

CONTRACTUAL QUALITY REQUIREMENTS

(PROCESS DESCRIPTION)

| | | | |
|---|--|--|---|
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1 DEFINITIONS OF SCOPE AND RESPONSIBILITIES

OBJECTIVE:

This document specifies the minimum contractual quality requirements required by MOL Group for a contractor/supplier providing Non-CH materials, equipment and construction services for an investment or maintenance project. The quality requirements listed here, summarized in Chapter 6, apply to production and prefabrication sites and MOL Group's construction sites. Any deviations, exceptions or additional requirements shall be mutually agreed in writing between Contractor and MOL. It is Contractor's duty to review all requirements listed herein and in a written form request from MOL to waive any requirement which is not in Contractor's scope of work.

SCOPE:

This Regulation covers all affected employees of the following companies / organisations: MOL Nyrt., MPK Zrt., Petrolszolg Kft.

The scope of this Work Instruction covers all affected contractor employees assigned to MOL Group investment and maintenance projects.

DATE OF EFFECT: 13.06.2022.

The provisions of this document are obligatory and binding for affected employees, and all the annulled documents become invalid.

RESPONSIBLE FOR MAINTENANCE:

Contractor Management Leader

ACCESS RESTRICTIONS:

NOT RESTRICTED within MOL Group. If external access is needed → written form by the Contractor Management

2 RELATED INTERNAL AND/OR EXTERNAL REGULATIONS, ANNULMENTS

RELATED INTERNAL AND/OR EXTERNAL REGULATIONS *(The following Documents and Regulations are in connection with and have impact on this Regulation):*

| Identifier | Title | Description of relationship |
|------------|--|--|
| QM_HU | STANDARD AND NON-STANDARD MANAGEMENT SYSTEMS | 2.3. Control of externally provided processes and services |
| ISO 9001 | Quality Management Systems Requirements | Section 8.4 |

| | | |
|-------------|--|---|
| MPK_SZK6 | Műszaki irányelv a projektek előkészítésére, megvalósítására | Contains further detailed requirements for the preparation and implementation of projects in MPK Zrt. Co. |
| QMHU2.3_WI1 | ITP – Inspection and Testing Plan | Part of the requirements detailed in this document |

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3 CONTRACTOR'S COMPANY QUALIFICATION

In general, the Contractor shall have, as a minimum, implemented a quality management system according to international standards, ISO 9001.

MOL reserves the right to perform QA Audits on Contractor and Subcontractor quality management systems and technical capabilities. The Contractor is responsible to perform Quality Audits on all its Subcontractors and present the Audit Reports and results to MOL for approval.

According to the Project scope, the Contractor and its Subcontractor(s) shall hold valid certification according to international standards for the contracted works, example:

- ISO 3834-2
- ISO 1090
- ASME U, S, M, H...
- ISO 17020
- ISO 17025

4 CONTRACTOR'S QUALITY ORGANIZATION

4.1 Quality organization

The Contractor shall define the organizational structure of the quality organization on the Project. Responsibilities for quality activities shall be clearly defined in the Quality Control Plan (QCP) and shall be mandatorily project specific.

4.2 Contractor's quality representative

The Contractor shall appoint a project designated quality representative (QA/QC Engineer, QA/QC expert or similar position) who will be the main contact point for quality topics between MOL Group-Contractor and Subcontractors, if any. The Contractor's quality representative shall be responsible for handling all inspections planned by the ITP(s) at manufacturing, prefabrication and construction sites.

4.3 Quality personnel

Contractor shall ensure sufficient number of QC inspectors to conduct inspections according to approved ITP(s) on manufacturing, prefabrication and construction sites.

5 PROJECT QUALITY DELIVERABLES

This chapter describes the minimum required deliverables of QA/QC activities carried out on the project. It is Contractor's responsibility to create and manage all deliverables listed here.

