# Semi-annual Environmental Monitoring Report

# #13 Semiannual Report

(Reporting Period: January-June 2022) Project Number: 43405-026

# GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 4) (FINANCED BY THE ASIAN DEVELOPMENT BANK)

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### ABBREVIATIONS

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

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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 January-June 2022.
- 2. This report is the 13<sup>th</sup> Semi-Annual EMR for the T4 of USIIP.

# **1.2 Headline Information**

**3.** During the reporting period, construction work was carried out only under the JVA-01 and GUD-02 sub-projects and therefore this report describes the activities carried out under these projects. More detailed information on the implementation status of other sub-projects under USIIP/T4 is presented in Chapter 2 below.

# 2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

# 2.1 Project Description

- 4. The Urban Services Improvement Investment Program was developed as the Government's response to the lack of adequate and/or safe water supply, sewerage and sanitation in urban areas of Georgia. This is intended to optimize social and economic development in selected urban areas through improved urban water and sanitation services, and is financed by the ADB through its Multi-tranche Financing Facility. The Ministry of Regional Development and Infrastructure is the Executing Agency and the "United Water Supply Company of Georgia", LLC is the Implementing Agency of the Investment Program. UWSCG is a 100% state-owned company.
- 5. The Investment Program 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 m<sup>3</sup>, construction of new reservoirs (3,300 m<sup>3</sup>x3); distribution network laying of approximately 220 km water supply pipelines; approximately 15 km transmission main; wells drilling of 10 drinking water wells.
- 8. The contract ZUG-01 was signed on October 26, 2015 with AS Inshaat–N, LLC(Azerbaijan), the construction works were completed in September 2018 and further extended until October 2021 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. Post Construction Audit will be conducted during the next reporting period by the Supervision Company SAFEGE and main findings and recommendations of Audit report will be presented in the next SAEMR, July-December 2022.

- **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. Contractual date finished on July 2020 and Contractor was continuing works under Delay Damages, the works Contract is Terminated. The Notice of Termination was issued on 23.03.2022 with the mention that the termination becomes effective with 14 days. On 07.04.2022 the Termination was confirmed by the Employer.
- 10. Therefore, it is proposed to divide the work into 3 lots in order to complete the remaining rehabilitation work carried out by the contractor and commission the entire system. The Draft version of Supplementary Initial Environmental Examination (SIEE), including three separate EMPs for each Lot is prepared by USIIP Environmental Specialist Ms. Kate Chomakhidze and sent to ADB for final approval. SIEE is considered together with existing three IEE. Retender is in process.
- 11. 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 m<sup>3</sup>/day for Poti. The contract for construction of WWTP in Poti was signed on December 21, 2017 with JV "Pfeiffer - EMIT" comprised by "Ludwig Pfeifer Hoch - and Gmbh7Co. (Germany)" and "EMIT Tiefbau KG Group ErcoleMarellilmpiantiTecnologiciS.r.l. (Italy). Contractual date finished on August 2020 and Contractor is continuing works under Delay Damages, Potential completion of Contract can be considered end of December 2021. Contractor suspended works in mid of December 2021 and informed Employer about Insolvency of Company, up to now is ongoing negotiation in between Contractor and Employer, no any decision was made on this stage.
- 12. 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.
- 13. The contract for implementation of JVA-01 was signed on January 17, 2017 with AS Inshaat–N, LLC(Azerbaijan). Contractual date finished on December 2019 and Contractor is continuing works under Delay Damages, Potential completion of Contract can be considered end of December 2021. According Contractor's new working schedule all works should be completed in November-December 2022.
- 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.
- 15. The contract for implementation of GUD-02 sub-project was signed on 4 January 2019 with "China Nuclear Industry 23 Construction Co." LTD (CNI23). The initial date of completion of the contract was April 2021 and further extended until the end of December 2021. New completion date was November 30, 2021, Contractor completed most of works and was prepared Partially Taking Over for Sewerage Network, Reservoir and Borehole N1, After November 30, 2022 Contractor is applying Delay Damages for Borehole N2 and N3. All works should be completed during Defects Notification Period (November 30.2022).
- 6
- **16. 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**

- 17. 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 Protection and Agriculture (MoEPA).
- 18. The Investment Program Management Office (IPMO) under UWSCG which is the Donors Funded Project Management Department, is responsible for the day-to-day management of the project, including the implementation of the EMP. IPMO has an Environmental Specialist who is responsible for managing the environmental aspects of the USIIP. The acting head of the department is Ms.Irina Chikhladze.
- **19.** The IPMO Environmental Specialist (Ms. Kate Chomakhidze) 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
- **20.** The SC include a full time Environmental Specialist (Mr. Shalva Bosikashvili) to assist the IPMO supervise and monitor implementation of the EMP during construction.
- 21. The Contractors also appoints a full time Environmental specialists, (please see list of environmental specialists of CC in table 2 below) to be a senior member of the construction management team based on site for the duration of the contract. The ES has 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
- 22. 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.

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

# Table 1: Institutionnel Arrangement, Responsibilities and Staffing

| # | Millstones/Actions     | Contractor (Environmental<br>Specialist)  | Construction Supervision<br>Consultant (Environmental<br>Specialist)   | IPMO (Environmental<br>Specialist)   | Environmental<br>Protection and Permits<br>Department<br>(Environmental<br>Specialist)                        |
|---|------------------------|---|--|--|---|
| 4 | Reporting              | Prepare monthly<br>environmental monitoring<br>reports and send it to CSC<br>and IPMO | <ol> <li>Prepare inputs to environmental<br/>part of quarterly construction<br/>progress reports;</li> <li>Prepare inputs to semi-annual<br/>environmental monitoring report<br/>(SAEMR) to be submitted to IPMO<br/>for further review, comments and<br/>improvement.</li> <li>Conduct Post-Construction<br/>Final Environmental Audit and<br/>prepare final environmental audit<br/>report.</li> </ol> | <ol> <li>Finalize SAEMRs (and<br/>Final EMRs upon project<br/>completion), send it to ADB<br/>and address potential ADB's<br/>comments until SAEMR<br/>disclosure;</li> <li>Provide ENG and GEO<br/>final versions of SAEMRs to<br/>be uploaded on UWSCG<br/>website.</li> </ol> | Upload the approved<br>reports (ENG and GEO)<br>provided by IPMO to<br>UWSCG website for<br>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<br>CAP and provide to ADB for<br>review and comments if any.  |   |
| 7 | Public consultations   | Participate in public<br>consultations during project<br>implementation               | Organize public consultations:<br>inform people about activities and<br>prepare the record of<br>consultations.  | Participate in public<br>consultations during project<br>implementation  | UWSCG & IPMO host<br>PCs, CSC will present<br>the topics related to<br>environmental issues                   |

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

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

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

# Table 2: List of Main Organizations under USIIP/T4

| Type of                | Name of                                    | Environmental Staff             | Name and contact details         |
|------------------------|--|---------------------------------|----------------------------------|
| project<br>participant | Agency/Company                             |                                 |                                  |
| Supervision            | SAFEGE (France)                            | Environmental                   | Mr. Shalva                       |
| Consultant             | with Engineering<br>Solution LLC           | Specialist:                     | Bosikashvili                     |
|                        | (Georgia)                                  |                                 | Tel:+995                         |
|                        |  |                                 | 595116041                        |
|                        |  |                                 | E-mail:                          |
|                        |  |                                 | <u>sbosikashvili@yahoo.</u>      |
|                        |  |                                 | <u>com</u>                       |
| Contractor             | AS Inshaat-N LLC                           | Environmental H&S               | Mr. Nodar Usupishvili            |
| ZUG-01                 | (Azerbaijan)                               | Specialist                      | Tel:+995 577 68 16 71            |
|                        |  |                                 | E-mail:                          |
|                        |  |                                 | n.usupashvili@gmail.com          |
| Contractor             | TAHAL Group BV                             | Environmental H&S               | Mr.Beka Khachidze                |
| POT-01                 |  | Specialist                      | Tel: +995 599 346 821            |
|                        |  |                                 |                                  |
|                        |  |                                 | E-mail:                          |
|                        |  |                                 | r.kalandadze@yahoo.com           |
| Contractor             | .JV "Pfeiffer - EMIT"                      | Environmental Specialist        | Mr.Nikoloz                       |
| POT-02                 | comprised by                               | H&S Specialist                  | Neparidze                        |
|                        | "Ludwig Pfeifer<br>Hoch – and              |                                 | Tel: +995 599 346                |
|                        | TiefbauGmbh7Co.                            |                                 | 821                              |
|                        | KG (Germany)"<br>and "EMIT Group           |                                 | E-mail:                          |
|                        | -  |                                 | nikoloz.nepharidze@ludwigpfeiffe |
|                        | ErcoleMarelliImpia<br>ntiTecnologiciS.r.l. |                                 | r.com                            |
|                        | (Italy)                                    |                                 |                                  |
| JVA-01                 | AS Inshaat-N LLC<br>(Azerbaijan)           | Environmental H&S<br>Specialist | Mr. Nodar                        |
|                        |  | opecialist                      | Usupishvili                      |
|                        |  |                                 | Tel:+995 577 68                  |
|                        |  |                                 | 16 71                            |
|                        |  |                                 | E-mail:                          |
|                        |  |                                 | n.usupashvili@gmail.             |
|                        |  |                                 | com                              |
|                        |  |                                 |                                  |

| Type of<br>project<br>participant | Name of<br>Agency/Company   | Environmental Staff             | Name and contact details  |
|-----------------------------------|---|---------------------------------|---|
| GUD-02                            | "China Nuclear<br>Industry 23<br>Construction Co."<br>LTD (CNI23) | Environmental H&S<br>Specialist | Mr. Aleksandre<br>(Sasha)<br>Mchedlishvili<br>Tel: +995 574 02<br>77 33<br>E-mail:<br><u>alexandermchedlishvili1@gmail.</u><br><u>com</u> |

# 2.3 Project Activities during Current Reporting Period

- 24. During the reporting period construction activities was carried out only under JVA-01 and GUD-02 sub-projects, therefore this sub-project is 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.
- **25.** Information about the construction work under USIIP/T4 during the reporting period January-June 2022 is presented in the Table 3 and Table 4 below.

### POT-02 Sub-project

**26.** During the reporting period no progress was made under POT-02 sub-project, Contractor suspended all works in mid of December 2021.

### **POT-01 Sub-project**

- 27. During the reporting period no progress was made under POT-01 sub-project. The Contract for POT-01 sub-project under USIIP/T4, was awarded to TAHAL Group BV on 20 December 2017. Contractual date finished on July 2020 and Contractor was continuing works under Delay Damages. The progress of contractor was very slow. Finally the Notice of Termination of construction works was issued on 23.03.2022. On 07.04.2022 the Termination was confirmed by the Employer. Retender is in process.
- **28.** TAHAL Group BV on 20 December 2017. Contractual date finished on July 2020 and Contractor is continuing works under Delay Damages, the works Contract is Terminated. The Notice of Termination was issued on 23.03.2022 with the mention that the termination becomes effective with 14 days. On 07.04.2022 the Termination was confirmed by the Employer.

29. Based on the above mentioned, it is proposed to divide the work into 3 lots in order to complete the remaining rehabilitation work carried out by the contractor and commission the entire system. The Draft version of Supplementary Initial Environmental Examination (SIEE), including the three separate EMPs for each Lot is prepared by USIIP Environmental Specialist Ms. Kate Chomakhidze and sent to ADB for final approval. SIEE is considered together with existing IEE.

