with the capacity of 11,663 m³/day for Poti. The contract for construction of WWTP in Poti was signed on December 21, 2017 with JV "Pfeiffer - EMIT" comprised by "Ludwig Pfeifer Hoch – and Tiefbau Gmbh7Co. KG (Germany)" and "EMIT Group – ErcoleMarelliImpiantiTecnologiciS.r.l. (Italy). Due to bankruptcy of Ludwig Pfeiffer in December 2021, there were not any construction activities and physical progress. The Supervision Consultant notified in March 2022 the Contractor to restart activities on site. But there were no reaction from Contractor's side. Engineer submitted revised Recommendation for Termination of the POT-02 to UWSCG in April 2023. Finally POT-02 sub-project was terminated. UWSCG is received final decision and the No-objection from ADB in October 2023.

24. **Construction of Water Supply System in Jvari (JVA-01)**. The major works implemented for rehabilitation and improvement of Jvari water supply system are following: construction of wells on the well field near the village Lia; installation of about 4 km long transmission pipeline; replacement of distribution pipes in the town; rehabilitation of existing reservoir or construction of new one depending on results of detailed investigation; construction of new pump station.

25. The contract for implementation of JVARI-01 was signed on January 17, 2017 with AS Inshaat–N, LLC(Azerbaijan). Contractual date finished in December 2019 and Contractor is continuing works under Delay Damages, Potential Contract completion date is the February 2024.

26. The Post-construction Environmental Audit Report under the JVARI-01 sub-project will be prepared by the Supervision Consultant SAFEGE and submitted to UWSCG in February 2024.

27. **Construction of Sewage Collection and Water Supply System in Gudauri (GUD-02).** The major works to be implemented for rehabilitation and improvement of Gudauri sewage collection and water supply system, including construction of well field, Raw Water Reservoir of 500m3, water pipes and sewage collection system.

28. The contract for implementation of GUD-02 sub-project was signed on 4 January 2019 with "China Nuclear Industry 23 Construction Co." LTD (CNI23). The initial date of completion of the contract was April 2021 and further extended until the end of December 2021. New completion date was November 30, 2021, Contractor completed most of works and was prepared Partially Taking Over for Sewerage Network, Reservoir and Borehole N1. After November 30, 2022 Contractor is applying Delay Damages for Borehole N2 and N3. Construction works have not been completed yet. It will be completed by the end of February 2024.

29. The Post-construction Environmental Audit Report under the GUD-02 sub-project will be prepared by the Supervision Consultant SAFEGE and submitted to UWSCG in March 2024.

30. **Supervision Consultant for T4 of USIIP.** Supervision Consultant for Tranche 4 of USIIP is "SAFEGE France with Engineering Solution LLC Georgia".

2.2 Project Contracts and Management

31. The main institutions that are involved in implementation of the IEE/EMP under USIIP/T4 are UWSCG executing agency (EA), Supervision Consultant (SC) the Construction Company (CC) and to a lesser extent the Ministry of Environmental Protection and Agriculture of Georgia (MoEPA).

32. The Investment Program Management Office (IPMO) under UWSCG, is the Donors Funded Project Management Department, which is responsible for the day-to-day management of the project, including the implementation of the EMP. IPMO has an Environmental Specialist Ms. Kate Chomakhidze who is responsible for managing the environmental aspects of the USIIP. The head of the department is Ms. Irina Chikhladze.

33. The IPMO Environmental Specialist's responsibilities in respect of implementation of the EMP are as follows:

    (i) Approve the Site Specific Environmental Management Plan (SSEMP) before Contractor takes possession of construction site;

    (ii) Monitor implementation of EMP and ensure the environmental safeguards compliance;

(iii) Review the updated IEE and/or SEMP and send it for clearance to ADB;
(iv) Ensure that contractors have access to the EMP and IEE report;
(v) Develop SAEMRs (and Final EMRs upon project completion), send it to ADB and address potential ADB's comments until SAEMR disclosure; Provide ENG and summary of GEO final versions of SAEMRs to be uploaded on UWSCG website;
(vi) Review and approve the Corrective Action Plan and provide to ADB for review and comments if any;
(vii) Participate in public consultations during project implementation;
(viii) In case of need assist IPMO Social/Resettlement Consultant in resolving process of environmental safeguards related complaints;
(ix) Assist in organizing trainings for the Contractors in coordination with ADB/RETA consultant;
(x) Participate in external trainings in environmental management and environmental auditing

34. The SC/SAFEGE hires a full time Environmental Specialist, Mr.Shalva Bosikashvili to assist the UWSCG oversee day-to-day implementation of EMPs by contractors under USIIP/T4, including compliance with all government rules and regulations; Support IPMO in the review and endorsement of contractor's SSEMP; Conduct inspections on contractor's implementation of SSEMP and compliance with government rules and regulations; Ensure contractors comply with health and safety requirements per approved SSEMP's Health and Safety Management Plan; Conduct investigations on grievances/complaints, incidents and accidents; Assist IPMO in addressing any grievances in a timely manner as per the GRM; Issue non-compliance notifications to CC; Monitor corrective actions as required in CAPs, and ensure non-compliances are resolved immediately and are not occurring repeatedly; Prepare recommendations for contractors repeated non-compliances on safeguards and EHS requirements; Submit monthly and quarterly environmental monitoring reports to IPMO.

35. The Construction Companies also appointed a full time Environmental specialists under POT-01 (LOT-01, LOT-02 and LOT-03), JVA-01 and GUD-02 sub-projects. More detailed information is provided in the Table 2 below. The contractor's Environmental Specialists are responsible for preparing the Site Specific Environmental Management Plans (SSEMPs) for endorsement by Supervision Consultant and approval by the UWSCG prior to the Contractor taking possession of the construction site and provide pre-works photo documentation; Ensuring the SSEMP is implemented effectively throughout the construction period; Establish and maintain site records of weekly site inspections using checklists based on SSEMP; Establish and maintain environmental accidents/incidents including resolution activities and environmental monitoring data; Developing Corrective action plans in response to non-compliance notices issued by the SC and UWSCG; Conduct Community relations activities including maintaining complaints register; Routine reporting of SSEMP compliance and community liaison activities; Implement Occupational Health and safety requirements. Implement site clean-up measures after civil works finalization.

36. UWSCG has Department of Permits, Environmental Protection and Social Affairs working alongside IPMO to address the environmental and social issues of USIIP. The head of the department is Ms. Maka Goderdzishvili. The Department of Environmental Protection have two divisions, the Division of Permits and the Division of Environmental Protection and Social Affairs. Ms. Salome Mosidze is the Head of the Division of Environmental Protection and Social Affairs.

37. More detailed description of EMP implementation arrangements, responsibilities and staffing under UWSCG is provided in the **Table 1 below**.

Table 1: Institutionnel Arrangement, Responsibilities and Staffing

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Department of Permits, Environmental Protection and Social Affairs (Environmental Specialist)
1	**Environmental planning and management Contractors Environmental Management Plan (site-specific EMP)**	Prepare Specific EMP (SEMP) with supplemented Topic Specific EMPs at pre-construction stage based on IEE/EMP Implement SEMP approved by IPMO.	Review and endorse the SEMP; Monitor implementation of SEMP on daily basis; Monitor monthly environmental monitoring reports or results prepared by the Contractor and report to IPMO.	Review and approve the SEMPs; Monitor implementation of EMP and ensure the environmental safeguards compliance.	Work together with IPMO on addressing the environmental non-compliance issues, if any.
2	**Changes in design**	Provide details of design changes to CSC required to update IEE/EIA, or SEMP; Implement updated SEMP.	Approve the design change to be submitted to IPMO; Make environmental assessment of the change and update the IEE and/or SEMP.	Review the updated IEE and/or SEMP and send it for clearance to ADB	Liaise with CSC in preparing updated IEE and/or SEMP; Upload the approved IEE/SEMP provided by IPMO to UWSCG website for Public Disclosure.
3	**Unanticipated impacts**	Inform CSC about unanticipated impact and follow the instructions received from IPMO.	Make environmental assessment of the unanticipated impact and update the IEE and/or SEMP	Review the updated IEE and/or SEMP and send it for clearance to ADB	Liaise with CSC in preparing updated IEE and/or SEMP

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Department of Permits, Environmental Protection and Social Affairs (Environmental Specialist)
4	**Reporting**	Prepare monthly environmental monitoring reports and send it to CSC and IPMO	1. Prepare inputs to environmental part of quarterly construction progress reports; 2. Prepare inputs to semi-annual environmental monitoring report (SAEMR) to be submitted to IPMO for further review, comments and improvement. 3. Conduct Post-Construction Final Environmental Audit and prepare final environmental audit report.	1. Finalize SAEMRs (and Final EMRs upon project completion), send it to ADB and address potential ADB's comments until SAEMR disclosure; 2. Provide ENG and GEO final versions of SAEMRs to be uploaded on UWSCG website.	Upload the approved reports (ENG and GEO) provided by IPMO to UWSCG website for Public Disclosure
5	**Permits and clearances**	NA	NA	NA	Obtaining environmental permits and clearances
6	**Non-compliances**	Prepare a corrective action plan (CAP)	Assist contractor in preparing the CAP.	Review and approve the CAP and provide to ADB for review and comments if any.	
7	**Public consultations**	Participate in public consultations during project implementation	Organize public consultations: inform people about activities and prepare the record of consultations.	Participate in public consultations during project implementation	UWSCG & IPMO host PCs, CSC will present the topics related to environmental issues

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Department of Permits, Environmental Protection and Social Affairs (Environmental Specialist)
8	**Grievance Redress Mechanism**	Project site Focal person to record environmental grievances in the logbook and follow up with UWSCG established practice for grievance redress	1. Ensure that grievances, if any, are being properly documented and addressed timely and effectively. 2. Assist IPMO to develop consolidated GRM database and consolidation of GRM cases both for ENV and Social safeguards	In case of need assist IPMO Social/Resettlement Consultant in resolving process of environmental safeguards related complaints; Assist IPMO Social/Resettlement Consultant in GRM database consolidation and data analysis.	UWSCG maintains GRM applicable to all projects. UWSCG will ensure IPMO information on grievances is consolidated into the UWSCG grievances (both - environmental and social) without duplication.
9	**Trainings**	Attend on-site trainings organized by IPMO and ADB/RETA Consultant	Assist the IPMO in organization of trainings for the Contractors on environmental safeguards requirements.	Organize trainings for the Contractors in coordination with ADB/RETA consultant. Participate in external trainings in environmental management and environmental auditing	Participate in external trainings in environmental management and environmental auditing

38. A list of main organizations involved in the USIIP/T4 and relating to environmental safeguards is presented in Table 2 below.

Table 2: List of Main Organizations under USIIP/T4

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Lender	Asian Development Bank	Country Environmental Focal	Ninette R. Pajarillaga E-mail: npajarillaga@adb.org
		Associate Safeguards Officer Georgia Resident Mission Asian Development Bank	Nino Nadashvili Tel: +995 595 070442 nnadashvili@adb.org
		ADB RETA, Environmental Consultant	George Kobaladze Tel: +995 599 689834 E-mail gkobaladze.consultant@adb.org, me
Borrower	UWSCG	UWSCG, Department of Environmental Protection and Permits, Head	Ms. Maka Goderdzishvili Tel: +995 599 229925 E-mail: m.goderdzishvili@water.gov.ge
		UWSCG/IPMO Department of Projects Management, Head	Ms. Irine Chikhladze Tel: +995 598 179898 E-mail: i.chikhladze@water.gov.ge
Borrower	UWSCG/USIIP/T4	Environmental Specialist	Ms. Ketevan Chomakhidze Tel:+995 577 380309 E-mail: Chomakhidzek@yahoo.com

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Supervision Consultant	SAFEGE (France) with Engineering Solution LLC (Georgia)	Environmental Specialist:	Mr. Shalva Bosikashvili Tel:+995 595116041 E-mail: sbosikashvili@yahoo.com
Contract JVA-01	AS Inshaat–N, LLC(Azerbaijan)	Environmental H&S Specialist	Mr.Gia Khulordava Tel: + 995 577 345049
Contractor ZUG-01	AS Inshaat-N LLC (Azerbaijan)	Environmental H&S Specialist	Mr. Nodar Usupishvili Tel:+995 577 68 16 71 E-mail: n.usupashvili@gmail.com
Contractor POT-01/LOT-01	"ECETAS Insaat" (Turkey).	Environmental H&S Specialist	Mr.Vakhtang Burchuladze Tel: +995 577 477432 E-mail: v.burchuladze1@gmail.com
Contractor POT-01/LOT-02	"MBD Inssat" (Turkey).	Environmental H&S Specialist	Mr.Vakhtang Burchuladze Tel: +995 577 477432 E-mail: v.burchuladze1@gmail.com
Contractor POT-01/LOT-03	"CHINA NUCLEAR INDUSTRY 23 CONSTRUCTION CO" Ltd (China)	Environmental H&S Specialist	Mr.Vakhtang Burchuladze Tel: +995 577 477432 E-mail: v.burchuladze1@gmail.com

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Contractor POT-02	JV “Pfeiffer - EMIT” comprised by “Ludwig Pfeifer Hoch – and TiefbauGmbh7Co. KG (Germany)” and “EMIT|Group – ErcoleMarelliImpianti TecnologiciS.r.l. (Italy)	Environmental Specialist H&S Specialist	Mr.Nikoloz Neparidze Tel: +995 599 346 821
GUD-02	“China Nuclear Industry 23 Construction Co.” LTD (CNI23)	Environmental H&S Specialist	Mr. Aleksandre (Sasha) Mchedlishvili Tel: +995 574 02 77 33 E-mail: alexandermchedlishvili1@gmail.com

2.3 Project Activities during Current Reporting Period

39. During the reporting period construction activities were carried out under POT-01/LOT-01/LOT-02/LOT-03, JVARI-01 and GUD-02 sub-projects, therefore these sub-projects are reported in this Semi-annual EMR. Contractor intensified all activities to improve the progress of the works on sites.

JVA-01 Sub-project

40. The progress of main activities under JVA-01 sub-project, carried out by contractor during the reporting period is provided in the Table 3 below:

Table 3. Project Progress during the July-December 2023 for JVA-01

Jvari	**Jvari Water Supply System Construction**		
Sites	Jva-01 sub-project		
Jvari	**Jvari Transmission Pipelines, boreholes and Reservoir**	Executed During January-June 2023	Executed During July-December 2023
Works undertaken during July-December 2023	Executed July 2022 – December 2022. Total Completed %: OD DCI 300 SDR7.4 - 4200m was laid-4200 100% Reservoir: Civil works completed Pumping Station including reservoir and Transformer building: Civil works completed Lia Well Field: All 8 Borehole was equipped with pumps, Mechanical works and Electrical works completed including SCADA and CHLORINATION	452.5m	100% 100% 100% 100% 100%

GUD-02 Sub-project

41. The main activities under GUD-02 sub-project, carried out by contractor during the reporting period is provided in the Table 4 below:

Table 4: Project Progress during the July-December 2023 for GUD-02

GUD 02	**Total Completed %**	**Executed During January-June 2023**	**Executed During July-December 2023**
Works undertaken during July-December 2023	For GUD-02 Project was executed:		
	1. Installation of Corrugated Pipe D-200 – 22000 m (Out of 22000); - 100%	2909m	Completed

GUD 02	Total Completed %	Executed During January-June 2023	Executed During July-December 2023
Works undertaken during July-December 2023	2. Installation of Concrete Manhole D 1000– 1549m;- 100%	305m	Completed
	3. Construction of Reservoir – 100 % (Civil Works and Pipe Connections)	Completed	Completed
	4. Construction of Boreholes: N1Drilling and installation - 100%: N2- Drilling and installation -100% N3-Location was changed and Contractor will start drilling in April 2024	Construction of Boreholes: N1 Drilling - 100%: N2 Drilling - 75% and N3 Drilling - 90%	Construction of Boreholes Borehole N1- 100% Borehole N2 – 100% Installation Borehole N3- Location was changed and Contractor will start drilling in April 2024 0%

42. The main activities under POT-01/LOT-01 sub-project, carried out by contractor during the reporting period is provided in the Table 5 below:

Table 5: POT-01 LOT-1, project progress during July-December 2023

HDPE PRESSURE PIPES PERFORMED ACTIVITIES CONTRACT	Completed Total (m)	Completed Total (%)	Executed during July-December 2023
Ø 140 (mm) : 70	0	0	0
@ 180 (mm): 1500	377	25%	0
Ø 280 (mm) : 535	535	100%	0
Ø 400 (mm) : 750	633	84.45%	84
Ø 450 (mm) : 700	799	114%	460
Ø 500 (mm) : 1220	1492	122 %	301
Ø 6300 (mm) : 64			

HDPE PRESSURE PIPES PERFORMED ACTIVITIES CONTRACT	Completed Total (m)	Completed Total (%)	Executed during July-December 2023
TOTAL = 4304	3836	98%	845
HDPE GRAVITY CORRUGATED PIPE IN LINEAR METER			
Ø 150 (mm) : 35100	17759	50%	14972
Ø 200 (mm) : 10400	6534	62%	4689
Ø 300 (mm) : 9800	10724	109 %	8005
Ø 400 (mm) : 1250	636	51%	47
Ø 500 (mm) : 1200	1400	116%	1259
Ø 800 (mm) : 1000	0	0	0
TOTAL = 58 750	37053	63 %	28972

43. The main activities under POT-01/LOT-02 sub-project, carried out by contractor during the reporting period is provided in the Table 6 below:

Table 6: POT-01 LOT-2, project progress during July-December 2023

HDPE PRESSURE PIPES PERFORMED ACTIVITIES CONTRACT	Completed Total (m)	Completed Total[%]	Executed during July-December 2023
Ø 140 (mm) : 0	0	0%	0
@ 180 (mm): 577	0	0%	0
@ 225 (mm): 880	0	0%	0
Ø 280 (mm) : 212	0	0%	0
Ø 315 (mm) : 145	0	0%	0
Ø 355 (mm) : 760	0	0%	0
Ø 400 (mm) : 990	0	0%	0
Ø 450 (mm) : 0	0	0%	0
Ø 500 (mm) : 0	0	0%	0
Ø 6300 (mm) : 0	0	0%	0
TOTAL = 3564	0	0%	0
HDPE GRAVITY CORRUGATED PIPE IN LINEAR METER			
Ø 150 (mm) : 33885	13936	41%	10474
Ø 200 (mm) : 15465	9656	62%	6402
Ø 300 (mm) : 22092	12248	55 %	9694
Ø 400 (mm) : 3117	367	12%	202
Ø 500 (mm) : 289	141	48.7%	0
TOTAL = 74848	36348	48.5 %	26772

44. The main activities under POT-01/LOT-03 sub-project, carried out by contractor during the reporting period is provided in the Table 7 below:

Table 7: POT-01 LOT-3, project progress during July-December 2023

HDPE PRESSURE PIPES PERFORMED ACTIVITIES CONTRACT	Completed Total	Completed Total[%]	Executed during July-december 2023
Construction of 28 Pumping Stations			
11 reinforced concrete	pile works Civil works	75% 5%	35% 5%
17 small PE	Not started (Only Material is on site)	0%	0%

2.4 Description of Any Changes to Project Design

45. During the reporting period, no design changes were made to sub-projects under USIIP/T4.

2.5 Description of Any Changes to Agreed Construction methods

46. During the reporting period, no changes were made to the agreed construction methods for sub-projects under USIIP/T4.

3. ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities

47. A total 11 site visits have been conducted at different times during reported period (July-December 2023) under POT-01/LOT-01/LOT-02/LOT-03, JVARI-01 and GUD-02 sub-projects and included monitoring of compliance of construction activities to the IEE/EMPs, SEMPs requirements.

48. During the reporting period, the ADB's Environmental Safeguard Mission visited USIIP/T4 construction sites twice, on July 4-6 and December 13-14, 2023. During the missions, verbal instructions were given to the contractors and Non-Compliance Notices were issued by ESs of UWSCG/USIIP and SC when required. All major non-compliances identified during the above site visits are reflected in Table 8 below.

49. During 11 site visits, 64 non-compliances were identified and 6 Non-Compliance Notice were issued by environmental specialists of USIIP and SC to contractor. A summary of the status of the monitoring visits, including dates of site visits, photographs, persons involved in site visits, etc., is shown in Table 8 below. During the reporting period, on job trainings with representatives of the Contractors and the Supervision Consultant were held on 25 September 2023 and 3 November 2023 under POT-01 sub-project. The above trainings were conducted to ensure that contractors understand their responsibilities for the implementation of the IEE/SEMP/EMP and to mitigate environmental issues associated with their construction activities.

50. Individual and joint on-site monitoring activities were conducted by Environmental Specialists of SC Mr. Shalva Bosikashvili and UWSCG/USIIP Ms.Kate Chomakhidze on a regular basis.

51. Environmental Monitoring Specialist hired under the GUD-02 sub-project by contractor Mr. Aleksandre Mchedlishvili conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Safege.

52. Environmental Monitoring Specialist hired under the JVA-01 sub-project by contractor Mr. Gia Khulordava conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Safege.

53. Environmental Monitoring Specialist hired under the POT-01/LOT-01/LOT-02 and LOT-03 sub-projects by contractor Mr. Vakhtang Burchuladze conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Safege.

54. Environmental Monitoring Specialists of SC/Safege developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submit to UWSCG.

55. Environmental Specialist of USIIP Ms. Kate Chomakhidze developed Semi-Annual Environmental Monitoring report under USIIP T4 and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.

3.2 Site Audits

56. As it was mentioned above during the reporting period, July-December 2023, inspection and monitoring of construction sites were conducted under POT-01, GUD-02 and JVA-01 sub-projects by ESs of UWSCG/USIIP and Safege. The schedule of Joint inspection and summary of audits carried out under JVA-01 and GUD-02 sub-projects are provided in the Table 8 below.

Table 8. Summary of site audits

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
Continuously during reporting period (July-December 2023)	AS Inshaat-N LLC (Azerbaijan) **JVA-01**	EH&S Specialist of Contractor Mr. Nodar Usupishvili	Day to day monitoring of sites Compliance with Environmental and HES requirements	Poor housekeeping Safety issues on construction sites	Monthly Monitoring Reports	Completed on the monthly basis
5 July 2023		ADB's Environmental Safeguard Mission, Nino Nadashvili, Associate Safeguard Officer Georgia Resident Mission Asian Development Bank Ms. Kate ChomakhidzeUWSCG/USIIP/Environmental Specialist Environmental Specialist of SC Mr.Shalva Bosikashvili	ADB's Semi-annual Environmental Safeguard Mission	Proper safety fencing: Installing proper safety fencing around the trenches are missing, Photo N1 	Verbal instruction was given to contractor to immediately improve the situation.	Completed All Construction activities on reservoir site were completed, therefor there are no open tranches on the site, see Photo n1 

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
11 August 2023		Environmental Specialist of SC Mr.Shalva Bosikashvili	Regular Monitoring of Sites	Unacceptable housekeeping, Photo N1  Manhole improper cover, Photo N2 	Non-compliance notice were issued to contractor and corrective actions were required to immediately improve the situation on sites under JVA-01sub-project (Please see Annex C)	Completed Mid.of September 2023, all waste are removed from the construction territory Completed end of August 2023, please see, Photo N2 

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
16 November 2023		Environmental Specialist of SC Mr.Shalva Bosikashvili	Regular Monitoring of Sites	**Reinstatement of the construction sites** Solid waste beside the road, Photo N1  Manhole improper cover, Photo N2 	Non-compliance notice were issued to contractor and corrective actions were required to immediately improve the situation on sites under JVA-01sub-project (Please see Annex C)	**Reinstatement of the construction sites** Partially Completed, all reinstatement works will be completed by the February 2023 Partially Completed, all reinstatement works will be completed by the February 2023

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
Continuously during reporting period (July-December 2023)	**China Nuclear Industry 23 Construction Co., Ltd** **GUD-02**	Environmental H&S Specialist of Contractor Mr.Aleksandre Mchedlishvili	Day to day monitoring of sites Compliance with Environmental and H&S issues Monthly Monitoring of construction sites	Site internally should be arranged properly and cleaned regularly. Minimize tree cutting on construction site, due to construction purposes	Prepare monthly monitoring reports	Completed
4 July 2023		ADB's Environmental Safeguard Mission, Nino Nadashvili, Associate Safeguard Officer Georgia Resident Mission Asian Development Bank Ms. Kate ChomakhidzeUWSCG/USIIP/Environmental Specialist Environmental Specialist of SC Mr.Shalva Bosikashvili	ADB's Semi-annual Environmental Safeguard Mission	Unacceptable housekeeping (Boring Well 3), Photo N1  Generators without drip tray (Boring Well 3), Photo N2	Non-compliance notice were issued to contractor and corrective actions were required to immediately improve the situation on sites under GUD-02 sub-project (Please see Annex C)	Completed Major construction activities are completed in Boring Well N3, therefore all waste and construction materials are removed from the construction territory Completed

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 Waste containers without lid and label, Photo N3 		Completed, due to the completion of construction activities no waste is generated on construction site.

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
Continuously during reporting period (July-December 2023)	"MBD Inssat" (Turkey). **POT-01/LOT-01/LOT-02/LOT-03**	Environmental Specialist of SC Mr.Shalva Bosikashvili	Day to day monitoring of sites Compliance with Environmental and HES requirements	Poor housekeeping Safety issues on construction sites	Monthly Monitoring Reports	Completed on the monthly basis
25 September 2023	POT-01/LOT-02	Environmental Specialist of SC Mr.Shalva Bosikashvili Ms. Kate ChomakhidzeUWSCG/USIIP/Environmental Specialist	Monthly Monitoring of Sites	**Gabunia Street** Drainage channel maintenance: The drainage channel on the site is filled with excavated material and needs to be cleaned, also drainage channel is damaged and needs reinstatement. Photo N1  **Arsena Street** Informational Banner:	Non-compliance notice were issued to contractor and corrective actions were required from contractor to immediately improve the situation, under POT-01 sub-project (Please see Annex C) Corrective Action Plans were developed by	Completed. End September 2023, Photo N1  Completed. End

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				Currently, there is no informational banner on the site. Cleanliness: Maintain the site and storage area in a clean and organized manner, Photo N2  Security: Implement adequate security measures to prevent theft or vandalism of the stored materials, Photo N3  Site organization and	contractor Pease see Annex D	September 2023, Photo N2  Completed. End September 2023, Photo N3  Completed, end September 2023, Photo N4  Completed, end

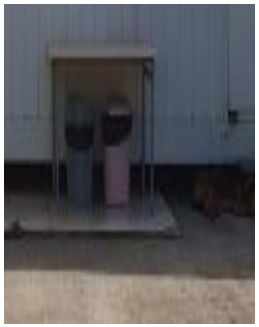
Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				material storage: It is important to ensure that materials are stored in a safe and orderly manner, and that they do not pose a risk to workers or the public. This includes ensuring that hazardous materials are properly labeled and stored, and that there is adequate space for workers to move around the site safely. Additionally, all construction materials on site should be properly fenced and clearly marked to avoid any confusion. Proper fencing and marking will ensure the safety of workers and prevent any unauthorized access to the site, Photo N4		of September 2023 Completed, end of September 2023, Photo N5  Completed, end of September 2023, Photo N6

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 Blocking entrances with material: This refers to the practice of using construction materials or equipment to block entrances to private properties, roads, or public areas. Make sure that all entrances and sidewalks are free from construction material. Proper safety fencing: Installing proper safety fencing around the trenches are missing. **Paichadze and Shevchenko streets** Informational Banner: Currently, there is no informational banner on	 Completed, end of September 2023 Completed, end of September 2023 Completed, end of September 2023, Photo N7  Completed, end of September 2023, Photo N8

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				the site. Please ensure that a banner is installed as soon as possible to provide necessary information and increase awareness of the ongoing construction work. Cleanliness: Maintain the site and storage area in a clean and organized manner. Security: Implement adequate security measures to prevent theft or vandalism of the stored materials, Photo N5  Site organization and material storage: It is important to ensure that materials are stored in a safe and orderly manner, and that they do not pose a risk to workers or the public. This includes ensuring that hazardous materials are properly labeled and stored, and that there is		 Completed, end of September 2023, Photo N9  Completed, end of September 2023 Completed, end of September 2023

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				adequate space for workers to move around the site safely. Additionally, all equipment on site should be properly fenced and clearly marked to avoid any confusion. Proper fencing and marking will ensure the safety of workers and prevent any unauthorized access to the site, Photo N6  Blocking entrances with material: This refers to the practice of using construction materials or equipment to block entrances to private properties, roads, or public areas. Make sure that all entrances and sidewalks are free from construction material, Photo N7		Completed, end of September 2023 Completed, end of September 2023, Photo N10  Completed end of September 2023, Photo N11 

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 Proper safety fencing: Installing proper safety fencing around the trenches are missing.		Completed, end of September
3 November 2023	POT-01/LOT-01	Environmental Specialist of Contractor Mr. Shalva Bosikashvili	Monthly Monitoring of Sites Compliance with Environmental and HES requirements	POT-01/LOT-01 Construction of Sewerage System in Poti, LOT-01 - CAMP Site internally should be arranged properly and cleaned regularly, All construction materials should be properly segregated and stored adequately, Photo N1 	Non-compliance notice were issued to contractor and corrective actions were required to immediately improve the situation on sites under POT-01 sub-project (Please see Annex C)	Completed, construction materials are removed from the camp territory , Photo N1 

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				Waste should be placed only at the proper waste containers, containers should be labeled (Household waste and Hazardous waste), the signs should be in the local language and understandable by the workers, Photo N2 		Completed, Mid. November 2023, Photo N2 
				Electric cables must be arranged in accordance with standards, so that they do not pose any danger to the workers		Completed, Mid. November 2023
				Empty cylinders must be removed from the construction site, Photo N3		Completed, Mid. November 2023 Empty cylinder is remove from CAMP territory, Photo N3

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 Equipment that may cause oil leakage should be stored adequately on concrete floors and under a roof **Construction of sewerage system in POTI, LOT-01** Adequate and sufficient quantity of Safety/warning signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident, Photo N4		 Completed, Mid. November 2023 Completed, Mid. November 2023 Photo N4

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 Walls of the deep trenches (>1.5m) should be strengthened by adequate and sufficient quantity of boards to avoid landfall of the soil and accidents (workers damage) Photo N5  All construction site/segment must have adequate access, in order not to endanger the workers, Photo N6		 Completed, Mid. November 2023 Photo N5  Completed, Mid. November 2023

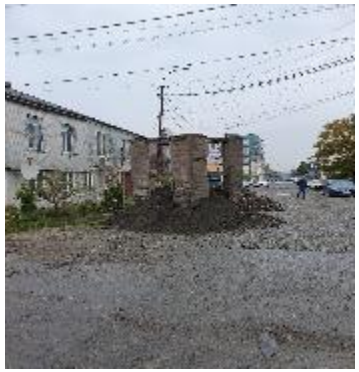
Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				All construction materials has to be adequately stored during the construction not to cause the disturbance of the local population Due to the uncleanliness of the canal, the pumped water cannot flow into the canal and causes flooding of private lands, Photo N4  **General Notes:** Trench construction shall be taken up in small segments, so that work (excavation, pipe laying and refilling) in each segment is completed in a day. No trenches shall be kept open in the night/after work hours;		Completed, Mid. November 2023 Completed, Mid. November 2023, Photo N6  Completed, Mid. November 2023, Photo N5

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 Construction activities information signs should be installed at each construction segment; Informing all residents and businesses about the nature and duration of any work well in advance so that they can make necessary preparations if needed; Providing wooden walkways/planks across the deep and open trenches for pedestrians and metal sheets where vehicle access is required; Increasing workforce to complete the work in minimum time;		Completed, Mid. November 2023 Completed, Mid. November 2023, Photo N5 

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
3 November 2023	POT-01/LOT-02 CAMP	Ms. Kate ChomakhidzeUWSCG/USIIP/Environmental Specialist Environmental Specialist of SC Mr.Shalva Bosikashvili	Monthly monitoring of Sites	Construction of Sewerage System in Poti, LOT-02 - CAMP General Notes : Site internally should be arranged properly and cleaned regularly, All construction materials should be properly segregated and stored adequately, Photo N1  Waste should be placed only at the proper waste containers, containers should be labeled (Household waste and Hazardous waste), the signs should be in the local language and understandable by the workers	Non-compliance notice were issued to contractor and corrective actions were required to immediately improve the situation on sites under POT-01 sub-project (Please see Annex C)	Completed, Mid. November 2023, Photo N1  Completed, Mid. November 2023

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				Construction of sewerage system in POTI, LOT-02 HS requirements on construction of trenches (Photos N1, N2, N3) Walls of the deep trenches (>1.5m) should be strengthened by adequate and sufficient quantity of boards to avoid landfall of the soil and accidents (workers damage), Photo N1  Adequate and sufficient quantity of Safety/warning signs/tapes and		Partially Completed, despite regular site instructions on ESHS, issuance of notices of non-compliance, meetings and discussions with SC and CC representatives on HS safety issues, some construction sites, including trenches, require improvements from the contractor to comply with safety requirements Completed, Photo N2

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				trench side barriers around of deep open trenches should be installed to avoid accident, Photo N2  All construction site/segment must have adequate access in order not to endanger the workers , Photo N3  All construction materials has to be		 Completed, Mid November 2023, Photo N2 

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				adequately stored during the construction not to cause the damage and distrurbance of the local population, Photo N5  Trenches are filled with water, for this either construction works should be stopped temporarily after the heavy rain and water must be pumped out or workers must wear appropriate PPE, Photo N6		Completed, end November 2023 Photo N3  Completed, end November 2023, Photo N4

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 **General Notes:** Trench construction shall be taken up in small segments, so that work (excavation, pipe laying and refilling) in each segment is completed in a day. No trenches shall be kept open in the night/after work hours; Informing all residents and businesses about the nature and duration of any work well in advance so that they can make necessary preparations if needed;		 Competed, Photo N3  Completed, Mid. November 2023 Completed, Mid. November 2023,

