

Semi-annual Environmental Monitoring Report

Project Number: 43405-026

Reporting Period: July-December 2020

**GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM
(TRANCHE 4)**

(FINANCED BY THE ASIAN DEVELOPMENT BANK)

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

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Abbreviations

ABBREVIATIONS

ADB	Asian Development Bank
DC	Design Consultant
DEPP	Department of Environmental protection and Permit
PMD	Projects 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
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
MFF	Multi-tranche Financing Facility
MoEPA	Ministry of Environment Protection and Agriculture
MoRDI	Ministry of Regional Development & Infrastructure
NEA	National Environmental Agency
SC	Supervision Consultant
UWSCG	United Water Supply Company of Georgia
WSS	Water Supply & Sanitation

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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 2020.
2. This report is the 10th Semi-Annual EMR for the T4 of USIIP.

1.2 Headline Information

3. The Site-Specific Environmental Management Plan for POT-02 sub-project: Construction of Waste Water Treatment Plant in Poti, which was prepared in May 2018, was 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.

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 will improve infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network and, sewerage improvement works will 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 - Contract No: P43405-ICB- Zug-01)
 - Construction of Sewerage System in Poti (Pot 01 - Contract No: P43405-ICB-Pot-01)
 - Construction of Wastewater Treatment Plant in Poti (Pot 02 - Contract No: P43405- ICB-Pot-02)
 - Construction of Water Supply System in Jvari (Jvari 02- Contract No: P43405-DC- Jvari-01)
 - Construction of Sewage Collection and Water Supply System in Gudauri (UWSCG- ICB-GUD-02-2028-GUD-02)
7. **Construction of Water Supply System in Zugdidi (ZUG 01).** The project comprises of the construction of 1 water supply pumping station – 1,170 m³, construction of new reservoirs (3,300 m³x3); 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 assigned on October 26, 2015 with ASI Inshaat-N, LLC (Azerbaijan), the construction works were completed in September 2018 and further extended until June 2020 due to the additional construction works under VO#4 and VO#8, including construction of additional sewage network, connection of residential houses to the main collector and Installation of additional sewage Pump Stations in Anaklia. Construction works currently are completed under ZUG-01 sub-project and therefore Post Construction Audit will be conducted during the next reporting period, January-June 2021 and main findings and recommendations of Audit report will be presented in the next SAEMR.
9. **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. The final date of completion of the contract is December 31, 2020.

10. 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 Pfeiffer Hoch – and Tiefbau GmbH Co. KG (Germany)” and “EMIT Group – Ercole Marelli Impianti Tecnologici S.r.l. (Italy). The final date of completion of the contract is December 31, 2020.
11. **Construction of Water Supply System in Jvari (JVA-01).** The major works to be 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.
12. The contract for implementation of JVA-01 was signed on January 17, 2017 with AS Inshaat–N, LLC (Azerbaijan). The date of completion of the contract is April 2020 and further extended to December 2020.
13. 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.
14. 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 date of completion of the contract is April 2021.
15. 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

16. The main institutions that are involved in implementation of the EMP are UWSCG executing agency (EA), Supervision Consultant (SC) the Contractor and to a lesser extent the Ministry of Environment and Natural Resources Protection (MoENRP).
17. Investment Program Management Office (IPMO) established within UWSCG is responsible for the day to day management of the project including implementation of the EMP. The IPMO have an Environmental Specialist who is responsible for management of the environmental aspects of USIIP.
18. The IPMO (Environmental Specialist) 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) Finalize SAEMRs (and Final EMRs upon project completion), send it to ADB and address potential ADB's comments until SAEMR disclosure; Provide ENG and 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
19. The SC include a full time Environmental Specialist to assist the IPMO supervise and monitor implementation of the EMP during construction.
20. The Contractor also appoints a full time Environmental specialist to be a senior member of the construction management team based on site for the duration of the contract. The ES shall have a university degree (preferably at Masters level) in Environmental Science or related discipline and have at least 10 years work experience in environmental management of infrastructure project
21. Department of Environmental Protection and Permits of UWSCG will work together with IPMO on addressing the Environmental Safeguard issues of USIIP sub-projects. More detailed description of implementation arrangements, responsibilities and staffing are provided in the **Table 1** below.

Table 1: Institutional Arrangement, Responsabilités and Staffing

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

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Environmental Protection and Permits Department (Environmental Specialist)
4	Reporting	Prepare monthly environmental monitoring reports and send it to CSC and IPMO	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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)	Environmental Protection and Permits Department (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	<ol style="list-style-type: none"> 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

22. 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 International-Environmental Consultant	Keti Dgebuadze Tel: +995577232937 Kdgeuadze.consultnat@adb.org ketdgeb@yahoo.com
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. Ana Onashvili Tel: +995 599 692090 E-mail: ana.onashvili@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. ShalvaBosikashvili Tel:+995 595116041 E-mail: sbosikashvili@yahoo.com
Contractor ZUG-01	AS Inshaat-N LLC (Azerbaijan)	Environmental H&S Specialist	Mr. NodarUsupishvili Tel:+995 577 68 16 71 E-mail: n.usupashvili@gmail.com
Contractor POT-01	TAHAL Group BV	Environmental H&S Specialist	Mr.BekaKhachidze Tel: +995 599 346 821 E-mail: r.kalandadze@yahoo.com
Contractor POT-02	JV "Pfeiffer - EMIT" comprised by "Ludwig Pfeiffer Hoch – and TiefbauGmbH7Co. KG (Germany)" and "EMIT Group – ErcoleMarelliImpiantiTecnologiciS.r.l. (Italy)	Environmental Specialist H&S Specialist	Mr.NikolozNeparidze Tel: +995 599 346 821 E-mail: nikoloz.neparidze@ludwigpfeiffer.com
JVA-01	AS Inshaat-N LLC (Azerbaijan)	Environmental H&S Specialist	Mr. NodarUsupishvili Tel:+995 577 68 16 71 E-mail: n.usupashvili@gmail.com
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

23. During the reported period construction activities were implemented under POT-01, POT- 02, JVA-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. The Engineers gave processed frequent instructions to the Contractor for the planning and outstanding documents preparation which shall ensure steady improvement of the works progress.
24. Information on USIIP/T4 construction work during the COVID-19 pandemic for the reporting period July-December 2020 is presented in the Table 3, Table4, Table5 and Table 6 below.

POT-02

25. The main activities under POT-02 during the reporting period of July-December 2020 is presented in the table 3below:

Table 3: POT-02, Project Progress during the July-December 2020

POT-02		July-December 2020
Works undertaken during July-December 2020	For POT-02 Project was executed Soil Improvement with stone Columns, from 1884 Columns was executed 100%.	
	Civil works for structures are completed 98% Mechanical and Electrical equipment arrived on site – 60% Mechanical equipment installation - 20%	During the reporting period was completed around 58% of civil works, including structures and installation of Mechanical equipment.

POT-01

26. Since the main pipe-laying civil works were carried out in the wide and deep trenches under POT-01 and GUD-02 sub-projects (more detailed information is provided in the table 4 below), contractor was strongly request by IPMO and ES of supervision consultant to ensure that proper barricading, signboards and warning/reflectORIZED lights are provided on-site at all times that will remain open for more than 24 hours.

27. Also communities are always informed in advance about the laying of pipes, in some cases, signs contain information about contact numbers or temporary leaflets containing this information is distributed among the population prior to the civil works.
28. The main activities under POT-01 project, carried out by contractor during the reporting period is provided in the table 4 below:

Table 4: POT-01, project progress during July-December 2020

HDPE PRESSURE PIPES PERFORMED ACTIVITIES	Completed Total (m)	Completed [%]	Width and Depth (Average) of Trench	Estimated Number of Days to Lay Pipes
Ø 110 (mm) : 3603	4071.84	100 %	0.9 – 1.0m	491.36m
Ø 140 (mm) : 790,00	642,8	81.36%	0.9 – 1.0m	0
@ 180 (mm): 480,00	2132.6	444%	0.9 – 1.0m	97.8m
Ø 280 (mm) : 1094	319.4	29.1%	0.9 – 1.0m	319m
Ø 315 (mm) : 935,00	736,7	78.8%	0.9 – 1.0m	0
Ø 355 (mm) : 4 272,00	3530.42	82.6 %	1.2m	288m
Ø 400 (mm) : 6,580,00	4802.03	72.9 %	1.2m	288m
Ø 630 (mm) : 820,00	814.3	99.3%	1.4m	0
TOTAL = 18 574	14928.65	80.4%		1484.16m
HDPE GRAVITY CORRUGATED PIPE IN LINEAR METER				
Ø 150 (mm) : 37 500,00	12353.9	32.9%	0.9 – 1.0m	6331.5m
Ø 200 (mm) : 57 000,00	12242.4	21.5%	0.9 – 1.0m	3633.3m
Ø 300 (mm) : 38 000,00	16234.6	42.7 %	0.9 – 1.0m	4368.7m
Ø 400 (mm) : 1,643,00	111.7	6.7%	1.2m	0
Ø 500 (mm) : 1,739,6	608.2	34.9%	1.35m	151.4m
TOTAL = 135,882,06	41550.8	30.6 %		14484.9m
Manholes:	Contract	Completed Total	Total Competed %	Executed During July-December 2020
Concrete DN 1000	1440 pcs	381 pcs	26.4%	137 pcs
HDPE DN 600	1300 pcs	367 pcs	28.2%	164 pcs
HDPE DN 400	3030 pcs	1251 pcs	41.3%	659 pcs

JVA-01

29. The main activities under JVA-01 sub-project, carried out by contractor during the reporting period is provided in the table 5 below:

Table 5. Project Progress during the July-December 2020 for JVA-01

Jvari	Jvari Water Supply System Construction	
Sites	Jvari Water Pipeline Network	
Jvari	Jvari Transmission Pipelines	Executed During July-December 2020
Works undertaken during July2020-December2020	<p>Executed January 2020 – December 2020. Total Completed %:</p> <p>OD 63 PE SDR 11 - 1175m 100 %</p> <p>OD 90 PE SDR 11 – 2131m 100 %</p> <p>OD 110 PE SDR 11 – 8592m 100 %</p> <p>OD 140 PE SDR 11- 4808m 100%</p> <p>OD 160 PE SDR 11 - 186 m 100 %</p> <p>OD 200 PE SDR 11- 168m100 %</p> <p>OD 40 PE SDR 17 - 34m 100%</p> <p>OD 50 PE SDR 17 - 9m 100%</p> <p>OD 63 PE SDR 17 - 2395m 100%</p> <p>OD 75 PE SDR 17 - 578m 100 %</p> <p>OD 90 PE SDR 17 - 2022m 100%</p> <p>OD 110 PE SDR 17 - 18514m 100%</p> <p>OD 140 PE SDR 17 - 211m 100%</p> <p>OD 160 PE SDR 17 - 5904m 100%</p> <p>OD 200 PE SDR 17 - 2194m 100%</p> <p>Total Contract Quantity – 48 918m - 100 %</p>	
	<p>OD DCI 300 SDR7.4 - 4200m 30%</p>	<p>1264m</p>
	<p>House Connections:</p> <p>Private houses: 850 unit 98 %</p> <p>Apartment blocks: 1300 unit 98 %</p> <p>Reservoir:</p> <p>Civil works completed 70%</p> <p>Lia Well Field:</p> <p>Mobilization – 100%</p> <p>All 9 wells 100% Finished Drilling (9 wells are equipped with Screens and Filters).</p>	

GUD-02

30. The main activities under GUD-02 sub-project, carried out by contractor during the reporting period is provided in the table 6 below:

Table 6: Project Progress during the July-December 2020 for GUD-02

GUD 02	Total Completed %	Executed During July-December 2020
Works undertaken during July 2020-December 2020	For GUD-02 Project was executed:	
	1. Installation of Corrugated Pipe D-200 – 16 300 m (Out of 22000); - 74%	14566m
	2. Installation of Concrete Manhole – 1297m;- 72%	1169.1m
	3. Construction of Reservoir – 98 %	During this period was executed all civil works (Reservoir, Guard House, Chlorination building and Chamber)
Works undertaken during July 2020-December 2020	4. Construction of Boreholes: N1- 90%: N2- 20% and N3-0%	Borehole N1-Drilling 156m Borehole N2-Drilling 50m
	End of Project date is 29.03.2021.	

2.4 Description of Any Changes to Project Design

31. 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

- 32.** 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

33. Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis.
34. Due to the coronavirus (COVID-19) outbreak in March 2020 and due to the fact that the World Health Organization (WHO) has declared the COVID-19 a global pandemic the Government of Georgia and its Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, issued the General Guidelines Related to Infection (COVID-19) which applies to all sectors of economic activity.
35. The General Guideline for COVID-19 was also developed specifically for the construction sector by the Government of Georgia (Please see Annex D of this report).
36. Based on the above mentioned guidelines the construction staff must not appear in the work place if they:
 - Left the affected country over the past 14days;
 - Were in close contact with infected person/persons for the past 14 days (they must be self- isolated/quarantined as per the rule);
 - Have symptoms of respiratory infection (coughing, temperature, sneezing, difficulty in breathing, general weakness etc.);
 - Are among the ones who have high risk of getting infected with COVID-19 or serious complications: over 70 years of age, people suffering from chronicle diseases (cardio-vascular diseases, diabetes, bronchial asthma and other respiratory diseases).
37. An Emergency Management Plan was developed by SC for preventions of employees against the COVID-19 (please see Annex E). Also Health and Safety Plans, as well Site-Specific Environmental Management Plans were updated by contractors.
38. The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under POT-01, POT-02, GUD-02 and JVA-01sub-projects.
39. Environmental Monitoring Specialist hired under the JVA-01 sub-projects Mr. Nodar Usupishvili conducted the day-to-day monitoring of the construction sites, developed monthly monitoring reports and submitted to SC/Safege.
40. Environmental Monitoring Specialist hired under the POT-01 sub-project by contractor Mr. Beka Khachidze conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Safege.