### JVA-01 Sub-project

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

| Jvari                    | Jvari Water Supply System Construction                  |  |
|--------------------------|---|--|
| Sites                    | Jvari Water Pipeline Network                            |  |
|                          |   |  |
| Jvari                    | Jvari Transmission Pipelines                            | Executed<br>During<br>January-June<br>2022 |
| Works undertaken         | Executed January 2021 – July 2021. Total Completed %:   |  |
| during January-June 2022 | OD DCI 300 SDR7.4 - 4200m was laid-2817 67%             |  |
|                          | Reservoir:  |  |
|                          | Civil works completed 95%                               |  |
|                          | (Was ongoing repair works and tightness test for        | 452.5m                                     |
|                          | reservoirs) Pumping Station including reservoir and     |  |
|                          | Transformer building: Civil works completed             |  |
|                          | 70%   |  |
|                          | Lia Well Field: Was ongoing repair works on Well houses |  |

### Table 3. Project Progress during the January-June 2022 for JVA-01

### GUD-02 Sub-project

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

| GUD 02   | Total Completed %  | Executed During January-<br>June 2022  |
|--|--|--|
| Works<br>undertaken                                    | For GUD-02 Project was executed:   |  |
| during January-<br>June 2022                           | 1. Installation of Corrugated<br>Pipe D-200 – 22000 m (Out of 22000); - 100%                 | 2909m  |
|  | 2. Installation of Concrete Manhole D<br>1000– 1549m;- 100%                                  | 305m   |
| Works<br>undertaken<br>during January-<br>June<br>2022 | <ol> <li>Construction of Reservoir – 100 %<br/>(Civil Works and Pipe Connections)</li> </ol> | During this period was executed<br>all civil works<br>(Reservoir, Guard House,<br>Chlorination building and Chamber) |
|  | 4. Construction of Boreholes:<br>N1Drilling - 100%: N2- 75% and N3-<br>85%                   | Borehole N1-Pipe installation<br>Borehole N2-Drilling 220m<br>Borehole N3-Drilling 310m                              |

# Table 4: Project Progress during the January-June 2022 for GUD-02

# 2.4 Description of Any Changes to Project Design

**32.** 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

**33.** 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

- **34.** A total of 6 site visits have been conducted at different times during reported period (January June 2022) under JVA-01 and GUD-02 sub-projects and included:
  - The monitoring of compliance of construction activities under JVA-01 project sites to the IEE/EMP requirements;
  - The monitoring of compliance of construction activities under GUD-02 project sites to the IEE/EMP requirements.
- **35.** A summary of the status of the monitoring visits, including dates of site visits, photographs, persons involved in site visits, etc., is shown in Table 6 below. During the reporting period, onsite training workshop and a meeting with representatives of the Contractors and the Supervision Consultant were held.
- **36.** Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis.
- **37.** 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.
- **38.** 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.
- 39. Environmental Monitoring Specialist of SC/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.
- 40. 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. Prepare Non-compliance Notice were required developed Semi-Annual Environmental Monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
- **41.** 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 5 below for JVA-01 and GUD-02 sub-projects.

| Parameters  | Frequency & Location  | Remarks   | Statues   |
|---|---|---|-----------|
|   | USIIP/T4  |   |           |
|   | JVA-01  |   |           |
| Impact on Flora and Fauna                                 | Monthly, during the site Inspection and audit.                                | Avoid tree cutting<br>In unavoidable cases,<br>plant four trees of<br>same species for each<br>tree that is cut for<br>construction   | Completed |
| Cultural heritage<br>Disturbance to cultural<br>resources | Every time, along the<br>alignment<br>Archaeological &<br>Cultural Properties | Contractor shall put in<br>place a protocol for<br>conducting any<br>excavation work, to<br>ensure that any<br>chance finds are<br>recognized and<br>measures are taken to<br>ensure they are<br>protected and<br>conserved.<br>Calling in the state<br>archaeological<br>authority if a find is<br>suspected, and taking<br>any action they require<br>to ensure its removal or<br>protection. | Completed |
|   | GUD-02  |   |           |
| Air Quality   | Every 6 months, Waste<br>Water Treatment Plant<br>construction site           | Watering site during<br>excavation works to<br>avoid dust spreading.<br>Conduct<br>measurements of<br>Dusts Mg/m <sup>3</sup> ; CO<br>Mg/m <sup>3</sup> ; NO2 Mg/m <sup>3</sup> ;<br>SO2 Mg/m <sup>3</sup>  | Completed |

# Table 5: Parametric Measurement Guidelines

| Parameters                               | Frequency & Location  | Remarks   | Statues   |  |  |  |
|--|---|---|-----------|--|--|--|
|  | USIIP/T4  |   |           |  |  |  |
| Noise                                    | Every 6 months, Waste<br>Water Treatment Plant<br>construction site | Ensure that all<br>equipment & vehicles<br>used for construction<br>activity are in good<br>condition<br>Limiting working hours<br>to 8 am – 6 pm   | Completed |  |  |  |
| Topsoil (in amount of 60m <sup>3</sup> ) | Monthly, during the site monitoring.                                | Top soil of about 15<br>cm depth should be<br>removed and stored<br>separately in<br>appropriate location<br>and reinstated after<br>completion of<br>construction activities.<br>Top soil should be<br>stockpiled as required<br>in long, low piles<br>(maximum height 2 m.<br>with 45° sloped sides,<br>washout prevented)<br>adjacent to the works<br>to maximize the<br>viability of the natural<br>seed stock in the soil. | Completed |  |  |  |

- 42. The whole reporting period (January June 2022) went through pandemic situation of COVID-19. However, this did not affect the construction process and civil work went on regular basis. UWSCG and SC directed all concerned to take proper measures to prevent the pandemic and contractor's workers were advised to keep proper heath hygiene by wearing facemask, hand washing and maintaining physical distances at the work sites.
- **43.** In response to COVID-19, 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.
- **44.** General guidelines on COVID-19 have been additionally developed specifically for the construction sector (see Appendix D) by the Government of Georgia as well.

- **45.** This COVID-19 Construction Sector Guidelines have been created to provide construction project owners/operators and their employees and contractors with precautions to protect against the spread of COVID-19 on indoor and outdoor construction sites.
- **46.** In June 2020 SC/SAFEGE has developed an emergency response plan (ERP) to prevent employees against COVID-19 (Please see ANNEX G). In addition, in June 2020 contractors updated all EH&S documents, including health and safety plans and site-specific environmental management plans.

### 3.2 Site Audits

**47.** Inspection and monitoring of construction sites were conducted under GUD-02 and JVA-01 sub-projects by ESs of UWSCG/USIIP and Safege. The schedule of Joint inspection and summary of audits carried out under JVA-01 and GUD-02 sub-projects are provided in the Table 6 below.

# Table 6. Summary of site audits

| Date of<br>Visit   | Name of<br>Company                                   | Auditors<br>Name  | Purpose of<br>audit  | Summary of any<br>Significant Findings   | Cross<br>Reference to<br>Audit Report  | Status of<br>implementatio<br>n   |
|--|--|---|--|--|--|---|
| Continuously<br>during<br>reporting<br>period<br>(January-<br>June 2022) | AS Inshaat-N<br>LLC<br>(Azerbaijan)<br><b>JVA-01</b> | EH&S Specialist<br>of Contractor Mr.<br>Nodar<br>Usupishvili  | Day to day<br>monitoring of<br>sites<br>Compliance<br>with<br>Environmental<br>and HES<br>requirements | Poor housekeeping Safety<br>issues on construction<br>sites  | Monthly<br>Monitoring<br>Reports   | Completed<br>on the<br>monthly<br>basis   |
| 11.04.2022   |  | Environmental<br>Specialist of SC<br>Mr.Shalva<br>Bosikashvili<br>USIIP<br>environmental<br>Specialist Ms.Kate<br>Chomakhidze | Regular<br>Monitoring of<br>Sites  | Site internally should be<br>arranged properly and<br>cleaned regularly.<br>All construction materials<br>and wastes should be<br>properly segregated and<br>stored adequately<br>Proper warning and safety<br>signs should be provided at<br>the perimeter of the Open<br>pit | Non-<br>compliance<br>notice were<br>issued to<br>contractor<br>and<br>corrective<br>actions<br>were<br>required to<br>immediately<br>improve the<br>situation on<br>sites under<br>JVA-01sub-<br>project<br>(Please see<br>Annex C) | Completed<br>(30.06.2022)<br>Completed<br>(30.05.2022)<br>Completed<br>(30.05.2022) |
|  |  |   |  | Construction waste should<br>be removed from the<br>alongside the road, please<br>see Photo N1 below   |  | Completed<br>(30.05.2022)   |

| Date of<br>Visit | Name of<br>Company | Auditors<br>Name | Purpose of<br>audit | Summary of any<br>Significant Findings | Cross<br>Reference to<br>Audit Report | Status of<br>implementatio<br>n |
|------------------|--------------------|------------------|---------------------|--|---------------------------------------|---------------------------------|
|                  |                    |                  |                     | <image/> <text></text>                 |                                       | Completed<br>(30.05.2022)       |

| Date of<br>Visit | Name of<br>Company | Auditors<br>Name   | Purpose of<br>audit               | Summary of any<br>Significant Findings  | Cross<br>Reference to<br>Audit Report  | Status of<br>implementatio<br>n  |
|------------------|--------------------|--|-----------------------------------|---|--|--|
| 4 May 2022       |                    | Environmental<br>Specialist of SC<br>Mr.Shalva<br>Bosikashvili | Regular<br>Monitoring of<br>Sites | Proper warning and safety signs should be provided at the perimeter of the Open pit, please see Photo N1 below  |  | Not completed,<br>Will be<br>completed by the<br>end of July 2022<br>(please see<br>Table N19) |
| 14 June 2022     |                    | Environmental<br>Specialist of SC<br>Mr.Shalva<br>Bosikashvili | Regular<br>Monitoring of<br>Sites | Oil spill response kits<br>should be placed at the<br>appropriate locations.<br>Refueling station should<br>be equipped with the spill<br>kit and fire relevant<br>fighting equipment; drip<br>tray should be used for<br>fuel spillage prevention. | Non-<br>compliance<br>notice were<br>issued to<br>contractor<br>and<br>corrective<br>actions<br>were<br>required to<br>immediately<br>improve the<br>situation on<br>sites under<br>JVA-01sub-<br>project<br>(Please see<br>Annex C) | Completed<br>(30.06.2022)<br>Completed<br>(30.06.2022)   |

| Date of<br>Visit   | Name of<br>Company  | Auditors<br>Name  | Purpose of<br>audit   | Summary of any<br>Significant Findings   | Cross<br>Reference to<br>Audit Report    | Status of<br>implementatio<br>n |
|--|---|---|---|--|--|---------------------------------|
|  |   |   |   | Please see photo N1<br>below   |  |                                 |
| Continuously<br>during<br>reporting<br>period<br>(January-<br>June 2022) | China<br>Nuclear<br>Industry 23<br>Construction<br>Co., Ltd<br>GUD-02 | Environmental<br>H&S<br>Specialist<br>of Contractor<br>Mr.Aleksandre<br>Mchedlishvili | Day to day<br>monitoring of<br>sites<br>Compliance with<br>Environmental<br>and H&S issues<br>Monthly<br>Monitoring of<br>construction<br>sites | Site internally should be<br>arranged properly and<br>cleaned regularly.<br>Minimize tree cutting on<br>construction site, due to<br>construction purposes | Prepare monthly<br>monitoring<br>reports | Completed<br>(30.06.2022)       |

