

Requirements for the Quality Assurance of Service and Material Supplies

General Requirements Concerning Quality

ISO 9001

The supplier and all subcontractors provided by the supplier must be demonstrably certified pursuant to the ISO 9001 standard. The internal processes of the supplier must be compliant with this standard. The supplier must be able to produce evidence at any time showing compliance with this standard.

Internal Regulations

The supplier is obliged to adhere to internal regulations of the companies SLOVNAFT a.s. and SLOVNAFT MONTÁŽE A OPRAVY (assembly and repairs) a.s. in its work. These are the following:

1. MGS (MOL GROUP SPECIFICATIONS)

These are currently available at the following link:

- <http://slovnaft.sk/sk/mgs>
 - Username: slovnaft_mgs
 - Password: sW2NTw0opdhuG

2. TTD (Technical terms of delivery)

Technical terms of delivery are available for 4 commodities and are available at the following link:

<https://slovnaft.sk/sk/o-nas/centrum-dodavatelov/poziadavky-na-zabezpecenie-kvality-dodavok/>

Documents and internal regulations of the companies SLOVNAFT a.s. and SLOVNAFT MONTÁŽE A OPRAVY (assembly and repairs) a.s.

login: snmao and password: Vfk3Ri71

3. Control acts relating to quality assurance

These are available at the following link:

<https://slovnaft.sk/sk/o-nas/centrum-dodavatelov/poziadavky-na-zabezpecenie-kvality-dodavok/>

Documents and internal regulations of the companies SLOVNAFT a.s. and SLOVNAFT MONTÁŽE A OPRAVY (assembly and repairs) a.s.

login: snmao and password: Vfk3Ri71



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Registration of welders and welders' skill tests – link:

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/evidencia_a_pracovne_skusky_zvaracov.pdf

Flat gasket installation manual – link:

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/navod_na_instalaciu_plocheho_tesnenia.pdf

Flange connection assembly instruction movie – link:

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/instrukcne_video_pre_montaz_prirubovych_spojov.mp4

Requirements for the quality assurance of service and material supplies English – link:

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/poziadavky_na_zabezpecenie/Poziadavky_na_zabezpecenie_kvality_dodavok_sluzieb_a_materialov_EN.docx

Requirements for the quality assurance of service and material supplies Slovak – link:

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/poziadavky_na_zabezpecenie/Poziadavky_na_zabezpecenie_kvality_dodavok_sluzieb_a_materialov_SK.docx

Requirements for the scheduling and work execution assurance – link:

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/poziadavky_na_zabezpecenie/Poziadavky_pre_zabezpecenie_planovania_a_realizacie_prac_link_2019.docx

Requirements for execution of welding works – link:

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/poziadavky_na_zabezpecenie/poziadavky_na_vykon_zvaracskych_prac.pdf

Requirements for execution of Positive Material Identification (PMI) – link:

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/poziadavky_na_zabezpecenie/prod_mp_08_2015_poziadavky_na_vykon_pozitivnej_materialovej_identifikacie.pdf



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Quality Maintenance Management of equipments that belong to “Slovnaft Production” department.

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/poziadavky_na_zabezpecenie/qc_1_snmao1_v1_riadenie_kvality_udrzby_zariadeni_utvaru_vyroba_slovnaft_a.s..pdf

Procedure for ultrasonic thickness measuring – link:

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/poziadavky_na_zabezpecenie/prod_mp_09_2015_utz_meranie_hrubky_stien.pdf

Minimum requirements for Daily logbook contents – link:

https://slovnaft.sk/images/slovnaft/pdf/o_nas/centrum_dodavatelov/sd_hse_poziadavky_pre_kontraktorov/conf/poziadavky_na_zabezpecenie/Minimalne_poziadavky_na_obsah_montazneho_dennika.docx

In the case of a request for the delivery of spare parts, the supplier is obliged to provably ensure the following:

Purchase of the required material is possible only through suppliers or manufacturers specified in the List of selected manufacturers (hereinafter referred to as "Lists") of electrical installations, automation devices, and machinery (hereinafter referred to as "EADM").

