

REQUIREMENTS FOR CONTRACTORS

PERFORMING MAINTENANCE, RECONSTRUCTION, INSTALLATION WORKS AT PROCESS UNIT

I. A contracting organization shall present the following for tender:

1. Certificate issued by the State Energy Inspectorate for operation of energy facilities (the operation works listed in the certificate shall comply with the works specified in the tender materials).
2. List of work managers (welding coordinators, quality control specialists, and potentially hazardous equipment maintenance foremen) to be involved in the specific maintenance, reconstruction and installation works, and copies of their qualification certificates.
3. List of employees trained to install flanged connections using torque wrenches. The list shall provide for the employees' personal labels (stamps).
The employees who will be installing flanged connections for pressure equipment shall be duly trained and certified under EN 1591-4. Copies of their qualification certificates shall be presented.
4. List of welders and copies of their qualification certificates (under EN ISO 9606-1, PED2014/68EU).
5. List of available for the works equipment with its technical specifications (welding machines, beveling equipment, milling-drilling equipment for tying into operating units, heat treatment and preheating equipment, temperature control instruments, torque wrenches, flanged connection expanders, lifting equipment, etc.). The equipment shall be tested and inspected as required under applicable normative acts.
6. Copies of all the company held certificates giving evidence to the application of quality assurance system.
7. List of available welding procedure specifications (WPS) as per EN ISO 15609, and welding procedure qualification records (WPQR) as per EN ISO 156114-1. The scope of application of the WPS and WPQR shall comply with the scopes (areas) specified in the tender materials.
8. List of subcontractors (if any intended).

II. Before starting work:

1. Welder qualification shall be tested irrespective of their certification. The qualification shall be tested by Public Company ORLEN Lietuva Equipment Technical Supervision and Material Analysis group based on the Public Company ORLEN Lietuva Regulations for Qualification Test of Welders (Attachment No. 1).
2. A list of welders to be involved in welding works shall be made. The list shall be approved by a representative from Public Company ORLEN Lietuva Equipment Technical Supervision and Material Analysis group (see Attachment No. 3 for the sample form of the document).
3. The contractor shall develop a technology for maintenance, reconstruction and installation works at the facilities (see Attachment No. 3 for the sample form of the document) with any diagrams and drawings included. The technology shall be approved by Public Company ORLEN Lietuva Equipment Technical Supervision and Material Analysis group employees.
4. The contractor shall develop welding procedure specifications (WPS) for specific works. The welding procedure specifications (WPS) to be applied to the specific work shall be agreed upon by Public Company ORLEN Lietuva Equipment Technical Supervision and Material Analysis Manager or Welding Engineer.

5. A list of employees to be involved in the installation of flanged connections, indicating their personal label (stamp) numbers and attached with copies of their qualification certificates, shall be submitted to an Engineer of Equipment Technical Supervision and Material Analysis group engineer.

III. With work in progress

1. The contractor shall be liable for coordination of the works in progress and completion therefore in a timely manner (acc. to the schedule agreed with the Owner). The contractor shall be liable for scheduling of inspections or non-destructive tests, as well as for timely placing of orders for such.
2. For manufacture, maintenance, reconstruction and installation of potentially hazardous equipment, the contractor shall use materials supported with incoming quality control or identification certificates.
3. The contractor shall have the method statement for maintenance or reconstruction works, the welding procedure specifications (WPS), and the Quality Control Plan available on site.
4. All works shall be performed in strict compliance with the design, method statements (technologies), welding procedure specifications (WPS), and the Quality Control Plan. Specialists from Maintenance Department shall be entitled to suspend works in case they identify that some works do not meet the requirements set in the aforementioned documents or their quality is inadequate.

IV. Upon work completed:

1. The contractor shall notify Equipment Technical Supervision and Material Analysis Group Engineer and Mechanical Engineer in charge of the unit about maintenance works completed and ready for quality control (external and/or internal inspection). Hydraulic testing of the unit shall be carried out in witness of a representative from Equipment Technical Supervision and Material Analysis Group.
2. The documentation listed in Attachment No. 2 shall be provided for Equipment Technical Supervision and Material Analysis Group before the hydraulic test.
3. Upon work completed, however, prior to commissioning of the unit, the contractor shall submit all the documentation to Equipment Technical Supervision and Material Analysis Group Engineer (see Attachment No. 2 for the list). The documentation shall meet the requirements of the normative documents regulating manufacture, maintenance and operation of the particular kind of facilities. The requirements set in the Public Company ORLEN Lietuva Manuals BM1, BM-2, BM-4 shall also be complied with.
4. After opening a pressure vessel (depressurizing its flanged connections), the contractor performing internal inspection, maintenance and reconstruction works shall obtain a permit for closing of the vessel as required in Manual BM-2.
5. The contractor shall be responsible for quality execution of unit maintenance, reconstruction or installation works at all times.
6. Once assembled, all flanged connections shall be tagged accordingly:
every assembled connection must have a metal tag attached to it with an imprinted or written on it name of the contractor, the personal label (stamp) number of the worker having assembled the connection, the code of sealing material (P – asbestos-free soft; G – reinforced graphite; M – metal (Cambrophile type); Z – metal ring (oval or octagonal); S – spiral), and the tightening torque used for the flanged connection studs (Nm).
If temporary gaskets are installed on a flanged connection, a red tag shall be displayed.
7. A valve casing shall have an identification tag on it indicating valve No. and relative parameters DN/PN thereof; where relative parameters are cast or carved on the casing and clearly visible, such do not have to be indicated in the tag. The valve tag shall also indicate the company which has

repaired the valve. In case a valve does not have a number, the contractor shall assign the valve with its own number. The same valve number shall be indicated in the Maintenance and Test Report (Attachment No. 5). "Close" and "Open" directions shall be indicated on the hand-wheel of a valve.

8. The requirements for the documentation to be prepared for pipelines, pressure vessels, and heaters are set forth in the Public Company ORLEN Lietuva Manuals BM1, BM-2, and BM-4. The list of the documentation is provided in Attachment No. 2, sample forms of documents – in Attachment No. 3.

In case of pipeline reconstruction or installation of a new line, irrespective of the scope of works, a diagram embracing the entire pipeline shall be presented, a new bill of materials shall be developed, and a new passport shall be issued to the pipeline. Pipeline diagram, bill of materials and passport shall be presented to Equipment Technical Supervision and Material Analysis Group in hard copy and in electronic (soft) version.

In case of reconstruction of an existing (old) pressure vessel, a general arrangement drawing shall be presented with the stamp '*As built*' affixed to it.

IV. Attachments

1. Regulations for Qualification Test of Welders
2. List of documentation
3. Sample forms

Prepared by:
Equipment Technical Supervision and Material Analysis Manager V.Kumšlytis

Agreed with:
Deputy Director of Maintenance_A. Pivariūnas