| Date of<br>Visit | Name of<br>Company | Auditors<br>Name   | Purpose of<br>audit               | Summary of any<br>Significant Findings  | Cross<br>Reference to<br>Audit Report   | Status of<br>implementatio<br>n   |
|------------------|--------------------|--|-----------------------------------|---|---|---|
| 24 May 2022      |                    | Environmental<br>Specialist of SC<br>Mr.<br>Shalva<br>Bosikashvili<br>Environmental<br>specialists of<br>USIIP Ms.<br>Ketevan<br>Chomakhidze | Monthly<br>monitoring of<br>sites | Site internally should be<br>arranged properly and<br>cleaned regularly.<br>All construction materials<br>and wastes should be<br>properly segregated and<br>stored adequately.<br>Pipes, gravel and precast<br>concrete scattered<br>uncontrolled, storing is not<br>marked with warning tape,<br>please see photo N1<br>below | Non-<br>compliance<br>notice were<br>issued to<br>contractor<br>and<br>corrective<br>actions<br>were<br>required to<br>immediately<br>improve the<br>situation on<br>sites under<br>GUD-02<br>sub-project<br>(Please see<br>Annex C)<br>Corrective<br>Action Plan was<br>developed by<br>contractor and<br>sent to SC and<br>UWSCG on May<br>2022, please<br>see Annex D<br>below | Completed<br>(30.06.2022)<br>Completed<br>(30.06.2022)<br>Completed<br>(30.06.2022) |

| Date of<br>Visit | Name of<br>Company | Auditors<br>Name  | Purpose of<br>audit | Summary of any<br>Significant Findings  | Cross<br>Reference to<br>Audit Report  | Status of<br>implementatio<br>n  |
|------------------|--------------------|---|---------------------|---|--|--|
| 23 June<br>2022  |                    | Environmental<br>specialists of<br>USIIP Ms.<br>Ketevan<br>Chomakhidze<br>Ms. Maka<br>Goderdzishvili<br>Head, Department<br>of Environmental<br>Protection and<br>Permits |                     | Gudauri Reservoir<br>Develop a<br>reinforcement plan<br>and take appropriate<br>protective measures<br>around the entire<br>perimeter of the<br>Gudauri reservoir with<br>an appropriate<br>technical solution to<br>prevent the danger of<br>land collapse, see<br>Photo N1<br>Froper reinstatement<br>activates should be<br>carried out after<br>completion of the<br>construction works<br>and reservoir must be<br>cleaned of gravel and<br>covered with a top<br>soil, Photo N2 | Non-<br>compliance<br>notice were<br>issued to<br>contractor<br>and<br>corrective<br>actions<br>were<br>required to<br>immediately<br>improve the<br>situation on<br>sites under<br>GUD-02<br>sub-project<br>(Please see<br>Annex C) | Not completed,<br>Will be<br>completed by the<br>end of July 2022<br>(please see<br>Table N19)<br>Not completed,<br>Will be<br>completed by the<br>end of July 2022<br>(please see<br>Table N19) |

| Date of<br>Visit | Name of<br>Company | Auditors<br>Name | Purpose of<br>audit | Summary of any<br>Significant Findings  | Cross<br>Reference to<br>Audit Report | Status of<br>implementatio<br>n |
|------------------|--------------------|------------------|---------------------|---|---------------------------------------|---------------------------------|
|                  |                    |                  |                     | In order to ensure the safe movement of the workforce and the personnel employed on the site, near the old reservoir and other objects on the construction site, proper bridges/ladder that meet the standards should be arranged (immediately), Photo N3 |                                       | Completed<br>(30.06.2022)       |

| Date of<br>Visit | Name of<br>Company | Auditors<br>Name | Purpose of<br>audit | Summary of any<br>Significant Findings   | Cross<br>Reference to<br>Audit Report | Status of<br>implementatio<br>n  |
|------------------|--------------------|------------------|---------------------|--|---------------------------------------|--|
|                  |                    |                  |                     | Gudauri Well filled<br>To prevent local<br>community from<br>entering the<br>construction site, a<br>temporary protective<br>fence and gate should<br>be immediately<br>arranged around the<br>entire perimeter of the<br>construction site, and<br>relevant warning and<br>information signs<br>should be posted to<br>inform the local<br>population, please<br>see Photo N1<br>The construction site<br>must be organized<br>and cleaned regularly; |                                       | Not completed,<br>Will be<br>completed by the<br>end of July 2022<br>(please see<br>Table N19) |

| Date of<br>Visit | Name of<br>Company | Auditors<br>Name | Purpose of<br>audit | Summary of any<br>Significant Findings  | Cross<br>Reference to<br>Audit Report | Status of<br>implementatio<br>n |
|------------------|--------------------|------------------|---------------------|---|---------------------------------------|---------------------------------|
|                  |                    |                  |                     | Proper waste<br>management should<br>be implemented;<br>Household and<br>hazardous waste<br>must be stored<br>separately with<br>appropriate labels,<br>please see Photo N2 |                                       | Completed<br>(30.06.2022)       |
|                  |                    |                  |                     | on the soil, the  |                                       | Completed                       |

| Date of<br>Visit | Name of<br>Company | Auditors<br>Name | Purpose of<br>audit | Summary of any<br>Significant Findings  | Cross<br>Reference to<br>Audit Report | Status of<br>implementatio<br>n  |
|------------------|--------------------|------------------|---------------------|---|---------------------------------------|--|
|                  |                    |                  |                     | contaminated layer<br>should be removed<br>and remedial works<br>should be carried out;<br>Different types of<br>construction materials<br>should be stored<br>separately;<br>There should be a log<br>of<br>complaints/registratio<br>n at the construction<br>site. |                                       | (30.06.2022)<br>Completed<br>(30.06.2022)<br>Completed<br>(30.06.2022) |

# 3.3 Issues Tracking (Based on Non-Conformance Notices)

- **48.** 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.
- 49. Two Non-Compliance Notices have been issued during the site visits under GUD-02 subproject and three NCNs under JVA-01 sub-project. The contractors were always informed on the detected non-conformances and were demanded to improve on the deadline set and send CAP and/or photos of improvements. Environmental team of SAFEGE and UWSCG/USIIP monitored the improvements during the next monitoring visits. All Nonconformance Notices issued during the reporting period is presented in ANNEX C of this Semi-Annual EMR.
- **50.** In case that the contractor did not make any improvements within the indicated deadline, IPMO/PIU always held additional meetings and discussions with contractors and Safege on how to correct the non-compliances. All this non-compliances are presented in the table 6 above. Since the deadline for improvements of above issues are set for the first half of August 2022, the main findings will be reflected in the next semi-annual EMR, July-December 2022.
- **51.** A summary of the identified environmental issues under JVA-01 and GUD-02 sub-projects for January-June 2022 is presented in Table 7, 8 and 9 below.

### Table 7: Summary of Issues Tracking Activity for Current Period - JVA-01

| Total Number of Issues for<br>Project  | 8   |
|--|-----|
| Issues Opened This Reporting<br>Period | 1   |
| Issues Closed This Reporting<br>Period | 7   |
| Percentage Closed                      | 88% |

### Table 8: Summary of Issues Tracking Activity for Current Period - GUD-02

| Total Number of Issues for              | 14  |
|---|-----|
| Project<br>Issues Opened This Reporting | 14  |
| Period                                  | 3   |
| Issues Closed This Reporting            |     |
| Period                                  | 11  |
| Percentage Closed                       | 79% |

52. As it is presented in Table 12 above, one issue is still opened under JVA-01 sub-project and

two issues under GUD-02 sub-project, which will be improved be the end of July 2022 and improved photos of sites will be presented in the next Semi-annual EMR, July-December 2022, these issue are as following:

#### JVA-01

 Proper warning and safety signs should be provided at the perimeter of the Open pit, please see Photo N1 below and two issues under GUD-02 sub-project

#### GUD-02

- Develop a reinforcement plan and take appropriate protective measures around the entire perimeter of the Gudauri reservoir with an appropriate technical solution to prevent the danger of land collapse Proper restoration work should be carried out after the construction is completed;
- (iii) Proper reinstatement activates should be carried out after completion of the construction works and reservoir must be cleaned of gravel and covered with a top soil
- (iv) To prevent local community from entering the construction site, a temporary protective fence and gate should be immediately arranged around the entire perimeter of the construction site, and relevant warning and information signs should be posted to inform the local population

### 3.4 Trends

**53.** To identify trends in environmental issues, information from previous Semi-Annual EMR (July-December 2021) is used. The summary of the issues is provided in the Table 9 below. There were no unresolved issues identified within USIIP/T4 not only within the previous SAEMR, but also since the start of the sub-projects.

| Semi-Annual<br>EMR<br>No | Total No of<br>Issues | % issues<br>Closed | % issues<br>closed late |
|--------------------------|-----------------------|--------------------|-------------------------|
| July-December<br>2021    | 35                    | 94%                | 6%                      |
| January-June<br>2022     | 22                    | 87%                | 13%                     |

Table 9: Summary of identified trends in environmental issues

- **54.** Most of the non-compliances were eliminated by the contractors within the specified time frame within the sub-projects JVA-01 and GUD-02. The required actions and deadline to improve the remaining inconsistencies are presented in table 19 below.
- 55. The UWSCG Department of Environment Protection and Permits (DEPP) and its USIIP Environmental Specialist, Ms. Kate Chomakhidze, as well as IPMO/UWSCG had always discussed the inconsistencies and findings presented in Table 6 above with the contractor. In some cases, this has led to meetings to discuss non-compliances identified during the site visit and mitigation measures that need to be implemented immediately.
- 56. In cases contractor does not improve the situation to 100% on the sites within the proposed

time frame, additional meetings and discussions will be held by UWSCG and SC. All improvements will be duly reflected in the next SAEMR January-June 2022.

### 3.5 Unanticipated Environmental Impacts or Risks

57. 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 SEMPs by the contractor, developing emergency management plan by SC, advising contractor workers to keep proper heath hygiene by wearing facemask, washing hands and practicing physical distances at the work sites, etc. For more information on additional risk mitigation measures caused by COVID-19 please see paragraphs 42-46 above. There were no other unanticipated Environmental Impact under USIIP/T4 during the reporting period.

# 4. RESULTS OF ENVIRONMENTAL MONITORING

# 4.1 Overview of Monitoring Conducted during Current Period

- **58.** During the reporting period Environmental measurements of Noise level and Ambient Air Quality were carried out by contractor only under Pot-02 sub-project.
- **59.** Noise and air pollution standards defined by IFC/WHO 1999, are presented in the Table 10 and 11 below.

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

### Table 10: Noise Level Guidelines

**60.** Air pollution standards by IFC/WHO 1999, are presented in the Table 15 below. National Air Pollution Standards are provided in the Table 11 below.

### Table 11: Air pollution Guidelines

| Contaminants                        | IFC/WHO Guideline Value (Limit) mg/m <sup>3</sup> ))  |  |  |
|-------------------------------------|---|--|--|
| 1                                   | 2   |  |  |
|                                     | (*IFC does not have a standard for<br>"inorganic dust". Instead IFC applies<br>standards for PM2.5 and PM10). |  |  |
| Inorganic dust                      | PM10 – 0,02/1 Year  |  |  |
|                                     | 0,05/24 Hour  |  |  |
|                                     | PM2,5-0,01/1 Year   |  |  |
|                                     | 0,025/24 Hour   |  |  |
| Carbonic monoxide                   | n/a   |  |  |
| Nitragon diaxida (NO-)              | 0,2/ 1Hour  |  |  |
| Nitrogen dioxide (NO <sub>2</sub> ) | 0,04/1Year  |  |  |
| Aldehyde                            | n/a   |  |  |

#### 61. Georgian Standards for noise level is presented in the Table 12 below.

## Table 12: Georgian Standards for Noise Levels

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

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

**62.** Table 13 shows the threshold values of the major air pollutants as defined by the GEO, IFC and EU legislation.

|                        |                     | Limit (µg/m³)   |                        |   |  |  |  |
|------------------------|---------------------|---|------------------------|---|--|--|--|
| Parameter              | Averaging<br>Period | Maximum Per-<br>missible Concen-<br>tration (MPC) in<br>Georgia | IFC Guideline<br>Value | EU Ambient Air<br>Quality Guide-<br>lines |  |  |  |
|                        | 30 minutes          | 200   | -                      | -   |  |  |  |
| Nitrogen Dioxide       | 1 Hour              | -   | 200                    | 200                                       |  |  |  |
| (NO <sub>2</sub> )     | 24 Hours            | 40  | -                      | -   |  |  |  |
|                        | 1 Year              | -   | 40                     | 40  |  |  |  |
|                        | 10 minutes          | -   | 500                    | -   |  |  |  |
| Sulphur Dioxide        | 30 minutes          | 500   | -                      | -   |  |  |  |
| (SO <sub>2</sub> )     | 1 Hour              | -   | -                      | 350                                       |  |  |  |
| (                      | 24 Hours            | 50  | 20                     | 125                                       |  |  |  |
| Carbon Monoxide        | 30 minutes          | 5,000   | -                      | -   |  |  |  |
| (CO)                   | 24 Hours            | 3,000   | -                      | -   |  |  |  |
| Total Suspended Par-   | 24 Hours            | 150   | -                      | -   |  |  |  |
| ticulates (TSP) / Dust | 30 minutes          | 500   | -                      | -   |  |  |  |

Table 13: Ambient Air Quality Standards

|           |                      |   | Limit (µg/m³)          |   |  |  |  |
|-----------|----------------------|---|------------------------|---|--|--|--|
| Parameter | Averaging<br>Period  | Maximum Per-<br>missible Concen-<br>tration (MPC) in<br>Georgia | IFC Guideline<br>Value | EU Ambient Air<br>Quality Guide-<br>lines |  |  |  |
|           | 1 year               | 40  | 20                     | 40  |  |  |  |
| PM10      | 24 hours             | 50  | 50                     | 50  |  |  |  |
|           | 1 year               | 25  | 10                     | 25  |  |  |  |
| PM2.5     | 24 hours             |   | 25                     | -   |  |  |  |
| Ozone     | 8-hour daily<br>max. | 120   | 100                    | 120                                       |  |  |  |

**63.** The Georgian Standards for vibration are designed for human comfort. These are shown in Table 14 below. Note that no standards for building damage exist.