5.1 Quality control plan (QCP)

The QCP shall define the planned QA/QC activities to be carried out on the project. It shall clearly specify Contractor's quality organization as responsible for the following:

- Creation and management of ITPs (Inspection Test Plan) for MOL Group construction site;
- Coordination and approval of Subcontractor's ITPs for manufacturing sites, if subcontractors are appointed;
- QA Audit plan or register to confirm Subcontractor(s) have an acceptable quality control system;
- Organizing quality related meetings on manufacturing and construction sites;
- Organizing pre-inspection meetings on manufacturing and construction sites;

- Define the procedures of execution and testing for special processes (welding, heat treatment, NDT, coating) including pressure and leak tests taking into account MOL Group Standards (MGS) when applicable;
- Define project forms, templates, tags to document inspection activities (e.g. QC inspection report);
- Site material incoming inspection, handling and storage documenting and reporting system;
- Define the creation and management of Punch-lists and NCR records;
- Define the scope of the Notified Body Inspector(s) according to the actual EU regulations for manufacturers, if such entity is needed

5.2 Inspection and test plans (ITP)

It is Contractor's contractual obligation to prepare the ITPs related to activities on MOL construction site according to MOL Group Work Instruction: QM_HU_2.3WI1 *ITP – INSPECTION AND TESTING PLAN (CREATION AND MANAGEMENT)*

Creation of ITPs for manufacturing at Subcontractor's sites shall be under responsibility of Contractor and shall meet the same requirements as mentioned above.

All ITPs are subject to MOL Group Project QA/QC expert review and approval before usage. ITPs to be sent to MOL Group Project QAQC minimum 10 working days, if not defined differently by general Contract, before the pre-inspection meeting. During the project life cycle, the Contractor's quality representative is responsible for handling the ITP signing off after inspections have been done.

The following ITPs shall be prepared for the project:

- ITP(s) for manufacturing and testing
- ITP(s) for site activities
- ITP(s) for commissioning.

For refining projects, the ITPs shall contain all applicable and relevant data from MGS-M-REF-M-6.1.

The draft of all ITPs has to be sent to MOL Group Project QA/QC expert and Project Team as soon as possible for review and comment. The approval and content will be agreed latest on the Pre-Inspection Meeting, according to chapter below. If not officially permitted by MOL Group Project Manager, manufacturing/prefabrication and site construction may start only when ITPs are reviewed and approved by MOL Group QA/QC expert.

5.3 Pre-inspection meetings (PIM)

Before any manufacturing, prefabrication or construction activities start, it is Contractor's duty to organize a Pre-inspection meeting in order to define and make final agreements between MOL Group-Contractor-Subcontractor for upcoming inspections according to ITPs. Final approval of ITPs may be done latest at this project stage. The requirement for pre-inspection meetings is mandatory for long lead items (LLI) and site construction. It can be waived for off-the-shelf procured items.

5.4 As-built table of content

The Contractor shall propose an As-Built Documentation table of content sheet, which is subject to MOL Group Project QA/QC expert and Project team approval. It shall contain the list of all relevant project documents for manufacturing and construction that will be part of the final As-Built Documentation. The content of the As-Built Documentation shall be agreed and approved before manufacturing and construction activities start.

5.5 Manufacturing documentation

Manufacturing documentation (i.e. Manufacturing Documentation Register) shall be prepared and be ready for review during Final inspection of ordered item at Contractor or Subcontractor premises, and draft documentation shall be available during intermediate inspections. Traceability of materials and processes shall be ensured.

5.6 As-built DOCUMENTATION

The As-Built Documentation is a final QA deliverable of the Project and special attention has to be paid to traceability of activities, processes and materials. In particular, attention shall be paid to As-Built drawings which shall contain actual and not nominal measures of manufactured/constructed items, based on dimensional reports.

It is Contractor's duty to collect all the documentation created during construction, pre-fabrication and manufacturing phases which was under Contractor scope.

The As-Built Documentation shall be completed and handed over to MOL Group Project QA/QC expert latest within three weeks from Performance Guarantee Tests or commissioning, if not defined differently in general Contract. A handover report shall be issued by the Contractor and signed off by MOL Group QA/QC expert.

In case of maintenance projects, the condition for the issuance of the certificate of completion is the existence and handover of the As-built documentation to the customer.