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				Providing wooden walkways/planks across the deep and open trenches for pedestrians and metal sheets where vehicle access is required; Increasing workforce to complete the work in minimum time		Photo N4 
3 November 2023	POT-01/LOT-03 - CAMP	Ms. Kate ChomakhidzeUWSCG/USIIP/Environmental Specialist Environmental Specialist of SC Mr.Shalva Bosikashvili	Monthly monitoring of Sites	**Construction of Sewerage System in Poti, LOT-03 - CAMP** Site internally should be arranged properly and cleaned regularly, All construction materials should be properly segregated and stored adequately, Photo N1  Waste should be	Non-compliance notice were issued to contractor and corrective actions were required to immediately improve the situation on sites under POT-01 sub-project (Please see Annex C)	Completed, Mid. November 2023, Photo N1  Completed, Mid. November 2023,

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				placed only at the proper waste containers, containers should be labeled (Household waste and Hazardous waste), the signs should be in the local language and understandable by the workers, Photo N2  Electric cables must be arranged in accordance with standards, so that they do not pose any danger to the workers, Photo N3		Photo N2  Completed, Mid. November 2023, Photo N3

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 Empty cylinders must be removed from the construction site, Photo N4  Equipment that may cause oil leakage should be stored adequately on concrete floors and under a roof, Photo N5		 Completed, Mid. November 2023, Photo N4  Completed, Mid. November 2023, Photo N5

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 **Construction of Pumping Stations in POTI, LOT-03** **Working of height, HS requirements** Adequate and sufficient quantity of Safety/warning signs/tapes, protective equipment for working at height, side barriers around of deep open excavations should be installed to avoid accident, Photo N6		 **Working of height, HS requirements** Partially completed, despite regular site instructions on ESHS, issuance of notices of non-compliance, meetings and discussions with SC and CC representatives on HS safety issues, some construction sites, including

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 Safe barriers should be arranged around the deep trenches/excavations, Photo N6 The inner perimeter of the deep excavations should be also arranged adequately, Photo N7 		working on height require improvements from the contractor to comply with safety requirements

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				All construction site/segment at height must have adequate access, stairs or other facilities, in order not to endanger the workers Electric cables must be arranged in accordance with standards, so that they do not pose any danger to the workers Waste should be placed only at the proper waste containers, stored adequately on concrete floors and under a roof, containers should be labeled (Household waste and Hazardous waste), the signs should be in the local language and understandable by the workers, Photo N8		Completed, Mid. November 2023 Completed, Mid. November 2023

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 **General Notes:** No trenches/excavations should be left open at night without proper protection and lighting Informing all residents and businesses about the nature and duration of any work well in advance so that they can make necessary preparations if needed Increasing workforce to complete the work in minimum time		Completed, Mid. November 2023

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
20 November 2023				Open pit without warning signs and barriers, Photo N1  Unacceptable housekeeping, photo N2  Unsafe wire connection		Partially completed, despite regular site instructions on ESHS, issuance of notices of non-compliance, meetings and discussions with SC and CC representatives on HS safety issues, proper protection of trenches during the construction require improvements from the contractor to comply with safety requirements Completed end November 2023, all garbage are removed from the territory Completed end November 2023

3.3 Issues Tracking (Based on Non-Conformance Notices)

57. A total of 11 site visits have been conducted at different times during reported period (July-December 2023) under USIIP/T4 sub-projects and included: the monitoring of compliance of construction activities under JVARI-01, POT-01 (LOT-01, LOT-02, LOT-03) and GUD-02 sub-projects to the IEE/EMP and SEMPs requirements, detailed information is provided in sub-section 3.2 - Inspection and Monitoring of the sites and in Table 8 above.

58. 2 Non-Compliance Notices have been issued during the four site visits under JVARI-01 sub-project. The contractors were always informed on the detected non-conformances and were demanded to improve on the deadline set and send CAP and/or photos of improvements. Environmental team of SAFEGE and UWSCG/USIIP monitored the improvements during the next monitoring visits. All Non-conformance Notices issued during the reporting period is presented in ANNEX C of this Semi-Annual EMR.

59. 3 Non-Compliance Notices have been issued during the 5 site visits under POT-01/LOT-01/LOT-02/LOT-03 sub-projects. The contractors were always informed on the detected non-conformances and were demanded to improve on the deadline set and send CAP and/or photos of improvements. Environmental team of SAFEGE and UWSCG/USIIP monitored the improvements during the next monitoring visits. All Non-conformance Notices issued during the reporting period is presented in ANNEX C of this Semi-Annual EMR.

60. One Non-Compliance Notice have been issued during the 2 site visits under GUD-02 sub-project. The contractors were always informed on the detected non-conformances and were demanded to improve on the deadline set and send CAP and/or photos of improvements. Environmental team of SAFEGE and UWSCG/USIIP monitored the improvements during the next monitoring visits. All Non-conformance Notices issued during the reporting period is presented in ANNEX C of this Semi-Annual EMR.

61. A summary of the status of the monitoring visits, including dates of site visits, photographs, persons involved in site visits, etc., is shown in Table 8 above.

62. In case that the contractor did not make any improvements within the indicated deadline, Environmental Specialist of SC and USIIP always held additional meetings and discussions with contractors how to correct the non-compliances. The deadline for final improvements of above issues are set by the Mid. of February 2023.

63. A summary of the identified environmental issues under JVA-01, GUD-02 and POT-01 sub-projects for July-December 2023 is presented in Table 9, 10 and 11 below.

Table 9: Summary of Issues Tracking Activity for Current Period - JVA-01

Total Number of Issues for Project	4
Issues Opened This Reporting Period	1
Issues Closed This Reporting Period	3
Percentage Closed	75%

Table 10: Summary of Issues Tracking Activity for Current Period – POT-01/LOT-01/LOT-02/LOT-03

Total Number of Issues for Project	57
Issues Opened This Reporting Period	2
Issues Closed This Reporting Period	55
Percentage Closed	96%

Table 11: Summary of Issues Tracking Activity for Current Period – GUD-03

Total Number of Issues for Project	3
Issues Opened This Reporting Period	0
Issues Closed This Reporting Period	3
Percentage Closed	100%

3.4 Trends

64. To identify trends in environmental issues, information from previous Semi-Annual EMR (January-June 2023) is used. The summary of the issues is provided in the Table 12 below.

Table 12: Summary of identified trends in environmental issues

Semi-Annual EMR No	Total No of Issues	% issues Closed	% issues closed late
January-June 2023	67	95%	5%
July-December 2023	64	90%	10%

65. Most of the non-compliances were eliminated by the contractors within the specified time frame within the JVA-01, GUD-02 and POT-01 (LOT-01, LOT-02, LOT-03) sub-projects. Some of the non-compliances identified during the site visits such as working on height and protection of open trenches during the construction work still remains the problem, despite the regular site instructions on ESHS, issuance of notices of non-compliance, meetings and discussions with SC and CC representatives on HS safety issues. The required actions and deadline to improve the remaining inconsistencies are presented in table 30 below.

3.5 Unanticipated Environmental Impacts or Risks

66. There were no unanticipated Environmental Impacts and Risks under USIIP/T4 during the reporting period.

4. RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

67. During the reporting period Environmental measurements of Noise level and Ambient Air Quality were carried out by contractor only under GUD-02 sub-project.

68. Noise and air pollution standards defined by IFC/WHO 1999, are presented in the Table 13 and 14 below.

Table 13: Noise Level Guidelines

Noise	dBA National Regulations		dBA WHO	
Receptor	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00	Daytime 07:00- 22:00	Nighttime 22:00- 07:00
Residential; institutional; educational	55	45	55	45
Industrial; commercial	70	70	70	70

69. Air pollution standards by IFC/WHO 1999, are presented in the Table 14 below. National Air Pollution Standards are provided in the Table 15 below.

Table 14: Air pollution Guidelines

Contaminants	IFC/WHO Guideline Value (Limit) mg/m^3))
1	2
Inorganic dust	(*IFC does not have a standard for "inorganic dust". Instead IFC applies standards for PM2.5 and PM10). PM10 – 0,02/1 Year 0,05/24 Hour PM2,5-0,01/1 Year 0,025/24 Hour
Carbonic monoxide	n/a
Nitrogen dioxide (NO_2)	0,2/ 1Hour 0,04/1Year
Aldehyde	n/a

70. Georgian Standards for noise level is presented in the Table 15 below.

Table 15: Georgian Standards for Noise Levels

Purpose/use of area and premises	Allowable limits (A-Weighted Decibels (dBA))		
	L_{day}		23:00 – 08:00 L_{night}, Night
	08:00 - 19:00, Day	Evening 19:00-23:00	
Educational facilities and library halls	35	35	35
Medical facilities/chambers of medical institutions	40	40	40
Living quarters and dormitories	35	30	30
Hospital chambers	35	30	30
Hotel/motel rooms	40	35	35
Trading halls and reception facilities	55	55	55
Restaurant, bar, cafe halls	50	50	50
Theatre/concert halls and sacred premises	30	30	30
Sport halls and pools	55	55	55
Small offices (≤100m^3) – working rooms and premises without office equipment	40	40	40
Small offices (≤100m^3) – working rooms and premises without office equipment	40	40	40
Conference halls /meeting rooms	35	35	35
Areas bordering with houses residential, medical establishments, social service, and children's facilities (>6 story buildings)	55	50	45
The areas bordering with hotels, trade, service, sport, and public organizations	60	55	50

Note: in case noise generated by indoor or outdoor sources is impulse or tonal, the limit must be 5dBA less thanindicated in the Table.

71. Table 16 shows the threshold values of the major air pollutants as defined by the GEO, IFC and EU legislation.

Table 16: Ambient Air Quality Standards

Parameter	Averaging Period	Limit (µg/m^3)		
		Maximum Permissible Concentration (MPC) in Georgia	IFC Guideline Value	EU Ambient Air Quality Guidelines
Nitrogen Dioxide (NO_2)	30 minutes	200	-	-
	1 Hour	-	200	200
	24 Hours	40	-	-
	1 Year	-	40	40
Sulphur Dioxide (SO_2)	10 minutes	-	500	-
	30 minutes	500	-	-
	1 Hour	-	-	350
	24 Hours	50	20	125
Carbon Monoxide (CO)	30 minutes	5,000	-	-
	24 Hours	3,000	-	-
Total Suspended Particulates (TSP) / Dust	24 Hours	150	-	-
	30 minutes	500	-	-
PM10	1 year	40	20	40
	24 hours	50	50	50
PM2.5	1 year	25	10	25
	24 hours		25	-

Parameter	Averaging Period	Limit (µg/m^3)		
		Maximum Permissible Concentration (MPC) in Georgia	IFC Guideline Value	EU Ambient Air Quality Guidelines
Ozone	8-hour daily max.	120	100	120

72. The Georgian Standards for vibration are designed for human comfort. These are shown in Table 17 below. Note that no standards for building damage exist.

Table 17: Georgian vibration values

Average Geometric Frequencies of Octave Zones (Hz)	Allowable Values X0, Y0, Z0			
	Vibro-acceleration		Vibro-speed	
	m/sec^2	dB	m/sec 10^{-4}	dB
2	4.0	72	3.2	76
4	4.5	73	1.8	71
8	5.6	75	1.1	67
16	11.0	81	1.1	67
31.5	22.0	87	1.1	67
63	45.0	93	1.1	67

Note: It is allowable to exceed vibration normative values during daytime by 5 dB during daytime. In this table of incon-stant vibrations, a correction for the allowable level values is 10dB, while the absolute values are multiplied by 0.32. The allowable levels of vibration for hospitals and rest houses have to be reduced by 3dB.

73. During the reporting period, environmental quality measurements (noise level, ambient air quality and vibration) were not carried out within the framework of JVA-01 and GUD-02 sub-projects, due to the fact that construction activities included only a small amount of earthworks and none of the activities under the sub-project had a potential to generate significant noise and air pollution, as there were no sensitive receptors in the proximity of the construction sites (approximately 700-800m).

Environmental quality measurements of noise level, ambient air quality and vibration under POT-1/LOT-01 sub-project

74. Environmental quality measurements of noise level, ambient air quality and vibration under POT-1/LOT-01 sub-project was conducted by the LLC BBE Scientific Research Laboratory on 10 October 2023 (See Table 19 and Table 20 below and Annex A). The distance from the construction sites to the nearest residential houses was about 45 m.

75. The above mentioned monitoring was carried out at one location. Directly during the monitoring, the work process was actively underway, all equipment was in working condition. Therefore, the monitoring results represent a real, complete picture of the impact of the implemented activities on the environment.

76. During the monitoring process, the air quality was measured according to the following parameters: the concentration of PM 10, PM 2.5, NO2, SO2, and CO in the air was determined. Each instrument used was calibrated, cleaned and pre-tested for field work. The GPS coordinates of the monitoring points are presented in the table below.

Table 18: GPS coordinates of the monitoring points

Monitoring Point Reference	Type of Monitoring	E	N	Date
Lot №I Ecetas	Noise	41.669523	42.135553	10.10.23
Lot №I Ecetas	Vibration	41.669523	42.135553	10.10.23

77. Results of the ambient air monitoring under POT-01/LOT-01 sub-project is presented in the table below.

Table 19: Dust Particles (µg/m3); Carbon Monoxide (CO); Nitrogen Oxides (NO2) and Sulfur Oxides (SO2) monitoring results (PPM)

Parameters	Minimum Permissible Concentration µg/m^3	Maximum Permissible Concentration µg/m^3	Average value of measurements
PM 10	0.008	0.016	0.012
PM 2.5	0.003	0.005	0.004
CO	1.4	1.5	1.5
NO_2	0.0	0.0	0.0
SO_2	0.0	0.0	0.0

78. According to the results of the air quality monitoring conducted on October 10th 2023, the quality of air pollution does not exceed the permissible norms.

Environmental quality measurements of noise level under POT-1/LOT-01 sub-project

79. Noise levels were measured at 1 location - under POT-01/LOT-01 sub-project. The purpose of noise level monitoring is to determine what impact the workflow has on residents.

Table 20: Noise, Monitoring Results access road to the camp

Different Parameters of Noise Level	Result (dB)
LAF_{max}	85.6
LAF_{min}	64.5
LAF_{av}	75.05

80. According to data received in 10 October 2023, under **POT-01/LOT-01 sub-project** noise level of 85.6 dBA exceeded the standards of the National Regulations and World Health Organization (IFC/WHO), which is 70dBA (Industrial; commercial) for a very short period of time. The nearest residential house was located approximately 50m from the construction site and therefore appropriate noise abatement measures were immediately taken, resulting in noise levels returning to normal levels of 70 dBA. Additional mitigation

measures to reduce noise propagation in future are presented in the table 30 below. IFC/WHO and national standards for Noise are presented in the Tables 13 above. It should also be noted that measurements carried out at construction sites, were temporary and conducted during the daytime from 12:00 pm to 14:15 pm and no complaints were received from the local population about the noise during the reporting period.

Environmental quality measurements of noise level, ambient air quality and vibration under POT-1/LOT-02 sub-project

81. Environmental quality measurements of noise level, ambient air quality and vibration under POT-1/LOT-02 sub-project was conducted by the LLC BBE Scientific Research Laboratory on 10 October 2023 (See Annex A). The distance from the construction sites to the nearest residential houses was about 50 m.

82. The above mentioned monitoring was carried out at one location under the POT-01/LOT-02 sub-project. Directly during the monitoring, the work process was actively underway, all equipment was in working condition. Therefore, the monitoring results represent a real, complete picture of the impact of the implemented activities on the environment.

83. During the monitoring process, the air quality was measured according to the following parameters: the concentration of PM 10, PM 2.5, NO2, SO2, and CO in the air was determined. Each instrument used was calibrated, cleaned and pre-tested for field work.

84. Results of the ambient air monitoring under POT-01/LOT-02 sub-project is presented in the table below.

Table 21: Dust Particles (µg/m3); Carbon Monoxide (CO); Nitrogen Oxides (NO_2) and SulfurOxides (SO_2) monitoring results (PPM)

Parameters	Minimum	Maximum	Average value of measurements
PM 10	0.008	0.021	0.014
PM 2.5	0.003	0.010	0.006
CO	1.5	1.7	1.6
NO_2	0.019	0.026	0.021
SO_2	0.0	0.0	0.0

85. According to the results of the air quality monitoring conducted on 10 October 2023 the quality of air pollution does not exceed the permissible norms and therefore no additional actions are required.

Noise

86. Noise levels were measured at 1 location under POT-01/LOT-02 sub-project. The purpose of noise level monitoring is to determine what impact the workflow has on residents.

Table 22: Noise, Monitoring Results access road to the second camp

Different Parameters of NoiseLevel	Result (dB)
LAF_{max}	79.4
LAF_{min}	58.5
LAF_{av}	68.5

87. According to data received in 10 October 2023, under **POT-01/LOT-02 sub-project** noise level of 79.4 dBA exceeded the standards of the National Regulations and World Health Organization (IFC/WHO), which is 70dBA (Industrial; commercial) for a very short period of time. The nearest residential house was located approximately 50m from the construction site and therefore appropriate noise abatement measures were immediately taken, resulting in noise levels returning to normal levels. IFC/WHO and national standards for Noise are presented in the Tables 13 above. It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 13:00 pm to 15:15 pm and no complaints were received from the local population about the noise during the reporting period.