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

### Table 14: Georgian vibration values

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

- 64. Environmental quality measurements of noise level and ambient air quality under GUD-02 sub-project were conducted by the Ltd. NASETO GROUP on 17 June 2022 (See Table 15 and Table 16 below and Annex A). The distance from the construction sites to the nearest residential houses is more about 500 m. The next monitoring measurements will be conducted in September 2022 and results will be reflected in the next Semi-annual EMR, July-December 2022.
- **65.** According to data received in June 17 noise level in some place (Gudauri Track, please see Table 15 below) 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 19 below are required (please see IFC/WHO and national standards for Noise and Air pollution in Tables 10 and 13 above). It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 12:50 pm to 15:40 pm and no complaints were received from the local population about the noise during the reporting period.

| Measure                       | ment point            | Measurement results     |       |       |      |                |                   |                         |       |
|-------------------------------|-----------------------|-------------------------|-------|-------|------|----------------|-------------------|-------------------------|-------|
| Location                      | Coordinates           | Noise Max.<br>dBA (MAX) | Vibro | Speed |      | bro<br>eration | Du                | ist mg/m                | 3     |
|                               |                       | (1 hour)                | m     | /s²   | C    | lb             | PM <sub>2.5</sub> | <b>PM</b> <sub>10</sub> | Total |
| Gudauri<br>Pumping<br>Station | 38TO458893<br>4702408 | 48,6                    | <0,1  | <66   | <0,1 | <100           | 0,011             | 0,016                   | 0,019 |
| Gudauri<br>Reservoir          | 38TO457008<br>4703113 | 47,4                    | <0,1  | <66   | <0,1 | <100           | 0,009             | 0,015                   | 0,017 |
| Gudauri<br>Track              | 38TO457187<br>4702170 | 65,8                    | <0,1  | <66   | <0,1 | <100           | 0,034             | 0,039                   | 0,043 |

# Table 15: Environmental Quality Measurements, GUD-02 (Noise, Vibration)

# Table 16: Environmental Quality Measurements, GUD-02 (Air Pollution)

| Measurement Po             | int                   | Measurem            | nent Results mg/m³ |                    |                      |  |
|----------------------------|-----------------------|---------------------|--------------------|--------------------|----------------------|--|
| Location                   | Coordinates           | Nitrogen<br>dioxide | Sulfur<br>dioxide  | Carbon<br>monoxide | Total<br>Hydrocarbon |  |
| Gudauri<br>Pumping Station | 38TO458893<br>4702408 | 0,007               | <0,01              | 0,21               | <0,1                 |  |
| Gudauri<br>Reservoir       | 38TO457008<br>4703113 | 0,009               | <0,01              | 0,25               | <0,1                 |  |
| Gudauri<br>Track           | 38TO457187<br>4702170 | 0,021               | <0,01              | 0,59               | <0,1                 |  |

66. During the reporting period, environmental quality measurements were not carried out within the framework of JVA-01, as construction activities included only a small amount of earthworks and none of the activities under the sub-project had a potential to generate significant noise and air pollution, as there were no sensitive receptors in the proximity of the construction sites (approximately 600m). Also construction activities did not involve high noise/vibration generating activities like pile-driving or rock cutting. Notwithstanding the above, ES UWSCG / USIIP asked SC to issue a non-compliance notice to the construction works and provide the measurement data to UWSCG.

### List of measurement devices unit and validity of calibration

67. During the environmental quality measurement the following measurement devices were used: Noise – Mini Sound level meter N05CC; Vibration – Smart Sensor – AR63B Vibration meter; Dust – Portable Dust Deteqtor model LB-HD08 and Gasella Mikro Dust Pro (Self-calibration zero and optical filter). For nitrogen dioxide and carbon monoxide – Elan CO/NO2; Total hydrocarbon MiniRae 7600, sulfure dioxide – WASP-XM-E-SO2.
# 4.2 Trends

**68.** All mitigation measures identified in relevant IEE/EMP and SEMPs within the framework of the GUD-02 and JVA-01 sub-projects are effective and Construction Company is required to follow all these requirements.

# 4.3 Summary of Monitoring Outcomes

69. The noise and air pollution levels during the construction period under the GUD-02 subproject in some places (Gudauri Track, please see Table 15 above) exceed the existing IFC / WHO standards and national regulations, and therefore additional mitigation measures are required, which are presented in Table 19 of this report.

# 4.4 Material Resources Utilization

# 4.4.1 Current Period

**70.** The material resources utilized by contractor - under GUD-02 sub-project during the reporting period – January-June 2022 is provided in the Table 17 below.

# Table 17: Material Resources Utilization under GUD-02 Sub-project, January-June 2022

| N |                                | Monthly | Measurement |
|---|--------------------------------|---------|-------------|
| 1 | Consumption of Drinking Water  | 450     | LT          |
| 2 | Consumption of Technical Water | 3       | Т           |
| 3 | Fuel                           | 8000    | L           |

71. There is no information on material resources (Consumption of Drinking Water and Technical Water, Electricity) used during the reporting period under the JVA-01 sub-project from the contractors despite numerous written and oral instructions and requests issued by Environmental Consultant of UWSCG / USIIP. UWSCG has issued non-compliance notice to contractors under JVA-01 sub-projects on the above matter. Information about material resources utilization during the next reporting period will be presented in relevant SAEMR of July-December 2022.

# 4.4.2. Cumulative Resource Utilization

**72.** No cumulative resources utilization was provided by contractor despite of numerouse verbal request and instructions. This information, will be reflected in the next SAEMR, July-December 2022.

# 4.5 Waste Management

# 4.5.1 Current Period

**73.** At the construction sites of JVA-01and 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 services of the local

Municipalities.

- **74.** Hazardous waste is removed from the area on the basis of agreements concluded by contractors with certified companies under JVA-01 and GUD-02 sub-projects after the start of civil works.
- **75.** 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.
- **76.** 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.

# GUD 02

- 77. Household waste is collected at the construction sites in the Household Waste containers and transmitted to Municipal waste containers and finally disposed at the Kazbegi landfill.
- **78.** Construction/demolition waste are also disposed according to the agreement with Solid Waste Management Company at the Kazbegi landfill, please see relevant agreement in ANNEX G to this report.
- 79. Hazardous waste is collected at the construction territories in the Hazardous Waste containers and according agreement transmitted to Medical Technology Company for final disposal. HSE specialists of the construction companies is responsible for the waste management under GUD-03 sub-project. On-job environmental safeguards training have been also conducted which included topics of waste management as well, please see relevant agreement in ANNEX G to this report.

# 4.5.2 Cumulative Waste Generation N/A

# 4.6 Health and Safety

### 4.6.1 Community Health and Safety

- **80.** No community incidents have been reported to SC during reporting period under JVA-01and GUD-02 sub-projects.
- **81.** Relevant measures are undertaken for COVID-19 prevention at construction sites, more detailed information is provided in the Paragraphs 31-34 above.

## 4.6.2 Worker Safety and Health JVA-01

82. Environmental H&S Manager of JVA-01 sub-project Mr.Nodar Usupishvili was performing

day-to-day monitoring of sites, according to EH&S standards and by requirements of UWSCG and SC/SAFEGE and providing relevant reports on a regular basis taking into account any recommendations given by SC/UWSC.

- 83. EH&S issues which were covered during the reporting period are as follows:
  - PPE;
  - Ground works;
  - Manual works;
  - Unsafe work on height
- 84. No workers incidents have been reported during reporting period under JVA-01 project, which may be resulted in Health and Safety problems.

# 4.6.3 Worker Safety and Health GUD-02

- **85.** Environmental H&S Manager of GUD-02 sub-project Mr. Aleksandr Mchedlishvili was performing daily 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;
  - Reinforcement;
  - Ground works;
  - Manual works
- 87. 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.
- **88.** The following Near-Misses were reported by SC under GUD-02 sub-project, which may be resulted in Workers' Health and Safety problems:
  - Workers always should use complete PPE to avoid accidents
- **89.** No workers incidents have been reported during reporting period under JVA-01 project, which may be resulted in Health and Safety problems.

# 4.7 Training

90. Routine personnel trainings and toolbox talks happen by the construction companies almost on daily basis under GUD-02 and JVA-01 sub-projects. Environemntal Specialist of SC Mr. Shalva Bosikashvili and Environmental Specialist of USIIP Ms. Kate Chomakhidze also provided verbal instructions and training for Construction Company's Environmental and H&S officers on a regular basis in accordance with the relevant Terms of References. The above trainings were conducted to ensure that contractors understand their responsibilities for the implementation of the IEE/EMP, and to mitigate environmental issues associated with their construction activities. Due to weather conditions, construction work under GUD-03 began at the end of May 2022, the ESs gave only verbal instructions and conducted a limited number of trainings. Additional activities will take place during the next reporting period, July-December 2022, and will be reflected in the next SAEMR report.

**91.** During the Country Environmental Safeguard Mission in May 2022, led by the Country Environmental Focal, Ms. Ninette R. Pajarillaga the need for environmental and social training for SCs and CCs under USIIP was identified. Requests for training on environmental and social issues have been sent to UWSCG/USIIP for ADB planning consideration. The following topics have been identified by UWSCG/USIIP, SC and CC for training sessions for ADB:

# 92. Social Safeguard Issues:

- Social Safeguard Expert /Roles and Responsibilities;
- Overview of ADB's social safeguard policy;
- Principles and elements of a GRM;
- Essential skills of a GRM;
- Steps in handling complaints;
- GRM processes (what are the project related complaints, how to register them, how to maintain complaint logs, how to proceed with investigations and escalation of the complaints, etc)
- Effective consultation and participation;
- What are the proper communication with the project impacted people and who should be the source of the communication;
- Communicating for understanding;
- Working with vulnerable groups;
- Stakeholder engagement in GRM issues;
- Monitoring and reporting on social safeguard

# 93. Environmental Safeguard Issues:

- Environmental Management Plan (EMP);
- Environmental Impact and Mitigation Measures during Construction phase (including top soil and excess soil management generated due to the excavation works, waste management, reduction of dust, noise, and vibration during construction);
- Reduction of odor generation during operation
- **94.** Detailed information on the follow-up to the training request will be reflected in the next SAEMR July-December 2022.