41. Environmental Monitoring Specialist hired under the POT-02 sub-project by contractor Mr. Nikoloz Neparidze conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Safege.
42. 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.
43. Environmental Monitoring Specialist of Safege, Mr. Shalva Bosikashvili conducted monthly monitoring of project sites under T4 and developed Non-Conformance Notices where required. He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submit to UWSCG.
44. Environmental Specialist of USIIP Ms. Kate Chomakhidze performed monitoring of contractor's performance in accordance with the requirements of approved IEE/EMPs, SEMP, and other environmental commitments of the contractor. Prepare Non-conformance Notice were required developed Semi-Annual Environmental Monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
45. In accordance with the requirements of IEEs, Contractor is required to undertake parametric measurements and observations on air quality and noise and socio-cultural resources. The monitoring guidelines were set as shown in the table 7 below for JVA-01, POT-01, POT-02 and GUD-02 sub-projects.

Table 7: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
JVA-01		
Impact on Flora and Fauna	Monthly, during the site Inspection and audit.	Avoid tree cutting In unavoidable cases, plant four trees of same species for each tree that is cut for construction

Parameters	Frequency & Location	Remarks
Cultural heritage Disturbance to cultural resources	Every time, along the alignment Archaeological & Cultural Properties	<p>Contractor shall put in place a protocol for conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.</p> <p>Calling in the state archaeological authority if a find is suspected, and taking any action they require to ensure its removal or protection.</p>
POT-01		
Air Quality	Every 6 months, across the sewerage network	<p>Watering site during excavation works to avoid dust spreading</p> <p>Conduct measurements of Dusts Mg/m³; CO Mg/m³; NO₂ Mg/m³; SO₂ Mg/m³</p>
Noise	Every 6 months, Reservoir #1, Sewerage Network	<p>Ensure that all equipment & vehicles used for construction activity are in good condition.</p> <p>Limiting working hours to 8 am – 6 pm.</p>

Parameters	Frequency & Location	Remarks
Cultural heritage Disturbance to cultural resources	Every time, along the alignment Archaeological & Cultural Properties	Contractor shall put in place a protocol for conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved. Calling in the state archaeological authority if a find is suspected, and taking any action they require to ensure its removal or protection.
POT-02		
Air Quality	Every 6 months, Waste Water Treatment Plant construction site	Watering site during excavation works to avoid dust spreading. Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Every 6 months, Waste Water Treatment Plant construction site	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Impact on Flora and Fauna	Monthly, during the site monitoring.	Avoid tree cutting In unavoidable cases, plant four trees of same species for each tree that is cut for construction
GUD-02		



Parameters	Frequency & Location	Remarks
Air Quality	Every 6 months, Waste Water Treatment Plant construction site	Watering site during excavation works to avoid dust spreading. Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Every 6 months, Waste Water Treatment Plant construction site	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Impact on Flora and Fauna	Monthly, during the site monitoring.	Avoid tree cutting In unavoidable cases, plant four trees of same species for each tree that is cut for construction

3.2 Site Audits


46. Inspection and monitoring of construction sites were conducted under POT-01,POT-02, 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 POT-01, POT-02, 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
Continuously during reporting period (July-December 2020)	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


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
0.07.2020		Environmental Specialist of SC Mr. Shalva Bosikashvili	Monthly Monitoring of Sites	<p>Poor housekeeping Site internally should be arranged properly and cleaned regularly.</p> <p>(Please see photo below and Photo-documentations presented in ANNEX B, Photo No1, Photo No2)</p> 	Verbal Instruction was given to contractor to improve the situation
24.09.2020		<p>Environment al Specialist of SC Mr. Shalva Bosikashvili</p> <p>Environmental Specialist of CC Mr. Nodar Usupishvili</p>	Compliance with EH&S requirements	<p>All construction materials and wastes should be properly segregated and stored adequately.</p> <p>(please see photo-below)</p> 	Verbal Instruction was given to contractor to improve the situation


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
27.11.2020		Environmental specialists of USIIP Ms.Ketevan Chomakhidze Environmental Specialist of SC Mr. Shalva Bosikashvili, Environmental Specialist of CC Mr.Nodar Usupishvili	Compliance with EH&S requirements	Poor housekeeping Site internally should be arranged properly and cleaned regularly.	Verbal Instruction was given to contractor to improve the situation
Continuously during reporting period (July-December 2020)	JV "Pfeiffer – EMIT" POT-02	EH&S Specialist of Contractor Mr. Nikoloz Neparidze	Day to day monitoring of sites. Compliance with Environmental and HES requirements	Minimize tree cutting on construction site, due to construction purposes. Ensure proper protection of Red Book trees on site	Monthly Monitoring Reports
23.09.2020		Environmental specialists of USIIP Ms. Ketevan Chomakhidze Environmental monitoring specialists of SC/Safege Mr. Shalva Bosikashvili	Monthly monitoring of construction sites	All safety norms must be protected at the construction site Construction area should be cleaned regularly, construction waste should not be mixed with construction materials and should be stored separately (please see photo below)	Non- Compliance Notice Issued by Supervision Consultant (Please see Annex C)



Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
				 <p data-bbox="984 1079 1308 1241">Photo documentations are presented in ANNEX B (please see Photo No7,8,9,10,11,12,13,14, 15,16)</p>	
15.10.2020		Environmental monitoring specialists of SC/Safege Mr. Shalva Bosikashvili	Monthly monitoring of sites	<p data-bbox="984 1283 1308 1541">All safety norms must be protected at construction site, workers should be equipped with PPE (Please see Photo-documentations in ANNEX A, Photo No17)</p> <p data-bbox="984 1612 1308 1797">In case of working on height, more than 1,5m. workers must use protective anti-dumping equipment, please see photo below</p>	Non- Compliance Notice Issued by Supervision Consultant (Please see Annex C)


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
				 <p data-bbox="984 890 1239 951">Scaffolding is not in safety condition</p> <p data-bbox="984 989 1239 1115">(Please see Photo-documentations in ANNEX A, Photo No18,19)</p>	
19.11.2020		<p data-bbox="508 1150 704 1310">Environmental specialists of USIIP Ms.Ketevan Chomakhidze</p> <p data-bbox="508 1360 704 1549">Environmental monitoring specialists of SC/Safege Mr.Shalva Bosikashvili</p>	<p data-bbox="737 1150 911 1276">Monthly monitoring of construction sites</p>	<p data-bbox="984 1150 1308 1367">Construction area should be cleaned regularly, construction waste should not mixed construction materials and should be stored separately</p>	<p data-bbox="1336 1150 1568 1310">Verbal Instruction was given to contractor to improve the situation</p>
Continuously during reporting period (July-December 2020)	TAHAL Group BV POT-01	Environmental H&S Specialist of Contractor Mr. Beka Khachidze	<p data-bbox="737 1562 911 1661">Day to day monitoring of sites</p> <p data-bbox="737 1696 954 1822">Compliance with Environmental and HES requirements</p>	<p data-bbox="984 1562 1239 1661">Poor housekeeping Safety issues on construction sites</p>	<p data-bbox="1336 1562 1528 1759">Monthly Monitoring Reports Environmental Monitoring Checklist filled</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
11.07.2020		<p>Head of Department, Environmental Protection and Permits Ms. Maka Goderdzishvili</p> <p>Environmental specialists of USIIPMs. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. Shalva Bosikashvili</p>	Monthly Monitoring of sites	<p>Hazardous waste containers secondary drip trays have to be used.</p> <p>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, please see photo below</p>  <p>Photo-documentations on pipe-laying under Pot-01 sub-project is presented in Annex B (Please see Photos No22, 23, 24,25)</p>	<p>Verbal Instructions were given to contractor to improve the situation</p> <p>Non-compliance notice was issued to contractor</p>
24.09.2020		<p>Environmental specialists of USIIPMs. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. Shalva</p>	Regular Monitoring of sites	All construction materials and wastes should be properly segregated and stored adequately.	Verbal instruction was given to contractor


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
		Bosikashvili			
16.10.2020		<p>Environmental specialists of USIIPMs. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. ShalvaBosika shvili</p>	Regular monitoring of construction sites	<p>Drip trays should be provided and used at the vehicle and heavy equipment maintenance area/ Re-fuelling points No Spill Response Equipment on site.</p> <p>Site internally should be arranged properly and cleaned regularly (please see photo below)</p>  <p>All construction materials and wastes should be properly segregated and stored adequately.</p> <p>Oil spill response kits should be placed at the appropriate locations.</p>	<p>Verbal Instructions were given to contractor to improve the situation</p> <p>Non-compliance notice were issued to contractor and corrective actions were required to immediately improve the situation on sites under POT-01 sub-project</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
				 <p data-bbox="982 659 1291 921">Refueling station should be equipped with the spill kit and fire relevant fighting equipment, drip tray should be used for fuel Spillage.</p>	
Continuously during reporting period (July-December 2020)	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

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
23.07.2020		<p>Environmental Specialist of SC Mr. Shalva Bosikashvili</p> <p>Environmental H&S Specialist of Contractor Mr. Aleksandre Mchedlishvili</p>	Monthly Monitoring of construction sites	<p>Surplus waste soils should be removed and disposed in a proper place during the construction activities and not to make threat to workers.</p>  <p>All transmission line construction segments should be cleaned/well organized on regular bases.</p>	Verbal instruction is given to contractor and SC And Non-compliance issued to Contractor by IPMO
04.09.2020		<p>Head, Department of Environmental protection and Permits, Ms. Maka Goderdzishvili Environmental specialists of USIIP Ms. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. Shalva Bosikashvili</p> <p>Environmental H&S Specialist of Contractor Mr. Aleksandre</p>	Monthly monitoring of sites	<p>Gudauri Reservoir Site</p> <p>Site internally should be arranged properly and cleaned regularly.</p> <p>All construction materials and wastes should be properly segregated and stored adequately, Oil spill response kits should be placed at the appropriate locations (Please see photo below)</p> 	<p>Verbal instruction is given to contractor and SC And Non-compliance issued to Contractor to immediately improve the situation Please see Annex C with relevant photo-documentations</p> <p>Explanatory Note was issued by Department of Environmental protection and Environmental Specialist of USIIP to IPMO/Projects Management</p>

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
		Mchedlishvili		<p>Refueling station should be equipped with the spill kit and fire relevant fighting equipment</p> <p>Drip tray should be used for fuel spillage prevention. Relevant traffic signs and flagmen should control traffic movement properly (please see photo below).</p>  <p>H&S standards and rules should be addressed and implemented.</p> <p><u>Construction of Sewage Collection and Water Supply Systems in Gudauri</u></p> <p>Unsafe work on height (improper ladder, scaffolds, overpass). Unsafe platforms, edges are not anchored, no hand rails. Worker H&S awareness is very low.</p> <p>Unacceptable housekeeping, construction materials, waste, hand tools scattered everywhere mixed.</p>	Department (Please see Annex C) of UWSCG (Institutional Arraignment of USIIP please see in Table 1).

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
				<p>Oil and concrete spills (drip trays should be used and concrete washout pit constructed) (Please see photo below)</p>  <p>No fire extinguishers at the construction site.</p> <p>No hard barrier around the deep pit</p> <p>No gate at the site entrance, no warning signs</p> <p>Unsafe excavation – Shoring is not installed in the deep trench excavated spoil should be stockpiled at 1-1.5m distance from the edge.</p>	

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
15.10.2020		<p>Environmental specialists of USIIPMs. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. Shalva Bosikashvili</p> <p>Environmental H&S Specialist of Contractor Mr. Aleksandre Mchedlishvili</p>	Monthly Monitoring of construction sites	<p>signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident</p> <p>The top soil of about 1 ft depth (0.3 m) shall be removed and stored separately during excavation work, in accordance with Georgian Regulations and after the construction of the pipeline the same soil shall be replaced on the top, in unpaved areas.</p>	Verbal instruction is given to contractor and SC.
16.11.2020		<p>Head of Department of Environmental Protection and Permits/UWS CG Ms. Maka Goderdzishvili</p> <p>Environmental specialists of USIIPMs. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. Shalva Bosikashvili</p> <p>Environmental H&S Specialist of Contractor Mr. Aleksandre Mchedlishvili</p>	Monthly Monitoring of construction sites	<p>Site internally should be arranged properly and cleaned regularly All construction materials and wastes should be properly segregated and stored adequately Please see photos below</p>  <p>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 (please see photo below)</p>	<p>Verbal instruction is given to contractor and SC,</p> <p>Non-compliance Notice issued and send to Contractor (Please see Annex C of this report)</p>

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report
				 <p data-bbox="980 684 1312 871">Relevant traffic signs and flagmen should control traffic movement properly. H&S standards and rules should be addressed and implemented.</p>	

3.3 Issues Tracking (Based on Non-Conformance Notices)

47. The contractors EHS performance are always reviewed by Supervision consultant and IPMO. Necessary actions are undertaken when contractors are not in conformance and the EH&S issues.
48. The UWSCG's Department of Environmental Protection and Permits and its USIIP Environmental Specialist Ms. Kate Chomakhidze and IPMO/UWSCG had always discussed the non-compliances and findings presented in the table 8 above with contractor. In some cases Department of Environmental Protection and Permits applies to IPMO with an Explanatory Note that lists all non-compliances identified during the site visits and mitigation measures that must be immediately implemented, based on this IPMO send a letter to contractor to immediately improve the situation as it happened after the site visit under GUD-02 sub-project on September 4 2020 (Please see Annex C, Non-compliance Note issued jointly by SC and USIIP/Environmental Specialist and Explanatory Note issued by USSIIP ES to IPMO). Explanatory Note was also issued by Ms. Kate Chomakhidze and Department of Environmental Protection and Permits after the site visit under POT-01 subproject after 11 July 2020.
49. IPMO/PIU will continue discussions these issues with contractors during the next reporting period as well and the Minutes of these Meetings as well as key findings will be reflected in the next Semi-annual EMR, January-June 2021.
50. Non-Compliance Notices have been observed during the site visits under POT-02, JVA-01, POT-01 and GUD-02 sub-projects. The contractors were always informed on the detected non- conformances and were demanded to improve on the deadline set and send 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-AnnualEMR.