Environmental quality measurements of noise level, ambient air quality and vibration under POT-1/LOT-03 sub-project

88. Environmental quality measurements of noise level, ambient air quality and vibration under POT-1/LOT-03 sub-project was conducted by the LLC BBE Scientific Research Laboratory on 10 October 2023 (See Annex A). The distance from the construction sites to the nearest residential houses was about 45 m. The next monitoring measurements will be conducted in March 2023 and results will be reflected in the FINAL EMR, April 2024.

89. The above mentioned monitoring was carried out at one location under the POT-01/LOT-03 sub-project. Directly during the monitoring, the work process was actively underway, all equipment was in working condition. Therefore, the monitoring results represent a real, complete picture of the impact of the implemented activities on the environment.

90. During the monitoring process, the air quality was measured according to the following parameters: the concentration of PM 10, PM 2.5, NO2, SO2, and CO in the air was determined. Each instrument used was calibrated, cleaned and pre-tested for field work. Results of the ambient air monitoring under POT-01/LOT-03 sub-project is presented in the table below.

Table 23: Dust Particles (µg/m3); Carbon Monoxide (CO); Nitrogen Oxides (NO_2) and SulfurOxides (SO_2) monitoring results (PPM)

Parameters	Minimum	Maximum	Average value of measurements
PM 10	0.006	0.010	0.008
PM 2.5	0.002	0.003	0.003
CO	4.9	5.1	5.0
NO_2	0.0	0.0	0.0
SO_2	0.0	0.0	0.0

91. According to the results of the air quality monitoring conducted on 10 October 2023 the quality of air pollution does not exceed the permissible norms and therefore no additional actions are required.

Noise

92. Noise levels were measured at 1 location under POT-01/LOT-02 sub-project. The purpose of noise level monitoring is to determine what impact the workflow has on residents.

Table 24: Noise, Monitoring Results access road to the second camp

Different Parameters of NoiseLevel	Result (dB)
LAF_{max}	86.0
LAF_{min}	68.0
LAF_{av}	77.0

93. According to data received in 10 October 2023, under **POT-01/LOT-03 sub-project** noise level of 86.0 dBA exceeded the standards of the National Regulations and World Health Organization (IFC/WHO), which is 70dBA (Industrial; commercial) for a very short period of time. The nearest residential house was located approximately 45m from the construction site and therefore appropriate noise abatement measures were immediately taken, resulting in noise levels returning to normal levels. IFC/WHO and national standards for Noise are presented in the Tables 13 above. It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 14:15 to 16:15 pm and no complaints were received from the local population about the noise during the reporting period.

Measurement devices unit and validity of calibration

Air

94. For air monitoring, BBE team used 4 different sensors of Aeroqual Series 500 (PM10/PM2.5, CO, NOx, SOx).

95. The Series 500 Portable Air Quality Monitor is a handheld portable monitor used to measure up to 30 pollutants using the unique sensor head format. Sensors are housed within an interchangeable cartridge (“head”) that attaches to the monitor base. The head can be removed and replaced in seconds, allowing users to measure as many gases as they wish. Sensor heads feature active fan sampling which ensures a representative sample is taken, increasing measurement accuracy.

96. A long-life lithium battery and in-field zero and span calibration make this an easy-to-use device. Monitor ID identifies the monitor uniquely and ensures that all data from it are tied to that monitor. Location ID can be used to tag measurements to a specific location – helpful when sampling at multiple sites over the course of a day or week.

Figure 1: Air Quality Measuring Instrument Aeroqual Series 500

Noise

97. The noise monitoring spot was chosen so it could fully show the impact of construction processes on the population. Noise was monitored for an hour. BBE team used REED instruments 9300 to determine the noise level.

98. The sound level meter consists of a calibrated microphone, electronic circuits, and a display. The microphone detects small air pressure variations associated with sound and converts them into electrical signals. The aforementioned signals are then processed using the instrument's electronic circuitry. The display shows the sound level in decibels.

99. The sound level meter acquires the sound pressure level at a particular location. A sound level meter is used for acoustic measurements. It is a hand-held instrument with a microphone.

Figure 2: Noise level is determined by the REED INSTRUMENTS 9300 model adapter

100. Vibration level is determined by the REED instruments SD-8205 model adapter.

101. Vibration analysis is a process that monitors vibration levels and investigates the patterns in vibration signals. It is commonly conducted both on the time waveforms of the vibration signal directly, as well as on the frequency spectrum, which is obtained by applying Fourier Transform on the time waveform.

Figure 3: REED instruments SD-8205 model adapter

4.2 Trends

102. During the reporting period CCs were required to follow all mitigation measures identified in relevant IEE/EMP and SEMPs within the framework of the GUD-02 and JVA-01 and POT-01 sub-projects.

4.3 Summary of Monitoring Outcomes

103. According to the data received on October 10th 2023 under POT-01/LOT-01 and POT-01/LOT-02 sub-projects the noise level exceeds the standards of the National Regulations and World Health Organization (IFC/WHO) 1999, and therefore additional mitigation measures such as installation of noise barriers (e.g., panels, curtains, or partitions) will be implemented by CC. This mitigation measures are presented in Table 30 below. All other parameters are within acceptable limits.

4.4 Waste Management

4.5.1 Current Period

104. Due At the construction sites of GUD-02 sub-project, there are mainly produced household, construction (inert, surplus soil) and hazardous waste. Mainly household waste is collected in municipal containers which are served by the local cleaning services of the local Municipalities.

105. Hazardous waste is removed from the area on the basis of agreements concluded by contractors with certified companies under GUD-02 sub-project after the start of civil works.

106. There is need of routine organization and cleaning of sites. Contractors always have separate containers for household and hazardous waste with proper labeling at the construction site.

107. The construction waste that is allocated at the construction site is removed for its final disposal that is managed by formal agreement with local municipality.

108. Waste generated under the GUD-02 sub-project during the reporting period, July-December 2023 is presented in the Table 25 below.

109. Construction Contractor for JVA-01-01 and GUD-02 projects have developed a waste management plan and agreed with the MoEPA in April 2021. The Contractor has signed an agreement with the local Municipalities of Gudauri and Jvari regarding provision of the

waste containers, collection and transportation of household waste. In addition to that the contractor has signed an agreement with the licensed companies for collection, transportation and treatment of the hazardous waste. Temporary hazardous waste storage area has been arranged at the construction sites. Different types of hazardous waste are kept in the restricted area (fenced on impervious base with roof) before transporting by the licensed waste transportation/treatment company. Information regarding the generation of waste during reporting period is given in the Table below:

Table 25: Waste generated under the GUD-02 sub-project during the reporting period, July-December 2023

#	Domestic, hazardous Waste & Sewage	Estimated Volume	Storage Area	Licensed Company
1	Household waste	0.5m^3	WWTP construction sites,	Gudauri Municipality
4	Hydraulic and used oil	5liter	Temporary waste storage area at the Workshop	Medical Technology LLC

110. Waste generated under the JVA-01 sub-project during the reporting period, July-December 2023 is presented in the Table below.

Table 26: Waste generated under the JVA-01 sub-project during the reporting period, July-December 2023

#	Domestic, hazardous Waste & Sewage	Estimated Volume	Storage Area	Licensed Company
1	Household waste	2m^3	WWTP construction sites,	Zugdidi Municipality
3	Hydraulic and used oil	7liter	Temporary waste storage area at the	Medical Technology LLC

4.5.2 Cumulative Waste Generation

111. Cumulative waste generation under the GUD-02 sub-project of whole project life is provided in the Table below.

Table 27: Cumulative Waste generated under the GUD-02 sub-project

January-June 2023			
1	Household waste	1	m^3
2	Sewage water	0,5	m^3
3	Hydraulic and used oil	6	L
4	Printer tonner	0,5	Kg.
July-December 2022			
1	Household waste	3	m^3
2	Sewage water	1	m^3
3	Hydraulic and used oil	10	L
4	Printer tonner	1	Kg.
January-June 2022			
1	Household waste	1	m^3
2	Sewage water	0,5	m^3
3	Hydraulic and used oil	6	L
4	Printer tonner	0,5	Kg.
July-December 2021			
1	Household waste	3	m^3
2	Sewage water	2	m^3
3	Hydraulic and used oil	8	L
4	Printer tonner	1	Kg.
January-June 2021			
1	Household waste	1	m^3
2	Sewage water	2	m^3

3	Hydraulic and used oil	7	L
4	Printer tonner	1	Kg.
July-December 2020			
1	Household waste	1,5	m^3
2	Sewage water	3	m^3
3	Hydraulic and used oil	6	L
4	Printer tonner	2	Kg.
January-June 2020			
1	Household waste	O,5	m^3
2	Sewage water	1	m^3
3	Hydraulic and used oil	9	L
4	Printer tonner	1	Kg.
July-December 2019			
1	Household waste	1	m^3
2	Sewage water	3	m^3
3	Hydraulic and used oil	7	L
4	Printer tonner	1	Kg.
January-June 2019			
1	Household waste	0,5	m^3
2	Sewage water	1	m^3
3	Hydraulic and used oil	5	L
4	Printer tonner	1	Kg.
July-December 2023			
1	Household waste	0,5	m^3
3	Hydraulic and used oil	5	L
Total			
1	Household waste	13	m^3
2	Sewage water	14	m^3
3	Hydraulic and used oil	71	L

4	Printer tonner	9	Kg.

112. Cumulative waste generation under the JVA-01 sub-project from January 2022 to December 2023 is provided in the Table below.

Table 28: Cumulative Waste generated under the JVARI-01 sub-project

January-June 2023		
Household waste	2	m^3
Used tires	1	m^3
Hydraulic and used oil	6	L
Printer tonner	0,7	Kg.
July-December 2022		
Household waste	1,5	m^3
Sewage water	0,5	m^3
Hydraulic and used oil	5	L
Printer tonner	0,3	Kg.
January-June 2022		
Household waste	3	m^3
Sewage water	0,7	m^3
Hydraulic and used oil	3	m^3
Printer tonner	0,4	Kg.
July-December 2023		
Household waste	2	m^3
Hydraulic and used oil	7	m^3
Total January 2022 – December 2023		
Household waste	8,5	m^3
Sewage water	2,2	m^3
Hydraulic and used oil	22	L
Printer tonner	1,4	Kg.

4.5 Health and Safety

113. The EHS specialists, Mr. Aleksandre Mchedlishvili under GUD-02 and Mr. Vakhtang Burchuladze POT-01 and Mr. Gia Khulordava under JVA-01 sub-project were available on their respective sites and their responsibilities include: maintaining safety and protection against HS accidents; provide H&S training including daily toolbox training sessions at each work site; approve H&S Plans for specific work activities; conduct routine site inspections and issue internal stop notices, if necessary, for unsafe activities; maintain H&S statistics log books for near misses, as well as incidents; and provide H&S input to Contractor reports.

4.5.1 Community Health and Safety

114. No workers incidents have been reported during reporting period under JVA-01, GUD-02 and POT-01 sub-projects.

4.6 Training and Public Awareness

115. Routine personnel on-job trainings and toolbox talks happen by the construction companies almost on daily basis under POT-01, JVA-01 and GUD-02 sub-projects. Environmental Specialist of SC Mr. Shalva Bosikashvili and Environmental Specialist of USIIP Ms. Kate Chomakhidze also provided verbal instructions and on-job training for Construction Company's Environmental and H&S officers on 10-15 August 2023 and 3-5 November 2023. The above trainings were conducted to ensure that contractors understand their responsibilities for the implementation of the IEE/EMP, and to mitigate environmental issues associated with their construction activities.

5. FUNCTIONING OF THE SEMP

5.1 SEMP Review

116. During the reporting period, three separate SEMPs were prepared under POT-01 sub-project for - LOT-01, LOT-02 and LOT-03 in February 2023. All SEMPs were reviewed and commented on by the SC and USIIP/ES.

117. All other SSEMPs under USIIP/T4, such as ZUG-01, POT-01, POT-02, JVA-01 and GUD-02 sub-projects were prepared by Contractor, endorsed by SC and approved by UWSCG and reviewed/commented by the ADB.

118. SEMPs prepared by contractors, within the framework of ZUG-01, POT-01, POT-02 and JVA-01sub-projects during the current and previous reporting periods are presented in table 29 below.

Table 29: SSEMPs Prepared under ZUG-01, POT-01, POT-02 and JVA-01 Sub-projects are given in the table below

No	Project/Site	Date of Approval
1	ZUG-01 – Ingiri Well fields and Pumping Station	March 2016
2	ZUG-01 – Bashi Reservoir	January 2016
3	Jvari-01 - Lia Well Fields	July 2018
4	[1]Pot-02 - Poti WWTP	31 May 2018
5	Pot-02 - Poti WWTP	Updated in August 2020
6	GUD-02 – Construction of Reservoir and well fields	September 2019
7	GUD-02 – Construction of water supply and sewerage network	September 2019
8.	POT-01/LOT-01, POT-01/LOT-02 and POT-01/LOT-03, Construction of Sewerage System in Poti	February 2023

119. All of the SSEMPs listed above are effective, mitigation measures are still relevant, no changes are required.

[1] Initial SEMP for POT-02 sub-project was prepared in May 2018 and further updated in August 2020 due to the design changes identified in VO#2, including construction of an emergency bypass for a new WWTP of Poti.

6. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.1 Good Practice

121. During the reporting period, close monitoring, guidance and communication between the DEPP, IPMO, consultant supervision team and contractors were carried out, as suggested during the previous EMR, January-June 2023, to avoid non-compliances and improve the situation on construction sites within the GUD-02, POT-01 and JVARI-01 sub-projects.

6.2 Opportunities for Improvement

122. During the next reporting period the tracking of actions to address non-conformances will be improved by PIU up to 100% out of current 95%.

7. SUMMARY AND RECOMMENDATIONS

7.1 Summary

123. During the reporting period Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis.

124. A total of 11 site visits have been conducted at different times during reported period (July-December 2023) under USIIP/T4 - JVA-01, GUD-02 and POT-01 sub-projects and included the monitoring of compliance of construction activities under JVA-01, GUD-02 and POT-01 sub-projects to the IEE/EMPs, SEMPs requirements.

125. During the above 11 site visits under JVA-01, GUD-02 and POT-01 sub-projects, 64 EHS non-compliances were identified. Contractor developed Corrective Action Plans within the identified deadlines and sent improved photos of sites to SC and USIIP.

126. A summary of the status of the monitoring visits, including dates of site visits, photographs, persons involved in site visits, etc., is shown in Table 8 above. During the reporting period, onsite training workshop and a meeting with representatives of the Contractors and the Supervision Consultant were held.

127. According to data received in 10 October 2023, under POT-01/LOT-01 sub-project noise level of 85.6 dBA exceeded the standards of the National Regulations and World Health Organization (IFC/WHO), which is 70dBA (Industrial; commercial). The nearest residential house was located approximately 50m from the construction site and therefore additional mitigation measures were required and are presented in the table 30 below.

128. According to data received in 10 October 2023, under POT-01/LOT-02 sub-project noise level of 79.4 dBA also exceeded the standards of the National Regulations and World Health Organization (IFC/WHO), which is 70dBA (Industrial; commercial). The nearest residential house was located approximately 50m from the construction site and therefore additional mitigation measures were required and are presented in the table 30 below. All other parameters are within acceptable limits.

129. According to data received in 10 October 2023, under POT-01/LOT-03 sub-project noise level of 86 dBA also exceeded the standards of the National Regulations and World Health Organization (IFC/WHO), which is 70dBA (Industrial; commercial). The nearest residential house was located approximately 45m from the construction site and therefore additional mitigation measures were required and are presented in the table 30 below. All other parameters are within acceptable limits.

130. Environmental Monitoring Specialist of SC/Safege, Mr. Shalva Bosikashvili conducted monitoring of project sites under T4 and developed Non-Conformance Notices were required. He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submitted to UWSCG.

131. Environmental Specialist of USIIP Ms. Kate Chomakhidze performed monitoring of contractor's performance in accordance with the requirements of approved IEE/EMPs, SEMPs, and other environmental commitments of the contractor. USIIP/ES developed

Semi-annual Environmental Monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.

7.2 Recommendations

132. During the reporting period, July-December 2023, the USIIP/T4 of Investment Program was implemented in accordance with the requirements of ADB - SPS 2009 and the National Legislation.

133. More detailed recommendations for the implementation of T4 during the next months until the end of march 2023 are provided in the Table 30 below:

Table 30: Recommendations to Address Environmental Issues under POT-01 and JVARI-01 sub-project.