# **5. FUNCTIONING OF THE SEMP**

# 5.1 SEMP Review

- **95.** All SSEMPs under ZUG-01, POT-01, POT-02, JVA-01 and GUD-02 projects were prepared by Contractor, endorsed by SC and approved by UWSCG and reviewed/commented by the RETAInternationalEnvironmentalConsultantofADBunderRETA8663-Ms.Keti Dgebuadze.
- **96.** SEMPs prepared by contractors, within the framework of ZUG-01, POT-01, POT-02 and JVA-01sub-projects during the current and previous reporting periods are presented in table 23 below.
- **97.** SEMP for construction of Water Reservoir and well fields under GUD-02 is prepared by contractor and submitted to SC for their endorsement.
- **98.** 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 18: 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 |
| 6  | GUD-02 – Construction of Reservoir and well fields            | September 2019         |
| 7  | GUD-02 – Construction of water supply and<br>sewerage network | September 2019         |
|    |   |                        |

- **99.** All of the SSEMPs listed above are effective, mitigation measures are still relevant, no changes are required.
- **100.**All SEMPs 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

**101.**During the reporting period, close monitoring, guidance and communication between the DEPP, IPMO, consultant supervision team and contractors were improved, as suggested during the previous EMR, July-December 2021, to avoid non-compliances and improve the situation on construction sites within the USIIP / T4.

# **6.2 Opportunities for Improvement**

**102.** During the next reporting period the tracking of actions to address non-conformances will be improved by PIU up to 100% out of current 87%. All non-conformances addressed will be reflected in the next SAEMR, July-December 2022.

# 7. SUMMARY AND RECOMMENDATIONS

# 7.1 Summary

- 103. During the reporting period Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis.
- 104. 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.
- **105.** The General Guideline for COVID-19 was also developed by the Government of Georgia specifically for the construction sector.
- **106.** An Emergency Management Plan (March 2020) was developed by SC/SAFEGE for prevention of employees against COVID-19.
- 107. Environmental Monitoring Specialist of Safege, Mr. Shalva Bosikashvili conducted monitoring of project sites under T4 and developed Non-Conformance Notices were required. He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submitted to UWSCG.
- **108.** The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under JVA-01 and GUD-02 sub- projects.
- 109. 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.
- 110. Non-Conformance Notice has been issued to the contractor by the environmental specialist of UWSCG/USIIP. 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 Semiannually and observations on air quality, noise and socio-cultural resources.

# 7.2 Recommendations

- **111.** During the reporting period, January-June 2022, the USIIP/T4 of Investment Program was implemented in accordance with the requirements of ADB SPS 2009 and the National Legislation.
- **112.** More detailed recommendations for the implementation of T4 during the next reporting period July-December 2022 are provided in the Table 19 below:

# Table 19: Recommendations to Address Environmental Issues under JVA-01 andGUD-02 sub-projects.

| Recommendations JVA-01 and GUD-02 sub-projects  |   |
|---|---|
| Recommendations   | Implementation status and date  |
| JVA-01  |   |
| Proper warning and safety signs should be provided at<br>the perimeter of the Open pit  | Instructions are given to<br>contractor to improve the<br>situation and to conduct<br>following mitigation<br>measures by the end of July<br>2022   |
| GUD-02  |   |
| To prevent local community from entering the<br>construction site, a temporary protective fence and gate<br>should be immediately arranged around the entire<br>perimeter of the construction site, and relevant warning<br>and information signs should be posted to inform the<br>local population      |   |
| Develop a reinforcement plan and take appropriate<br>protective measures around the entire perimeter of the<br>Gudauri reservoir with an appropriate technical solution<br>to prevent the danger of land collapse Proper<br>restoration work should be carried out after the<br>construction is completed | proposed by Supervision consultants and relevant  |
| Noise from the construction activities should not cause<br>disruption and nuisance to nearby community and other<br>sensitive receptors (i.e. school, hospitals).   | 0   |
|   | Plan activities in<br>consultation with SC and<br>IPMO/UWSCG so that<br>activities with the greatest<br>potential to generate noise<br>are planned during periods<br>of the day that will result in |

| Recommendations JVA-01 and GUD-02 sub-projects |  |
|--|--|
|  | least disturbance  |
|  | Noisy construction activities<br>will be avoided during night<br>time  |
|  | All construction equipment<br>and vehicles shall be well<br>maintained, regularly<br>inspected for noise<br>emissions  |
|  | Impose speed limits on<br>construction vehicles to<br>minimize emissions along<br>areas where sensitive<br>receptors are located (i.e.<br>temples, hospitals, schools,<br>houses)<br>Install noise barriers (e.g.,<br>panels, curtains, or<br>partitions)<br>to reduce the emission of<br>engine noise |
|  | Conduct meetings with<br>population and provide<br>information related to<br>schedule of construction<br>activities and noise caused<br>by the project activities.   |
|  |  |

- **113.** Conduct Post-Construction Environmental Audit will be carried out under the ZUG-01 subproject by the September 2022 and reflect findings of the audit report in the next Semi-Annual EMR of July-December 2022.
- **114.** Conduct monitoring of Environmental quality measurements of Ambient Noise and Air quality under JVA-01 sub-project at the nearest sensitive receptors in September 2022.

# Table 20: The Specific Plan for Environmental Measurement under JVA-01subproject

| Parameters | Quarterly measurement |  |  |  |
|------------|-----------------------|--|--|--|
| Dust       | September 2022        |  |  |  |

| Parameters       | Quarterly measurement |  |  |  |
|------------------|-----------------------|--|--|--|
| Vibration        | September 2022        |  |  |  |
| Carbon monoxide  | September 2022        |  |  |  |
| Nitrogen dioxide | September 2022        |  |  |  |
| Sulfur dioxide   | September 2022        |  |  |  |
| Noise            | September 2022        |  |  |  |

**115.** Conduct monitoring of Ambient Noise and Air quality under GUD-02 project at the nearest sensitive receptors (residential houses) in September 2022.

# Table 27: The Specific Plan for Environmental Measurement under GUD-02Project

| Parameters       | Quarterly measurement |
|------------------|-----------------------|
| Dust             | September 2022        |
| Vibration        | September 2022        |
| Carbon monoxide  | September 2022        |
| Nitrogen dioxide | September 2022        |
| Sulfur dioxide   | September 2022        |
| Noise            | September 2022        |

# Annexes

ANNEX A: ENVIRONEMNTAL MONITORING DATA of NOISE and AMBIENT AIR QUALITY GUD-02, JUNE 17 2022



Safege 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]                       |
|-----------------------|-----------------------|----------------|--------------------------------|
| GUD02-399/OUT-VH      | GUD02-CNI23-ENG-22030 | Luo Ke         | cni23georgiaofficial@gmail.com |
| 2022-06-14            | 2022-06-19            |                |                                |

<u>Construction of Sewage Collection and Water Supply Systems in Gudauri</u> (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

### 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 2022

#### 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 vi-able 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 September15, 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

 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 r2 / r1, which means that when doubling the distance, the noise decreases by 6 dBA.

Table 2: Noise levels

| Distance from noise<br>source, m | Calculation level of the<br>noise<br>Average value - dBa | Calculation level of<br>the noise<br>Maximum value -<br>dBa |  |  |
|----------------------------------|--|---|--|--|
| 10                               | 80   | 90  |  |  |
| 20                               | 74   | 84<br>78<br>72  |  |  |
| 40                               | 68   |   |  |  |
| 80                               | 62   |   |  |  |
| 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.

# ჰაერის აზოტის და გოგირდის დიოქსიდით, ნახშირბადის მონოოქსიდით და ჯამური ნახშირწყალბადებით დაბინძურების გაზომვების შედეგები 17.06.2022. 12<sup>50</sup> – 15<sup>40</sup>

Nitrogen and sulfur dioxide, carbon monoxide and total hydrocarbon air pollution measurement results on 17.06.2022, 12<sup>50</sup> – 15<sup>40</sup>

| Nº | გაზომვის წ<br>Measureme  |                                  | გაზომვის შედეგები მგ/მ³<br>Measurement results mg/m³ |  |   |  |  |  |
|----|--|----------------------------------|--|--|---|--|--|--|
|    | ადგილ<br>მდებარეობა<br>Locastion                               | კოორდი-<br>ნატები<br>Coordinates | აზოტის<br>დიოქსიდი<br>nitrogen<br>dioxide            | გოგირდის<br>დიოქსიდი<br>sulfur dioxide | ნახშირბადის<br>მონოოქსიდი<br>carbon<br>monoxide | ჯამური<br>ნახშირწყალზ<br>ადები<br>total<br>hydrocarbon |  |  |
| 1  | გუდაური,<br>სატუმზო<br>სადგური.<br>Gudauri,<br>Pumping station | 38T0458893<br>4702408            | 0.007  | <0.01                                  | 0,21  | <0.1   |  |  |
| 2  | გუდაური,<br>რეზერუარი,<br>Gudauri,<br>Reservoir                | 38T0457008<br>4703113            | 0.009  | <0,01                                  | 0,25  | <0.1   |  |  |
| 3  | გუდაური,<br>ტრასა.<br>Gudauri, Track                           | 38T0457187<br>4702170            | 0.021  | <0.01                                  | 0,59  | <0.1   |  |  |

# "ჩაინა ნუქლეარ ინდასტრი 23 ქონსტრაქმენ კო"-ს ფილიალი საქართველოში "Georgia Branch of China Nuclear 23 Consturction Company Co.,Ltd" ჰაერის მტვერით დაბინმურების, ხმაურის და ვიბრაციის გაზომვების შედეგები 17.06.2022. 12<sup>50</sup> – 15∞

| Nº              | გაზომეის წერტილის<br>Measurement point                            |                       | გაზომვის შედეგები<br>Measurement results |                         |          |  |            |   |       |       |
|-----------------|---|-----------------------|--|-------------------------|----------|--|------------|---|-------|-------|
|                 | ადგილ<br>მდებარეობა<br>Locastion                                  | დებარეობა ნატები      | ხმაური<br>Ава<br>დზ                      | 3086<br>boßd<br>Vibro S | არე      | ვიბრო<br>აჩქარება<br>Vibro<br>acceleration |            | მტვერი მჯ/მ <sup>9</sup><br>Dust mg / m3<br>Pm23 Pmae T |       |       |
| CONTRACTOR NAME |   |                       | Noise<br>Amax<br>db                      | 88/[58<br>mm/s          | وم<br>db | ∂/წ∂²<br>m/s²                              | ලුරි<br>db | FID23   | Pmio  | Total |
| 1               | გუდაური,<br>სატუმბო<br>სადგური.<br>Gudauri,<br>Pumping<br>station | 38T0458893<br>4702408 | 48,6                                     | <0.1                    | <66      | <0.1                                       | <100       | 0.011   | 0.016 | 0.019 |
| 2               | გუდაური,<br>რეზერუარი,<br>Gudauri,<br>Reservoir                   | 38T0457008<br>4703113 | 47,4                                     | <0.1                    | <66      | <0.1                                       | <100       | 0.009   | 0.015 | 0.017 |
| 3               | გუდაური,<br>ტრახა.<br>Gudauri,<br>Track                           | 38T0457187<br>4702170 | 65,8                                     | <0.1                    | <66      | <0.1                                       | <100       | 0.034   | 0.039 | 0.043 |

Dust air pollution, noise and vibration measurements on 17.06.2022. 1250 - 1560

გაზომვის დროს გამოყენებულია ხელსაქყოები:/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./Selfcalibration zero and optical filter. ). აზოტის დიოქსიდის და ნახშირბადის მონოოქსიდის nitrogen dioxide and carbon monoxide - Элан CO/NO2: 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, ჯარემოს 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 წორმა შეადჯენს 0.5 მჯ/მ<sup>3</sup>; / Dust norm is 0.5 mg / m3;

აზოტის დიოქსიდის წორმა შეადგენს 0.2 მგ/მ<sup>3</sup>; / nitrogen dioxide norm is 0.2 mg / m3; გოგირდის დიოქსიდის წორმა შეადგენს 0.5 მგ/მ<sup>3</sup>; / sulfur dioxide norm is 0.5 mg / m3; ნახშირბადის მონოოქსიდის წორმა შეადგენს .5 მგ/მ<sup>3</sup>; / carbon monoxide norm is .5 mg / m3; ჯამური ნახშირწყალბადების ნორმა შეადგენს 1 მგ/მ<sup>3</sup>; / total hydrocarbon norm is .1 mg /m3; ვიბროსიჩქარის ნორმა შეადგენს 112 დ8; / Vibro-speed norm is 112 db; ვიბროაჩქარების ნორმა სპეციალური დამცავი საშუალებიბის გამოყენების გარეშე - 126 დ8./Vibro acceleration norm special protective outlets without using - 126 db.