51. A summary of the identified environmental issues under POT-02, POT-01, JVA-01 and GUD- 02 sub- projects for July-December 2020 is presented in table 9, 10, 11 and 12 below.

Table 9: Summary of Issues Tracking Activity for Current Period –POT-02

Total Number of Issues for Project	6
Issues Opened This Reporting Period	2
Issues Closed This Reporting Period	4
Percentage Closed	67%

Table 10: Summary of Issues Tracking Activity for Current Period –JVA-01

Total Number of Issues for Project	5
Issues Opened This Reporting Period	1
Issues Closed This Reporting Period	4
Percentage Closed	80%

Table 11: Summary of Issues Tracking Activity for Current Period –POT-01

Total Number of Issues for Project	9
Issues Opened This Reporting Period	3
Issues Closed This Reporting Period	6
Percentage Closed	67%

Table 12: Summary of Issues Tracking Activity for Current Period –GUD-02

Total Number of Issues for Project	24
Issues Opened This Reporting Period	8

Total Number of Issues for Project	24
Issues Closed This Reporting Period	16
Percentage Closed	67%

52. Table 22 below present information about the EH&S issues, those are still opened under POT-02, POT-0, JVA-01 and GUD-03 sub-projects (relevant photos are presented in the table 8 and Annex B).
53. Percentage of closed issues is not 100% yet due to limited access to sites caused by the regulations imposed by the Georgian government in connection with the COVID-19 pandemic, which was reflected in a decrease in regular site visits and meetings with contractors EH&S team.
54. The required actions and timeline for improvement for the contractor are presented in table 22 below, additional meetings and discussions will be held by the PIU / IPMO and SC with the contractor team. All improvements will be duly reflected in the next SAEMR from January to June 2021.

3.4 Trends

55. To identify trends in environmental issues, information from previous Semi-Annual EMR (January-June 2020) is used. The summary of the issues is provided in the table 13 below.

Table 13: Summary of identified trends in environmental issues

Semi-Annual EMR No	Total No of Issues	% issues Closed	% issues closed late
January-June 2020	42	57%	43%
July-December 2020	36	70%	30%

56. All major Non-Conformances under USIIP/T4 were reported verbally to the contractor during the reporting period and a written note of non-compliance was not prepared and submitted to the contractor.
57. The following non-compliances were revealed during the reporting period; Poor housekeeping, all safety norms must be protected at the construction site, construction area should be cleaned regularly and construction waste should not be mixed with construction materials and should be stored separately.

3.5 Unanticipated Environmental Impacts or Risks

58. During the reporting period, COVID-19 is viewed as an unanticipated impact and risk to

the community and workers, however, IPMO, SC and CC have taken all appropriate measures to minimize this risk. These measures, inter alia, included updating the relevant SEMP by the contractor, developing emergency management plan by SC, etc. More details are provided in paragraphs 34-38 above.

4. RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

59. During the reporting period Environmental measurements of Noise level and Ambient Air Quality were carried out by contractor only under Pot-02sub-project.
60. Noise and air pollution standards defined by IFC/WHO 1999, are presented in the Table 13 and 14 below.

Table 14: Noise Level Guidelines

Noise	dBA National Regulations		dBA WHO	
	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

61. Air pollution standards by IFC/WHO 1999, are presented in the Table 14 below.

Table 15: 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

62. Environmental quality measurements of noise level and ambient air quality under POT-02 sub-project was conducted by the National Environmental Agency of the Ministry of Environmental Protection and Agriculture of Georgia in 29 June 2020 (See Table 15 below and Annex A) and the measurement results presented in July 15 2020 are reflected in presented Semi-annual EMR. The next monitoring measurements will be conducted in March 2021 and results will be reflected in the next January-June 2021 EMR.
63. According to data received in July 2020 noise level doesn't exceeds the standards of the National Regulations and World Health Organization (IFC/WHO), 1999 POT-02 sub-project and therefore no additional mitigation measures are required. IFC/WHO standards for Noise and Air pollution are presented in Tables 13 and 14 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 16:00 pm and no complaints were received from the local population about the noise during the reporting period.

Table 16: Environmental Quality Monitoring Measurement of Noise and Air Quality, POT-02

N	Place of measurement	Coordinates	Results				
			Dusts Mg/m ³	CO Mg/m ³	NO ₂ Mg/m ³	SO ₂ Mg/m ³	Noise dBA (MAX) (1-hour)
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55 Residential; Institutional; Educational 70 Industrial; commercial
1	Poti WWTP	0719295 4675729	0.025	0.1	0.002	<0.1	49.1

64. Environmental quality measurements of noise level and ambient air quality under GUD-02 sub-project were conducted by the National Environmental Agency of the Ministry of Environment Protection and Agriculture of Georgia in 14 December 2020 (See Table 16, Table 17 below and Annex A). The next monitoring measurements will be conducted in March 2021 and results will be reflected in the next Semi-annual EMR, January-June 2021.
65. According to data received in June 2020 noise level in some cases exceeds the standards of the National Regulations and World Health Organization (IFC/WHO), 1999 under GUD-02 sub-projects and therefore additional mitigation measures which are presented in the table 17 below are required. IFC/WHO standards for Noise and Air pollution are presented in Tables 13 and 14 above. It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 12:30 pm to 15:30 pm and no complaints were received from the local population about the noise during the reporting period. All construction activities were implemented away from the local residents and their houses. The distance from the construction sites to the nearest residential houses is about 500 m.

Table 17: Environmental Quality Measurements, GUD-02

Measurement point		Measurement results							
Location	Coordinates	Noise Max. dBA (MAX) (1 hour)	Vibro Speed		Vibro Acceleration		Dust mg/m ³		
			m/s ²		db		PM _{2.5}	PM ₁₀	Total
GudaUri Pumping Station	38TO458468 4702224	48,4	<0,1	<66	<0,1	<100	0,030	0,036	0,049
GudaUri Reservoir	38TO457008 4703113	37,8	<0,1	<66	<0,1	<100	0,027	0,031	0,042
GudaUri Track	38TO457187 4702170	62,3	<0,1	<66	<0,1	<100	0,034	0,041	0,05

Table 18: Environmental Quality Measurements, GUD-02

Measurement Point		Measurement Results mg/m ³			
Location	Coordinates	Nitrogen dioxide	Sulfur dioxide	Carbon monoxide	Total Hydrocarbon
GudaUri Pumping Station	38TO458468 4702224	0,004	<0,01	0,27	<0,1
GudaUri Reservoir	38TO457008 4703113	0,003	<0,01	0,19	<0,1
GudaUri Track	38TO457187 4702170	0,011	<0,01	0,56	<0,1

66. Environmental Quality measurements were not carried out under ABA-01 and POT-01 sub-projects, as all construction activities were carried out in remote areas, away from local residents and any other sensitive receptors, or carried out indoors.

4.2 Trends

67. All mitigation measures identified within the POT-01, POT-02 and JVA-01 projects are effective and no additional measures are required.

4.3 Summary of Monitoring Outcomes

68. Noise level during the construction period under POT-02 sub-project doesn't exceed the existing standards of IFC/WHO and therefore no additional mitigations are required by contractor.
69. Noise level during the construction period under GUD-02 sub-project exceeds the existing standards of IFC/WHO and therefore additional mitigations are required by contractor. These mitigation measures are presented in table 21 below.

4.4 Material Resources Utilization

4.4.1 Current Period

70. The material resources utilized by contractor - TAHAL Group BV, under POT-01 sub-project during the reporting period – July-December 2020 is provided in the table 18 below.

Table 19: Material Resources Utilization under POT-01 Sub-project, July-December 2020

Material Resources Utilization	
Water M ³ Indication	1600 M ³
Electricity KV Indication	62430.4 KW
Gas	1445 M ³

71. The following table provides information on the consumption of water and electricity in the framework of the POT-02 sub-project by the contractor - JV “Pfeiffer – EMIT”.

Table 20: Material Resources Utilization under POT-02 Sub-project, July-December 2020

Material Resources Utilization	
Drinking Water	400 liter (daily)
Electricity KV Indication	2500. KW

72. There is no information on material resources used during the reporting period under the JVARI-01 and GUG-02 sub-projects from the contractors despite numerous written and oral instructions and requests issued by Environmental Consultant of UWSCG / USIIP. SC is strongly requested to issue non-compliance notice to contractors under JVARI-01 and GUD-02 sub-projects on the above matter. The UWSCG will receive this information and present them in the SAEMR of the next reporting period, January-June 2021.

4.4.2. Cumulative Resource Utilization

N/A

4.5 Waste Management

4.5.1 Current Period

73. At the construction sites of JVA-01, POT-01, POT-02 and GUD-02 sub-projects, 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 service. 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.

74. 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.
75. The local municipality is responsible for the disposal of household waste under USIIP/T4 sub-projects as well.

4.5.2 Cumulative Waste Generation

N/A

4.6 Health and Safety

4.6.1 Community Health and Safety

76. No community incidents have been reported to SC during reporting period under POT-01, POT-02, JVA-01 and GUD-02 sub-projects.

4.6.2 Worker Safety and Health JVA-01

77. Environmental H&S Manager of JVA-01 project Mr. Nodar Usupishvili was performing every day monitoring, induction and supervision of ongoing works according to HSE standards and by requirements of ADB/UWSCG/SAFEGE and providing relevant reports on a regular basis taking into account any recommendations given by SC/UWSC.
78. Health & safety and environment issues which were covered during the reporting period are as follows:
 - PPE;
 - Ground works;
 - Manual works;
 - Upgrade Safety Hard and Warning Barricade
79. Contractor under JVA-01 project was working on compilation of statistics information (incidents, near misses, trainings) during reporting period. No workers incidents have been reported during reporting period under JVA-01 project.
80. No Near Misses were reported by SC under POT-01, POT-02, JVA-01 and GUD-02 sub-projects, which may be resulted in Workers' Health and Safety problems.

4.6.3 Worker Safety and Health GUD-02

81. Environmental H&S Manager of GUD-02 sub-project Mr. Aleksandr (Sasha) Mchedlishvili was performing every day monitoring of construction sites, including supervision of ongoing works according to EH&S standards.

82. Health & safety and environment issues which were covered during the reporting period are as follows:

- PPE;
- Reinforcement;
- Ground works;
- Manual works;
- Bending rebar, Cutting;
- Induction all visitors
- Dust and Noise Measurements
- Upgrade Safety Hard and Warning Barricade

83. Contractor under GUD-02 sub-project was working on compilation of statistics information (incidents, near misses, trainings) during reporting period. No workers incidents have been reported during reporting period under GUD-02 sub-project.

84. During the reporting period, within the framework of the GUD-02 sub-project, no near-was reported. SC and UWSCG / USIIP requested from contractor to adequately fill the near-misses forms and reflect in their monthly monitoring reports.

4.6.4 Worker Safety and Health POT-02

85. Environmental H&S Manager of GUD-02 sub-project Mr. Nikoloz Neparidze was performing every day monitoring of construction sites, including supervision of ongoing works according to EH&S standards.

86. Health & safety and environment issues which were covered during the reporting period are as follows:

- PPE;
- Working on height;
- Reinforcement;
- Ground works;
- Manual works;
- Removal waste;
- Bending rebar, Cutting;
- Installation and dismantle formwork
- Induction all visitors
- Dust and Noise Measurements
- Upgrade Safety Hard and Warning Barricade

87. The following Near-Misses were reported by SC under POT-02 sub-project, which may be resulted in Workers' Health and Safety problems:
- Workers always should use complete PPE to avoid accidents
 - In case of working on height, more than 1,5m. workers must use protective anti-dumping equipment
88. Non-compliance Notice was issued by SC to immediately improve the situation (please see table 8 summary of site auditing) and the case of workers who need to be protected when working at height was immediately improved, however the use of PPE still remained the problem and therefore is reflected in table 21.
89. Since it was indicated in relation to the above problem that the situation needs to be improved immediately (please see table 21), first week of January, this near missis has already been improved.

4.6.5 Worker Safety and Health POT-01

90. Environmental H&S Manager of GUD-02 sub-project Mr. Beka Khachidze was performing day-to-day monitoring of construction sites, including supervision of ongoing works according to EH&S standards.
91. Health & safety and environment issues which were covered during the reporting period are as follows:
- PPE;
 - Ground works;
 - Manual works;
 - Removal waste;
 - Installation of pipes;
 - Induction all visitors
 - Upgrade Safety Hard and Warning Barricade
92. During the reporting period, within the framework of the POT-01 sub-project, no near-misses forms have been filed. SC and UWSCG / USIIP requested from contractor to adequately fill the near-misses forms and reflect in their monthly monitoring reports.

4.7 Training

93. Routine personnel trainings and tool box talks happen by the construction companies almost on daily basis under JVA-01sub-projects. The recording of such toolbox talks are available at the sites. SC also provides routine instructions and verbal trainings for Construction Company environmental and H&S officers. Statistics of routine toolbox talks will be communicated by the construction companies during next reporting period.

5. FUNCTIONING OF THE SEMP

5.1 SEMP Review

94. All SEMP were updated due to COVID-19 circumstances for anti-COVID measures during the reporting period.
95. All SSEMPs under ZUG-01, POT-01, POT-02 and JVA-01 projects were prepared by Contractor, endorsed by SC and approved by UWSCG and reviewed/commented by the RETA International Environmental Consultant of ADB under RETA 8663-Ms. Ketidgebuaдзе.
96. Location Specific Environmental Management Plan under JVA-01 project was prepared for Lia well fields within the reporting period (July 2018).
97. SSEMPs prepared by contractors, within the framework of ZUG-01, POT-01, POT-02 and JVA-01 sub-projects during the current and previous reporting periods are presented in table 19 below.
98. SEMP for construction of Water Reservoir and well fields under GUD-02 is prepared by contractor and submitted to SC for their endorsement.
99. This SEMP for POT-02 sub-project was prepared in May 2018, as it is presented in the table below 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.