5.7 Punch-list (PL)

Contractor and its Subcontractor(s) shall maintain the Punch-list as evidence of outstanding works and shall ensure all PL items have been closed-out before any Final inspection or hand-over. A PL management procedure and format shall be described in the QCP.

5.8 Non-conformities (NCR) REGISTER

The Contractor shall have a written procedure for identifying and controlling nonconforming items for both manufacturing and construction phases. Non-Conformities shall be handled by the Contractor. If any deviation from project requirements or standards occur, it is Contractor's duty to propose a technical solution which is subject to MOL Group's approval. It has to be ensured all deviations are corrected by Contractor and accepted by MOL Group before close out of the Project.

For any eventual deviation, the Contractor may propose a solution for MOL Group's approval as follows:

- Use-as-is
- Repair
- Scrap.

5.9 QA/QC Inspections

The Contractor is responsible for performing all inspections and tests required by the Contract. Therefore the QA/QC inspection activities shall be properly organized by Contractor's quality representative both for MOL Group construction sites and Subcontractor external sites. Personal qualification and equipment/tools calibration certificates shall be valid and available for review at any time (in particular for special processes).

All QA/QC inspections shall be carried out according to the relevant and approved ITPs. It is Contractor's duty to ensure all ITP inspection steps are executed, documented and endorsed by signatures in the ITP. The Contractor shall maintain and manage the original ITP document until completion of the Project

and hand it over to MOL Group together with the As-Built Documentation. Inspection notifications shall be defined in the QCP and the format to be agreed at the Pre-Inspection meeting.

Access to project manufacturing, pre-fabrication and construction sites shall be granted at all times to MOL Group QA/QC representatives both by Contractor and Subcontractor.

Notification for inspections according to ITPs shall be agreed latest at the Pre-Inspection meeting. It is Contractor's obligation to manage the ITP inspection steps and inform the inspection stakeholders about planned inspections in due time as per the agreements (Witness and Hold points especially). For random inspections it shall be noted that MOL Group QA/QC representatives shall be granted to visit sub-contractor premises and conduct inspections at any time (as foreseen by ITP) regardless of Contractor's QA/QC representative attendance.

MOL Group reserves the right to evaluate any material delivered by Contractor at MOL Group construction site. MOL Group's incoming inspection may cover, but is not limited to, product type, quantity, supplied documents including first article or test reports, dimensional specifications, material specifications, and/or externally visible transportation damage. Contractor will be notified if rejected goods are identified and after confirmation of the defective material, rejected material shall be replaced by Contractor at his cost.

In case an inspection has to be postponed/repeated or the result is not satisfactory, where MOL Group delegated QA/QC person takes part, MOL Group Project Manager has the right to request from Contractor the reimbursement of any expenses which occurred and not limited to: travel, board, man-day rate. This applies only to inspections scheduled by ITP and officially notified by Contractor. This requirement does not apply for MOL Group construction site but it does for all external non-MOL Group sites. Random inspections expenses which MOL Group performs at its own discretion at external sites shall not be taken into consideration regardless of the outcome of inspection.

5.10 Mol Group Standards

MOL Group Standard (MGS) is considered as "best practice" of MOL Group, they are created **not to omit or substitute the relevant industrial standards**, but to help to chose the most „fit to purpose" solutions among all available possibilities.

MGSs specify and complete all technical requirements, which shall be in line with valid legislation (laws, government regulations, public notices, requirements of directives of European Union, etc.), national and international standards and technical requirements of oil, gas and petrochemical industry.

MOL Group Standards are created to

- ensure high technical quality of delivered engineering documents and equipment reflecting the MOL Group Refining experience,
- ensure required level of equipment standardization (unification), and
- achieve the synergic effects.

In addition to those described in sections 5.1-5.9, the contractor is obliged to comply with and apply the requirements described in the MGSs referred to in the contract.