Exceptions to the Lists (manufacturers or products other than those listed in the Lists) may be accepted only in the following cases:

- a) if EADM manufacturers specified in the Lists are unable to offer and deliver an electric installation, automation device or machinery that meet the required technical and performance parameters and/or to deliver these within the specified delivery date
- b) if the lists do not include the required EADM group
- c) in case of ancillary products (EADM group) that are part of a “packaged unit”, where their manufacturer, on the basis of a technical evaluation, concludes that the use of ancillary products from other manufacturers specified in the Lists could in practice result in an untested solution, reduced efficiency or loss of guarantee for the entire “packaged unit”
- d) in emergencies or in critical situations where it is not possible to ensure the supply of products from any of the listed manufacturers within the specified delivery term, where failure to deliver the product before the specified deadline significantly jeopardizes work performance or leads to significant financial losses for the company



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If the material cannot be ensured in this way, it is necessary to ask for an exemption in writing through the Downstream purchasing section of SLOVNAFT a.s.

Provably ensure entry control of materials.

In the case of delivery of valves, seals, joining material and metallurgical material, ensure the supply within the sense of the valid technical terms of delivery (see above).

Ensure the supply of documentation showing compliance with the requirement (certificates, attestations...).

Elaboration of the inspection and test plan

Upon request, the supplier is obliged to draw up and submit an inspection and test plan for critical delivery and activities defined by the customer.

The quality plan shall include, in particular:

- The sequence of processes during the realisation of the order,
- Methods to be used,
- Acceptance criteria,
- Use of qualified processes, appropriate equipment, and staff,
- Tools, methods, and methodologies used during the realisation of the order,
- Where appropriate, refer to applicable standards, specifications, and requirements of the regulations,
- Plan of the required inspections and tests,
- Procedure for verifying the conformity of the products or the subcontractor's performance with the customer's request,
- Control points and points of tests (with the participation of a supplier, customer or third party),
- What records are to be created,
- What records are to be delivered to the customer, and when.

In the case of maintenance activities, the customer may send a request to draw up a quality plan within 6 weeks prior to the intended commencement of a shut-down. In the case of delivery of SP (spare parts) or materials, the customer is obliged to request the drawing up of the quality plan on the date of issue of the order at the latest. Subsequently, the supplier is obliged to send the inspection and test plan to the customer within 2 weeks. To draw up the plan, it is possible to use the following template. The supplier may also use their own template.



P6_ITP.xlsx

Provision of professional technical control (PTC)

The supplier shall be obliged to ensure one worker per 30 employees performs PTC. This worker shall demonstrably verify the operational activities and ensure compliance with the customer's request. The



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supplier must secure evidence concerning the performance of such worker (e.g. via an entry on the inspection activities in the logbook, a separate report on the performed inspection, etc.).

Installation of flange joints:

All foremen installing flange joints need to receive adequate retraining according to EN 1591-4 (certificate). Any exceptions shall be agreed upon in advance in writing between the supplier and the client. Retraining will be verified in the GEM system and via testing on a test bench prior to the commencement of a shut-down. Testing shall be performed by an external company.

The supplier is obliged to follow guideline "Flange joint assembly".

Repair, refurbishment, and assembly of restricted technical equipment

Locksmith – installation work

The supplier shall follow the currently applicable legislation of Decree No. 508/2009 Coll.

- A written document on the verification of expertise issued by a review technician;
- A certificate pursuant to Section 18 under Decree No. 508/2009 Coll. in the case of:
 - a) Class I to Class V steam and liquid boilers, stable pressure vessels as specified in Annex 1, Part I, Group A, Letter (b), second point and pressurized equipment specified in Annex 1, Part I, Group A, Letters (f) and (g),
 - b) Piping systems identified in Annex 1, Part I, Group A, Letter (e),
 - c) Group A personnel and cargo lifts permitted to transport people,
 - d) Group A technical gas equipment.

Requirements for the accompanying documentation for repair/delivery

Accompanying documentation required for repair/delivery is defined in the purchase order or the internal MGS regulations.

The supplier has the obligation to deliver the required accompanying documentation along with the handover and takeover protocol (on the delivery of the work). If the supplier is unable to deliver the documentation within the specified deadline, the supplier shall indicate it in the handover protocol. Likewise, the supplier shall indicate the deadline within which the documentation will be delivered.