Table 21: 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	Pot-02 - Poti WWTP	31 May 2018
5	Pot-02 - Poti WWTP	Updated in August 2020

100. All of the SSEMPs listed above are effective, mitigation measures are still relevant, no changes are required.
101. All SEMP were updated with risks associated with COVID-19 outbreak including all relevant mitigation measures.

6. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.1 Good Practice

102.There is need to improve close monitoring, guidance and interactions between IPMO, consultant supervision team and contractors to avoid non-conformances and improve current situations in order to improve the tracking of actions to address non-conformances under USIIP/T4 sub-projects.

6.2 Opportunities for Improvement

103.During the next the reporting period the tracking of actions to address non-conformances will be improved by PIU. Close monitoring, guidance and interactions between PIU, SC and CC will be improved to avoid non-conformances and improve current situations. All non-conformances addressed will be reflected in the next SAEMR, January-June 2021.

7. SUMMARY AND RECOMMENDATIONS

7.1 Summary

- 104.**Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis, until early March 2020 before restrictions were imposed by the Government of Georgia on site visits in connection with the outbreak of the new Coronavirus - COVID-19 and then resumed in May 2020.
- 105.**The Government of Georgia and its Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, issued the General Guidelines Related to Infection (COVID-19) Caused by Novel Coronavirus (SARS-CoV-2) which applies to all sectors of economic activity.
- 106.**The General Guideline for COVID-19 was also developed by the Government of Georgia specifically for the construction sector.
- 107.**An Emergency Management Plan was developed by SC/SAFEGE for prevention of employees against COVID-19.
- 108.**Environmental Monitoring Specialist of Safege, Mr. Shalva Bosikashvili conducted monitoring of project sites under T4 and developed Non-Conformance Notice were required. He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submit to UWSCG.
- 109.**The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under POT-01, POT-02, JVA-01 and GUD-02 sub-projects.
- 110.**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 monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
- 111.**Non-Conformance Notice has been issued to the contractor by the environmental specialist of UWSCG/USIIP if needed. Mitigation measures in order to reduce major environmental impacts have been instructed to CCs during the monitoring visits as well.

The Contractor is required to undertake parametric measurements and observations on air quality, noise and socio-cultural resources.

112. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMP's and SEMP's requirements for GUD-02, POT-01, POT-02 and JVA-01 sub-projects.

7.2 Recommendations

113. During the reporting period, July-December 2020, the USIIP/T4 of Investment Program was implemented in accordance with the requirements of ADB - SPS 2009 and the National Legislation.

114. More detailed recommendations for the implementation of T4 during the next reporting period January-June 2021 are provided in the table 21 below:

Table 22: Recommendations to Address Environmental Issues under POT-01, POT-02, JVA-01 and GUD-02 sub-projects.

Recommendations POT-01, JVA-01, POT-02 and GUD-02 sub-projects	
Recommendations POT-01	Implementation status and date
Poti Network	
<p>Drip trays should be provided and used at the vehicle and heavy equipment maintenance area/ Re-fuelling points No Spill Response Equipment on site.</p> <p>Site internally should be arranged properly and cleaned regularly.</p> <p>All construction materials and wastes should be properly segregated and stored adequately</p>	<p>Instructions are given to contractor to improve the situation and to conduct following mitigation measures by the 15th January 2021</p>
JVA-01	
<p>Poor housekeeping</p> <p>Site internally should be arranged properly and cleaned regularly.</p>	<p>Contractor is given strong instruction to improve the situation, develop CAP (if requested) and send improved photos of Site to SC and UWSCG by the 10 January 2021.</p>
POT-02	

Recommendations POT-01, JVA-01, POT-02 and GUD-02sub-projects

<p>All safety norms must be protected at the construction site</p> <p>Construction area should be cleaned regularly, construction waste should not be mixed with construction materials and should be stored separately</p>	<p>Contractor is given strong instruction to improve the situation, develop CAP (if requested) and send improved photos of Site to SC and UWSCG by the 15 of January 2021</p>
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GUD-02

<p>Site internally should be arranged properly and cleaned regularly.</p> <p>All construction materials and wastes should be properly segregated and stored adequately, Oil spill response kits should be placed at the appropriate locations.</p> <p>Relevant traffic signs and flagmen should control traffic movement properly.</p> <p>H&S standards and rules should be addressed and implemented.</p>	<p>Contractor is given strong instruction to improve the situation, develop CAP (if requested) and send improved photos of Site to SC and UWSCG, start immediately, within five days.</p>
<p>Noise from the construction activities should not cause disruption and nuisance to nearby community and other sensitive receptors (i.e. school, hospitals).</p>	<p>Instruction are given to contractor to improve the situation and to conduct following mitigation measures by the end of January 2021:</p> <p>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</p> <p>Noisy construction activities will be avoided during night time</p> <p>All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions</p> <p>Impose speed limits on construction vehicles to minimize emissions along</p>

Recommendations POT-01, JVA-01, POT-02 and GUD-02sub-projects

	<p>areas where sensitive receptors are located (i.e. temples, hospitals, schools, houses)</p> <p>Install noise barriers (e.g., panels, curtains, or partitions) to reduce the emission of engine noise</p> <p>Conduct meetings with population and provide information related to schedule of construction activities and noise caused by the project activities.</p>
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115.Conduct Post-Construction Environmental Audit by the March 2021 for ZUG-01 project and reflect findings of the audit in the next Semi-Annual EMR of January-June 2021.

116.Conduct monitoring of Ambient Noise and Air quality under POT-01 project at the nearest sensitive receptors in March 2021.

Table 23: The Specific Plan for Environmental Measurement under POT-01 Project

Parameters	Quarterly measurement
Dust	March 2021
Vibration	March 2021
Carbon monoxide	March 2021
Nitrogen dioxide	March 2021
Sulfur dioxide	March 2021
Noise	March 2021

117.Conduct monitoring of Noise and Ambient Air quality under POT-02 project near the sensitive receptors of Construction sites in March 2021.

Table 24: The Specific Plan for Environmental Measurement under POT-02 Project

Parameters	Quarterly measurement
Dust	March 2021
Vibration	March 2021
Carbon monoxide	March 2021
Nitrogen dioxide	March 2021
Sulfur dioxide	March 2021
Noise	March 2021

118.Conduct monitoring of Noise and Ambient Air quality under JVA-01 project at the nearest sensitive receptors of Construction sites in March 2021.

Table 25: The Specific Plan for Environmental Measurement under JVA-01 Project

Parameters	Quarterly measurement
Dust	March 2021
Vibration	March 2021
Carbon monoxide	March 2021
Nitrogen dioxide	March 2021
Sulfur dioxide	March 2021
Noise	March 2021

119.Conduct monitoring of Ambient Noise and Air quality under GUD-02 project at the nearest sensitive receptors in March 2021.

Table 26: The Specific Plan for Environmental Measurement under GUD-02 Project

Parameters	Quarterly measurement
Dust	March 2021
Vibration	March 2021
Carbon monoxide	March 2021
Nitrogen dioxide	March 2021
Sulfur dioxide	March 2021

Parameters	Quarterly measurement
Noise	March 2021

ANNEX A: Environmental Monitoring Data of Noise and Ambient Air Quality GUD-02



14th December 2020

To: UWSCG
Attn. Mr. G. Mandaria
Director

Our Ref.: UWSC- 924/OUT - VH

Contract: P43405-ICB-GUD 02

Subject: GUD 02 - Quarterly Environmental Parametric Measurement Report

Dear Sir,

Please find attached Contractor's Quarterly Environmental Parametric Measurement Report.

For the Engineer

A handwritten signature in blue ink, appearing to read "Hruska".

Victor Hruska

Team Leader

Attachment: letter GUD02-CNI23-ENG-20250 dated 14/12/2020

Urban Services Improvement Investment Program (Project 4)



SAFEGE-with Engineering Solutions LLC as sub-consultant – ADD ADDRESS
SAFEGE Europe & Africa – Guleed Elle 92, 1200 Brussels, BELGIUM – Tel: +32 2 739 46 90 – Fax: +32274238 91
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Tel: +33146147100 – Fax: +33 147247202 – Web: www.safeges.com





China Nuclear Industry 23 Construction Co., Ltd
Construction of Sewage and Water Supply Systems in Gudauri
(UWSCG-ICB-GUD-02-2018)

The Contractor

Address: #5 Java street, 0180 Tbilisi, Georgia
Telephone: +995 571246556

Safège Ingenieurs Conseils/Engineering Solution LLC as sub-consultant
Mr. Victor Hruska, Team Leader
Medea Chakhava #9
0177 Tbilisi, Georgia

[your reference/date]	[our reference/date]	[your contact]	[e-mail]
	GUD02-CNI23-ENG-20250 2020-12-14	Luo Ke	gudauri@cni23.com

Construction of Sewage and Water Supply Systems in Gudauri
(UWSCG-ICB-GUD-02-2018)

Subject: Quarterly Environmental Parametric Measurement Report

Dear Mr. Victor,

We are sending Quarterly Environmental Parametric Measurement Report, please kindly find the attachment.

Yours sincerely

Contractor of Construction of Sewage Collection and Water Supply Systems in Gudauri

Mr. Luo Ke
Project Manager

Appendix : 8 pages

Copy to: Contractor internal

**Construction of Sewage Collection and Water Supply Systems in
Gudauri (UWSCG-ICB-GUD-02-2018).**

**Date of Commencement March 1 2019 Term of Work
Completion December 2021**

1. Introduction

The Government of Georgia wishes to improve and expand Water Supply and Sanitation (WSS) Services across urban centers by leveraging donor and private sector funds and has requested ADB to develop an investment program to be financed through a multi-tranche financing facility (MFF). The proposed Investment Program will specifically address basic urban infrastructure and services management in the provincial capitals and secondary towns. The Investment Program will be implemented in various tranches; each tranche containing technically feasible and economically viable subprojects developed by UWSCG and agreed with ADB.

The present tender considers the "Construction of Sewage Collection and Water Supply Systems in Gudauri".

2. Location of the project areas

Gudauri is a ski resort located on the south-facing plateau of The Greater Caucasus Mountain Range in Georgia, in the Stepantsminda District, along the Georgian Military Highway near the Cross Pass, 120 km to the north of the capital Tbilisi on the way to Kazbegi and two hours drive from the Tbilisi International Airport.

3. Regulatory Requirements

The environmental quality standards on the territory of Georgia are regulated by Decree No 297N of August 16, 2001 of the Minister of Labor, Health and Social Affairs of Georgia "On the approval of the environmental quality standards" (State Registration Code 470.230.000.11.119.004.920).

The following amendments were made to the above-mentioned decree:

1. Decree No 38/N of February 24, 2003 of the Minister of Labor, Health and Social Affairs of Georgia, SSM III, №16, 06.03.2002, Article 150
2. Decree No.251/N of the Minister of Labor, Health and Social Affairs of Georgia of September 15, 2006– SSMIII, №129, 20.09.2006, Article 1716
3. Decree No.351/N of the Minister of Labor, Health and Social Affairs of Georgia of December 17, 2007– SSMIII, №179, 18.12.2007, Article 1974
4. Decree No.304/N of the Minister of Labor, Health and Social Affairs of Georgia of September 18, 2009– SSMIII, №115, 22.09.2009, Article 1312

5. Decree No.98/N of the Minister of Labor, Health and Social Affairs of Georgia of April 14, 2010– SSMIII, №39, 14.04.2010, Article 622

6. Decree No.350/N of the Minister of Labor, Health and Social Affairs of Georgia of October 25, 2010 - SSMIII, №138, 26.10.2010, Article 2000

7. Decree No.01-24/N of the Minister of Labor, Health and Social Affairs of Georgia of May 17, 2012 – web-site, 17.05.2012.

3. Description of the work to be performed.

In accordance with the agreement concluded between the Construction Contractor and Naseto Group LLC, environmental quality analysis was carried out at various points in Gudauri.

Construction work has not yet been carried out, so all the measurement results are background. Background measurements were carried out at the sites of the future construction of the reservoir, pumping station and pipeline route.

4. Performed measurements and results

Gudauri is not a settlement where stationary observations of the quality of atmospheric air are carried out, therefore pollution data are not available.

4.1 Noise and vibration.

The measured noise and vibration are also background.

As a rule, the noise caused by the movement of equipment is reduced at some distance. Such a reduction has logarithmic properties. In the case of noise caused by construction work, the noise propagation scheme from the noise point is used, which can be determined as follows: Noise level 1 - Noise level 2 = $20 \log r_2 / r_1$, which means that when doubling the distance, the noise decreases by 6 dBA.

Table 2: Noise levels

Distance from noise source, m	Calculation level of the noise Average value - dBa	Calculation level of the noise Maximum value - dBa
10	80	90
20	74	84
40	68	78
80	62	72
160	56	66
320	50	60

4.4 Air quality values

The quality indicators of the following components measured in the project area: air quality with total hydrocarbons, sulfur and nitrogen dioxide, carbon monoxide, dust, noise and vibration by the executor. The results of the accomplished quality measurements given in Annex1.