ნ. გაზუნია დირექტორი: N. Gabunia Director 630 ს. ხაცავა ტექნიკური შემსრული ASETO **Technical Contractor** S. Khatsava GROUP

ANNEX B: PHOTOS OF JVA-01, POT-01, POT-02 and GUD-02 SUB-PROJECTS PHOTOS: JVA-01 Construction of Water Supply Network in Jvari, JVA-01 Sub-project Photo N1, N 2 Pumping Station





Construction of Water Supply and Sewerage Network in Gudauri, GUD-02, Photo N1, N2, N3 Gudauri Reservoir







# Gudauri Well fields, Photo N4, N5





## ANNEX C: NON-COMPLIANCE NOTICE (GUD-02), 24 MAY 2022



30th May 2022

TO: China Nuclear Industry 23 Construction CO., LTD

Attn. Luo Ke

Project Manager

Our Ref.: GUD 02 -395/OUT -VH

Contract: UWSCG-ICB-GUD-02-2018

Subject: Supervision of Construction of Sewage Collection and Water Supply Systems in Gudauri – Non-Compliance Note for Gudauri May 2022

Dear Sir,

Please find attached the Non-Compliance Notice regarding construction of Sewage Collection and Water Supply Systems in Gudauri.

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

For the Engineer

MUN

Victor Hruska Team Leader

Urban Services Improvement Investment Program (Project 4)



 SAFEGE-with Engineering Solutions LLC as sub-consultant - ADD ADDRESS

 SAFEGE Europe & Africa - Gulledelle 92, 1200 Brussels, BELGIUM - Tel: +32 2 739 46 90 - Fax: +32 2 742 38 91

 VAT N° (BE) 0467 395 488 RPM Brussels - Bank: KBC - IBAN: BE 49 4731 0518 8171 - BIC: KREDBEBB

 SAFEGE Headquarters - 15/27 rue du Port, Parc de l'lle, 92000 Nanterre, FRANCE

 Tel: +33 1 46 14 71 00 - Fax: +33 1 47 24 72 02 - Web: www.safege.com

#### **Non-Compliance Notice**

| Project: Construction Supervision (under USIIP, Tranche 4 Projects),<br>UWSCG/USIIP/QCBS/02-2014 | Non compliance Notice |  |  |
|--|-----------------------|--|--|
| Contract No: UW5CG-ICB-GUD-02-2018   | Non-compliance Notice |  |  |
| Contractor: China Nuclear Industry 23 Construction Co., Ltd                                      | Gudauri               |  |  |
| Reference:   |                       |  |  |

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

#### GENERAL COMMENT FOR ALL SITES:

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

#### NON-COMPLIANCE IN Gudauri

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

- Pipes, gravel and precast concrete scattered uncontrolled, storing is not marked with warning tape



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: 24.05.2022                            |  |
|---|--|
| Shalva Bosikashvili - Environmental specialist - "SAFEGE" |  |
| Ketevan Chomakhidze - Environmental specialist "UWSCG"    |  |

# NON-COMPLIANCE NOTICE, GUD-02, 23 JUNE 2022

### Non-Compliance Notice, 23 June 2022

| Projects Ulders Services International International Program Constain   |   |
|---|---|
| Project: Urban Services Improvement Investment Program, Georgia<br>Contract No: UWSCG- ICB-GUD-02-2028-GUD-02   | Non-compliance Notice                       |
|   | Gudauri                                     |
| Contractor: China Nuclear Industry 23 Construction Co., Ltd<br>Reference: Construction of Water Supply and Sewerage System in Gudauri                                     |   |
| This notice is to advice you, the prime Contractor, on the referenced Contract, o   | f the following potion on any ison montal   |
| nis notice is to advice you, the prime contractor, on the referenced contract, o<br>measures to be implemented <b>urgently.</b>   | f the following notice on environmental     |
| neasures to be implemented digentify.   |   |
| Gudauri Reservoir   |   |
| - Develop a reinforcement plan and take appropriate protective measures ar  | round the entire perimeter of the Gudauri   |
| reservoir with an appropriate technical solution to prevent the danger of la  | •   |
| <ul> <li>Proper reinstatement activates should be carried out after completion of th</li> </ul>   |   |
| <ul> <li>Proper reinstatement activates should be carried out after completion of the<br/>be cleaned of gravel and covered with a top soil, Photo N2</li> </ul>           | te construction works and reservoir must    |
| <ul> <li>In order to ensure the safe movement of the workforce and the personnel er</li> </ul>  | nployed on the site, near the old reservoir |
| and other objects on the construction site, proper bridges/ladder that it   |   |
| (immediately), Photo N3   |   |
|   |   |
| Sudauri Well filled   |   |
| - To prevent local community from entering the construction site, a tempo   | and anterthis famou and acts should be      |
| <ul> <li>To prevent local community from entering the construction site, a tempor<br/>immediately arranged around the entire perimeter of the construction sit</li> </ul> |   |
| signs should be posted to inform the local population, please see Photo N1,   |   |
| <ul> <li>The construction site must be organized and cleaned regularly, Please see F</li> </ul>   |   |
| <ul> <li>Proper waste management should be implemented; Household and hazardi</li> </ul>  | ,   |
| appropriate labels, please see Photo N3;  | ous waste must be stored separately with    |
| <ul> <li>Concrete washing areas should be arranged in compliance with relevant region</li> </ul>  | ulations; and in case of soil contamination |
| with concrete, the concrete layer must be removed and placed in accordan  |   |
| N4;   |   |
| - In case of oil spillage on the soil, the contaminated layer should be remove  | ed and remedial works should be carried     |
| out, please see Photo N5;   |   |
| - Different types of construction materials should be stored separately, pleas  | se see Photo N6;                            |
| <ul> <li>There should be a log of complaints/registration at the construction site.</li> </ul>  |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
| Gudauri Reservoir   |   |



# NON-COMPLIANCE NOTICE, JVA-01, 11 APRIL 2022



12th April 2022

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

Our Ref.: JVARI -205/OUT -VH

Contract: P43405-ICB-JVARI -01

<u>Subject: Supervision Jvari Water Supply Contract</u> Non-Compliance Notice Jvari April 2022

Dear Sir,

Please find attached the Non-Compliance Notice - Jvari.

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

For the Engineer

Victor Hruska Team Leader

Urban Services Improvement Investment Program (Project 4)



 SAFEGE-with Engineering Solutions LLC as sub-consultant - ADD ADDRESS

 SAFEGE Europe & Africa - Guiledelle 92, 1200 Brussels, BELGIUM - Tel: +32 2 739 46 90 - Fax: +32 2 742 38 91

 VAT N° (BE) 0467 395 488 RPM Brussels - Bank: KBC - IBAN: BE 49 4731 0518 8171 - BIC: KREDBEBB

 SAFEGE Headquarters - 15/27 rue du Port, Parc de l'île, 92000 Nanterre, FRANCE

 Tel: +33 1 46 14 71 00 - Fax: +33 1 47 24 72 02 - Web: www.safege.com

#### Non-Compliance Notice

| Project: Construction Supervision (under USIIP, Tranche 4 Projects),<br>UWSCG/USIIP/QCBS/02-2014 | non-compliance Notice |  |
|--|-----------------------|--|
| Contract No: P43405-DC-JVA-01  | JVARI-01              |  |
| Contractor: AZ-Inshaat-N   |                       |  |
| Reference:   |                       |  |

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

#### **GENERAL COMMENT FOR ALL SITES:**

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

#### NON-COMPLIANCE IN JVARI

- Open pit
- Construction waste alongside the road
- Unsafe work on height

#### Open pit





# NON-COMPLIANCE NOTICE (JVA-01), 4 MAY 2022



5th May 2022

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

Our Ref.: JVARI -207/OUT -VH

Contract: P43405-ICB-JVARI -01

<u>Subject: Supervision Jvari Water Supply Contract</u> Non-Compliance Notice Jvari May 2022

Dear Sir,

Please find attached the Non-Compliance Notice - Jvari.

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

For the Engineer

Victor Hruska Team Leader

Urban Services Improvement Investment Program (Project 4)



 SAFEGE-with Engineering Solutions LLC as sub-consultant - ADD ADDRESS

 SAFEGE Europe & Africa - Gulledelle 92, 1200 Brussels, BELGIUM - Tel: +32 2 739 46 90 - Fax: +32 2 742 38 91

 VAT N° (BE) 0467 395 488 RPM Brussels - Bank: KBC - IBAN: BE 49 4731 0518 8171 - BIC: KREDBEBB

 SAFEGE Headquarters - 15/27 rue du Port, Parc de l'Île, 92000 Nanterre, FRANCE

 Tel: +33 1 46 14 71 00 - Fax: +33 1 47 24 72 02 - Web: www.safege.com

### **Non-Compliance Notice**

| Project: Construction Supervision (under USIIP, Tranche 4 Projects),<br>UWSCG/USIIP/QCBS/02-2014 | non-compliance Notice |  |
|--|-----------------------|--|
| Contract No: P43405-DC-JVA-01  | JVARI-01              |  |
| Contractor: AZ-Inshaat-N   | JVARI-01              |  |
| Reference:   |                       |  |

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

#### GENERAL COMMENT FOR ALL SITES:

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

#### NON-COMPLIANCE IN JVARI

· Open pits; No hard barriers; No warning signs; No capping

Open pits; No hard barriers; No warning signs; No capping



| All these conditions have to be remedied within 14 da   | ys by the prime Contractor AZ-Inshaat-N   |
|---|---|
| Date of site visit: 04.05.2022                          |   |
| CALL STATE THE STATE OF A                               |   |
|   | The second se |
| Shalva Bosikashvili - Environmental specialist - "SAFEG | 5E"   |

## NON-COMPLIANCE NOTICE (JVA-01), 14 JUNE 2022



15th June2022

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

Our Ref.: JVARI -210/OUT -VH

Contract: P43405-ICB-JVARI -01

<u>Subject: Supervision Jvari Water Supply Contract</u> Non-Compliance Notice Jvari June 2022

Dear Sir,

Please find attached the Non-Compliance Notice - Jvari.