In the case of monitoring of I&C/SRTP circuits within **GR/TO, MOC, AR**, such as Loopcheck, Functional Test, Trip Tests and Mechanical Completeness of Devices, the supplier shall be obliged to submit accompanying technical documentation continuously and immediately upon completion of assembly/installation of individual devices. The required accompanying documentation includes the following documents:

- Loop check protocol confirming the entire circuit is working correctly, I/O Check (from the distributor to the control system, e.g. when checking whether the separators/barriers are intrinsically safe)
- Protocol on inspection of mechanical completeness of devices – Check list



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- Protocol on performing functional testing of the device – checking the method of controlling the device, including the logic of the control system pursuant to technological rules, control narratives, project documentation, and other documentation, in which the method of control is described
- Protocol on Trip test performance on the basis of a Trip list. This applies to critical circuits controlled by ESD (Emergency Shutdown System)
- Protocol on performing a pressure strength and tightness test of I&C pressure equipment or its parts (so-called wetted parts)

The required comprehensive accompanying documentation that shall be submitted to PSSR:

Protocol on a comprehensive test of devices and inspection of completeness of the submitted accompanying documentation (SAT) shall demonstrate/include:

- Visual inspection of completed assembly/installation pursuant to project documentation
- Visual inspection of individual component/device plugging in a circuit according to a plugging chart
- Verification of functionality and configuration/settings of parameters of the individual components/devices in a circuit, including DCS/PLC
- Validation and verification of blocking/critical SIL circuits in ESD
- Calibration protocols for all circuit components
- Verifiable operator training
- FAT protocol
- Operating manual, user manual, and maintenance manual in Slovak
- List of recommended spare parts for crucial/critical devices
- Atex certificate and conformity certificate
- OP and OS report, official examination, PTC (professional technical control), type examination
- Crucial/critical device datasheets
- Material attestations
- Welding certificate, welding process
- Pressure strength and tightness test
- Technical project construction and drawing documentation of the actual design in red pencil. At a minimum, it is necessary to submit the wiring diagrams and device specifications in red pencil.
- List of nonconformities or discrepancies (a so-called Punch list)

Repair of rotary machines' spare parts

In addition to the delivery of repaired spare parts of rotary machines, their components and equipment, the supplier shall be obliged to deliver at least the following documentation:

- Copy of the order
- List of performed work and tests
- Summary of new spare parts used
- Assembly drawing or sketch defining the main dimensions of the device
- Assessment of the reparability of parts in the next cycle (if applicable): If a device after it is repaired meets the operational requirements but it is apparent from the condition of several parts after their



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repair that one or more will no longer be repairable and further repair would be economically unprofitable

The requirements of supplier qualification

Activity (specific description)	Definition of activity/responsibility	Qualification requirements for the activity's performance
Technician of RM (running maintenance)	Job management – 1 technician for about 15 employees in electrical engineering and I&C/1 technician for about 30 employees in mechanical engineering – work quality, deadlines, synergy and responsibility for HSE, inspection, the study of documentation and requirements, technical work preparation, schedule preparation, maintaining work quality and deadlines, participation in meetings, coordination of activities at the construction site, drawing up of work permits, management of foremen, technicians and stock-keepers at the construction site, daily inspection of tools and equipment, record-keeping of employee attendance, responsibility for material supply, preparation of documentation for technicians, addressing operational requirements. Daily writing off of work progress (by registering the date of achieving a progress milestone and by signing the schedule log). The technician may also be employed for a lower number of workers than 30, however, this must be approved in advance.	Secondary education in the field of the activities performed
Project Manager of GR/TO	Responsibility for the assigned project as a whole, the preparatory phase, adoption of requirements, the examination of documentation and requirements, the performance of inspections, preparation of PO (price offer), coordination of all employees (technicians, employees responsible for writing work logs, employees responsible for the creation of a work schedule, PTC, other employees), for meeting HSE requirements for the project's implementation, participation in meetings concerning the project, provision of project infrastructure (construction site, machinery, warehouses, etc.), for carrying out work pursuant to the required quality and quantity, meeting the deadlines, ensuring capacity	Secondary education, at least 10 years of professional experience, university education – mechanical engineer/technician/electrical engineer/I&C pursuant to the object of performance legislative requirements: certificate enabling the performance of repairs of reserved technical equipment, TE (technical equipment) and PR (piping routes)