“ჩაინა ნუკლეარ ინდასტრი 23 კონსტრაქშენ კო“-ს ფილიალი საქართველოში
"Georgia Branch of China Nuclear 23 Consturction Company Co.,Ltd"
ჰერის მტვერით დაბინძურების, ხმაურის და ვიბრაციის გაზომვების შედეგები
10.12.2020. 13⁰⁰ – 15⁰⁰

Dust air pollution, noise and vibration measurements on 10.12.2020. 13⁰⁰ – 15⁰⁰

№	გაზომვის წერტილის Measurement point		გაზომვის შედეგები Measurement results							
	ადგილი მდებარეობა Locastion	კოორდი- ნატები Coordinates	ხმაურ o A _{max} დბ Noise A _{max} db	ვიბრო სიჩქარე Vibro Speed		ვიბრო აჩქარება Vibro acceleration		მტვერი მგ/მ ³ Dust mg / m ³		
				მმ/წმ mm/s	დბ db	მ/წმ ² m/s ²	დბ db	Pm _{2.5}	Pm ₁₀	Total
1	გუდაური, სატუმბო სადგური. Gudauri, Pumping station	38T0458468 4702224	48,4	<0.1	<66	<0.1	<100	0.030	0.036	0.049
2	გუდაური, რეზერუარი. Gudauri, Reservoir	38T0457008 4703113	37,8	<0.1	<66	<0.1	<100	0.027	0.031	0.042
3	გუდაური, ტრასა. Gudauri, Track	38T0457187 4702170	62,3	0.1	66	0.1	100	0.034	0.041	0.053

ჰაერის აზოტის და გოგირდის დიოქსიდით, ნახშირბადის მონოოქსიდით და ჯამური ნახშირწყალბადებით დაბინძურების გაზომვების შედეგები 10.12.2020. 13⁰⁰ – 15²⁰

Nitrogen and sulfur dioxide, carbon monoxide and total hydrocarbon air pollution measurement results on 10.12.2020. 13⁰⁰ – 15²⁰

№	გაზომვის წერტილის Measurement point		გაზომვის შედეგები მგ/მ ³ Measurement results mg/m ³			
	ადგილ მდებარეობა Locastion	კოორდი- ნატები Coordinates	აზოტის დიოქსიდი nitrogen dioxide	გოგირდის დიოქსიდი sulfur dioxide	ნახშირბადის მონოოქსიდი carbon monoxide	ჯამური ნახშირწყალბ ადები total hydrocarbon
1	გუდაური, სატუმბო სადგური. Gudauri, Pumping station	38T0458468 4702224	0.004	<0.01	0,27	<0.1
2	გუდაური, რეზერუარი. Gudauri, Reservoir	38T0457008 4703113	0.003	<0.01	0,19	<0.1
3	გუდაური, ტრასა. Gudauri, Track	38T0457187 4702170	0.011	<0.01	0,56	<0.1

გაზომვის დროს გამოყენებულია ხელსაჭყოები/During measurement tools used:

ხმაური/Noise - Mini Sound Level Meter N05CC;

ვიბრაცია/Vibration- Smart Sensor ® AR63B Vibration Meter;

დამტვერიანობა/ Dust- Portable Dust Detector model LB-HD08

და Gasella Mikro Dust Pro (თვითკალიბრაცია ნულოვანი და ოფტიკური ფილტრით/Self-calibration zero and optical filter.). აზოტის დიოქსიდის და ნახშირბადის მონოოქსიდის - nitrogen dioxide and carbon monoxide - ჟაჰ CO/NO_x;

ჯამური ნახშირწყალბადების - total hydrocarbon MiniRae 7600;

გოგირდის დიოქსიდის - sulfur dioxide – WASP-XM-E-SO₂.

2001 წლის 16 აგვისტოს, საქართველოს შრომის, ჯანმრთელობისა და სოციალური დაცვის მინისტრის ბრძანება №297/ნ, გარემოს ხარისხობრივი მდგომარეობის ნორმების დამტკიცების შესახებ: / August 16, 2001, the Ministry of Labor, Health and Social Affairs of Georgia №297 / N, approval environmental quality of the norms:

დამტვერიანობის ნორმა შეადგენს 0.5 მგ/მ³; / Dust norm is 0.5 mg / m³;

აზოტის დიოქსიდის ნორმა შეადგენს 0.2 მგ/მ³; / nitrogen dioxide norm is 0.2 mg / m³;

გოგირდის დიოქსიდის ნორმა შეადგენს 0.5 მგ/მ³; / sulfur dioxide norm is 0.5 mg / m³;

ნახშირბადის მონოოქსიდის ნორმა შეადგენს .5 მგ/მ³; / carbon monoxide norm is .5 mg / m³;

ჯამური ნახშირწყალბადების ნორმა შეადგენს 1 მგ/მ³; / total hydrocarbon norm is .1 mg / m³;

ვიბროსიჩქარის ნორმა შეადგენს 112 დბ; / Vibro-speed norm is 112 db;

ვიბროაჩქარების ნორმა სპეციალური დამცავი საშუალებების გამოყენების გარეშე - 126 დბ./Vibro acceleration norm special protective outlets without using - 126 db.

დირექტორი:

Director

ტექნიკური შემსრულებელი

Technical Contractor



ნ. გაბუნია

N. Gabunia

ს. ხატავა

S. Khatsava

Environmental Quality Measurement Data, POT-02

საგარეო საბუნების დაცვის და სოფლის მეურნეობის სამინისტრო
MINISTRY OF ENVIRONMENT PROTECTION AND AGRICULTURE OF GEORGIA

საქართველოს ექსტრემალური საბუნების დაცვის აგენცია
LEPL NATIONAL ENVIRONMENTAL AGENCY

N 12/1-476

28 06 2010

მას "საგარეო საბუნების დაცვის და სოფლის მეურნეობის სამინისტროს და
საქართველოს ექსტრემალური საბუნების დაცვის აგენციის
დირექტორს ქ.ს. ჯგერს სარჩევს

ქართული ენაზე

საქართველოს უბუნების დაცვის და სოფლის მეურნეობის სამინისტროს საბუნების დაცვის
აგენციის ექსტრემალური საბუნების დაცვის აგენცია და მას "საგარეო საბუნების დაცვის და სოფლის
მეურნეობის სამინისტროს ექსტრემალური საბუნების დაცვის აგენცია" ს.მ.მ. 2010 წლის 06 ივნისს გაუგებრებულა ფუნდამენტური
მონიტორინგის მეთოდები და 3 000 ხელმოწერების თანხმად, განვიღო ქ. ჯგერის და ქ.
ფონის, თქვენი მიერ მოითხოვულ აქტივობების სერვის 2 (ს.მ.მ. წესდების - მხარის,
საბუნების დაცვის, ახლის დამოწმების და უბუნების დამოწმების შემდგომ
დაბრუნების შედეგებს, ქართულ და ინგლისურ ენაზე).

დასრულია 230.

შპს „ლუდვიგ ბეაიერ ჰიბ უნდ ტრეზორ და კოგის წარმომადგენლობა საქართველოში“.

ატმოსფერული ჰერის დაზიანებების და ხბურის დონის გაზომვის შედეგები.

ხელშეკრულება №3-390 პანების დანართი

N	გაზომვის ადგილი	კოორდინატები	დაზიანებული ინვესტირებების კონტრაქტის მფლობელი				ხბურის ბურის დონე დაბ
			მტერი	ნახშირბადის მოქონი	აზოტის დიოქსიდი	სუფურის დიოქსიდი	
1	ქვითი	0719284 4675743	0.025	0.1	0.002	+0.1	49.1
2	ქ. ზუგდიდი	0734030 4708169	0.051	0.37	0.005	+0.1	51.4
მაქსიმალური კრიტერიუმი კონტრაქტის			0.5	5.0	0.2	0.5	
საქართველოს მთავრობის დადგენილება №398 2017 წლის 15 აგვისტო ქ. თბილისი							55

მთავრობის:

მეჩაძე

ოქცია

წამყვანი სპეციალისტი

[Handwritten signature]

ბ. შარტაძე

შეამბეჭდეს:

დებარტამენტის უფროსი



მ. არაბიძე

Ltd „Ludwig Pfeiffer Hoch and Tiffland Co. Representative in Georgia“

Results of atmospheric air pollution and noise level measurements

attachment

N	location	Measurement coordinates	Concentration of pollutant ingredients mg / m3				Noise sound level db
			Dust	Carbon monoxide	Nitrogen dioxide	Sulfur dioxide	
1	City Port	0719284 4675743	0.025	0.1	0.002	<0.1	49.1
2	City Zugdidi	0734030 4708169	0.051	0.07	0.005	<0.1	51.4
Maximum allowable concentration			0.5	5.0	0.2	0.5	
Georgian government decree №998 2017 year 15 August, Tbilisi							55

Main Specialist: O. Kenia



Lead Specialist: G. Morgoshia

Agreed:

Head of the Department

M. Arabidze



ANNEX B: PHOTOS

JVA-01 (poor housekeeping)

Photo No1



Photo-02



Photo No3



Photo No4



Photo No5, Photo No6



Pot-02, Photo Documentations , 23.09.2020 (Photos No,7,8,9,10,11,12,13,14,15,16)





Photo No17



Photo No18, 19



Photo No20



JVA-01, Network, Photo No21



Photos POT-01, Construction of Sewerage Systeem in Poti (Photo No22, Photo No23, Photo No24, Photo No25)





ANNEX C: NON-COMPLIANCE NOTICE (GUD-02), 4 September 2020

Non-Compliance Notice

Project: Construction Supervision (under USIIP, Tranche 4 Projects), UWSCG/USIIP/QCBS/02-2014	Non-compliance Notice Gudauri
Contract No: UWSCG-ICB-GUD-02-2018	
Contractor: China Nuclear Industry 23 Construction Co., Ltd	
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. H&S standards and rules should be addressed and implemented.

NON-COMPLIANCE IN Gudauri

Construction of Sewage Collection and Water Supply Systems in Gudauri

- Unsafe work on height (improper ladder, scaffolds, overpass). Unsafe platforms, edges are not anchored, no hand rails. Worker H&S awareness is very low.
- Unacceptable housekeeping, construction materials, waste, hand tools scattered everywhere mixed.
- Oil and concrete spills (drip trays should be used and concrete washout pit constructed)
- No fire extinguishers at the construction site.
- No hard barrier around the deep pit
- No gate at the site entrance, no warning signs
- Unsafe excavation – Shoring is not installed in the deep trench; excavated spoil should be stockpiled at 1-1.5m distance from the edge.

Unsafe Work on Height

Unacceptable housekeeping



Oil & Concrete Spills





No hard barrier around the deep pit



No Gate and Warning Signs at the Site Entrance



Unsafe Excavation



All these conditions have to be remedied within 10 days by the prime Contractor **China Nuclear Industry 23 Construction Co., Ltd**

Date of site visit: 04.09.2020

Shalva Bosikashvili - Environmental specialist - "SAFEGE"

Ketevan Chomakhidze - Environmental specialist "UWSCG"

Explanatory Note

შპს „საქართველოს გაერთიანებული წყალმომარაგების კომპანიის“
„ურბანული მომსახურების გაუმჯობესების საინვესტიციო პროგრამის“
გარემოს დაცვის სპეციალისტის,
ქეთევან ჩომახიძის

მომხსენებითი ბარათი

მიმდინარე წლის 4 სექტემბერს მივლინებით ვიმყოფებოდი დაბა გუდაურში, „საქართველოს გაერთიანებული წყალმომარაგების კომპანიის“ (შემდგომში „კომპანია“) გარემოს დაცვისა და ნებართვების დეპარტამენტის უფროსთან ქ-ნ მაკა გოდერძიშვილთან ერთად, აზიის განვითარების ბანკის მიერ დაფინანსებული „ურბანული მომსახურების გაუმჯობესების საინვესტიციო პროგრამის“, გუდაურის წყალმომარაგებისა და წყალარინების სისტემების რეაბილიტაციისა (GUD-02) და გუდაურის ჩამდინარე წყლების გამწმენდი ნაგებობის მშენებლობის (GUD-03) ქვე-პროექტების ფარგლებში, სამშენებლო სამუშაოების გეგმიური მონიტორინგის მიზნით და ვარ შემფოთებული გარემოსდაცვითი და შრომითი უსაფრთხოების კუთხით აღმოჩენილი დარღვევებით.

ზემოაღნიშნული დარღვევები, არ შეესაბამება აზიის განვითარების ბანკის გარემოსდაცვითი რეგულაციებით (SPS 2009), წინასწარი ეკოლოგიური კვლევის ანგარიშის (IEE) გარემოს მართვის გეგმით (EMP) და საქართველოს გარემოსდაცვითი კანონმდებლობით განსაზღვრულ მოთხოვნებს, არღვევს წყალმომარაგების კომპანიასა და სამშენებლო კომპანია „China Nuclear Industry 23“ შორის დადებული კონტრაქტის 'პირობებს გარემოსდაცვითი კუთხით და სერიოზულ საფრთხეს უქმნის ადგილობრივი მოსახლეობის ჯანმრთელობას და მშენებლობაზე დასაქმებული მუშა-პერსონალის შრომით უსაფრთხოებას, განსაკუთრებით შემაშფოთებელია მდგომარეობა გუდაურის ცენტრში მიმდინარე წყალმომარაგებისა და წყალარინების მიღების მოწყობის სამუშაოებზე, აგრეთვე ძირითადი საავტომობილო გზის კობი-გუდაურის მონაკვეთზე და გუდაურის რეზერვუარის სამშენებლო მოედანზე.

ჩვენი რეკომენდაციით თუ დაუყოვნებლივ არ გამოსწორდება არსებული მდგომარეობა, აზიის განვითარების ბანკის გარემოსდაცვითი რეგულაციების შესაბამისად მიზანშეწონილად მიგვაჩნია დროებით შეჩერდეს სამშენებლო სამუშაოები.

ქვემოთ მოცემულია სამშენებლო სამუშაოების ამსახველი ფოტო მასალა და შესაბამისი შემარბილებელი ღონისძიებების ჩამონათვალი, სამშენებლო სამუშაოების სპეციფიკიდან გამომდინარე.