Recommendations POT-01 and JVARI-01 sub-projects	
Recommendations	**Implementation status and date**
POT-01/LOT-01/LOT-02	
Noise from the construction activities should not cause disruption and nuisance to nearby community, Especially when sensitive receptors - residential houses are located 50m-60m away from construction sites.	Instructions are given to contractor to improve the situation and to conduct following mitigation measures by the end of January 2024 Plan activities in consultation with SC and IPMO/UWSCG so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance Noisy construction activities will be avoided during night time All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions Impose speed limits on construction vehicles to minimize emissions along areas where sensitive

Recommendations POT-01 and JVARI-01 sub-projects	
	receptors are located (i.e. temples, hospitals, schools, houses) Install noise barriers (e.g., panels, curtains, or partitions) to reduce the emission of engine noise Conduct meetings with population and provide information related to schedule of construction activities and noise caused by the project activities.
Walls of the deep trenches (>1.5m) should be strengthened by adequate and sufficient quantity of boards to avoid landfall of the soil and accidents (workers damage)	Will be completed by the end of January 2024
All construction site/segment must have adequate access, stairs or other facilities, in order not to endanger the workers	Will be completed by the end of January 2024
JVARI-01	
Proper reinstatement activities should be implemented by contractor after the completion of construction works	Will be completed by the end of March 2024

134. Post-Construction Environmental Audit report will be prepared under JVARI-01 sub-project in February 2023.

135. Post-Construction Environmental Audit report will be prepared under GUD-02 sub-project in March 2023.

136. Both Post-construction Audit reports will be submitted and approved by UWSCG and its USIIP Environmental Specialist.

137. Conduct monitoring of Environmental quality measurements of Ambient Noise and Air quality under POT-01 (LOT-01, LOT-02 and LOT-03) sub-project at the nearest sensitive receptors (residential buildings at a distance of about 50 m) in March 2024.

Table 31: The Specific Plan for Environmental Measurement under POT-01 sub-project

Parameters	Quarterly measurement
Dust	March 2024
Vibration	March 2024
Carbon monoxide	March 2024
Nitrogen dioxide	March 2024
Sulfur dioxide	March 2024
Noise	March 2024

Annexes

ANNEX A: ENVIRONEMNTAL MONITORING DATA of NOISE and AMBIENT AIR QUALITY POT-01/LOT-01, 10 OCTOBER 2023

[JSC BUILDING CONSTRUCTION AND TRADE FIRM ECRTAS GEORGIAN BRANCH]-

[JSC BUILDING CONSTRUCTION AND TRADE FIRM ECRTAS GEORGIAN BRANCH]-
Physical Parameters Report -
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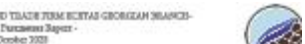


[JSC BUILDING CONSTRUCTION AND TRADE FIRM ECRTAS GEORGIAN BRANCH]-
Physical Parameters Report -
October 2023

2. Air Quality Monitoring

Ambient air monitoring is an integral part of an effective air quality management system. The purpose of air quality monitoring is to study if an area has an air pollution problem and how construction works affect the air quality, which can lead to negative impacts on the environment, working personnel and the local population in close proximity of the works. Monitoring helps in assessing the level of pollution in relation to the ambient air quality standards.

Table 2.1 Dust Particles, Carbon Monoxide (CO), Nitrogen Oxides (NOx) and Sulfur Oxides (SOx) Concentration Permissible Limits

Parameter	Time Interval	Maximum Permissible Concentration µg/m³	National limit for Human Rights of Health –MPC, µg/m³	IFC/WHO (updated 2018) –guideline value, µg/m³	EU Air Quality Standards, Permitted Exceedances Per Year µg/m³
PM 2.5	1 hr	35		25	
	1 year	10	12-17	10	25 / n/a
PM 10	1 hr	50		50	
	24 hrs	50	25-35		50 / 35
	1 year	20	20-28	20	40 / n/a
CO	8 hour mean	10	5-7		1000
NOx	1 hour	200	35-140	200	200 / 18
	1 year	40	26-32	40	40 / n/a
SOx	1 hour	350	250	500	350 / 3
	24 hrs	125	5	20	125 / 24
	1 year	500			

In order to evaluate dust particle concentration in the air, the team used Aeroqual Series 500, which includes PM10, PM2.5 sensors. The specific sensor is calibrated and tested for its accuracy and precision. CO concentration was also evaluated using Aeroqual series 500, with specific CO sensor, which is also calibrated and tested.

[JSC BUILDING CONSTRUCTION AND TRADE FIRM ECRTAS GEORGIAN BRANCH]-
Physical Parameters Report -
October 2023

2.1 Air Monitoring Point -AAS #1

During the monitoring process, all devices were included and the work process was running at full load.

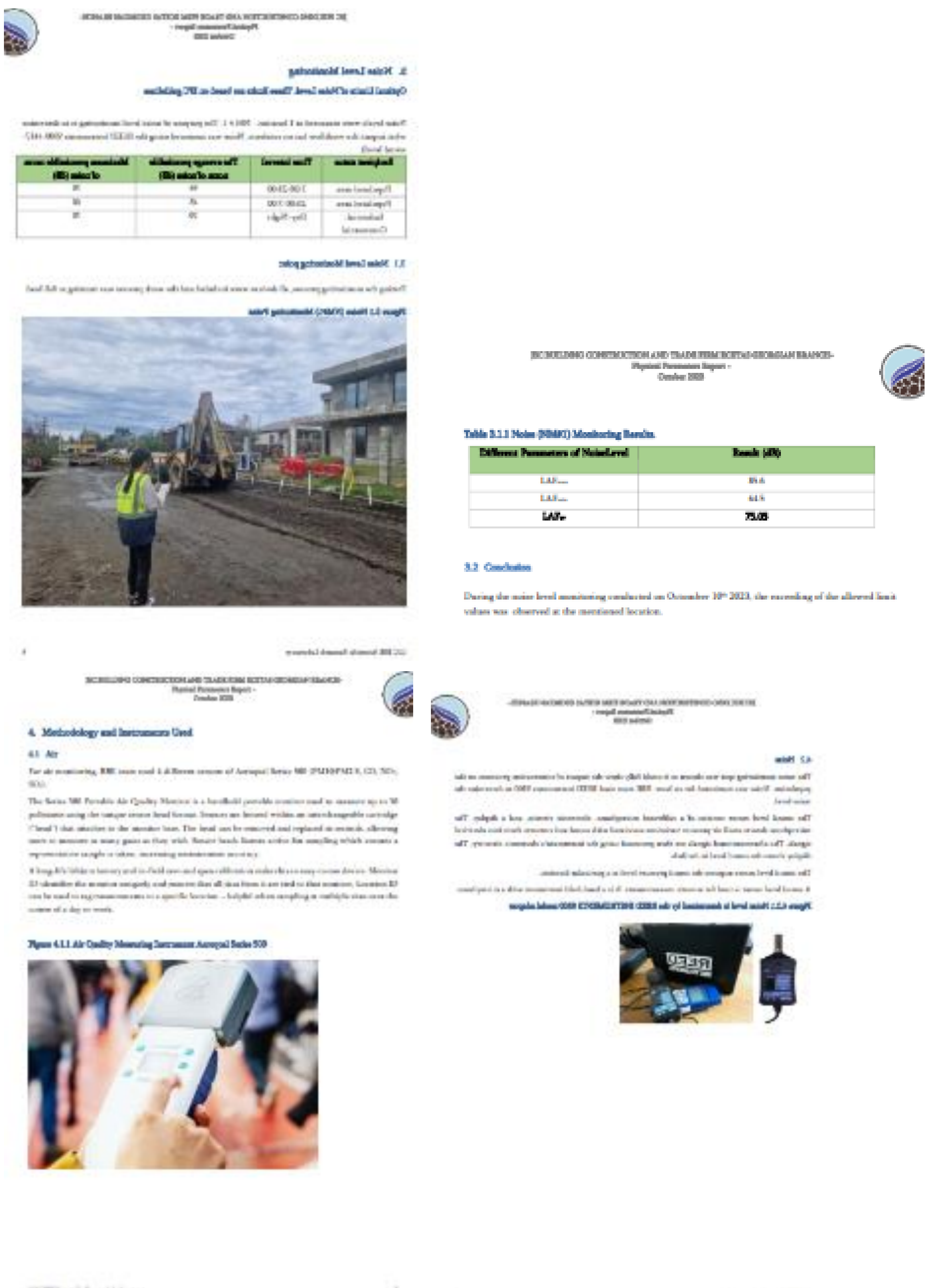
Figure2.1 Air Quality Monitoring point (AAS- #1)

Table 2.1.1 #AAS-#1 Dust Particles (µg/m3); Carbon Monoxide (CO); Nitrogen Oxides (NOx) and Sulfur Oxides (SOx) monitoring results (PPM)

Parameters	Minimum	Maximum	Average value of measurements	Methods used
PM 10	0.009	0.016	0.012	Aeroqual SERIES500 - PM Sensor
PM 2.5	0.003	0.005	0.004	Aeroqual SERIES500 - PM Sensor
CO	1.4	1.5	1.5	Aeroqual SERIES500 - CO Sensor
NOx	0.0	0.0	0.0	Aeroqual SERIES500 - NOx Sensor
SOx	0.0	0.0	0.0	Aeroqual SERIES500 - SOx Sensor

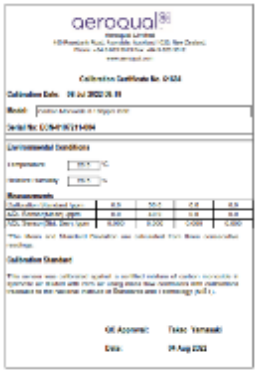
2.2 Conclusion

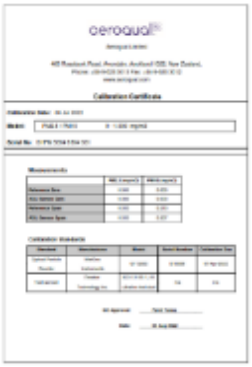
According to the results of the air quality monitoring conducted on October 10th 2023, which was carried out with the Aeroqual 500 Series- monitor at the mentioned location, according to the above-mentioned standards, the quality of air pollution does not exceed the permissible norms.



5. Measurement Reports

6. Annex I –Calibration Certificates





ENVIRONEMNTAL MONITORING DATA of NOISE and AMBIENT AIR QUALITY POT-01/LOT-02, 10 OCTOBER 2023

LLC BIS Scientific Research Laboratory

MBD Insaat Sanayi ve Ticaret Anonim Sirketi
Branch
Physical Parameters Report - 2023

Georgia, Tbilisi, Vaja-Pshavela Avenue, Quarter III, Building №7
Tel: 555 11 50 50
Email: bbslab2019@gmail.com
Website: www.bbs.ge
Director: Tedeli Ravshidelli

October 2023

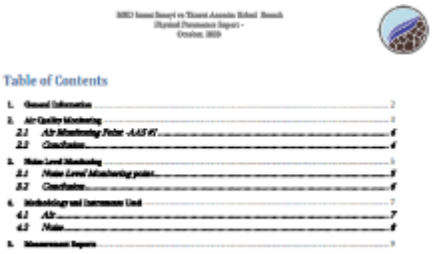
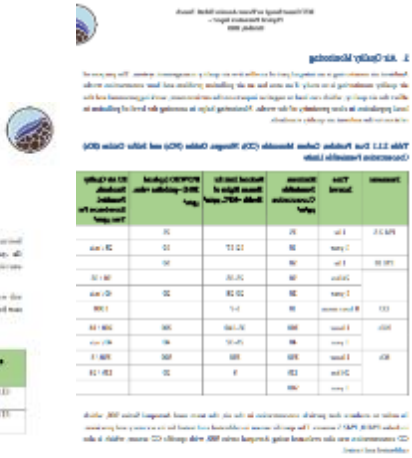


Table of Contents



1. General Information

Project number: 030823

Date of the monitoring: 30.10.2023

Monitoring of physical parameters was carried out in October. The monitored monitoring was carried out at one location. Directly during the monitoring the work process was entirely underway, all equipment was in working condition. Therefore, the monitoring results represent a real, complete picture of the impact of the implemented activities on the environment.

During the monitoring process, the air quality was measured according to the following parameters: the concentration of PM10, PM2.5, NOx, SOx and CO in the air was determined. Each instrument used was calibrated, cleaned and prepared for field work.

Table 1.1 GPS coordinates of the monitoring points

#	Monitoring Point Reference	Type Of Monitoring	N	W	Time
1	Lot 3#2 MBD Insaat	Noise	41.6618°N	42.6476°E	11:11:11
2	Lot 3#2 MBD Insaat	Air Quality	41.6618°N	42.6476°E	11:11:11

3.1 Air Monitoring Point -AAS-#1

3. Noise Level Monitoring

3.1 Noise Level Monitoring point

MBD Insaat Sanayi ve Ticaret Anonim Sirketi Branch
Physical Parameters Report -
October, 2023

Table 3.1.1 Noise (NM#1) Monitoring Results access road to the second camp

Different Parameters of NoiseLevel	Result (dB)
LAF_{max}	79.4
LAF_{min}	58.5
LAF_{eq}	**68.5**

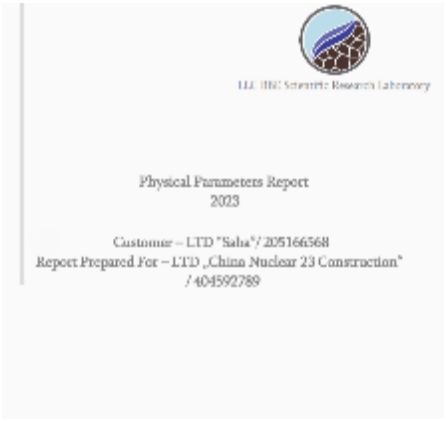
3.2 Conclusion

During the noise level monitoring conducted on October 10th 2023, the exceeding of the allowed limit values was not observed at the mentioned location.

Parameter	Minimum	Maximum	Average value of measurement	Method used
PM 10	[illegible]	[illegible]	[illegible]	[illegible]
PM 2.5	[illegible]	[illegible]	[illegible]	[illegible]
CO	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

4. Annex 1 – Calibration Certificates

ENVIRONEMNTAL MONITORING DATA of NOISE and AMBIENT AIR QUALITY POT-01/LOT-03, 25 April 2023



LLC "BBC Scientific Research Laboratory"

Physical Parameters Report
2023

Customer – LTD "Saha"/ 205166568
Report Prepared For – LTD „China Nuclear 23 Construction"
/ 404592789

Georgia, Tbilisi, Vaja-Pshavela Avenue, Quarter III, Building N7
Tel: 593 11 90 10
Email: bbclab2019@gmail.com
Website: www.bbc.ge
Director: Irakli Ramishvili

October 2023

Physical Parameters Report
October, 2023

Table of Contents

Physical Parameters Report
October, 2023

2. Air Quality Monitoring

Ambient air monitoring is an integral part of an effective air quality management system. The purpose of air quality monitoring is to study if an area has an air pollution problem and how construction works affect the air quality, which can lead to negative impacts on the environment, working personnel and the local population in close proximity of the works. Monitoring helps in assessing the level of pollution in relation to the ambient air quality standards.

Table 2.1.1 Dust Particles, Carbon Monoxide (CO), Nitrogen Oxides (NOx) and Sulfur Oxides (SOx) Concentration Permissible Limits

Parameter	Time Interval	Maximum Permissible Concentration µg/m³	National limit for Human Rights of Health –MPC, µg/m³	EC/WHO (updated 2018) –guideline value, µg/m³	EU Air Quality Standards, Permitted Exceedance Per Year µg/m³
PM2.5	1 hr	25		25	
	1 year	10	12-17	10	25 / wh
PM 10	1 hr	50		50	
	24 hrs	50	25-35		50 / 35
	1 year	20	20-28	20	40 / wh
CO	8 hour mean	10	5-7		10.0
NOx	1 hour	200	85-108	200	200 / 18
	1 year	40	26-32	40	40 / wh
SOx	1 hour	350	350	500	350 / 3
	24 hrs	125	5	20	125 / 24
	1 year	500			

In order to evaluate dust particle concentrations in the air, the tests used Aeroqual Series 500, which includes PM10, PM2.5 sensors. The specific sensor is calibrated and tested for its accuracy and precision. CO concentrations was also evaluated using Aeroqual series 500, with specific CO sensor, which is also calibrated and tested.

Physical Parameters Report
October, 2023

1. General Information

Project number: 230329

Date of the monitoring: 12.10.2023

Monitoring of physical parameters was carried out in April. The mentioned monitoring was carried out at one location. Directly during the monitoring, the work process was actively underway, all equipment was in working condition.

Therefore, the monitoring results represent a real, complete picture of the impact of the implemented activities on the environment.

During the monitoring process, the air quality was measured according to the following parameters: the concentration of PM 10, PM 2.5, NOx, SOx, and CO in the air was determined.

Each instrument used was calibrated, cleaned and pre-tested for field work.

Table 1.1 GPS coordinates of the monitoring points

#	Monitoring Point Reference	Type Of Monitoring	E	N	Date
1	Lot 3#3 China nuclear 23 construction	Noise	41.686.653	42.1.10.2023	10.10.23
2	Lot 3#3 China nuclear 23 construction	Air Quality	41.686.653	42.1.10.2023	10.10.23

6. Annex 1 –Calibration Certificates

ANNEX B: PHOTOS OF POT-01/LOT-01/LOT-02/LOT-03, JVA-01, GUD-02 SUB-PROJECTS

Construction of Sewerage System in Poti – POT-01

Construction of CAMP

Construction of POT-01/LOT-01/LOT-02

Construction of POT-01/LOT-01/LOT-02

Construction of POT-01/LOT-03

JVA-01 - Construction of Jvari Well Fields Reservoir

JVA-01 - Construction of Jvari Reservoir

ANNEX C: NON-COMPLIANCE NOTICE, POT-01-LOT-02, 28 SEPTEMBER 2023

SAFEGE

28th September 2023

TO: MBD INSAAT

Attn. Mehmet Balcık

Contractor's Representative

Our Ref.: POTI 01-LOT 2- 098/OUT -VH

Contract: USIIP/T4/CW/2021/L2/POTI-01

Subject: Construction of Poti Sewerage Systems – Non-Compliance Notice- 25.09.2023

Dear Sir,

Please find attached non-compliance notice for Lot 2.