	for potential findings during audits, submitting the documentation of repairs within the required deadline, invoicing the project within the required deadline.	
Foreman/OSF (operations shift foreman)	Job management – approx. 5 employees/work quality, deadline, HSE inspection, the study of requirements, technical work preparation, maintaining work quality and deadlines, participation in meetings, coordination of activities at the construction site, drawing up of work permits, management of employees at the construction site.	Vocational secondary school in the field of the activities performed or 4 years of professional experience
Employee responsible for keeping logs and records	Collecting data on a daily basis from the head of assemblers or technicians and recording relevant data in the logbook. Actively communicating with the competent technicians, responsible for the daily submission of logs for their signing by the contracting parties, ensuring logs are available for inspection.	Vocational secondary school
Planner	<p>Creation of a detailed integrated work schedule:</p> <ul style="list-style-type: none"> ○ Knows and can define work procedures, ○ Knows and can set up sequences between different activities on the device, ○ Knows and can identify the necessary human resources, mechanisms and other tools necessary for the performance of work progress, ○ Knows and can define the time needed for the work's performance, ○ On the basis of their experience, he/she can draw attention to the critical path of the work procedure, ○ Knows and can set a plan for a sequence in which the works on individual devices will run. <p>The Planner cooperates when searching for an optimal solution for the programming of activities with CAPEX projects (large investment projects, MOC, Asset replacement) if such activities will be implemented</p>	<p>Secondary education of technical specialisation Advanced knowledge of MS Office Professional experience in project planning of at least 3 years Knowledge of production units relating to a specific project Ability to plan and communicate with all companies involved with the project as well as with the inspection authorities and bodies</p>

	during the shut-down.	
FFAP (fire-fighting assistance patrol)	Supervision of performance of work with an increased risk of fire. Appointed pursuant to internal regulations of the company, in most cases from the working group of the contractor, or from the operations personnel. In justified cases, the position is occupied by a special employee outside the working group.	Vocational secondary school, basic professional training for fire-fighting assistance patrols in the Training Centre with 12 months validity, additional professional training provided by a fire protection technician at the place of employment, Equipment – powder fire extinguisher min. 6 kg, 1–2 pcs min. according to the scope of work, fireproof welding blankets for vertical and horizontal use min. 2 pcs, horizontal fire barriers
Entry Supervisor	An Entry Supervisor is a person designated in the written work permit who is responsible for the management of all activities related to entry into an enclosed space. Duties and obligations are specified in more detail in the local controlling act HSE_1_G7_SN4 System of issuing written work orders, on pages 15 and 16.	The Entry Supervisor is obliged to undergo the training for “Entry supervisor” (at least once every 12 months) with an entry into the HSE registration sheet or HSE logbook of the supplier. Training of the Entry Supervisor is provided by the relevant (local) operations safety technician. Within the Vlčie hrdlo premises, the training is provided by an employee of the supplier (at the time of issuance of this management measure, it is an employee of the company Falck Fire services, s.r.o.) or an employee of the SD&HSE department. The position of Entry Supervisor may only be combined with the position of member of an assistance fire patrol in the event that the obligations of both positions, i.e. the Entry Supervisor and member of an assistance fire patrol, may be performed in full and without conflict.
Safety Technician	A Safety Technician (ST) pursuant to Section 23 (Act No. 124/2006 Coll.) is a natural person who has undergone training in the field of health and safety at work and, on the basis of tests, has obtained a certificate of professional competence of a safety technician from a person eligible for providing education and training.	Secondary or university education, Certificate of Safety Technician (updated every 5 years)