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

For the Engineer

Victor Hruska Team Leader

Urban Services Improvement Investment Program (Project 4)



 SAFEGE-with Engineering Solutions LLC as sub-consultant - ADD ADDRESS

 SAFEGE Europe & Africa - Guiledelle 92, 1200 Brussels, BELGIUM - Tel: +32 2 739 46 90 - Fax: +32 2 742 38 91

 VAT N° (BE) 0467 395 488 RPM Brussels - Bank: KBC - IBAN: BE 49 4731 0518 8171 - BIC: KREDBEBB

 SAFEGE Headquarters - 15/27 rue du Port, Parc de l'île, 92000 Nanterre, FRANCE

 Tel: +33 1 46 14 71 00 - Fax: +33 1 47 24 72 02 - Web: www.safege.com

#### **Non-Compliance Notice**

| Project: Construction Supervision (under USIIP, Tranche 4 Projects),<br>UWSCG/USIIP/QCBS/02-2014 | non-compliance Notice |  |
|--|-----------------------|--|
| Contract No: P43405-DC-JVA-01  | JVARI-01              |  |
| Contractor: AZ-Inshaat-N   | JVARI-01              |  |
| Reference:   |                       |  |

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

#### GENERAL COMMENT FOR ALL SITES:

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

#### NON-COMPLIANCE IN JVARI

Leaking heavy equipment polluting soil

#### Leaking heavy Equipment





|   | rime Contractor AZ-Inshaat-N |
|---|------------------------------|
| All these conditions have to be remedied within 14 days by the pr                                   |                              |
| All these conditions have to be remedied within 14 days by the pr<br>Date of site visit: 14.06.2022 |                              |
| 1   |                              |

# ANNEX D: CORRECTIVE ACTION PLAN (GUD-02), 24 MAY 2022 (NCN Issued on 30 May 2022)



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

Safege 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-22023<br>2022-06-03 | Luo Ke         | gudauri@cni23.com |

<u>Construction of Sewage and Water Supply Systems in Gudauri</u> (<u>UWSCG-ICB-GUD-02-2018</u>) <u>Subject:</u> Reply to the Non-compliance Notice for Gudauri May 2022

Dear Mr. Victor Hruska,

After receiving the Non-compliance Notice for Gudauri May 2022, the Contractor immediately rectified the Non-compliance, Please refer to the attachment for details of the rectification.

Yours sincerely Contractor of construction of the Sewage and Water Supply Systems in Gudauri

Mr. Luo Ke Project Manager

Page 1 of 2

#### Attachment:

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. Refueling station should be equipped with the spill kit and fire relevant fighting equipment; drip tray should be used for fuel spillage prevention. Relevant traffic signs and flagmen should control traffic movement properly. H&S standards and rules should be addressed and implemented.

NON-COMPLIANCE IN Gudauri

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

Pipes, gravel and precast concrete scattered uncontrolled, storing is not marked with warning tape



The rectification photos:



page 2 of 2

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



For further information, please contact: 📞 15:05 📞 15:001

StopCoV.ge
The job of builders involves constantly charging work places and work activity extering in specer-air conditions. For this masses, its resums of virus greend communities fully within the modulum risk sector because its specificity revers ancoust virus/science. Nevertheless, or its important or consider the fullywring nive measure at construction work.



# The staff must not appear in the workplace if they

- Left the affected country over the part 14 days.
   Were in close context with inferint person/persons for the part 14 days (they must be self-induced/partnetized as per the role).
- initiatedisparatised on per the roles. I fare experiences of requirement patients insighing, temperature, storeting, difficulty in breathing, general evolutions entry. A restances etc.): A restances the store who have high risk of getting indicated with EOV2D-19 or antinue complications; every 70 years of age, people inferring from channals diseases, taudio succhar diseases, diabetes, branchial athema and other requirement diseases.

Employer's responsibilities

- Whether or not the incidence of infection is detected, exployer should develop an energy action place to support reduction of working days maked due to Elsen, and in case of detection prevention of specule ÷
- permanent or speed. Provide complexities with information about ands working procedures and about prevention of view-speed (quarke with the recommendations defined by LDP, L. Subcreefulne Neuronal Granue for Prisence Control and Public Haddh of the Minintry of Immendly Displaced Parsene from the Occupied Termine, Labout, Bushit and Social Alfeirs of Groupsil. ÷
- Inside the working space por animum remote dear COVID-19 and about the preventive management for have been identified by LEPL 1. Subvariable National Control For Disease Control and Public × Health
- In relation to the simpleyees who can perform job removely (administrative personnel) remove as much as possible use of such working mode: \*
- \* At the entrances of break reservitizing room, place distributing regr with relevant manderory sign norking.
- ÷ Provide based-warding facility with map and other disinfectants. If hard-washing facility is sur-fearible, at loss: 70% decised-based based cleaning Signal should be used.
- . Visibly place the hand sanitizers and post the rules of these proper tase.
- ÷ Make sure that suppleyees have across to hand sanitizers and are every of their use with proper ralasi
- ÷
- tune Brouhe all employees and contractors, personnel responsible for closing with reformation about reference preventive measures to avail questal of constantions in the working reviewments. Train the resplayees in proper use and further strongecteneousl of personal protective equipment × and disinferences

StepCoV.ge 1505 116 001

- 81

- Depending on their work specificity, provide the employees with necessary personal protective equipment (protective clothing, protective shoes, helmet, gloves, respirator) and establish control 2 on their user
- × 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 Ξ. 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

2

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;



- ÷ 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: 2
- 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 2
- 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)-

(touching etc.):

- 2 While coughing or sneering, 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 F: EMERGENCY MANAGEMENT PLAN







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 Tollisi, 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

- 2. The Urban Services Improvement investment Program was developed as the Government's response to the lark of adequate angler order water rupply, owverage and contaction to urban areas of Georgia. This is intended to optimize local and economic development is releated urban water and sentiation newtons, 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", U.C. is the Implementing Agency of the Investment Program. UWSOC is a 100% state- owned stary.
- Consisting the device of a subprojects, carbon with the development, design and implementation of a series of subprojects, carbon within group events in a particular sector (water subply and/or sweetaar) in one town. Subprojects will evelopie existing infrastructure and/or researce new ord equipative location to the subprojects will evel and the subproject and the subproject and head works, pumping system, textment follows: from making any subproject and head works, pumping system, textment follows: from making any subproject and head works, pumping system, textment follows: from making any subproject and head works, pumping system, textment will indude some magnetized and subprojections and water and subprojections. water treatment plants.
- 1. Tranche 4 of the Investment Program includes
  - Construction of Water Supply System in Augula (Sup 21: Construct No: 240405408-202-301)
  - No: PKI465-ICB-2ap-01) Communication of Service may System in Post (Post 01 Construct Nox PKI4005-ICB-Post-01) Construction of Weakswater Treatment Fluer in Post (Post 02 -Construct Nox PKI46E-ICB-20-02) Construction of Water Spaper System in Joan (Joan Gol-Contract Nox IM4435 (IC, Now 101) Computation of Water Spaper System in Joan (Joan Gol-Contract Nox IM4435 (IC, Now 101)

  - Convision of Sewage Collection and Water Supply System in Gedarat (UWSCS-103-GUD-02-2026 GUD-00)
- 4. Construction of Water Supply System in Zagdak (2016 02). The project comprises of the construction of L water supply parallel station = 1,170 m<sup>2</sup>, construction of new reservoirs (3,300 m<sup>2</sup>/s) distribution methods: having of paparoinately 220 in writer using pipelines: approximately 15 km transmission main; wells drilling of 10 defailing water wells.
- The contrast 206-03 was signed on October 26, 2005 with AS Inshait: N, ILC (Accelerate), the construction were completed in september 2013 and forther estanded unlife 2020 size to the additional construction works under VOM4 and VOM8: Construction of Additional Sewage hetwork Connections and Severage Purpage Statists of Avakia.
- 6. V084 and V088 under the 706-01 sub-project include :

- Connection of nuidential houses 

  Connection of nuidential houses in Garmuthuri resort to main sever Sne: 1+11/97m, n+359 houses;
  - Intel 111/07/m, in 302 houses,
     Connection of real-deraids houses in Anaklia resort to main sever line.
     Installation of parents of arcvia usly constructed Pamping Stations with electrical connection and installation of pampa with automatics 4.
     20 pieces; Parchase and installation of pampa with automatics 4.

  - Connection of two spartment buildings of the Ministry of Int Milars with self-flowing corrugated pipeline d=200 mm, l=221.

#### Installation of Pump Station

- Installation of # 22 Pump Stations (PS) and connection to existing pressure pipe (d-150 mm) for backflow to new Sewage Treatment Plant in Garmahbari.
- Plast to Gammabhut: hutaliation of # 33 Pump Stations (P3): Analgement of pressured plastine (± 355 mm, ± 1813m) and connection to existing ± 2000m some pipe; Analgement range connections on the main chemel with a steel casing pipe (4=650mm / 5mm, 1=21m) and 13 overpasses abave the  $\pm$ :Um small chargepas with a steel casing pipe (4=530mm / 5mm,  $\pm$  5m) inAutika.

#### Rehabilitation of Water Supply and Sewerage Distribution Network

- installation of a new sewer pressure pipe (4., 160 mm, i., 206m) with a steel casing pipe (4., 325 mm / Gmm, i., Gm) to connect the "Analda" Hotel, crossing the skish and road.
- The easing water supply d=250mm rehabilitation and replacement was carried out using d= 200 mm. I= 340m 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 WithStewards interminent Plant with role (FO) Must line program with presession are communication of new Wandherwards Transmitter Marth With the capacity of 21,068 m/(days) for Petit. The contract for construction of WWTP in Poti was signed on December 21, 2017 with JV "Pfeiffer - EMIT" comprised by "Ludwig Pfeifer Hoch -- and Tietbau Gmbh7Co. KG (Germany)" and "EMIT Group -- ErcoleMarellimpiantiTecnologici5.r.I. (Italy). The final date of completion of the contract is July 31, 2020.
- 9. Construction of Water Supply System in Ivari (JVA-01). The major works to be implemented for rehabilitation and improvement of Juan 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.

- The contract for implementation of IVA-01 was signed on lanuary 17, 2017 with AS inshaet— 5, 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 objes and sewage collection system.
- 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.
- 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 Detember 2019 in Wuhan Chy in China.
- 13. Health authorities around the world believe the coronavirus (CDVID-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 sneere. People may also pick up the coronavirus (COVID-19) from surfaces contaminated by a person with the infection.
- 15. Studies suggest that COVID-15 may pensist 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.
- 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.
  - 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 vectors 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 employees 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.
- 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 coronannus (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
- Hyperne
- · Shared Tools, Plant and Epulpment
- · Cleaning and Disinfecting
- · Personnel Honto
- Personal Protective Equipment
- Common Areas
- · Impections
- Travel
- General Communications
- · Other managers
- Vulnerable workers

#### 3.1 Screening workers coming to site

- 27. To minimize the risk of transmission of coronavirus (CGVID-19) on site, employers must implement a two-phase screening process; phase one being an Initial declaration and phase two on spiring daily screening.
- 28. Initial declaration is to be conducted by all workers (this includes any person who attends stud, including current and new starters. Each worker must provide a declaration that they to the best of their knowledge.
- have not been diagnosed with commavirus (CDVID-19) in the last 14 days, or
- · are not in a period of 14 day guarantine as directed by a health professional, or
- have not been memory in the last 14 days, or
- . have not been in contact with anyone who has coronavirus (CDVID-19), or
- have not been in contact with anyone who is currently being tested for coronavirus (COVID-10), 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

- 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.

  Flan for how physical distancing will be maintained during inclement weather (e.g. use of
- lunch or crib moms 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 mores, site offices, toilets, foyers, Mts 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:
  - Promute regular hand washing with scap 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
    taxe.
  - Promote good cough objective 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, handnails) 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

- 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.
- Coaning 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 tollets, 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 holists and lifts may be at greater risk of exposure to corenavirus (COVID-19), because they are required to be in close contact with others and potentially contaminated surfaces.
- 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 verying weight limits.
- 54. Where it is not possible to implement physical distancing measures in a personnel heist, all other available control measures need to be used.
- 55. Control measures may include
- Umiting worker movement between levels and floors on site, where it is possible and safe to do so.
- Reviewing which holds are available for use on site and identifying if additional holds 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 1.3-2 m and hygiene systems to be followed when waiting for holst, particularly on floors where worker volumes may increase during peak times (start, breek, finish times). For example the ground floor, floors with meal or break out spaces and floors with hadroom 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)

- 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.
- 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

- 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 impections 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
- Work vehicles that are shared should be regularly cleaned to ensure adequate hygiene and protection.