¹ IEE და EMP არის სამშენებლო კონტრაქტის განუყოფელი ნაწილი

ფოტო N1: წყალმომარაგებისა და წყალარინების მიღების მოწყობის სამუშაოები





შეზარბილებელი ღონისძიებები:

- წიადაგის ნაყოფიერი ფენის მოხსნა და დროებითი დასაწყობება შესაბამისი წესების დაცვით:
 - ნაყარის სიმაღლე არ უნდა აღემატებოდეს 2 მ-ს;
 - ნაყარის ფერდებს უნდა მიეცეს შესაბამისი დახრის კუთხე;
- ღრმა თხრილების (>2მ) გვერდების გამაგრების უზრუნველყოფა, მუშახელის უსაფრთხოების მიზნით;
- გამაფრთხილებელი და საინფორმაციო ნიშნების დადგმა ქუჩის შესასვლელთან ადგილობრივი მოსახლეობის ინფორმირების მიზნით, სამშენებლო სამუშაოების დაწყებამდე;
- ლენტეხის გაბმა და შესაბამისი დამცავი საშუალებების მოწყობა მუშახელისა და ფეხით მოსიარულეების ღია თხრილებში ჩავარდნის და უცხო პირების სამშენებლო უბნებზე შესვლის თავიდან ასაცილებლად;
- თხრილების მოწყობა მოკლე მონაკვეთებად თითოეულ მათგანზე სამუშაოების (გათხრა, მილების ჩაწყობა და ამოვსება) ერთ დღეში დასრულების უზრუნველსაყოფად, წინააღმდეგ შემთხვევაში დროებითი განათების მოწყობა ღია თხრილებზე;
- საექსკავაციო სამუშაოების განხორციელება მედრომის ზედამხედველობის ქვეშ, საექსკავაციო ტექნიკის უსაფრთხოდ გადაადგილების უზრუნველსაყოფად

ფოტო N2: ძირითადი საავტომობილო მაგისტრალის კობი-გუდაურის მონაკვეთი







შემარბილებელი ღონისძიებები:

- სატრანსპორტო ოპერაციებისას უსაფრთხოების წესების მაქსიმალური დაცვა, სატრანსპორტო საშუალებების გადაადგილების მინიმალური შეფერხება;
- ჯანმრთელობისათვის სახიფათო უბნებში და გზებზე შესაბამისი გამაფრთხილებელი, მიმითითებელი და ამკრძალავი ნიშნების დამონტაჟება;
- მანქანა-დანადგარების ტექნიკური გამართულობის უზრუნველყოფა;
- პოტენციურად დამაბინძურებელი მასალების (ზეთები, საპოხი მასალების და სხვ.) უსაფრთხოდ შენახვა/დაბინავება;
- სამარაგო რეზერვუარის მოწყობის შემთხვევაში, რეზერვუარს ექნება ბეტონის ან თიხის შემოზღუდვა, რომლის შიდა ტევადობა არ იქნება რეზერვუარის მოცულობის 110%-ზე ნაკლები;
- საწვავით გამართვის უბნების დაფარვა ხრემის ფენით;
- მოსახლეობისთვის ინფორმაციის მიწოდება სამუშაოების წარმოების დროის და პერიოდის შესახებ;
- სამუშაო უბნების და გზის ზედაპირების მორწყვა მშრალი ამინდის პირობებში;
- ადვილად ამტვერებადი მასალების ტრანსპორტირებისას მანქანების ძარის სათანადო გადაფარვა;
- ადვილად ამტვერებადი მასალების ქარით გადატანის პრევენციის მიზნით, მათი დასაწყობების ადგილებში სპეციალური საფარის გამოყენება ან მორწყვა;
- სამუშაოების განხორციელება მედროშის ზედამხედველობის ქვეშ, სატრანსპორტო ნაკადისა და ტექნიკის უსაფრთხოდ გადაადგილების უზრუნველსაყოფად;
- გზის ყველა დაზიანებული უბნის მაქსიმალური აღდგენა, რათა დროულად ხელმისაწვდომი იყოს მოსახლეობისთვის.

ფოტო N3: გუდაურის წყლის რეზერვუარის საშენებლო მოედანი















ცალკე უნდა აღინიშნოს თავად სამშენებლო მოედნის მოწყობის დაბალი სტანდარტი, მთ შორის თავალშისაცემია სამშენებლო ობიექტის ღობე, რომელიც მოწყობილია ყოველგვარი სინფორმაციო დაფისა და კარიბჭის გარეშე.

შემარბილებელი ღონისძიებები:

- ნიადაგის ნაყოფიერი ფენის მოხსნა და დროებითი დასაწყობება შესაბამისი წესების დაცვით;
- ნაყარის სიმაღლე არ უნდა აღემატებოდეს 2 მ-ს;

- ნაყარის ფერდებს უნდა მიეცეს შესაბამისი დახრის (450) კუთხე;
- სამშენებლო მოედანი უნდა მოწესრიგდეს და რეგულარულად გაიწმინდოს;
- სხვადასხვა ტიპის სამშენებლო მასალა უნდა დასაწყობდეს ცალცალკე;
- დასაქმებული პერსონალი უზრუნველყოფილი უნდა იყოს ინდივიდუალური დაცვის საშუალებებით;
- სიმაღლეზე მუშაობისას პერსონალის დაზღვევა თოკებით და სპეციალური სამაგრებით;
- სამშენებლო მოედნის მთელს პერიმეტრზე მუშახელის უსაფრთხო გადაადგილების უზრუნველსაყოფად შესაბამისი გადაადგილების საშუალებებისა და დროებითი ხიდების მოწყობა;
- ჯანმრთელობისათვის სახიფათო უბნები შემოღობილი უნდა იყოს სათანადო მასალით;
- ზეთების დაღვრის შემთხვევაში ნიადაგის დაბინძურებული ფენის მოხსნა და სარეკმედიაციო სამუშაოების ჩატარება;
- საწვავის/ზეთების შენახვისა და გამოყენების წესების დაცვაზე სისტემატური ზედამხედველობა;
- დაცული უნდა იყოს უსაფრთხოების წესები ელექტრო მოწყობილობების, მათ შორის ელექტრო კაბელების გამოყენების დროს;
- ნარჩენების სათანადო მენეჯმენტი; საყოფაცხოვრებო და სახიფათო ნარჩენები უნდა დასაწყობდეს ცალცალკე შესაბამისი წარწერებით;
- მანქანა-დანადგარების ტექნიკური გამართულობის უზრუნველყოფა;
- პოტენციურად დამაბინძურებელი მასალების (ზეთები, საპოხი მასალების და სხვ.) უსაფრთხოდ შენახვა/დაბინავება;
- სამარაგო რეზერვუარის მოწყობის შემთხვევაში, რეზერვუარს ექნება ბეტონის ან თიხის შემოზღუდვა, რომლის შიდა ტევადობა არ იქნება რეზერვუარის მოცულობის 110%-ზე ნაკლები;
- საწვავით გამართვის უბნების დაფარვა ხრემის ფენით;
- სამშენებლო მოედნების შესაბამისი ტექნიკური საშუალებებით და ინვენტარით აღჭურვა (კონტეინერები, დაღვრის შემკრები საშუალებები და ა.შ.);
- საჩივრების დაფიქსირება/აღრიცხვა და სათანადო რეაგირება.
- ინციდენტებისა და უბედური შემთხვევების სააღრიცხვო ჟურნალის წარმოება.

ზემო აღნიშნული საფრთხეების გამოსწორების მიზნით საზედამხედველო კომპანია „SAFEGE“-ს და სამშენებლო კომპანიის წარმომადგენლებს ადგილზე მიეცათ შესაბამისი მითითებები და ჩაუტარდათ ინსტრუქტაჟი, მდგომარეობის დაუყოვნებლივ გამოასასწორებლად, აზიის განვითარების ბანკისა და საქართველოს ეროვნული გარემოსდაცვითი რეგულაციების შესაბამისად, წინააღმდეგ შემთხვევაში რეკომენდირებულია სამშენებლო სამუშაოების დროებით შეჩერება.

NON-COMPLIANCE NOTICE (GUD-02), 16 November 2020

Non-Compliance Notice

Project: Construction Supervision (under USIIP, Tranche 4 Projects), UWSCG/USIIP/QCBS/02-2014	Non-compliance Notice Gudauri
Contract No: UWSCG-ICB-GUD-02-2018	
Contractor: China Nuclear Industry 23 Construction Co., Ltd	
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. H&S standards and rules should be addressed and implemented.

NON-COMPLIANCE IN Gudauri

Construction of Sewage Collection and Water Supply Systems in Gudauri

- Unacceptable housekeeping, construction materials, waste dumped at the construction sites .
- Oil spills
- No fire extinguishers at the construction sites.
- No hard barrier around the deep pit
- Workers in the unreinforced deep pit (high cave in hazard)

Unacceptable housekeeping and oil spills



Excavated spoil should be stockpiled at the 1m (minimum) distance from the trench



No hard barrier around the deep pit, worker in the unreinforced deep pit (high cave in hazard)



All these conditions have to be remedied within 10 days by the prime Contractor **China Nuclear Industry 23 Construction Co., Ltd**

Date of site visit: 16.11.2020

Shalva Bosikashvili - Environmental specialist - "SAFEGE"

Ketevan Chomakhidze - Environmental specialist "UWSCG"

NON-COMPLIANCE NOTICE (POT-02), 15 October 2020



Non-Compliance Notice - შესახებამობის რეპორტი

Project / პროექტი: STP Construction in POT1 02	DATE OF ISSUANCE/ თარიღი: 15.10.2020 NON-COMPLIANCE NOTICE N12
Contract No / კონტრაქტი: P43405-IC-POT1-02	
SUBCONTRACTORS / ქვეკონტრაქტორი: TMP Construction LLC	
SITE/ ობიექტი: WWTP POT1 -02	
SECTION/ სექცია:	

The subcontractor shall remediate on the referenced Contract following notice on Health, Safety and Environmental measures/ ხელშეკრულების თანახმად ქვეკონტრაქტორმა უნდა გამოასწოროს აღნიშნული შეტყობინება და მიიღოს შესაბამისი ზომები ჯანმრთელობის, უსაფრთხოების და გარემოსდაცვით საკითხებში.

DESCRIPTION OF INCIDENT FOR NON-COMPLIANCE OF HEALTH AND SAFETY NORMS / შესახებამობის აღწერა:

- Safety matter/ შრომის უსაფრთხოება.**
- . All safety norms must be protected at the construction site / სამშენებლო ობიექტზე უნდა იყოს შრომის უსაფრთხოების ყველა ნორმა დაცული.
 - . **In case of working on height more then 1.5 meters, workers must use protective anti-dumping equipment (pic 1)**
 - . **Scaffolding is not in safe condition (pic 3)**



PHOTO DOCUMENTATION / ფოტო დასაბუთება:





The action should be remedied immediately. Otherwise, the works will be STOPPED.
 აღნიშნული ხარვეზი უნდა იქნას აღმოფხვრილი დაუყოვნებლივ. წინააღმდეგ
 შემთხვევაში სამუშაოები იქნება შეჩერებული.

SIGNATURE PLACE / ხელმოწერა

<p>SUBCONTRACTOR / ქვეკონტრაქტორი</p>	
<p>CONTRACTOR REPRESENTATIVE / კონტრაქტორი</p>	

NON-COMPLIANCE NOTICE (POT-02), 23 September 2020



Non-Compliance Notice - შესაბამისობის რეპორტი

Project / პროექტი: STP Construction in POT1 02	DATE OF ISSUANCE/ თარიღი: 23.09.2020 NON-COMPLIANCE NOTICE N11
Contract No / კონტრაქტი: P43405-IC-POT1-02	
SUBCONTRACTORS / ქვეკონტრაქტორი: TMP Construction LLC	
SITE/ ობიექტი: WWTP POT1 -02	
SECTION/ სექცია:	

The subcontractor shall remediate on the referenced Contract following notice on Health, Safety and Environmental measures/ ხელშეკრულების თანახმად ქვეკონტრაქტორმა უნდა გამოასწოროს აღნიშნული შეტყობინება და მიიღოს შესაბამისი ზომები ჯანმრთელობის, უსაფრთხოების და გარემოსდაცვითის საკითხებში.

DESCRIPTION OF INCIDENT FOR NON-COMPLIANCE OF HEALTH AND SAFETY NORMS / შესაბამისობის აღწერა:

Safety matter/ შრომის უსაფრთხოება.
 . All safety norms must be protected at the construction site / სამშენებლო ობიექტზე უნდა იყოს შრომის უსაფრთხოების ყველა ნორმა დაცული.
 . Construction area should be **cleaned regularly**. Do not mix construction waste and construction materials. All should be placed separately/ **სამშენებლო ტერიტორია უნდა გაიწმინდოს რეგულარულად**, სამშენებლო ნარჩენები და სამშენებლო მასალები უნდა იქნას განთავსებული ცალ-ცალკე. (pic 2, 3, 4,5)



PHOTO DOCUMENTATION / ფოტო დასაბუთება:





The action should be remedied immediately. Otherwise, the works will be STOPPED.
 აღნიშნული ხარვეზი უნდა იქნას აღმოფხვრილი დაუყოვნებლივ. წინააღმდეგ
 შემთხვევაში სამუშაოები იქნება შეჩერებული.

SIGNATURE PLACE / ხელმოწერა

SUBCONTRACTOR / ქვეკონტრაქტორი	
CONTRACTOR REPRESENTATIVE / კონტრაქტორი	

ANNEX D: GENERAL GUIDELINES RELATED TO INFECTION (COVID-19) CAUSED BY NOVEL CORONAVIRUS (SARS-CoV-2) FOR CONSTRUCTION SECTOR



MINISTRY OF INTERNALLY DISPLACED
PERSONS FROM THE OCCUPIED
TERRITORIES, LABOUR, HEALTH AND
SOCIAL AFFAIRS OF GEORGIA

Labour Conditions Inspection Department
Create Together Safe Working Environment

Annex №2

General Guidance Related to Infection (COVID-19) Caused by Novel Coronavirus (SARS-CoV-2) for Construction Sector

Note: In accordance with Order N281/N of the Minister of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia on "The rule for Examination for Short-term Employment Disability and issuance of Doctors Note", the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia will issue an equivalent document to the doctor's excuse note (Medical Certificate) to persons quarantined in order to prevent the spread of coronavirus. The document will serve as the basis to receive monthly payment and therefore, the working days spent in quarantine or in self-isolation will be legitimate and fully paid to the employees. In order to get the certificate, an interested person has to apply to the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia at -

For further information, please contact:

☎ 15 05

☎ 116 001

StopCoV.ge

The job of builders involves constantly changing work places and work activity existing in open-air conditions. For this reason, in terms of virus spread, construction falls within the medium risk sector because its specificity curbs natural ventilation. Nevertheless, it is important to consider the following preventive measures at construction work.