For the Engineer

Victor Hraska
Team Leader

SAFEGE

Engineering Solutions

Urban Services Improvement Investment Project - Georgia

Date: 25/09/2023

Page 1 of 2

Non-Compliance Notice

Project: Urban Services Improvement Investment Program, Georgia	Non-compliance Notice Poti
Contract No: USIIP/T4/CW/2021/L2/POTI-01	
Contractor: [illegible]	
Reference: Construction of Sewerage System in Poti, LOT 2	

This notice is to advise you, the prime Contractor, on the [illegible] of the following [illegible] Social Safeguard measures to be implemented urgently.

Gabunia Street

Drainage channel maintenance: The drainage channel on the site is filled with excavated material and needs to be cleaned, also drainage channel is damaged and needs reinstatement.

[illegible] Street

Informational Banner: Currently, there is no informational banner on the site. Please ensure that a banner is installed as soon as possible to provide necessary information and increase awareness of the ongoing construction work.

Cleanliness: Maintain the site and storage area in a clean and organized manner. Security: Implement adequate security measures to prevent theft or vandalism of the stored materials.

Site organization and material storage: It is important to ensure that materials are stored in a safe and orderly manner, and that they do not pose a risk to workers or the public. This includes ensuring that hazardous materials are properly labeled and stored, and that there is adequate space for workers to move around the site safely. Additionally, all material on site should be properly fenced and clearly marked to avoid any confusion. Proper fencing and marking will ensure the safety of workers and prevent any unauthorized access to the site.

Blocking entrances with material: This refers to the practice of using construction materials or equipment to block entrances to private properties, roads, or public areas. Make sure that all entrances and sidewalks are free from construction material.

Proper safety fencing: Installing proper safety fencing around the trenches are missing.

Drainage channel maintenance: The drainage channel on the site is filled with excavated material and needs to be cleaned, also drainage channel is damaged and needs reinstatement.

[illegible] and [illegible] streets

Informational Banner: Currently, there is no informational banner on the site. Please ensure that a banner is installed as soon as possible to provide necessary information and increase awareness of the ongoing construction work.

Cleanliness: Maintain the site and storage area in a clean and organized manner. Security: Implement adequate security measures to prevent theft or vandalism of the stored materials.

Site organization and material storage: It is important to ensure that materials are stored in a safe and orderly manner, and that they do not pose a risk to workers or the public. This includes ensuring that hazardous materials are properly labeled and stored, and that there is adequate space for workers to move around the site safely. Additionally, all material on site should be properly fenced and clearly marked to avoid any confusion. Proper fencing and marking will ensure the safety of workers and prevent any unauthorized access to the site.

Blocking entrances with material: This refers to the practice of using construction materials or equipment to block entrances to private properties, roads, or public areas. Make sure that all entrances and sidewalks are free from construction material.

Proper safety fencing: Installing proper safety fencing around the trenches are missing.

Photos of Gabunia street

Photos of Arsana Street






Photos Pakhadze and Shevchenko streets






All these conditions have to be remedied within 10 days (by the 09.10.2023) by the MBD İnşaat Sanayi ve Ticaret a.s.(Turkey)

Date of site visits 25.09.2023	
Elene Aladashvili Social Safeguard Specialist	

NON-COMPLIANCE NOTICE, POT-01-LOT-02, 29 SEPTEMBER 2023

SAFEGE
Ingénierie Conseil

29th September 2023

TO: MBD INSAAT

Attn. Mehmet Bakcak

Contractor's Representative

Our Ref.: POTI 01-LOT 2- 099/OUT -VII

Contract: USIP/T4/CW/2022/L2/POTI-01

Subject: Construction of Poti Sewerage Systems –
Non-Compliance Notice- 25.09.2023

Dear Sir,

Please find attached the Non-Compliance Notice regarding Construction of Poti Sewerage System – LOT 02.

You are notified to take immediate measures for remedial of the situation and ensure normal working conditions on site.

For the Engineer

Victor Hruska
Team Leader

Urban Services Improvement Investment Program (Project 4) ADB

SAFEGE–with Engineering Solutions LLC as sub-consultant – ADD ADDRESS
SAFEGE Europe & Africa – Gulledelle 92, 1200 Brussels, BELGIUM – Tel. +32 2 739 40 90 – Fax: +32 2 742 28 91
VAT N° (BE) 0467 305 480 RPR Brussels – Bank: KBC – IBAN: BE 46 6771 0918 8171 – BIC: KREDBEBB
SAFEGE Headquarters – 15/17 rue du Port, Parc de l'Ile, 92000 Nanterre, FRANCE
Tel: +33 1 46 14 71 00 – Fax: +33 1 47 24 72 02 – Web: www.safege.com

ICNet

Non-Compliance Notice

Project: Construction Supervision (under USIP, Tranche 4 Projects), UWSCO/USIP/CQCBS/02-2024	**Non-compliance Notice Poti 01**
Contract No: P43405-ICB-POT-01	
Contractor: MBD	
Reference:	

This notice is to advise the prime Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented **urgently**.

GENERAL COMMENT FOR ALL SITES:

Site internally should be arranged properly and cleaned regularly. All construction materials and wastes should be properly segregated and stored adequately. On spill response kits should be placed at the appropriate locations. Refueling station should be equipped with the spill kit and fire relevant fighting equipment, drip tray should be used for fuel spillage prevention. Relevant traffic signs and flagmen should control traffic movement properly. PPE wearing is obligatory at the construction site.

NON-COMPLIANCE IN POTI 01

WWTP Poti 01 LOT2

- Open trench without warning signs and barriers
- Unacceptable housekeeping

Open trench without warning signs and barriers

Unacceptable housekeeping

All these conditions have to be remedied within 10 days by the prime Contractor [redacted]	
Date of site visit: 23.09.2023	
Status: Bookashott - Environmental specialist - "SAFEGE"	
Safeguard Characteristics - Environmental specialist "SAFEGE"	

NON-COMPLIANCE NOTICE, POT-01-LOT-03, 29 SEPTEMBER 2023

SAFEGE
Ingénieurs Conseils
Engineering Solutions

29th September 2023

TO: China Nuclear Industry
23 Construction CO., LTD

Attn. DU XIAODU
Project Manager

Our Ref.: POTI 01-LOT 3- 104/OUT -VH

Contract: USIIP/T4/CW/2022/L3/POT-01

Subject: Construction of Poti Sewerage Systems – Non-Compliance Notice - 28.09.2023

Dear Sir,

Please find attached the Non-Compliance Notice regarding Construction of Poti Sewerage System – LOT 03.

You are notified to take immediate measures for remedial of the situation and assure normal working conditions on site.

For the Engineer

Victor Hruska
Team Leader

SAFEGE-with Engineering Solutions LLC as sub-consultant – ADO ADDRESS
SAFEGE Europe & Africa – Gulliodulle 92, 1200 Brussels, BELGIUM – Tel: +32 2 739 46 90 – Fax: +32 2 742 38 91
VAT N° (BE) 0462 395 488 RPM Brussels – Bank: KBC – IBAN: BE 49 4731 0518 8171 – BIC: KREDBEBB
SAFEGE Headquarters – 15/27 rue du Port, Parc de l'Ile, 92000 Nanterre, FRANCE
Tel: +33 1 46 14 71 00 – Fax: +33 1 47 24 72 02 – Web: www.safege.com

IQNet

Non-Compliance Notice

Project: Construction Supervision (under USIP, Tranche 4 Projects), UWSCG/USIP/OCBS/02-2014	**Non-compliance Notice Poti 01**
Contract No: P43405-ICB-POT-01	
Contractor: CNI23	
Reference:	

This notice is to advice the prime Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented **urgently.**

GENERAL COMMENT FOR ALL SITES:

Site internally should be arranged properly and cleaned regularly. All construction materials and wastes should be properly segregated and stored adequately. Oil spill response kits should be placed at the appropriate locations. Refuelling station should be equipped with the spill kit and fire relevant fighting equipment; drip tray should be used for fuel spillage prevention. Relevant traffic signs and flagmen should control traffic movement properly. PPE wearing is obligatory at the construction site.

NON-COMPLIANCE IN POTI 01

WWTP Poti 01 LOT3

- Unacceptable housekeeping
- Concrete spill

Unacceptable housekeeping

Concrete spill

All these conditions have to be remedied within 30 days by the prime Contractor **CNI23**

Date of site visit: 26.09.2023	
Shalva Bookashvili - Environmental specialist - "SAFEGE"	
Ketevan Chomakhidze - Environmental specialist "UWSCG"	

NON-COMPLIANCE NOTICE, POT-01-LOT-01, 3 NOVEMBER 2023

Non-Compliance Notice, UWSCG

Site Visit: 3 November 2023

Project: USIIP **Contract No: LOT-01** **Contractor:** **LOT-01:** "ECETAS Insaat" (Turkey) **Supervisor Consultant: SAFEGE** **Reference:** "CONSTRUCTION OF SEWERAGE SYSTEM IN POTI"	**Non-Compliance Notice** CONSTRUCTION OF SEWERAGE SYSTEMS IN POTI

This notice is to advice you, the Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented **urgently.**

NON-COMPLIANCE IN POTI, UNDER POT-01

Construction of Sewerage System in Poti, LOT-01 - CAMP

- Site internally should be arranged properly and cleaned regularly. All construction materials should be properly segregated and stored adequately (Photo #1, Photo #2)
- Waste should be placed only at the proper waste containers, containers should be labeled (Household waste and Hazardous waste), the signs should be in the local language and understandable by the workers (Photo #3, Photo #4)
- Electric cables must be arranged in accordance with standards, so that they do not pose any danger to the workers (Photo #5, Photo #6)
- Empty cylinders must be removed from the construction site (Photo #7)
- Equipment that may cause oil leakage should be stored adequately on concrete floors and under a roof (Photo #8)

Construction of sewerage system in POTI, LOT-01

- Adequate and sufficient quantity of Safety/warning signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident (Please see photo #1, Photo #2)
- Walls of the deep trenches (>1.5m) should be strengthened by adequate and sufficient quantity of boards to avoid landfall of the soil and accidents (workers damage) (Please see photo #1, Photo #2)
- All construction site/segment must have adequate access, stairs or other facilities, in order not to endanger the workers (Please see photo #3)
- All construction materials has to be adequately stored during the construction not to cause the disturbance of the local population (Please see photo #4)
- Due to the uncleanliness of the canal, the pumped water cannot flow into the canal and causes flooding of private lands (please see Photo N5)

General Notes:

- Trench construction shall be taken up in small segments, so that work (excavation, pipe laying and refilling) in each segment is completed in a day. **No trenches shall be kept open in the night/after work hours**;
- Construction activities information signs should be installed at each construction segment;
- Informing all residents and businesses about the nature and duration of any work well in advance so that they can make necessary preparations if needed;
- **Providing wooden walkways/planks across the deep and open trenches for pedestrians and metal sheets where vehicle access is required;**
- Increasing workforce to complete the work in minimum time;

Photos CAPMs

Photo #1, Photo #2

Photo #3, Photo #4

Photo #5

Photo #6

Photo #7

Photo #8

Photos of construction of sewerage network

Photo #1, Photo #2

Photo #3, Photo #4

Photo #5 
Construction CAPMO All these conditions have to be remedied immediately by Contractor and the Supervision of SC Sewerage network All these conditions have to be remedied by the end of the week by Contractor and Supervision of SC
Date of site visit: 3.11.2023
Kate Chomakhidze, Environmemental Consultant UWSCG/USIIP

NON-COMPLIANCE NOTICE, POT-01-LOT-02, 3 November 2023

Non-Compliance Notice, UWSCG

Site Visit: 3 November 2023

Project: USIIP **Contract No: LOT-02** **Contractor:** **LOT-02 : "MBD Insaat" (Turkey)** **Supervisor Consultant: SAFEGE** **Reference:** "CONSTRUCTION OF SEWERAGE SYSTEM IN POTI"	**Non-Compliance Notice** CONSTRUCTION OF SEWERAGE SYSTEMS IN POTI

This notice is to advice you, the Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented **urgently.**

NON-COMPLIANCE IN

Construction of Sewerage System in Poti, LOT-02 - CAMP

General Notes :

- Site internally should be arranged properly and cleaned regularly. All construction materials should be properly segregated and stored adequately
- Waste should be placed only at the proper waste containers, containers should be labeled (Household waste and Hazardous waste), the signs should be in the local language and understandable by the workers

Construction of sewerage system in POTI, LOT-02

- Walls of the deep trenches (>1.5m) should be strengthened by adequate and sufficient quantity of boards to avoid landfall of the soil and accidents (workers damage) (Please see Photo #1, Photo #2, Photo #3, Photo #4)
- Adequate and sufficient quantity of Safety/warning signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident (Please see Photo #1, Photo #2, Photo #3, Photo #4)
- All construction site/segment must have adequate access in order not to endanger the workers (Please see Photo #1, Photo #2, Photo #3, Photo #4)
- All construction materials has to be adequately stored during the construction not to cause the damage and disturbance of the local population (Please see photo #5, Photo #6)
- Trenches are filled with water, for this either construction works should be stopped temporarily after the heavy rain and water must be pumped out or workers must wear appropriate PPE (Please see Photo #3, Photo #4)

General Notes:

- Trench construction shall be taken up in small segments, so that work (excavation, pipe laying and refilling) in each segment is completed in a day. **No trenches shall be kept open in the night/after work hours.**
- Informing all residents and businesses about the nature and duration of any work well in advance so that they can make necessary preparations if needed;
- **Providing wooden walkways/planks across the deep and open trenches for pedestrians and metal sheets where vehicle access is required;**
- Increasing workforce to complete the work in minimum time

Photos of Sewerage Network

Photo #1, Photo #2, Photo #3, Photo #4

Photo #5, Photo #6

All these conditions have to be remedied immediately by contractor and Supervisor	
Date of site visit:3.11.2023	
Kate Chomakhidze, Environmental Consultant UWSCG/USIIP	

NON-COMPLIANCE NOTICE, POT-01-LOT-03, 3 NOVEMBER 2023

Non-Compliance Notice, UWSCG

Site Visit: 3 November 2023

Project: USIP **Contract No: LOT-03** **Contractor:** **LOT-03:** "CHINA NUCLEAR INDUSTRY 23 CONSTRUCTION CO" Ltd **Supervisor Consultant: SAFEGE** **Reference:** "CONSTRUCTION OF SEWERAGE SYSTEM IN POTI"	**Non-Compliance Notice** CONSTRUCTION OF SEWERAGE SYSTEMS IN POTI

This notice is to advice you, the Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented **urgently**.

NON-COMPLIANCE IN POTI, UNDER POT-01/LOT-03

Construction of Sewerage System in Poti, LOT-03 - CAMP

- Site internally should be arranged properly and cleaned regularly. All construction materials should be properly segregated and stored adequately (Photo #1, Photo #2)
- Waste should be placed only at the proper waste containers, containers should be labeled (Household waste and Hazardous waste), the signs should be in the local language and understandable by the workers (Photo #3, Photo #4)
- Electric cables must be arranged in accordance with standards, so that they do not pose any danger to the workers (Photo #5, Photo #6)
- Empty cylinders must be removed from the construction site (Photo #7)
- Equipment that may cause oil leakage should be stored adequately on concrete floors and under a roof (Photo #8)

Construction of Pumping Stations in POTI, LOT-03

- Adequate and sufficient quantity of Safety/warning signs/tapes, protective equipment for working at height, safe barriers around of deep open excavations should be installed to avoid accident (Please see photo #1, Photo #2, Photo #3, Photo #4)
- Safe barriers should be arranged around the deep trenches/excavations (Please see photo #1, Photo #2, Photo #3, Photo #4)
- The inner perimeter of the deep excavations should be also arranged adequately (Photo #3, Photo #4)
- All construction site/segment must have adequate access, stairs or other facilities, in order not to endanger the workers (Please see Photo #4)
- Electric cables must be arranged in accordance with standards, so that they do not pose any danger to the workers (Photo #5)

- Waste should be placed only at the proper waste containers, stored adequately on concrete floors and under a roof, containers should be labeled (Household waste and Hazardous waste), the signs should be in the local language and understandable by the workers (Photo #6)

General Notes:

- No trenches/excavations should be left open at night without proper protection and lighting
- Informing all residents and businesses about the nature and duration of any work well in advance so that they can make necessary preparations if needed
- Increasing workforce to complete the work in minimum time

Photos CAPMs

Photo #1, Photo #2

Photo #3, Photo #4

Photo #5 Photo #6

Photo #7 Photo #8

Photos of construction of Pumping Stations

Photo #1, Photo #2, Photo #3, Photo #4

Photo #5 Photo #6

All these conditions have to be remedied immediately by Contractor and Supervision of SC

Date of site visit: 3.11.2023	
Kate Chomakhidze, Environmental Consultant UWSOG/USIP	

NON-COMPLIANCE NOTICE, JVA-01, 11 AUGUST 2023

SAFEGE
Ingénieur Conseil

11th August 2023

TO: AS Inchaat.N
Att. E. Aliev
Contractor's Representative

Our Ref.: JVARI -298/OUT -VH

Contract: P43405.3CR-JVA-01

Subject SUPERVISION of JVARI WATER SUPPLY CONTRACT. Non. Compliance Notice Jvari 10.08.2023

Dear Sir,

Please find attached the Non-Compliance Notice regarding construction of Water Supply Systems in Jvari.