Authorised Safety Technician	An Authorised Safety Technician (AST) is a safety technician pursuant to Section 23 (Act No. 124/2006 Coll.), who, after at least two (2) years of professional experience as a safety technician and after acquiring a certificate of a safety technician, has passed a test in front of an examining board designated by the National Labour Inspectorate.	Secondary or university education, Certificate of Authorised Safety Technician (updated every 5 years)
PTC (professional technical control)	Responsible for the quality of work and material, performance of VN, PT (pressure test), inspections and completion of documentation.	University/vocational secondary school, mechanical engineering/electrical engineering specialisation, 5 years of professional experience

Specific requirements for mechanical engineering

Activity (specific description)	Definition of activity/responsibility	Qualification requirements for the activity performance
Constructor	Specialisation, design, drawing, material specification.	Secondary industrial school/university education machinery specialisation, knowledge of regulations, standards
GR (general revision)/TO (technological outage) Technician	Job management – 1 technician for 6 foremen (about 30 employees). Responsible for work quality, compliance with the specified deadlines, synergy and compliance with the HSE regulations, participation in inspections, the study of documentation and requirements, technical work preparation, schedule preparation (provision of synergy and data for Slovnaft (SN) planners), maintaining work quality and deadlines, participation in the coordination meetings, coordination of activities at the construction site/place of employment, drawing up work permits, management of foremen, technicians and stock-keepers at the construction site, daily inspection of tools and equipment, record-keeping of employee attendance, responsibility for the supply of material and installation of supplied material (position, quality, quantity), preparation of documentation for the technician, addressing operational	Secondary education – mechanical engineering, or vocational secondary school, mechanical engineering Legislative requirements: certification to perform repairs of reserved technical equipment, TE (technical equipment) and PR (piping routes)

	requirements and revision findings. Daily writing off of work progress (by registering the date of achieving a progress milestone and by signing the schedule log). The technician may also be employed for a lower number of workers than 30, however, this must be approved in advance.	
Technical audit technician	Responsible for the quality of work and material, the performance of VN, PT (pressure test), official examinations, inspections and completion of documentation.	University/vocational secondary school, mechanical engineering specialisation – certificate RT (revision technician) for TE – Aa1,a2,a3,a4,b1,b2,d,e,Ba,b1,b2,e1,e2,f1,f2,f3 GD (gas devices) - Aa,b,c1,c2,d,e,f,g1,g2,h,i,Ba,b,c,d,e,f,g1,g2,g3,h1,i. Specific type of certificate according to the customer's requirements or according to the current legislative requirements
Stock-keeper	Only during TO and GR/takeover, inspection, record keeping, issuance of material delivered by contractor.	Secondary education – mechanical engineer
Borrowing of personal analysers	Rental of personal analysers.	
Welding Technologist	Development of technological procedures for welding WPS (welding procedure specification) and heat treatment PWHT (post-weld heat treatment)/control of compliance with procedures for welding and heat treatment.	Valid qualification certificate IWE, EWE/EWT University/vocational secondary school, mechanical engineering specialisation;
Welder (non-alloyed and low-alloyed steels)	Welding on the basis of valid qualifications according to STN EN ISO 9606-1. Required welding methods: 111, 141, 135, 136, 138, (311), material groups FM1 – FM4, the range of qualifications and thickness according to the customer's requirements. For automated welding, qualifications according to ISO 14732.	Recommended welder qualification range: 111 T BW/FW FM1 B t7 D48,3 H-L045 ss nb 141 T BW/FW FM1 S t7 D48,3 H-L045 ss nb 135 P BW/FW FM1 S t7 PF ss nb 136 P BW/FW FM1 S t7 D48,3 PF ss nb