The staff must not appear in the workplace if they:

- Left the affected country over the past 14 days;
- Were in close contact with infected person/persons for the past 14 days (they must be self-isolated/quarantined as per the rule);
- Have symptoms of respiratory infection (coughing, temperature, sneezing, difficulty in breathing, general weakness etc.);
- Are among the ones who have high risk of getting infected with COVID-19 or serious complications: over 70 years of age, people suffering from chronic diseases (cardio-vascular diseases, diabetes, bronchial asthma and other respiratory diseases).

Employer's responsibilities

- Whether or not the incidence of infection is detected, employer should develop an emergency action plan to support reduction of working days missed due to illness, and in case of detection – prevention of spread;
- Provide employees with information about safe working procedures and about prevention of virus spread (guide with the recommendations defined by LEPL L. Sakvarelidze National Center for Disease Control and Public Health of the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia);
- Inside the working space post announcements about COVID-19 and about the preventive measures that have been identified by LEPL L. Sakvarelidze National Center for Disease Control and Public Health;
- In relation to the employees who can perform job remotely (administrative personnel) ensure as much as possible use of such working mode;
- At the entrances of break room/dining room, place disinfecting rugs with relevant mandatory sign marking;
- Provide hand-washing facility with soap and other disinfectants. If hand-washing facility is not feasible, at least 70% alcohol-based hand cleansing liquid should be used;
- Visibly place the hand sanitizers and post the rules of their proper use;
- Make sure that employees have access to hand sanitizers and are aware of their use with proper rules;
- Provide all employees and contractors, personnel responsible for cleaning with information about relevant preventive measures to avoid spread of coronavirus in the working environment;
- Train the employees in proper use and further storage/removal of personal protective equipment and disinfectants;

- Depending on their work specificity, provide the employees with necessary personal protective equipment (protective clothing, protective shoes, helmet, gloves, respirator) and establish control on their use.
- Periodically, several times a day ensure natural ventilation of closed spaces/facilities;
- At certain periodicities disinfect frequently used working equipment and working places;
- Maintain ergonomics at construction site. Ensure timely cleaning of working space and timely disposal of construction waste.
- For employees and visitors ensure closed containers for used disposable tissues and other used hygienic waste in the working space.

Employees' responsibilities

Ensuring proper hand hygiene regularly and thoroughly is the best way to be protected from most of the viruses. Therefore, it is necessary to take the following measures in the workplace:

- Follow hygiene rules in your workplace:
- Carry out the working process in accordance with emergency situations action plan defined by employer/occupational safety manager;
- When greeting do not shake hands and avoid contact with others (touching etc.);
- Avoid gatherings, it is recommended not more than 10 people in one working platform by keeping a safe distance (at least 2 m);
- While performing your work, fully use personal protective equipment provided by the employers;
- Treat with disinfectants the working places and tools used in the course of the work;
- Before and after taking meals, before and after using the restrooms thoroughly wash your hands with soap and water. After washing dry your hands well;
- If you can not wash and dry your hands, use alcohol-based hand sanitizers;
- Keep safe distance (at least 2 m);
- While coughing or sneezing, cover the face with a clean tissue or elbow and place used dispensable tissue in the waste bin;
- Avoid touching your eyes, nose and mouth with your hands.



ANNEX E: EMERGENCY MANAGEMENT PLAN



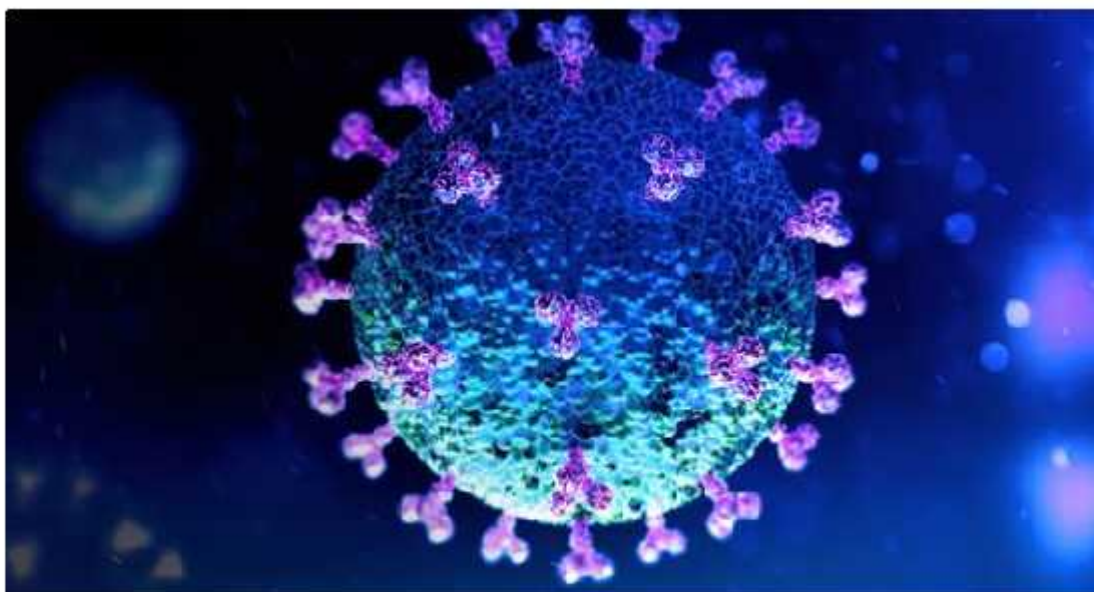
SAFEGE



**Georgia: CONSTRUCTION SUPERVISION CONSULTANCY SERVICES
FOR URBAN SERVICES IMPROVEMENT INVESTMENT PROJECT (USIIP)**

Financed by the Asian Development Bank and Government of Georgia

COVID-19 Emergency Management Plan in Construction Sector



Prepared by: **SAFEGE** - Supervision Consultant
Tbilisi, Georgia

For: Ministry of Regional Development & Infrastructure (MRDI)

United Water Supply Company of Georgia (UWSCG)

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1. PREAMBLE

1.1 Project Description

1. 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.
2. The Investment Program will improve infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works will include sewer network, pumping stations, main collectors and waste water treatment plants.
3. Tranche 4 of the Investment Program includes:
 - Construction of Water Supply System in Zugdidi (Zug 01 - Contract No: P43405-ICB- Zug-01)
 - Construction of Sewerage System in Poti (Pot 01 - Contract No: P43405-ICB-Pot-01)
 - Construction of Wastewater Treatment Plant in Poti (Pot 02 - Contract No: P43405- ICB-Pot-02)
 - Construction of Water Supply System in Jvari (Jvari 02- Contract No: P43405-DC- Jvari-01)
 - Construction of Sewage Collection and Water Supply System in Gudauri (UWSCG- ICB-GUD-02-2028-GUD-02)
4. Construction of Water Supply System in Zugdidi (ZUG 01). The project comprises of the construction of 1 water supply pumping station – 1,170 m³, construction of new reservoirs (3,300 m³x3); distribution network - laying of approximately 220 km water supply pipelines; approximately 15 km transmission main; wells - drilling of 10 drinking water wells.
5. 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 June 2020 due to the additional construction works under VO#4 and VO#8: Construction of Additional Sewage Network Connections and Sewerage Pumping Stations of Anaklia.
6. VO#4 and VO#8 under the ZUG-01 sub-project include :

Connection of residential houses

- Connection of residential houses in Ganmukhuri resort to main sewer line: l=11497m, n=359 houses;
- Connection of residential houses in Anaklia resort to main sewer line: l=5778 m, n=212 houses;
- Installation of pumps of previously constructed Pumping Stations with electrical connection and installation of automation cabinets for them – 20 pieces; Purchase and installation of pumps with automatics 4 pieces.
- Connection of two apartment buildings of the Ministry of Internal Affairs with self-flowing corrugated pipeline – d=200 mm, l=211.

Installation of Pump Stations

- Installation of # 22 Pump Stations (PS) and connection to existing pressure pipe (d=160 mm) for backflow to new Sewage Treatment Plant in Ganmukhuri.
- Installation of # 33 Pump Stations (PS); Arraignment of pressured pipeline (d= 355 mm, l= 1813m) and connection to existing l= 2400m same pipe; Arraignment ramp connection on the main channel with a steel casing pipe (d=630mm / 9mm, l= 21m) and 13 overpasses above the d=1m small drainpipes with a steel casing pipe (d=630mm / 9mm, l= 8m) in Anaklia.

Rehabilitation of Water Supply and Sewerage Distribution Network

- Installation of a new sewer pressure pipe (d= 160 mm, l= 206m) with a steel casing pipe (d=325mm / 6mm, l= 6m) to connect the "Anaklia" Hotel, crossing the ditch and road.
- The existing water supply – d=250mm rehabilitation and replacement was carried out using d= 200 mm, l= 940m of the new pipeline.

7. 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. The final date of completion of the contract is July 31, 2020.
8. 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 Pfeiffer Hoch – and Tiefbau GmbH7Co. KG (Germany)" and "EMIT Group – ErcoleMarelliImpiantiTecnologiciS.r.l. (Italy). The final date of completion of the contract is July 31, 2020.
9. Construction of Water Supply System in Jvari (JVA-01). The major works to be 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.

10. The contract for implementation of JVA-01 was signed on January 17, 2017 with AS Inshaat-N, LLC (Azerbaijan). The date of completion of the contract is April 2020 and further extended to September 2020.
11. 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.
12. 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 date of completion of the contract is April 2021.
13. Supervision Consultant for T4 of USIIP. Supervision Consultant for Tranche 4 of USIIP is "SAFEGE France with Engineering Solution LLC Georgia".

1.2 Coronavirus

14. Coronaviruses are a large family of viruses that cause respiratory infections. These can range from the common cold to more serious diseases. Coronavirus (COVID-19) is a disease caused by a new form of coronavirus. It was first reported in December 2019 in Wuhan City in China.
15. Health authorities around the world believe the coronavirus (COVID-19) is spread from close contact with an infected person, mostly through face-to-face contact or between members of the same household. The coronavirus (COVID-19) is spread by people with symptoms when they cough or sneeze. People may also pick up the coronavirus (COVID-19) from surfaces contaminated by a person with the infection.
16. Studies suggest that COVID-19 may persist on surface for a few hours or up to several days. This may vary under different conditions such as the type of surface, temperature or humidity of the environment.
17. A coronavirus infection can cause mild to severe respiratory illness. The most common coronavirus (COVID-19) symptoms reported are:
 - Fever
 - Breathing difficulties and breathlessness
 - Cough
 - Sore throat
 - Fatigue or tiredness.
18. Coronavirus (COVID-19) is most likely to spread from person-to-person through:
 - Close contact with an infected person.

- Touching objects or surfaces (such as door handles or tables) contaminated by a person with the infection.
19. Close contact means having face-to-face contact for more than 15 minutes with someone who has a confirmed case of coronavirus (COVID-19) – or alternatively sharing a closed space with them for more than two hours.
20. Close contact can happen in many ways, but examples include:
- Living in the same household or household-like setting (for example, a boarding school or hostel)
 - Direct contact with the body fluids or laboratory specimens of a confirmed case
 - Being in the same room or office for two hours or more
 - Face-to-face contact for more than 15 minutes in some other setting such as in a car or a lift or sitting next to them on public transport.

2. PURPOSE

21. The purpose of these document for the Construction sector, is to:
- Provide direction to employers and workers
 - Outline the steps to be taken to best provide a safe and healthy environment, and
 - Identify the action available in the event of interruption to building and construction work, as a result of the coronavirus (COVID-19) pandemic.
22. The Document is intended to have application across all sectors of the building and construction sector. Construction sites are diverse and vary in complexity. To allow for flexible interpretation of these guidance, it is recommended that employers apply a risk-based approach and implement reasonably practical controls based on the environment and specific hazards at each construction site.
23. This Document have been developed to maintain the safe operation of construction sites, ensuring the safety of workers.
24. Following of these recommendations these is necessary to minimize and avoid the closure of any construction site.
25. The recommendations apply to all personnel attending on a building and construction site or project, whether management, staff, employees, contractors or service providers.

3. CONTROLLING RISKS ON SITE

26. To assist with providing and maintaining safe operations during coronavirus (COVID-19) the below measures should be implemented to assist in providing a safe and healthy environment at work.

- Screening workers coming to site
- Workplace Mapping
- Physical Distancing
- Hygiene
- Shared Tools, Plant and Equipment
- Cleaning and Disinfecting
- Personnel Hoists
- Personal Protective Equipment
- Common Areas
- Inspections
- Travel
- General Communications
- Other measures
- Vulnerable workers

3.1 Screening workers coming to site

27. To minimize the risk of transmission of coronavirus (COVID-19) on site, employers must implement a two-phase screening process; phase one being an initial declaration and phase two on going daily screening.

28. Initial declaration is to be conducted by all workers (this includes any person who attends site), including current and new-starters. Each worker must provide a declaration that they to the best of their knowledge:

- have not been diagnosed with coronavirus (COVID-19) in the last 14 days, or
- are not in a period of 14 day quarantine as directed by a health professional, or
- have not been overseas in the last 14 days, or
- have not been in contact with anyone who has coronavirus (COVID-19), or
- have not been in contact with anyone who is currently being tested for coronavirus (COVID-19), or
- do not have anyone in their household who has symptoms consistent with COVID-19.