You are notified to take immediate measures for remedial of the situation and assure normal working conditions on site.

For the Engineer

Victor Hruska
Team Leader

Urban Services Improvement Investment Program (Project 4) ADB

SAFEGE-with Engineering Solutions LLC as sub-consultant – ADD ADDRESS
SAFEGE Europe & Africa – Colonelle 53, 1000 Brussels, BELGIUM – Tel: +32 2 750 66 00 – Fax: +32 2 743 38 01
VAT N° (BE) 0447 309 488 RPM Brussels – Bank: KBC – IBAN: BE 40 4731 0918 4171 – BIC: KREDBEBB
SAFEGE Headquarters – 15/27 rue du Port, Parc de l'Ile, 92000 Nanterre, FRANCE
Tel: +33 1 46 14 71 00 – Fax: +33 1 47 24 72 53 – Web: www.safege.com

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Non-Compliance Notice

Project: Construction Supervision (under USIP, Tranche 4 Project), UWSCS/USIP/QCBS/03-2014	non-compliance Notice JVARI-01
Contract No. P43405-DC JVA-01	
Contractor: AZ-inshaat.N	
Reference:	

This notice is to advise the Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented **urgently.**

GENERAL COMMENT FOR ALL SITES:

Site internally should be arranged properly and cleaned regularly. All construction materials and wastes should be properly segregated and stored adequately. Oil spill response kits should be placed at the appropriate locations. Refuelling station should be equipped with the spill kit and fire relevant fighting equipment, drip tray should be used for fuel spillage prevention. Relevant traffic signs and flagmen should control traffic movement properly. PPE wearing is obligatory at the construction site.

NON-COMPLIANCE IN JVARI

- Unacceptable housekeeping
- Manhole improper cover

Unacceptable housekeeping

Manhole improper cover

All these conditions have to be remedied within 14 days by the Contractor. SZ-Ivdist-N

Date of site visit: 10.08.2021	
Status: Bodenschutz - Environmental specialist - "SZ/ESB"	
Kathleen Chamakhidze - Environmental specialist "UNESCO"	

NON-COMPLIANCE NOTICE, JVA-01, 16 NOVEMBER 2023

SAFEGE
Ingénieur Conseil

17th November 2023

TO: AS Inzhsut-N
Att. E. Aliev
Contractor's Representative

Our Ref.: JVARI –SUPSUT -VH

Contract: P43405-ICB-JVA-01

Subject SUPERVISION of JVARI WATER SUPPLY CONTRACT- Non-Compliance Notice 16.11.2023

Dear Sir,

Please find attached the Non-Compliance Notice regarding construction of Water Supply Systems in Jvari.

You are notified to take immediate measures for remedial of the situation and assure normal working conditions on site.

For the Engineer

Victor Hruska
Team Leader

Urban Services Improvement Investment Program (Project 4) ADB

SAFEGE-with engineering solutions LLC as sub-consultant – ADD ADDRESS
SAFEGE Europe & Africa – Guillotière 92, 1200 Brussels, BELGIUM – Tel: +32 2 738 46 90 – Fax: +32 2 742 30 91
VAT N° (BE) 0465 595 486 RPR Brussels – Bank: KBC – IBAN: BE 49 4781 0814 8171 – BIC: KREDBEBB
SAFEGE Headquarters – 15/27 rue du Port, Parc de l'Ile, 92022 Nanterre, FRANCE
Tel: +33 1 46 14 71 00 – Fax: +33 1 47 24 72 82 – Web: www.safege.com

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Non-Compliance Notice

Project: Construction Supervision (under USIIP, Tranche 4 Projects). UWSCG/USIIP/CICOS/02-2014	**non-compliance Notice**
Contract No: P43405-DC-JVA-01	**JVARI-01**
Contractor: AZ- Inshaot-N	
Reference:	

This notice is to advise the prime Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented **urgently**.

GENERAL COMMENT FOR ALL SITES:

Site internally should be arranged properly and cleaned regularly. All construction materials and wastes should be properly segregated and stored adequately. Oil spill response kits should be placed at the appropriate locations. Refuelling station should be equipped with the spill kit and fire relevant fighting equipment; drip tray should be used for fuel spillage prevention. Relevant traffic signs and flagmen should control traffic movement properly. PPE wearing is obligatory at the construction site.

NON COMPLIANCE IN JVARI

- Solid waste beside the road
- Manhole improper cover

Solid waste beside the road

Manhole improper cover

All these conditions have to be remedied within 14 days by the prime Contractor AZ-Ibbaa-N
Date of site visit: 16.11.2023
Shalva Bokhashvili - Environmental specialist - "SAFEGE"
Ketevan Chomakhidze - Environmental specialist "UWSCS"

NON-COMPLIANCE NOTICE, GUD-02, 4 JULY 2023

Project:Construction Supervision (under USIIP, Tranche 4 Projects), UWSCG/USIIP/QCBS/02-2014 **Contract No:UWSCG-ICB-GUD-02-2018** **Contractor:China Nuclear Industry 23 Construction Co., Ltd** **Reference:**	**Non-compliance Notice** **SAFEGE** **Gudauri**

This notice is to advice the Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented **urgently.**

GENERAL COMMENT FOR ALL SITES:

Site internally should be arranged properly and cleaned regularly. All construction materials and wasteshould be properly segregated and stored adequately. Oil spill response kits should be placed at the appropriate locations. Refuelling station should be equipped with the spill kit and fire relevant fighting equipment; drip tray should be used for fuel spillage prevention. Relevant traffic signs and flagmen should control traffic movement properly. H&S standards and rules should be addressed and implemented.

NON COMPLIANCE IN GUDAURI

Construction of Sewage Collection and Water Supply System in Gudauri

Unacceptable housekeeping (Boring Well-3) Generators without drip tray (Boring Well-3)

Waste containers without lid and label

All these conditions have to be remedied within 10 days by the Contractor **China Nuclear Industry 23**	
Date of site visit: 4 July 2023	
Shalva Bosikashvili - Environmental specialist - "SAFEGE"	
Ketevan Chomakhidze - Environmental specialist "UWSCG"	

ANNEX D: CORRECTIVE ACTION PLAN, 3 NOVEMBER 2023, POT-01/LOT-01

8th November 2023

To: UWSCC/USE/
Attn: Kelewan Chomkhiaw
Environmental Consultant

Our Ref: POTI 01 - LOT01-010-OUT - MLN

Contract: LS01IVT4/CW/GIZ/21/1/POT1-01

Subject: CONSTRUCTION OF SEWERAGE SYSTEMS IN POTI - Non-Compliance Notice

Dear Kelewan,

As promised by your site visit I will answer your non-compliance report for Poti-Project.

NON-COMPLIANCE IN POTI, UNDER POT-01

Construction of Sewerage System in Poti, LOT-01 - CAMP

- Site internally should be arranged properly and cleaned regularly. All construction materials should be properly segregated and stored adequately (Photo #1, Photo #2)
- Waste should be placed only at the proper waste containers, containers should be labelled (Household waste and Hazardous waste), the signs should be in the local language and understandable by the workers (Photo #3, Photo #4)
- Electric cables must be arranged in accordance with standards, so that they do not pose any danger to the workers (Photo #5, Photo #6)
- Empty cylinders must be removed from the construction site (Photo #7)
- Equipment that may cause oil leakage should be stored adequately on concrete floors and under a roof (Photo #8)

Urban Services Improvement Investment Program (Project 4) ADB

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Photo #1 Photo #2 (before)

Photo #1 Photo #2 (after)

Urban Services Improvement Investment Program (Project 4) ADB

SAFEGE
Engineering Solutions

Photo #3 Photo #4 (before)

Photo #3 Photo #4 (after)

SAFEGE-with Engineering Solutions LLC as sub-consultant – ADD ADDRESS
SAFEGE Europe & Africa – [illegible]
VATN° [illegible] RPM Brussels – Bank: KBC – IBAN: [illegible] – BIC: [illegible]
SAFEGE Headquarters – [illegible]
Tel: +33146147183 – Fax: +33 147247202 – Web: www.safege.com

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Engineering Solutions

Photo #5

Photo #6 (before)

Photo #5

Photo #6 (after)

SAFEGE with Engineering Solutions LLC as sub-consultant - ADD ADDRESS
SAFEGE Europe & Africa - Oudadelle 92, 1200 Brussels,BELGIUM – Tel. +32 2 739 46 90 – Fax. +32274238 91
VATN° (BE)0462365408 RPM Brussels – Bank: KBC – IBAN: BE49477105188171 – BIC: KREDBEBB
SAFEGE Headquarters - 15/27 rue du Port, Parc de l'Ile, 92000 Nanterre, FRANCE
Tel. +33146147100 – Fax: +33 147247202 – Web: www.safege.com

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Photo #7

Photo #8 (before)

Photo #7

Photo #9 (after)

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Conclusion:

- All non compliance points at site office of contractor for lot 1 were remediated
- Stored material is now covered
- Information for waste boxes in georgian language
- Electrical equipment secure stored (no oil in this generator)
- Gas cylinders are removed from outside and store in closed area

Construction of sewerage system in POTI, LOT-01

- Adequate and sufficient quantity of Safety/warning signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident (Please see photo #1, Photo #2)
- Walls of the deep trenches (>1.5m) should be strengthened by adequate and sufficient quantity of boards to avoid landfall of the soil and accidents (workers damage) (Please see photo #1, Photo #2)
- All construction site/segment must have adequate access, stairs or other facilities, in order not to endanger the workers (Please see photo #3)
- All construction materials has to be adequately stored during the construction not to cause the disturbance of the local population (Please see photo #4)
- Due to the uncleanliness of the canal, the pumped water cannot flow into the canal and causes flooding of private lands (please see Photo N5)

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Photos of construction of sewerage network

Photo #1

Photo #2 (before)

Photo #1

Photo #2 (after)

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SAFEGE Europe & Africa – Gulledelle 92, 1200 Brussels/BELGIUM – Tel: +32 2 739 46 00 – Fax: +32274239 91
VAT/N° (BE)0407395480 RPM Brussels – Bank: KBC – IBAN: BE48472105180171 – BIC: KREDBEBB
SAFEGE Headquarters – 15/27 rue du Port, Parc de l'Ile, 92000 Nanterre, FRANCE
Tel: +33146047200 – Fax: +33 147247202 – Web: www.safege.com

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Photo #3

Photo #4 (before)

Photo #3

Photo #4 (after)

SAFEGE with Engineering Solutions LLC as sub-consultant – ADD ADDRESS
SAFEGE Europe & Africa – Gulledelle 92, 1200 Brussels/BELGIUM – Tel: +32 2 739 46 00 – Fax: +32274239 91
VAT/N° (BE)0407395480 RPM Brussels – Bank: KBC – IBAN: BE48472105180171 – BIC: KREDBEBB
SAFEGE Headquarters – 15/27 rue du Port, Parc de l'Ile, 92000 Nanterre, FRANCE
Tel: +33146047200 – Fax: +33 147247202 – Web: www.safege.com

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Photo 05 (before) Photo 05 (after)

Conclusion for excavation sites

- Where possible sites are fenced and warning signs are there
- Where space is not enough to prepare fences and sites pedestrian is guided by road is fully closed and a bypass road has to be used
- Trench protection is always installed to protect workers inside the trench, landfall is not possible on into the trench board
- In case any the French ballons, ladders are installed to reach the working place as a secure way
- Construction material will be stored on a secure place for not disturbing the local population
- Excavate are temporary used to place away the ground besides and after construction is in clean condition

General Notes:

- Trench construction shall be taken up in small segments, so that work (excavation, pipe laying and refilling) in such segments is conducted in one day. **No trenches shall be kept open in the night after work hours;**
- Construction activities information signs should be installed at each construction segment;
- Informing all residents and businesses about the nature and duration of any work well in advance so that they can make necessary preparations if needed.
- **Providing wooden walkways/planks across the deep and open trenches for pedestrians and metal sheets where vehicle access is required;**
- Increasing workforce to complete the work in minimum time.

SAFEGE-with Engineering Solutions LLC as sub-consultant – P.O. 4324/2020
SAFEGE Europe & Africa – Belliardlei 92, 1200 Brussels, BELGIUM – Tel: +32 2 720 46 90 – Fax: +32274338 81
VAT No: GB 924 2719 84 EORI No: Bank: KBC – IBAN: BE49737120810073 – BIC: KREDBEBB
SAFEGE Headquarters – 15/17 rue du Port, Parc de Pôle, 92000 Nanterre, FRANCE
Tel: +33146047100 – Fax: +33 147247202 – Web: www.safege.com

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Engineering Solutions

Remarks to General Notes:

- Trenches are closed after work is finished, there are no open trenches after work/in nighttime/on weekends or holidays
- On all sites there is an information board installed
- Residents and businesses will be informed about the works in advance. This will be improved.
- Where possible walkways will be installed. First priority is safety on site. Where possible access for cars on construction site has to be avoid.
- There are ongoing discussions with contractors about work progress, but not work force is main problem, main problem are missing permissions.

If there are any questions, please contact me.

For the Engineer

Manfred Nussbaumer
Resident Engineer

SAFEGE-with Engineering Solutions LLC as sub-consultant – P.O. 4324/2020
SAFEGE Europe & Africa – Belliardlei 92, 1200 Brussels, BELGIUM – Tel: +32 2 720 46 90 – Fax: +32274338 81
VAT No: GB 924 2719 84 EORI No: Bank: KBC – IBAN: BE49737120810073 – BIC: KREDBEBB
SAFEGE Headquarters – 15/17 rue du Port, Parc de Pôle, 92000 Nanterre, FRANCE
Tel: +33146047100 – Fax: +33 147247202 – Web: www.safege.com

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CORRECTIVE ACTION PLAN 14 NOVEMBER 2023

14th November 2023

To: UWSCSAUSIP
Attn: Kelevan Chanrakhidre
Environmental Consultant

Our Ref: POTI 01-LOT 2- 020/OLT -MLN

Contract: USIIP/T4/C3/(2022/L2/POTI-01

Subject: CONSTRUCTION OF SEWERAGE SYSTEMS IN POTI – Response to Non-Compliance Notice

Dear Kelevan,

As promised by your site visit I will answer your non-compliance report for Poti Project Lot 2.

Improvement of Sewage System Construction Lot 2:

Photo #1 and Photo #2 – Site fence to protect the trenches installed

Photo #3 – Protection of stored material on Site

Photo # 5 – PPE for wokers in the trench Photo # 6 Waste boxes in Georgian Language

General Notes:

- Trench construction shall be taken up in small segments, so that work (excavation, pipe laying and refilling) in each segment is completed in a day. **No trenches shall be kept open in the night/after work hours;**
- Construction activities information signs should be installed at each construction segment;
- Informing all residents and businesses about the nature and duration of any work well in advance so that they can make necessary preparations if needed;
- **Providing wooden walkways/planks across the deep and open trenches for pedestrians and metal sheets where vehicle access is required;**
- Increasing workforce to complete the work in minimum time;

Remarks to General Notes:

- Trenches are closed after work is finished, there are no open trenches after work/in nighttime/on weekends or holidays
- On all sites there is an information board installed

- Residents and businesses will be informed about the works in advance. This will be improved.
- Where possible walkways will be installed. First priority is school on site. Where possible access for cars on construction site has to be avoid.
- There are ongoing discussions with contractors about work progress, but not work force is main problem, main problem are missing permissions.

If there are any questions, please contact me.

For the Engineer

Manfred Nussbaumer
Resident Engineer

SAFEGE-with Engineering Solutions LLC as sub-consultant – ADB ADDRESS
SAFEGE Europe & Africa – Guillotière 92, 1203 Brussels,BELGIUM – TEL: +32 2 789 46 90 – FAX: +3227423891
VAT N° | BE 0447359 668 RPR Brussels – Bank: KBC – IBAN: BE49 7310 5188 8171 – BIC: KREDBEBB
SAFEGE Headquarters – 15/27 rue du Port, Parc de l'Ile, 92000 Nanterre, FRANCE
TEL: +33146047100 – FAX: +33 142247202 – WEB: www.safege.com

ANNEX E: POST CONSTRUCTION AUDIT REPORT UNDER ZUG-01 SUB-PROJECT: CONSTRUCTION OF WATER SUPPLY SYSTEM IN ZUGDIDI

UWSCG/USIIP/QCBS/02-2014
Contract No:P43465-ICB-ZUG-01
Financed by: The Asian Development Bank

Project: Improvement of Zugdidi Water Supply System (USIIP/T4/ZUG-01)

Post - Construction Environmental Audit Report

October 2023

ABBREVIATIONS

ADB	Asian Development Bank
CAP	Compensation Action Plan
DC	Design Consultant
DPEPSA	Department of Permits Environmental Protection and Social Affairs
EA	Executing Agency
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP/ SSEMP	Environmental Management Plan/ Site-Specific Environmental Management Plan
ES	Environmental Specialist
GoG	Government of Georgia
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IA	Implementing Agency
USIIP	Urban Sector Improvement Investment Program
IEE	Initial Environmental Examination
MoEPA	Ministry of Environment Protection and Agriculture of Georgia
MoRDI	Ministry of Regional Development & Infrastructure
UWSCG	United Water Supply Company of Georgia
WS	Water Supply

Table of Contents

I. INTRODUCTION

This report represents the Post Construction Environmental Audit Report for ADB Loan 3338 -GEO: Urban Services Improvement Investment Program Tranche 4 - Improvement of Zugdidi and Jvari Water Supply Systems.