6 SUMMARY OF CONTRACTUAL QUALITY REQUIREMENTS

6.1 Quality requirements summary for design engineering contractors/subcontractors

| # | Requirement | Designer Responsibility | MOL Group Responsibility |
|---|--|---|----------------------------|
| 1 | Contracting Designer Certifications | <i>The designer must have a documented and certified Quality Assurance and Quality Management System (ISO 9001 or equivalent).</i> | <i>Review</i> |
| 2 | (QCP: Quality Control Plan) | <i>QCP defines the organization needed for QC (quality control) and the activities planned for the project</i> | <i>Review</i> |
| 3 | Execution of Quality Controls is Designer's task | <i>QC (quality control) activities should be organized by the quality representative of the Designer as specified in the QC documents (QCP, ITP, etc.). It is the designer's responsibility to notify the MOL Group Investment Project Implementation Manager about the results of the inspections.</i> | <i>Review</i> |
| 4 | Personal Certification and Calibration/Validation Certificates are updated and valid | <i>Designer Responsibility To use only personnel with the correct authorization (Hungarian Chamber of Engineering)</i> | <i>Review</i> |
| 5 | ITP: Inspection and Test Plan | <i>It's the Designer's task to develop an Inspection and Test Plan (ITPs) or an other quality control design format.</i> | <i>Review Approval</i> |
| 6 | Subcontractor Quality control and inspection plan | <i>The Designer is responsible for the quality of engineering delivered by Subcontractors, they shall check it the same way as they do their own documents (write/check/approve process)</i> | <i>Review</i> |
| 7 | As Built table of content (depending on scope, current contract is also for Feasibility Study/Basic/FEED) | <i>It is the obligation of the designer to produce a sample As Built drawings table of contents before the project implementation phase.</i> | <i>Approval</i> |

| # | Requirement | Designer Responsibility | MOL Group Responsibility |
|----|---|--|--------------------------|
| 8 | <i>As Built drawings must contain the actual dimensions of parts / parts and product that are machined, manufactured, prefabricated and assembled</i> | <i>As Built drawings must contain the dimensions measured during the current and size checks.</i> | <i>Review</i> |
| 9 | <i>As-Built preparation and submission of documentation</i> | <i>Is the Designer's task to prepare As Build plan, which contains quality documentation based on the production of a (manufacturing data book or equivalent) and on-site quality documents based on a pre-agreed table of contents. Agree with MOL Group Investment Project Implementation Manager on date of transfer of As Build plan</i> | <i>Approval</i> |
| 10 | <i>MGS: Mol Group Standards and other international standards to apply</i> | <i>It is the Designer's responsibility to apply and strictly comply with the standards determined in the contract.</i> | <i>Review</i> |
| 11 | <i>PL: Punch List handling is designer responsibility (e.g. review record for design jury)</i> | <i>Punch list management is the responsibility of the Designer and must include any work in progress. The Punch list must be completely closed before the project is completed.</i> | <i>Approval</i> |

6.2 Procurement and construction quality requirements summary

| # | REQUIREMENT | DELIVERABLE BY CONTRACTOR | MOL Group RESPONSIBILITY |
|----|--|---|----------------------------------|
| 1 | Contractor company qualification | Certificate | Review |
| 2 | Project specific Contractor's Quality Control Plan | Document | Approval |
| 3 | Dedicated QC personnel | CV | Review |
| 4 | Personnel qualification and equipment calibration certificates to be current and valid | Certificate | Review |
| 5 | Inspection and Test Plan(s) (ITP) | ITP | Approval |
| 6 | ITPs creation and management shall be done by Contractor | N/A | N/A |
| 7 | Pre-Inspection Meeting (PIM) | Notification / Minutes of Meeting / ITP / As-Built table of content | Approval |
| 8 | Notification of Inspections (NOI) | Notification | N/A |
| 9 | As-Built Documentation table of content sheet preparation | Document | Approval |
| 10 | As-Built Drawings to contain actual measures of items | As-Built Drawing | Review |
| 11 | As-Built Documentation compilation and handover | Documentation | Approval |
| 12 | Mol Group Standards (MGS) shall be used and applied | N/A | N/A |
| 13 | Project Specific Procedures according to MGS | Document | Review by Engineering Department |
| 14 | QC Inspections Reporting by Contractor | Report | Review |
| 15 | Punch-list to be managed by Contractor | Document | Review |
| 16 | NCRs to be managed by Contractor | Report | Approval |
| 17 | Non-Conformities Register to be managed by Contractor | Register | Approval |
| 18 | Material Incoming inspections on construction site | Report | Review |
| 19 | Traceability of materials to be ensured | As-Built Documentation | Approval |
| 20 | Notified Body appointment | Info | Review |