		311 T BW FM1 S t7 D48,3 H-L045 ss nb rw
Welder (high-alloyed steels and nickel alloys)	Welding on the basis of valid qualifications according to STN EN ISO 9606-1. Required welding methods: 111, 141, 135, (136), material group FM5, FM6, the range of qualifications and thickness according to the customer's requirements.	Recommended welder qualification range: 111 T BW/FW FM5 B t7 D48,3 H-L045 ss nb 141 T BW/FW FM5 S t7 D48,3 H-L045 ss nb 135 P BW/FW FM5 S t7 PF ss nb 136 P BW/FW FM5 S t7 D48,3 PF ss nb
Locksmith – installation work	Manufacturing and installation of equipment (external facilities specified as special facilities)/quality, deadlines, and HSE.	Vocational secondary school, mechanical engineering or professional experience of 1 year/10%, 2 years/20%, 3 and more years/70% of the total number of employees at the PU (production unit). Load binder licence, crane operator licence ZZ Aa-A1, A2 according to order requirements. Prior to the order performance, the supplier shall submit valid licences of a sufficient number of persons in order to ensure successful and contractually-agreed performance of the order.
Locksmith – special work	Manufacturing and installation of special equipment (these are to be specified according to the individual facilities): Installation and maintenance of reactors, columns, furnaces, installation and maintenance of exchangers/quality, deadline and HSE.	Vocational secondary school, mechanical engineering or 3 years of professional experience, written references from the work implementer with a specification listing the kind of specialised work the employee carried out in the past, which production unit/construction site the employee worked at, as well as the implementer's recommendation for the performance of the required work.
Pipefitter	Material preparation for welding/quality, deadline, and HSE.	Vocational secondary school, mechanical engineering or 3 years of professional experience
Lorry of up to 12 tonnes	Material transport/deadline, HSE.	Driving licence
Lorry of over 12 tonnes	Material transport/deadline, HSE.	Driving licence
Lorry with a hydraulic arm	Material transport/deadline, HSE.	Driving licence
Crane of up to 10 tonnes	Crane operator work/deadline, HSE (worker and the machine).	Crane operator licence

Crane of up to 20 tonnes	Crane operator work/deadline, HSE (worker and the machine).	Crane operator licence
Fork-lift truck	Material handling – loading capacity of up to 3 tonnes	Driving licence
Bundle extractor	Extraction of bundles – loading capacity of up to 28 tonnes.	Training
Pneumatic tightening equipment	Loosening and tightening of nuts to the prescribed max. M_k – 15000 Nm	Vocational secondary school, professional training in the field of screw tightening, 2 years of professional experience
Hydraulic tightening equipment	Loosening and tightening screws to the prescribed tightening force of max. F – 2700 kN.	Vocational secondary school, professional training in the field of screw tightening, 2 years of professional experience
Engine hours for the output of the power generator	Manufacturing of electric current in places where a connection is not possible.	Training
Non-destructive defectoscopy – Hourly rates	Surface and volumetric inspection of welds, cracks in the material before and after repair/responsibility for proper assessment.	Secondary education – employee certified according to ISO 9712, level 2 or 3 required
Non-destructive defectoscopy XRAY iridium based– rates in length (m)	X-ray Volume inspection of welds/correct assessment:	Secondary education – employee certified according to ISO 9712, level 2 or 3 required
Non-destructive defectoscopy XRAY selen based– rates in length (m)	X-ray Volume inspection of welds/correct assessment:	Secondary education – employee certified according to ISO 9712, level 2 or 3 required
Annealing	Heat treatment after welding (PWHT – Post weld heat treatment), evaluation EUR/hour of annealing process/quality, deadline and HSE.	Certificate according to SN 16-COP-2006, D-E 5 Annealing of welded joints, Vocational secondary school, mechanical engineering or 3 years of professional experience
Work in ADP – oxygen-breathing apparatus	Manufacturing and installation performed in oxygen-breathing apparatus/HSE.	Training of ADP carriers (prerequisite – valid medical examination including spirometry); Vocational secondary school, mechanical engineering or 5 years of professional experience

Binding loads		Load binder licence
Hoisting equipment operator		A written document on the verification of expertise issued by a reviewing technician
Lorry driver	Material delivery within the framework of the order and hydraulic lifting arm steering.	Valid driving licence – category C