1. This Post Construction Audit Report is being prepared to comply with the 2009 ADB's SPS and Georgian legislation, including safeguards requirement and aims to identify past and present concerns from the production and business activities of Project Company that related to impacts on environment. The specific objectives of the audit can be summarized as follows:

- Determine and verify whether all environmental requirements, criteria and constraints, prescribed in EIT and SSEMPs have been adhered to during the construction phase;
- Determine and verify whether the mitigation actions and rehabilitation requirements contained in the SSEMP's have been appropriate and successful to prevent or control environmental pollution and/or damage;
- Ensure that an appropriate environmental monitoring and control program exists to follow up on mitigation and rehabilitation works completed during the construction phase;
- To identify any shortcomings in the SSEMP and EMS system implemented during the construction phase and to recommend alterations to the EMS applicable to the operational phase.

II. PROJECT DESCRIPTION

2.1 Brief Description of the Project

2. Zugdidi, situated 250 km west of Tbilisi, the capital of Georgia and 30 km of Black sea coast, is the administrative centre of the Samegrelo-Zeda Svaneti Region. UWSCG's Zugdidi Service Centre operates the water supply system in Zugdidi City and a number of outlying small towns and villages. Traditionally the water abstraction for the City of Zugdidi was from Rechke headworks located in Abkhazia. With the 1992-93 Civil War, this source was no longer available. At present, water supply is provided to only 7% of the population from local boreholes.

3. The contract ZUG-01 was signed on October 28, 2019 with AS Irrigasi-N, LLC (Azerbaijan), and Contract completion date is March 2022. Supervisory company SAFEGE started work on the preparation of the audit report, but the process was not completed during the reporting period, and therefore the post-construction audit report will be finalized during the next reporting period, and the main findings will be reflected in the next SAEMR, July-December 2023.

4. The Zugdidi water supply improvement (ZUG-01) sub-project was therefore designed for a complete revival of the system to meet the present and the projected demand of 2040. This achieved by: construction of 1 water supply pumping station – 1,170 m³, construction of new reservoirs (3,500 m³x2); distribution network - laying of approximately 220 km water supply pipelines; approximately 15 km transmission main; wells - drilling of 10 drinking water wells.

5. The project implemented according to the requirements of Georgian National and the same as of Asian Development Bank's Environmental Legislative Framework (SPS 2009).

6. The new well field comprise 9 wells in Inghiri, located south of Zugdidi. The well field will serve a new pumping station constructed between the well field and Zugdidi. The pumping station includes a receiver tank with a volume of 700 m³.

7. Rkoni reservoir is located north of Zugdidi at an elevation that allows the supply from this reservoir by gravity. It serves as balancing reservoir. The storage volume is 9 x 3,500 m³. The old reservoir demolished and a new reservoir constructed at the same site. The condition of the old reservoir was investigated and its rehabilitation was ruled as not feasible.

8. The distribution net is divided into three pressure zones. The total length of the network is approximately 230 km. The network covers the Municipality of Zugdidi plus small, settled zones right outside the municipal border.

9. Ecologically-sensitive receptors are not located in the vicinity of the project territory. The nearest protected area - Kolkheti National Park, is located 40 km away from the project zone. Fig.1 below shows the water supply improvement map of Zugdidi.

Figure 1: Zugdidi Water Supply Improvement Subproject Map

2.2 Main Stakeholders of the Project

10. The main institutions that are involved in implementation of the EMP are: executing agency (EA) - United Water Supply Company of Georgia (UWSCG), Supervision Consultant (SC) - Consortium of Consulting Firm led by Eptisa Servicios de Ingeniria S.L. (Spain) in association with SAFEGE (Belgium) and JSC Georgian Water Project (Georgia), the Construction Contractor - Azinsait-N (Azerbaijan) and to a lesser extent the Ministry of Environmental Protection and Agriculture (MoEPA). Donors Financed Projects Management Department (PMD) established within UWSCG is responsible for the day-to-day management of the project including implementation of the EMP. The PMD has an Environmental Specialist – Ms. Ketevan Chomakhidze who is responsible for management of the environmental aspects of USIP, Tranches 1-5.

11. The SC includes a full time Environmental Specialist, Mr. Shalva Bosikashvili to assist the PMD supervise and monitor implementation of the EMP during construction. Department of Permits Environmental Protection and Social Affairs of UWSCG work together with PMD on addressing the Environmental Safeguard issues of USIP.

12. Environmental issues arising from the construction activities were immediately brought to the attention of the construction supervision team to coordinate efforts in order to immediately mitigate impacts, protect the environment, and safeguard the health and welfare of the local communities. All these are to be conducted within the framework of the overall construction management and supervision.

13. Main organizations involved in the project during the project implementation and related to environmental safeguards are presented in the Table 1 below:

Table 1: List of Main Organizations under USIP/T4

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Lender	Asian Development Bank	Head Office, Environmental Specialist, Portfolio, Results, Safeguards and Gender Unit (PSG) CWRD	Nurlan Djenchuraev E-mail: ndjenchuraev@adb.org
		Associate Safeguards Officer Georgia Resident Mission Asian Development Bank	Nino Nadashvili Tel: +995 595 070442 nnadashvili@adb.org
		ADB RETA International Environmental Consultant	Keti Dgebuadze Tel: +995 577232937 ketidgeb@yahoo.com
Borrower	UWSCG	UWSCG, Department of Environmental Protection and Permits, Head	Ms. Maka Goderdzishvili Tel: +995 599 229825 E-mail: m.goderdzishvili@water.gov.ge
		UWSCG/PMO Department of Projects Management, Head	Ms. Ana Onashvili Tel: +995 599 550090 E-mail: ana.onashvili@water.gov.ge
Borrower	UWSCG/USIP/T4	Environmental Specialist	Ms. Ketevan Chomakhidze Tel:+995 577 380309 E-mail: Chomakhidzek@yahoo.com

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Supervision Consultant	SAFEGE (France) with Engineering Solution LLC (Georgia)	Environmental Specialist	Mr. Shalva Boakashvili Tel:+995 595116041 E-mail: sboakashvili@yahoo.com
Contractor ZUG-01	AS Inshaat N LLC (Azerbaijan)	Environmental H&S Specialist	Mr. Nodar Usupashvili Tel:+995 577 68 16 71 E-mail: n.usupashvili@gmail.com
Contractor POT-01	TAHAL Group BV	Environmental H&S Specialist	Mr.Revaz Kalandadze Tel: +995 599 348 821 E-mail: r.kalandadze@yahoo.com

14. In 2016-2022, in the construction phase of Zugdidi water supply system, the environmental monitoring was conducted by several organizations, namely - ADB Supervision Consultant (CSC); Construction Contractor (CC) and UWSCG. A total of 94 non-compliances were identified in the environmental monitoring phase in 2016-2022 (see Annex 1).

15. The identified non-compliances can be divided into the following main areas: absence or improperly installed warning and prohibition signs18 (19,14%); improper management and disposal of waste or hazardous construction materials 31(32,97%); violation of the requirements for wearing safety uniforms (PPE) or safety standards 24(25,53%); Incorrect management of topsoil 4(4,25%); oil spills 14(14,89%); violation of IEE/SSEMP requirements in the phase of rehabilitation works 3 (3,19%).

16. In 2016-2022, corrective actions were developed and realized for all of the above-listed non-compliances. According to semi-annual environmental reports (SAEMRs), all non-compliances have been eliminated.

IV. SUMMARY OF OBSERVATIONS OF SITE VISITS

4.1 Introduction

17. The reservoir, water supply system (pipeline), pump station and 9 water wells were constructed within the scope of the given Tranche 4.

4.2 Site Visit – Audit results

18. Construction of Zugdidi Water supply systems (ZUG 01) financed from Tranches 4 of USIIP.

19. The Contractor had to construct new reservoir (Bashi), wellfield and pump station (Ingiri) and pipeline network (Zugdidi) to serve the projected population. Contract was signed with Azimuth-N on 28 October 2015. Contract completion date was May 21, 2020.

20. The final (closing) environmental audit of Zugdidi Water supply system was conducted by the environmental audit team on 19 September of 2023.

21. The audit team visited the following facilities: (i) The reservoir (Bashi); (ii) The PS (Ingiri), (iii) well field (Ingiri) and (iv) water supply pipeline (Zugdidi) for the locations of the mentioned facilities. Besides, the part of the access roads to the mentioned facilities are restored.

22. Reservoir (Bashi), PS (Ingiri) and water wells (Ingiri) were fenced and it was impossible for strangers as well as domestic animals to enter the site (see Figure 3, 4, 5, 6, 7, 8).

Figures 3 and 4: Bashi Reservoir

Figures 5 and 6: Ingiri PS

Figures 7 and 8: Ingiri Water Wells

23. The territories were restored in a timely manner, the removed topsoil was used for the rehabilitation works. The local roads of all objects are improved.

24. Soil piles with already planted grass was laid on the territory of the Bashi reservoir and PS Ingiri. Small sections of the ground access roads to the facilities were also restored.

25. Both, the hazardous and household waste was totally disposed from the project zone. Besides, the construction techniques and construction materials were removed as well, and lighting poles were installed all over the area.

4.3 Non-compliances and Corrective Actions

26. During the final HSE audit no Non-compliances were identified.

V. CONCLUSIONS AND RECOMMENDATIONS

27. The construction of the Zugdidi water supply system (Bashi reservoir, Ingiri PS and well field and Zugdidi water pipeline network) is complete and the object is put to exploitation. The Bashi reservoir, PS Ingiri and water wells territories are fenced. Bashi reservoir and Ingiri PS have a gate and guardroom. The territories are cleaned and there is a drainage system provided around the territories of the reservoir and PS.

28. In 2016-2022, in the construction phase of Zugdidi water supply system, the environmental monitoring was conducted by several organizations, namely - ADB, Supervision Consultant, Construction Contractor and UWSCG and its USIIP Environmental consultant. A total of 94 non-compliances were identified in the environmental monitoring phase in 2016-2022.

29. The identified non-compliances can be divided into the following main areas: absence or improperly installed warning and prohibition signs18 (19.14%), improper management and disposal of waste or hazardous construction materials 31(32.97%); violation of the requirements for wearing safety uniforms (PPE) or safety standards 24(25,53%); Incorrect management of topsoil 4(4.25%); oil spills 14(14.89%); violation of IEE/SSEMP requirements in the phase of rehabilitation works 3 (3,19%).

30. In 2016-2022, corrective actions were developed and realized for all of the above-listed non-compliances. According to semi-annual environmental reports (SAEMRs), all non-compliances have been eliminated.

ANNEXES:

Annex 1: Non-compliances observed during the Environmental Audits conducted during the 2016-2022 reporting period

Date	Ref Number	Subject	Status
January – June 2018			
16 May		• Open trenches are remain for the night. • No drip trays are available on site. • No fire extinguishers on site at the moment. • Construction materials lay down area is not enclosed and signed. • No Spill Response Equipment on site. • No fire action board	All Completed
July - December 2017			
30 October		• Overfilled domestic waste container nearby the shelter and garbage around – Kobti Camp • Housekeeping issues • Oily sheen on the rain puddle because of spilled hydrocarbons • No Spill Response Equipment on site • open drainage cesspit at the rear of Kobti Office • No proper vehicle washing facility	All Completed
January – June 2018			
17 January		• Driver reading Oil spills and prevent spillages in future • Clean all kind of waste daily and store properly under shelters of in the buildings • Spill/Contamination prevention and Vehicle/Heavy equipment inspection refreshment trainings should be carried out by the relevant contractor's staff ASAP. • Special training should be provided to the staff regarding Housekeeping at the construction sites and include this issue in daily Toolbox talks. • Drip trays should be provided and used at the vehicle and heavy equipment maintenance area/ Re-fuelling points • Spill Response Equipment should be placed on site; Spill kits should be placed at the vehicle and heavy equipment maintenance area, fuel and lubricant storage and refueling points • All vehicles and heavy equipment should be inspected on daily basis (use relevant checklists) in case of leakage finding, prohibit usage of the damaged Vehicles/Heavy equipment. • Arrange proper vehicle washing facility with polluted water containment, collector and separator. • Observe H&S relevant standards (Open power box and unsafe wiring)	All Completed
July - December 2018			
05 September		• Construction site (open trenches) should be properly fenced from all sides and equipped with proper warning signs • Construction territory should be lighted adequately during the night time • Proper information signs and protection equipment should be arranged at the entrance and perimeter of the site • used tires scattered everywhere • Unacceptable housekeeping	All Completed
January – June 2019			
20 May		• Significant deterioration of housekeeping in Zugdidi. Construction waste, hand tools, construction materials are scattered unorganized; • Overfilled domestic waste container – Zugdidi camp • Damaged dirty waste containers, some of them without relevant label- Zugdidi • Spill/Contamination prevention and Vehicle/Heavy equipment	All Completed

		inspection refreshment trainings should be carried out for the relevant contractor's staff ASAP • Special training should be provided to the staff regarding Housekeeping at the construction sites and include this issue in daily Toolbox talks. • Drip trays should be provided and used at the vehicle and heavy equipment maintenance area/ Re-fuelling points • No Spill Response Equipment on site; Spill kits should be placed at the vehicle and heavy equipment maintenance area, fuel and lubricant storage and refueling points. • Waste storage and disposal should be improved. • All vehicles and heavy equipment should be inspected on daily basis (use relevant checklists), in case of leakage finding, prohibit usage of the damaged Vehicles/Heavy equipment. • Fuel/lubricant multiple spills.	
July - December 2019			
27 June		• Gas cylinders should be with proper capping, in special cage, without rust - Zugdidi camp • Damaged, dirty and unlabeled waste containers – Zugdidi camp • Oil drum stored outdoor - Zugdidi camp • Unacceptable housekeeping – Bashi reservoir • Unacceptable housekeeping – Ingiri pump station	All Completed
January – June 2020			
18 March		• All waste containers should be labeled – Zugdidi camp • Used tires should be stored at one location and disposed accordingly (re-use, recycling preferable) – Zugdidi camp • Housekeeping should be improved - Zugdidi camp • Worsening of housekeeping in Zugdidi identified. Construction waste, hand tools, construction	All Completed

		materials are scattered unorganized; • Damaged waste containers should be replaced • Feeding of stray animals on the sites should be forbidden. • Gas cylinders should be used on legal exceeding applicable safety standards • Many leakages observed from the vehicles and Heavy equipment at Zugdidi/Tsukhi camp. • Special training should be provided to the staff regarding Housekeeping at the construction sites and include this issue in daily Toolbox talks. • No Spill Response Equipment on site; Spill kits should be placed at the vehicle and heavy equipment maintenance area, fuel and lubricant storage and refueling points. • Waste storage and disposal should be improved. • All vehicles and heavy equipment should be inspected on daily basis (use relevant checklists), in case of leakage finding, prohibit usage of the damaged Vehicles/Heavy equipment. • Fuel/lubricant multiple spills	

Annex 2. Zugdidi Water Supply Post-Construction Environmental Audit Checklist

Required mitigation measure s of environmental impact	Measures implemented				Comment
	yes	partially	no	N/A	
Site territory (Bashi reservoir, PS Ingiri, Water wells Ingiri fenced fully	x				All project zones were fenced.
Topsoil placed at original location	x				The rehabilitation works were carried out in all project zones, where the removed topsoil in the project zone was used.
Vegetation cover reinstated	x				The grass has been self-restored on the territory.
Trees replanted as needed				x	No trees were planted in the project zone.
Construction waste and surplus/waste soil removed completely and disposed properly	x				All the construction equipment and construction materials were removed from the project zones.
Hazardous waste removed and disposed properly.	x				No facts of uncontrolled disposal of hazardous waste were fixed in the project area.
Fuels and lubricants spills eliminated	x				No traces of leakage were identified in the project area.
Contractor equipment and machinery removed	x				All the construction equipment was removed from the project zones.
All temporary facilities removed and cleaned up	x				The temporary auxiliary buildings are fully removed from the site.
Streets with installed network reinstated to pre-construction or better conditions	x				The access roads to the project zone are reinstated. Their physical state is satisfactory.
Post-Construction territory reinstated to pre-construction or better conditions	x				The project zone is reinstated in line with the requirements.