Site-specific requirements: DS Production MOL (Danube and Zala Refineries)

| # | REQUIREMENT | DELIVERABLE BY CONTRACTOR | MOL Group RESPONSIBILITY |
|----|--|---|--------------------------|
| 21 | Flange Installation exam - In the field of DS Production MOL (Danube and Zala Refinery) the precondition for work is the participation and a successful examination of a professional training. The organizer of these is the Petrolszolg Ltd. as a Single Service Company of MOL. | Flange installation exam | Review |
| 22 | Welding certification - In the field of DS Production MOL (Danube and Zala Refinery) the welder can do a job only who is registered by Responsible Welding Coordinator (RWC) of Maintenance Technical Inspection. The criterion of this a valid welder qualification and a successful working test. | Welding certification issued by RWC - successful working test. | Review |
| 23 | Pressure test of valves - In the field of DS Production MOL (Danube and Zala Refinery) should be checked the valves by pressure test before installation. The pressure test is carried out by the Petrolszolg Ltd. as a Single Service Company of MOL. The pressure test is not required for fittings outside the range: nominal pressure rating> PN240 | Pressure test of valves | Review |

7 PROJECT CLOSE-OUT

From MOL Group QA/QC side the Project shall be considered closed when the following has been fulfilled:

- ITPs all inspection steps signed and accepted;
- Punch-lists closed;
- NCRs closed;
- Manufacturing Documentation submitted, accepted and included in the As-Built Documentation;
- As-Built Documentation accepted and handed over;
- Certificate of Conformity (or equivalent) issued by Notified Body;
- Approved Performance Guarantee Tests.

RACI table:

| Responsible organizations (correct order – Boards, Group organizations, OpCo organizations, external partners) | | Contractor | Investment PM/ Maintenance PM | Contractor mgmt/ SSC QSM | Procurement |
|--|---|------------|----------------------------------|-----------------------------|-------------|
| Identifier | Title of the process step: | | | | |
| 3 | CONTRACTOR'S COMPANY QUALIFICATION | C | I | R | A |
| 4 | CONTRACTOR'S QUALITY ORGANIZATION | | | | |
| 4.1 | Quality organization | C | I | R | I |
| 4.2 | Contractor's quality representative | C | I | R | I |
| 4.3 | Quality personnel | C | I | R | I |
| 5 | PROJECT QUALITY DELIVERABLES | | | | |
| 5.1 | Quality control plan (QCP) | C | I | R | |
| 5.2 | Inspection and test plans (ITP) | C | I | R | |
| 5.3 | Pre-inspection meetings (PIM) | C | I | R | |
| 5.4 | As-built table of content | C | I | R | |
| 5.5 | Manufacturing documentation | C | I | R | |
| 5.6 | As-built DOCUMENTATION | C | I | R | |
| 5.7 | Punch-list (PL) | C | I | R | |
| 5.8 | Non-conformities (NCR) REGISTER | C | I | R | |
| 5.9 | QA/QC Inspections | C | I | R | |

Legend: R – Responsible; A – Accountable; C – to be Consulted; I – to be Informed; D – Decision-maker; P – Prior agreement

8 APPENDICES

| Appendix number | Appendix title |
|-----------------|---|
| Appendix 1 | List of modifications |
| Appendix 2 | As-built documentation table of content |

List of Modifications

| Version No. | Description of change | Date of effect |
|-------------|-----------------------|----------------|
| 1 | New version | 13.06.2022. |

As-built documentation table of content

Link to As built documentation table of content