29. Once the initial declaration has been made by the worker, ongoing screening (phase 2) should be conducted for every worker prior to the start of their shift, asking to the best of their knowledge:
- have they been overseas in the last 14 days, or
 - have they been in contact with anyone who has coronavirus (COVID-19), or
 - have they been in contact with anyone who is currently being tested for coronavirus (COVID-19), or
 - do they have anyone in their household who has symptoms consistent with COVID-19.
30. If a worker declares any of the above they may be required to self-isolate.
31. Screening should be conducted, whilst maintaining safe distances or over the phone before entering site, on a mobile app, via text message system, or other non-contact methods. It is advisable to have a system in place that limits the sharing of pens/ notebooks/ computers etc.
32. If a worker has recently had close contact with a confirmed case, they need to:
- self-isolate at home for a period of 14 days and follow the self-isolation Guidelines
 - not attend work
 - contact their employer
 - seek urgent medical attention if they have symptoms consistent with COVID-19
 - not return to work until they have been cleared by a medical practitioner.
33. If a worker is experiencing symptoms consistent with COVID-19 or had close contact with a confirmed case, they must:
- not attend work
 - contact their employer for further advice and;
 - not return to work until they have been cleared by a medical practitioner.

3.2 Workplace Mapping

34. In the event of an employee being confirmed as having COVID-19, those who are potentially affected need to be quickly identified.
35. Employers should implement processes to record the schedule and work locations for workers that enables tracing of those who have come into contact with the confirmed case.
36. The record should include:
- day and time work was undertaken
 - members of teams that worked together
 - specific work area on the construction site

- any breaks taken, including time and location

37. Movement between sites, or areas within large sites, should be minimized as much as possible.

38. Where attending multiple sites is necessary (e.g. for HSRs, first aiders, emergency wardens) movement between sites should be recorded in the workplace mapping.

3.3 Physical Distancing

39. Physical distancing of at least 1.5-2 meters should be implemented wherever possible. Employers should consider each work task and whether there is a safe alternative way to undertake the work with an increased distance between workers.

- Mark safe distances in work, transit and break areas (e.g. on floors and walls).
- Consider different shift patterns to minimize the number of workers onsite (e.g. AM/PM shifts).
- Stagger start times, breaks and finish times to avoid congestion in high traffic areas and minimize workers coming into contact with each other as they move around the site.
- Plan for how physical distancing will be maintained during inclement weather (e.g. use of lunch or crib rooms and amenities).
- Install temporary physical barriers (e.g. fences, screens) between work areas, where appropriate.

40. Where it is not possible to undertake work tasks and maintain physical distancing, other control measures need to be implemented. For example:

- Minimize the number of worker to worker interactions that need to be completed within 1.5 meters
- Minimize the number of workers involved in activities that need to occur within 1.5 meters of each other
- Provide personal protective equipment (PPE) (e.g. gloves, masks, glasses).

41. Where essential work activities need to be undertaken in restricted spaces (e.g. lift shafts, personnel hoists, lifts), the number of workers working in the space should be minimized.

3.4 Hygiene

42. Good hygiene practices and general cleaning helps with minimizing the spread of coronavirus (COVID-19). Employers should review general hygiene requirements and the cleaning regimes in place.

43. Employers should display health information in prominent locations on the construction site such as tea rooms, site offices, toilets, foyers, lifts and site entrances.

44. Every effort must be made by employers to upgrade personal hygiene and minimize worker to worker contact and all workers must co-operate in all necessary measures to achieve these objectives. These measures need to include:
- Promote regular hand washing with soap for at least 20 seconds. Employers must facilitate regular hand washing by providing ease of access/additional facilities where possible. Communicate to all workers where hand sanitizers are located and encourage their regular use.
 - Promote good cough etiquette by covering your cough and sneeze, or cough into your elbow or shoulder.
 - Avoid touching your nose, eyes or mouth.
 - Provide hand sanitizer and/or hand washing facilities with soap in all site entrances and exits hoists, amenities and areas/levels of the site.
45. Employers must ensure that workers have access to appropriate amenities. Employers should review and revise the number and locations of amenities, to reduce movement around the site.
46. Amenities need to include:
- Hand washing facilities (whether permanent or temporary), such as a wash basin, clean running water, soap and paper towels, placed in strategic locations to ensure employees can access them in a timely manner.
 - Access to hand sanitizer.
 - Rubbish bins with touch-free lids (e.g. foot pedal bins).
 - Thorough and regular sanitation.
 - Appropriate waste management systems.

3.5 Shared tools, plant and equipment

47. Workers should avoid the shared use of tools, plant and equipment wherever possible. For example, drop saws, drills, grinders, ladders or elevating work platforms should not be used by more than one worker.
48. Where it is not possible to eliminate shared use:
- Provide cleaning products (e.g. alcohol spray or solution) where communal tools, plant and equipment are located.
 - Keep cleaning products with tools, plant and equipment as they move around the site.
 - Ensure all operators thoroughly wash or sanitize their hands before and after every use.
 - Ensure all parts of tools, plant and equipment (e.g. including handles, handrails) are wiped down before and after use.

49. The shared use of phones, desks, offices, computers and other devices should also be avoided. Where this is not possible, these items should be regularly disinfected.

3.6 Cleaning and Disinfecting

50. Cleaning and disinfecting of surfaces is to be conducted using cleaning products as per DHHS Cleaning and Disinfection guidelines to reduce coronavirus (COVID-19) Transmission – the specific guidance is available here:

- Cleaning and disinfection of amenities and meal areas must occur between work group breaks
- Cleaning and disinfection of Personnel Hoists should occur at the end of each hoist operator shift
- Implement regular cleaning and disinfection (minimum of twice daily) to 'Frequently Touched Surfaces', surfaces such as toilets, door handles, stair handrails, light switches, lift buttons, table tops.
- Additional cleaning/disinfecting on-site. There must be an increased frequency of industrial grade cleaning/additional cleaning/disinfecting on sites across all areas including particular emphasis on commonly touched/communal surfaces;

3.7 Personnel hoists

51. Workers using hoists and lifts may be at greater risk of exposure to coronavirus (COVID-19), because they are required to be in close contact with others and potentially contaminated surfaces.

52. Control measures to reduce the risk in personnel hoists should include systems of work, physical distancing, personal hygiene, PPE and cleaning.

53. It is acknowledged that not all hoists and lifts are identical in size or dimension, and have varying weight limits.

54. Where it is not possible to implement physical distancing measures in a personnel hoist, all other available control measures need to be used.

55. Control measures may include:

- Limiting worker movement between levels and floors on site, where it is possible and safe to do so.
- Reviewing which hoists are available for use on site and identifying if additional hoists can be used (for example where a partially occupied building is under construction, consider whether a residential lift be used solely for construction persons).
- Physical distancing of 1.5-2 m and hygiene systems to be followed when waiting for hoist, particularly on floors where worker volumes may increase during peak times (start, break, finish times). For example the ground floor, floors with meal or break out spaces and floors with bathroom amenities.

- Determine how many workers can use a hoist at any time (including hoist operator) taking into consideration the limited duration and additional control measures in these Guidelines.
- Mark out hoist floor, identifying:
 - where workers stand
 - what direction they are to face when in the hoist to avoid face to face contact
 - Sequencing of entering and exiting
- Mark the hoist waiting area at each floor ensuring the physical distancing is maintained
- Regularly communicate and remind workers (e.g. through posters, digital displays):
 - diagram of positioning of workers and sequence of worker entering
 - not to touch walls/doors of the hoist
 - advise the cleaning regime in place
- During peak periods have system in place to limit crowding of workers entering/exiting the work area. For example:
 - developing a schedule for use of the hoist
 - Staggering what floors workers are to use the hoists. Hoist operators may be exposed to additional risk. They should:
 - Be provided with PPE that protects them from worker to worker transmission and from touching contaminated surfaces (e.g. face shield or surgical mask/P2 respirator and glasses).
 - Perform frequent hand washing with soap and water or the application of hand sanitizer positioned within the hoist.
 - Where possible, change hoist operator every two hours into a different role.

3.8 Personal Protective Equipment (PPE)

56. Employers must provide information, instruction and training on the safe use, decontamination and maintenance of any PPE provided.
57. Any PPE provided needs to be practical for the work environment (e.g. allowing the necessary visibility and mobility) and properly decontaminated or disposed of at the end of every shift.
58. Employers should monitor and encourage correct use of PPE, for example providing information on posters and digital screens about:
 - Washing or sanitizing hands before putting PPE on, and putting face protection on before gloves
 - Removing gloves before face protection, washing or sanitizing hands after removing PPE and decontaminating or disposing of used PPE safely.

3.9 Common areas

59. Common areas on sites such as the amenities pose risks, and these are reduced by ensuring the following measures are adopted.
60. The time spent in those areas must be limited so as not to breach time constraints recommended by DHHS.
61. Staggering of meal breaks and separation of work groups to achieve maximum personal space and reduce the number of workers accessing those areas at any one time consistent with the Government requirements.
62. Sanitization must occur between occupation of amenities by different work groups
63. Spread out furniture to ensure physical distancing measures in common areas
64. There must be an increased frequency of industrial grade cleaning/additional cleaning with specific emphasis on cleaning after each meal breaks in those areas
65. Workers electing to minimize amenity access
66. Staggered working hours must be considered on sites with appropriate consultation (consideration must be given to Construction Management Plans, and workers must be given adequate notice of a change in hours).

3.10 Inspections

67. During inspections of the sites everyone should ensure all measures are in place to ensure compliance. Employers and Health and Safety Representatives are encouraged to work together to assist in this important objective.

3.11 Travel

68. Adequate arrangements are to be made by workers to ensure their travel to and from work is conducted safely in accordance with Government advice, and that adequate sanitization facilities are in place for workers upon attending the work site and when returning to the work site during work.
69. Workers should ensure that for transport to and from work that they adhere to the hygiene and cleaning guidance, and the physical distancing
70. Work vehicles that are shared should be regularly cleaned to ensure adequate hygiene and protection.

3.12 General Communication

71. Ensuring everyone is informed is fundamental to managing this pandemic and ensuring the safe operations of construction sites.
72. These recommendations have been developed to be communicated to all employers, workers and stakeholders. Everyone is urged to regularly promote and adhere to this document.

73. Site inductions should be updated as required to include information on coronavirus (COVID-19) potential risks and workplace specific controls that have been implemented such as daily screening, health checks and symptoms of coronavirus (COVID-19), staggered start, finish and meal times, good hygiene practices and cleaning regimes and PPE requirements.
74. Toolbox talks should be regularly conducted, and workers are to be encouraged to put forward practical ideas for changing work practices to avoid the spread of coronavirus (COVID-19). Toolbox talks should also provide clarity to workers on leave arrangements for those that cannot work, and to encourage self-reporting and minimize the spread of risk.
75. Toolbox talks should also include updates from the responsible Health Officer as they occur and additional information on the severity of the pandemic and the importance of physical distancing at toolbox meetings.

3.14 Other measures

76. Construction sites are diverse and vary in complexity, employers must apply a risk-based approach and implement reasonably practical controls based on the environment and specific hazards at each construction site. In addition to the aforementioned measures and controls mentioned in this section, employers should consider other measures for implementation such as:
 - using alternatives to face to face meetings where practicable,
 - reducing the length and size of meetings, especially for critical employees, by requiring some or all to dial in,
 - consider off-site fabrication,
 - ensuring working from home arrangements are enabled where feasible,
 - Structuring management teams to ensure contingency in the event of team members needing to be isolated or quarantined at home.

3.15 Vulnerable workers

77. Has been identified the following groups of people as vulnerable workers in relation to coronavirus (COVID-19):
 - people over the age of 70,
 - people with chronic diseases (cardiovascular disease, diabetes, bronchial asthma and other respiratory diseases)
78. Where practical, reasonable action should be taken to minimize vulnerable workers from conducting higher risk roles

4. Summary of recommendations and responsibility

Table of Summary of recommendations and responsibility

Activity	Responsible for implementation
To provide employees with the information about the work safety procedures and prevention of virus spread (guided by the recommendations of the Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia and LEPL I. Sakvarelidze National Center for Disease Control and Public Health);	Employer
To place ads in the workspace about the COVID-19 and its preventive measures defined by the LEPL I. Sakvarelidze National Center for Disease Control and Public Health;	Employer
To ensure maximum use of remote work in relation to those employees who can perform work remotely (administrative personnel);	Employer
To put mattings at the entrance of the lounge room / dining room, with the relevant sign of indication;	Employer
To ensure hand washing at the workspace with appropriate soap and other hygiene products. In case of inability to wash hands, to provide with at least 70% alcohol-based hand cleaning liquids;	Employer
To place hand sanitizers and the instruction for their proper use in a prominent place;	Employer
To ensure that employees have access to hand sanitizers and know how to use them in accordance with the relevant instructions;	Employer
To provide information to all staff and contractors, as well as cleaning staff, on appropriate preventive measures to avoid the spread of coronavirus in the work environment;	Employer
To train the employees on the proper use of personal protective equipment and its subsequent storage / disposal;	Employer
To provide employees with the necessary personal protective equipment (overalls, special shoes, helmet, gloves, medical mask) based on the specifics of their job and establish control over their use;	Employer
Periodically, several times a day ensure natural ventilation of indoor spaces / closets;	Employer
Periodically ensure disinfection of workplaces and frequently used equipment;	Employer
To keep ergonomics in order at the construction site. To ensure the prompt cleaning of workspace and removal of construction waste.	Employer
To ensure placement of closed containers for the disposable napkins and other hygiene waste used by both employees and visitors.	Employer
Follow the rules of hygiene at your workplace;	Employee
Carry out the work process in accordance with the Emergency Action Plan defined by the employer / work safety manager;	Employee
Avoid shaking hands and direct contact with others (touch, etc.) while saluting;	Employee
Avoid gathering, the work of more than 10 people on one work platform at a safe distance (less than 2 m) is not recommended;	Employee
When performing the work, make full use of the personal protective equipment provided by the employer;	Employee
Clean the workplaces and the tools and equipment used during the work process with disinfectants;	Employee

Thoroughly wash your hands with soap and water before and after eating, as well as before and the bathroom. Dry your hands thoroughly after washing;	Employee
Use alcohol-based hand sanitizers in case if you are unable to wash and dry your hands;	Employee
Keep a safe distance (not less than 2 m);	Employee
Cover your mouth with clean napkin or elbow when coughing and sneezing and then throw the used disposable napkin in the trash;	Employee
Avoid touching your eyes, nose, or mouth with your hands.	Employee