**1. General.**

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| 2nd preheating drum of heat recovery boiler 20KŪ-1 located in the OS-3 SPU Block No.3 will be replaced during the 2025 Fall Shutdown. |

**2. Attachments.**

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| 1. Scope of work for replacement of 2nd preheating drum for heat recovery boiler 20KU-1;  2. Attachments (drawings) to the scope of work for replacement of 2nd preheating drum for heat recovery boiler 20KU-1;  3. Drawings of a new preheating drum (to be supplied at the time of tender). |

**3. Description and specifics of work.**

**3.1. General requirements.**

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| Performing the works described in the scope of work and its attachments during the fall shutdown, including isolation of the heat recovery boiler, opening of manholes, washing of the boiler and surrounding area, dismantling, repair, and reinstallation of the flue gas outlet chamber, removal of the old preheating drum, and installation of a new drum.  **The Contractor shall visit the worksite to familiarize itself with the scope of work and work specifics needed to prepare a proposal.** |

**3.2. Work description.**

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| The following works shall be performed as part of the replacement of the 2nd preheating drum for the heat recovery boiler 20KU-1:   1. Installation and removal of blinds, opening and closing of manholes in accordance with the provided blinding and manhole opening diagrams; 2. Cleaning/washing of the outlet, intermediate, and combustion chambers, as well as the tube bundles in the 1st and 2nd drums of the heat recovery boiler 20KU-1, to remove residual sulfur (refer to the cleaning/washing diagram); 3. Dismantling and reinstallation of the process gas outlet pipe, along with the replacement of worn DN500 flanges in pipeline L-20-11-1 (refer to the repair diagram); 4. Dismantle/reassemble the gas outlet chamber and replace the worn out Dn500 manhole nozzle chamber hatch flange and cover, see 20KU-1 Drum II repair and hatch replacement diagrams; 5. Removing the old 2nd drum and installing a new drum (refer to the repair diagram). During the installation of the new drum, it will be necessary to connect the purge, preheating, drainage, and knockout drum header nozzles, as well as the level bypass and adjust the supports. Therefore, additional welding work may be required, and the Contractor shall account for this in the work estimate. 6. Depending on the need, the dismantling/reinstallation of access platforms, their components, barriers, and additional supports may also be required. Contractor shall take into consideration this and evaluate it accordingly. 7. Newly installed unpainted elements and welded areas shall be coated with an anti-corrosion layer in accordance with OL-TR-CR-00 requirements. 8. Upon completion of all repair work, the Contractor shall prepare scrap metal for disposal, including cleaning it of sulfur residues or other substances, tidying up the area, and transporting accumulated waste, debris, and other materials to the location designated by OL.   Detailed scopes of work for the dismantling/installation of the 2nd preheating drum and other equipment repairs are provided in the attachments, including isolation, opening, washing/cleaning, installation/dismantling and other related diagrams. |

**3.3. Special requirements (if any).**

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| * Requirements for Contractors are outlined in the qualification and technical criteria. * Contractor shall perform coordination of materials. Contractor’s Material Coordinator shall collect materials from the Owner’s warehouse no later than two months prior to the start of repairs provided that the materials are available in the warehouse. The Owner will perform transportation of materials inside the Company’s territory. Materials shall be coordinated in accordance with OL Rules for Coordination of Materials. * For post-inspection repairs, the Contractor shall be responsible for the immediate preparation of repair documentation in accordance with the Owner’s Procedure BM-4 and the Regulations for Installation and Safe Operation of Steam and Water Heating Boilers. The Contractor shall be responsible for organization of required NDT prior to hydrotesting / handing over to inspector. Final documentation shall be provided within one month after the completion of works. Requirements applicable to repair documentation are defined in Procedure BM-4 and Regulations for Installation and Safe Operation of Steam and Water Heating Boilers. * OL requirement – at least 1 work manager for 15 workers under direct supervision. * Mobilization costs must be included in the price of works. * Office and tools trailers (including mobilization / demobilization) shall be included in the price of works. OL will provide a place for such trailers and points for connection to power, water and sewage networks. Toilets will be provided by OL both within the area of trailers and in process facilities. * Contractor shall have its own certified electrical engineer authorized to perform electrical connections for the Contractor's equipment. |

**3.4. Requirements for work execution and documentation.**

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| * A method statement shall be developed for all maintenance works that require welding. The method statement shall meet OL requirements and be agreed with responsible OL specialists. * Contractor shall develop repair documentation for all the completed repair works according to OL requirements. Once agreed and approved, the documentation shall be submitted to OL. * - All disassembled and assembled flanged connections shall have the attached information plates (tags) indicating the name of the Contractor having performed the works, gasket type, ID of metalworker (from the submitted list of metalworkers) having assembled the flange, and the date. |

**3.5. Qualification and Technical Requirements for Contractor.**

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| * *In accordance with the provided qualification and technical criteria tables.* |

**4. Materials, equipment, and services to be provided by the Owner.**

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| * All materials required for the work (2nd preheating drum, flanges, valves, gaskets, blinds, nuts, lubricants, rust removers, components required for the maintenance of pipelines and nozzles) – **OL**; * Cranes – **another OL contractor**; * Scaffolding and insulation – **another OL contractor;** * Removal and installation of refractory – **another OL contractor;** * Repair/modification/anchor replacement for the concrete section of the supporting foundation – **another OL contractor**; * NDT – **another OL contractor;** * Power supply connection points, water connection points for HT execution, compressed air/nitrogen connection points for purging – **OL**. |

**5. Materials, equipment, and services to be provided by the Contractor.**

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| * All equipment required for repair works – **Contractor;** * **Contractor** shall provide all necessary equipment for boiler and pipeline washing/cleaning, such as vacuum machines, high-pressure washing equipment, or similar tools required for the specified work. * **Contractor** shall provide all necessary welding consumables required for the completion of its work. These include electrodes, gases, tools, personal protective equipment, slings, hydraulic equipment, pressure gauges, etc. * Painting and anti-corrosive coating – **Contractor.** |
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**6. Requirements for work completion.**

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| [Set the main milestones and deadlines or control points in the course of task execution where the Owner is to review the completed tasks, approve, accept such as proper, or reject them.] |
| * All works shall be completed in accordance with the submitted and approved schedule; * Repair documentation shall be developed for all the repair works and submitted to OL; * Before closing the boiler, it shall be handed over to OL specialists to obtain a closing permit. * All consumed materials shall be written off after repairs according to work ID. * Unused materials shall be returned to OL central warehouse; * Any waste generated must be sorted, packed, labeled and handled according to OL requirements (approved waste management plan); * After completion of the works, the work area and territory shall be cleaned up and handed over to OL representative. |

**7. Requirements for work acceptance.**

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| * Any leaks during startup must be eliminated at any time of day. * Contractor shall be paid after signing work handover-acceptance statements. |

**8. Requirements for work schedule.**

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| * Preliminary start of works: not earlier than 27 September 2025. More precise time of the shutdown will be given 3-4 weeks prior to the shutdown. * All works shall be done according to the preliminary shutdown schedule provided by OL. * Works shall be performed in two 11-hour shifts seven days a week (2x7x11). |