#### 3.12 General Communication

- 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 stateholders. 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)
- 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

# ANNEX G: DISPOSAL OF WASTE UNDER GUD-02 SUB-PROJECT

# DISPOSAL OF CONSTRUCTION WASTE, AGREEMENT BETWEEN THE GEORGIAN SOLID WASTE MANAGEMENT COMPANY AND CONTRACTOR – LTD "CHINA NUCLEAR 23 CONSTRUCTION CO."

| ქ. თბილისი  | 29.11.20216  |
|---|--|
| შპს "საქართველოს მყარი ნარჩენების მართვის<br>შუხოშვილის სახით, (შემდგომში წოდებული როგორც<br>მხრივ შპს "ჩაინა ნუქლეარ ინდასტრი 23 ქონსქ<br>წარმოდგენილი მისი დირუქტორის ლუო ქვს სახით, (შ<br>მეორის მხრივ, საქართველოს მოქმედი კანონმდებლობი<br>პუნქტის შესაბამისად, ურთიერთ შეთანხმების საფუძვედ   | "შემსრულებელი") ერთის მხრივ და ძეროებ<br>ყრაქშენ კო-ს ფილიალი საქართველოში"<br>შემდგომში წოდებული როგორც "დამკვეთი")<br>ისა და საწარმოს წესდების მე-8 მუხლის შე-8<br>ლზე დებენ ხელშეკრულებას შემდეგზე: |
| 1.1 შემსრულებელი ორგანიზაცია 2017 წლის 08 თ<br>აბორციელებს იურიდიული და/ან ფიზიკური პარების<br>შედეგად მიღებული შყარი ნარჩენის განთაესების მომსახ<br>ყაზბეგის არასახიფათო ნარჩენების ნაგავსაყრელზე (შემ   | ვიეო ცაომიქითილი ხაისქიებლი და აგოკაოი<br>ურებას შემსრულებლის ბალანსზე არსებული  |
| მუხლი 2. ხელშეკრულების პირობები<br>2.1 შემსრულებელი ვალდებულია დროულად და<br>ვზრუნველყოს ხელშეკრულების 1.1 პუნქტში აღნიშნ<br>დეკემბრის ჩათვლით.   | ხარისხიანად მოემხახუროს დამკვეთს და<br>ული მომსახურების გაწევა 2021 წლის 31  |
| მუხლი 3. მხარეთა უფლება-მოვალეობები<br>3.1 შემსრულებელის უფლება-მოვალეობები;<br>3.1.1 დროულად და ხარისხიანად განახორციელოს 1.1 მ<br>3.1.2 მომსახურების გაწევისას დაიცვას საერთა<br>რეგლამენტებით განსაზღვრული პირობები;<br>3.1.3 ხელშეკრულებით განსაზღვრულ ვადაში<br>თრებულების დროულად გადახდა;<br>3.1.4 დამკვეთისაგან მოითხოვოს წინამდებარე ხელშეკ<br>3.2 დამკვეთის უფლება-მოვალეობები;<br>3.2.1 ხელშეკრულების მოქმედების პერიოდში მო | დამკვეთისაგან მოითხოვოს მომსახურების<br>რულების პირობების დადვა.   |
| <ul> <li>3.2.1 ხელშეკრულების მრემედების შერიძდას სი<br/>ხელშეკრულების პიროზეზის დაცვა.</li> <li>3.2.2 ხელშეკრულებით განსაზღვრულ ვადაში და<br/>მომსახურების ღირებულება.</li> <li>3.2.3 შემსრულებლის კუთვნილ არასახიფათო ნარ<br/>უზრუნველყოს სახანმრო და უსაფრთხოების ნორმების ი</li> </ul>   | ა პირობებით. გადაუხადოს შემსრულეხელს<br>აწენების ნაგავსაყრელზე ნარჩენის შემოტანა   |
| მუხლი 4, ანგარიმსწორება და ხელშეკრულების დ<br>4.1 1 (ერთი) ტონა იურიდიული და/ან ფიზიკური<br>ნგრევის შედეგად მიღებული მყარი ნარჩენის განთავსი<br>(ათი ლარი) ლარს დღგ-ს ჩათვლით დამკვეთი, შემსრუდ<br>ანაზდაურებას უზრუნველყოფს არასახიფათო ნა<br>ფაქტიურად შეტანილი ნარჩენის საერთო მოცულობის შ   | ა პირების მიერ წარმოქმნილი საშმენებლო და<br>ეხის მომსახურების ღირებულება "შეადგენს 10<br>ლებლის მიერ გასაწევი მომსახურების შესაბამის<br>რჩენების ნაგავსაყრელზე, ყოველთვიურად                           |
|   |  |

4.2 დამკვეთი ვალდებულია ჩარიცხოს თანხა შეშსრულებლის საბანკო ანგარიშზე შესაბამისი ანგარიშ-ფაქტურის ატვირთვიდან 10 (ათი) კალენდარულ დღეში. 4.3 შემსრულებლის მიერ წინამდებარე ხელშეკრულებით ნაკისრი ვალდებულებების შესრულების შემდეგ მხარეები ადგენენ ნარჩენების განთავსების აქტს, რაც ადასტურებს შემსრულებლის მიერ ნავისრი ვალდებულებების ჯეროვნად შესრულებას. 4.4 შემსრულებლის მხრიდან ნარჩენების განთავსების აქტს ხელს აწერს. შემსრულებლის სტრუქტურული ერთეულის - რეგიონული მართვის დეპარტამენტის თანამშრომელი შესაბამის 0 ERS რეგიონში. CN მუხლი 5. ხელშეკრულესის მოქმედების ვადა და მისი შეწყვეტის წესი 中夜二 5.1 წინამდებარე ხელშეკრულება ძალაში შედის მხარეთა მიერ მისი ხელმოწერის მომენტიდან და მოქმედებს მხარეთა მიერ ნაკისრი ვალდებულებების სრულად და ჯეროვნად შესრულებამდე - 2021 10495 წლის 31 დეკემბრის ჩათვლით. 5.2 ხელშეკრულების ვადამდე შეწყვეტა მხარეებს არ ათავისუფლებთ ხელშეკრულების შეწყვეტამდე TO BRA შესასრულებელი ვალდებულების შესრულების მოვალეობისაგან. მუხლი 6. სადავო საკითხენის მოგვარება 6.1 დამკვეთსა და შეშსრულებელს შორის წინამდებარე ხელშეკრულების რეალიზაციისას წარმოშობილი სადავო საკითხები წესრიგდება მხარეთა შეთანხმებით, ხოლო შეთანხმების მიუღწევლობის შემთხვევაში სადავო საკითხს განიხილავს სასამართლო. მუხლი 7. დასკვნითი დებულებები 7.1. წინამდებარე ხელშეკრულების ყველა მუხლი და დანართი წარმოადგენს მის განუყოფელ წაწილს. სელშეკრულებაში ცვლილების შეტანა შეიძლება მოხდეს მხარეთა შეთანხმებით მხოლოდ ერილობით. 7.2 ხელშეკრულების მხარეები თანხმდებიან მასზედ, რომ იმ შემთხვევაში, თუ შემსრულებელი ირგანიზაციის 2017 წლის 08 თებერვლის N8-ო ბრძანების დანართში, რომლითაც რეგულირდება პესატანი ნარჩენის სახეობები და საფასური შევა რაიმე სახის ცვლილება, ხელშეკრულება დაკორექტირდება შესაბამისად. 7.3 წინამდებარე ხელშეკრულება შედგენილია 2 (ორი) თანაბარი იურიდიული მალის შჭონე ეგზემპლარად ქართულ ენაზე. ერთი ეგზემპლარი გადაეცემა დამკვეთს, ხოლო ერთი ეგზემპლარი ინახება შემსრულებელთან.

მქხლი 8. მხარეთა რეკვიზიტები და ხელმოწერები: შქმსრულებელი: შპს "საქართველოს მყარი ნარჩენების მართვის კომპანია", იურიდიული მის: ქ. თბილისი, ანა 116353 პოლიტკოვსკაიას ქ. N14 მე-3 სართული, საიდენტიფიკაციო კოდი: 404942470, სახანკო. რეკვიზიტები: ბანკი: სს "თიბისი ბანკი", ბანკის კოდი, TBCBGE22, ანგარიშის ნომერი: GE51TB7161936080100005. C 公司 გიორგი შუხოშვილი ხელმოწერა 89 დამკვეთი: შას "ჩაინა ხუქლეარ ინდასტრი 23 ჭონსტრაქმენ კო-ს ფილიალი საქართველოში" იურიდიული მისამართი: საქართველო, ქ. თბილისი, ნაძალადევის რაიონი, ჯაეის ქ., N 5 საიდენტიფიკაციო კოდი: 404952789 CHURT LUDDA NEC 30 ლუო ხელმოწერა \* 404952789 TO BRANC

# HAZARDOUSE WASTE DISPOSAL SERVICE AGREEMENT BETWEEN THE LTD "CHINA NUCLEAR INDUSTRY 23 CONSTRUCTION CO." AND MEDICAL TECHNOLOGY.



4.1.4 The Executor has the right to demand the fulfillment of the agreed obligations from the Customer. Otherwise, he will demand to cover the damages.

# 4.2 The Customer's rights and duties:

- 4.2.1 The Customer is obliged to pay the Executor in due time for his services.
- 4.2.2 The Customer is obliged to timely supply the Executor the production to be utilized.
- 4.2.3 The Customer has the right to demand the Executor to cover the damage, if he does not fulfill the agreed duties.
- 4.2.4 The Customer has the right to request the Executor to fulfill his obligations in due time and good manner under the Agreement and the government laws.

# 5. Dispute Resolution

- 5.1 The present Agreement is being explained according to the Georgian legislation in force.
- 5.2 Disputes between the parties are being resolved based on mutual negotiations. In case they do not reach the agreement, the disputes will be considered in the court, according to the Georgian legislation in force.

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# 6. Confidentiality

- 6.1 The information, acquired by the parties while cooperation is considered confidential and it is not permitted to give it out to third parties, without prior written consent of the other party. The parties should provide the protection of the information on correspondence and other business documentation from third parties.
- 6.2 The parties should keep within the rule even after the agreement termination.
- 6.3 In case the confidential information giving to third parties (apart from the legally stipulated cases), the breaching party should compensate any penalty to the other party, which is defined by the other party.

### 7. Force-majeure

- 7.1 The parties will not be obliged to fulfill the duties in case the force-majeure circumstances take place.
- 7.2 After the force-majeure circumstances end, the parties will agree on the new terms and conditions, according to the legislation in force.

# 8. 8. The Agreement validity

- 8.1 This Agreement will enter into force on the date of signature by both Parties and will remain in force until 21 June 2022.
- 8.2 The Agreement can be prolonged upon mutual consent of the parties, in written.

# 9. Conclusive provisions

9.1 The parties are led by the mutual respect principle and deepening the cooperation wish.

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9.2 The parties of the Agreement are obliged to keep honest name, business reputation, dignity.

9.3 The present Agreement is drawn up in 2 (two) copies in English and Georgian languages, each having equal legal force, kept within the parties.

10. Requisites of the parties

Customer

Georgia Branch of China Nuclear

Industry 23 Construction Co., Ltd

Identification code: 404952789

Address: Java 5 Street, Tbilisi, Georgia

CNEC

BRANCI

公司

Tel: 571195115; 591620760

Email: luoke222@gmail.com

eni23georgiaofficing enant aves Director: Lag-Ra

TH.

Executor

"Medical Technology" Ltd.

Identification code: 404384590

JSC "Procredit Bank"

Bank code: MIBGGE22

o/a: GE22PC0133600100053668

Tbilisi , D. Agmashenebeli alley#12km clinic Lancet's building, room 305,

En 633

EC

:公司

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Tel: 579 911 566; 593 96 00 26

Email: medicalt@gmail.com

Director: Gia Gogbaidze