Specific requirements for electrical engineering

Performance	Description of activities (performance)	Qualification requirements for the activity performance
DIAGNOSTIC MEASUREMENT – ENGINEER	Guarantee of suitable measurement methodologies, development of measurement schemes, determination of benchmark criteria and updating measurement procedures in accordance with the related legislation.	University/Complete secondary vocational education – electrical engineering, Section 23 of Decree No. 508/2009 Coll.
DIAGNOSTIC MEASUREMENT – TECHNICIAN	Testing of electric equipment at the laboratory/in the position of a technician; issuance of the measurement protocol	Trained/Complete secondary vocational education – electrical engineering, Section 21–22 of Decree No. 508/2009 Coll.
REPAIR OF ADDITIONAL EEx DEVICES – ENGINEER	Developing procedures for repairing of electrical devices pursuant to EEx certification requirements (e.g. of "d" type: hard cap); solving construction tasks related to securing operable condition of EEx devices (for example, renewal, modification, replacement of parts or components of the electrical device); implementation of measures to meet the certification requirements of EEx devices when restoring them to an operable condition (for example, a statement of conformity, carrying out detailed examinations, etc.); obtaining or verifying certification documentation necessary for the extent of EEx devices repair.	University/Complete secondary vocational education – electrical engineering, Section 22–23 E2 up to 1000 V, class A, B, B1 (explosion) pursuant to Decree No. 508/2009 Coll.
Repair of electrical devices in explosion-proof version – mechanic	Management, inspection, and execution of works ensuring the operable condition of EEx devices pursuant to established procedures; carrying out inspections and tests of EEx devices; writing down entries or protocols of performed tests or inspections of EEx devices; drawing up reports on the extent of work carried out when restoring EEx devices to an operable condition; preparation of accompanying documentation for individual cases of	Trained/Complete secondary vocational education – electrical engineering, Section 21–23 of Decree No. 508/2009 Coll. for hazardous explosive environments

	restoring EEx devices to an operational state. Drawing up of schedules for restoring EEx devices to an operational state.	
Maintenance of other electrical machinery equipment – engineer	Drawing up design and technological documentation for repairing machine parts of electrical devices. Setting the right procedures for repairing machine components of electrical devices in accordance with the applicable legislation. Setting inspection and test methodologies of machine components of electrical devices (for example measurements of geometrical deviations). Procurement of cooperative machinery activities beyond the technical capacities of the company (for example large-scale machining). Provision of technical synergy to the customer (for example surveillance of start-up activities).	University – mechanical engineer
Maintenance of other electrical machinery equipment – technician	<i>GPRS will be available for employment for complex work within CAPEX, MINOR CAPEX, MOC, TO, GR, etc.</i> – Management, inspection and execution of works on machine components of electrical devices in accordance with the applicable procedures and plans. Drawing up reports and protocols on the extent of work and inspections carried out when restoring electrical devices to an operable condition. Deciding on the next steps in the technical procedure based on measurement results. Specifying spare machine parts of the electrical device and its components. Drawing up reports on the technical condition of the electrical devices. Systematic archiving of past intervention services of a particular electrical device.	Trained/Complete secondary vocational education – mechanical engineering
OTHER ELECTRICAL WORK – ENGINEER	Design management, studying project and manuals, preparing work schedules, coordinating subcontractors of other professions, preparing documents for drawing up of PD of the actual production and accompanying technical documentation. Setting the right procedures for repairing electrical devices in accordance with the applicable legislation. Setting inspection and test methodologies of electrical parameters of electrical devices. Procuring and coordinating cooperative activities in the electrical field beyond the technical capacities of the company. Provision of technical synergy to the customer (for example surveillance of start-up activities).	Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.
OTHER ELECTRICAL WORK – TECHNICIAN	Management, inspection, and execution of works on electrical devices in accordance with the applicable test and inspection procedures and plans. Drawing up reports and protocols on the extent of work and inspections carried out when restoring electrical devices to an operable condition. Deciding on the next steps in the technical procedure based on the	Trained/Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.

	results of the electrical parameters of the monitored device. Specifying materials for an overhaul. Removing defects from OP and OS. Maintenance and repair work of lightning conductor systems and grounding.	
EV, VV, TV INSPECTION – ENGINEER	Coordinating activities of TI SR (Technical Inspection of the Slovak Republic) inspectors pursuant to the Decree, carrying out inspections in explosive environments.	University/Complete secondary vocational education – electrical engineering, Section 24 of Decree No. 508/2009 Coll.
MAINTENANCE OF FREQUENCY CONVERTER – ENGINEER	Drawing up procedures and ensuring they are complied with when eliminating malfunctions in frequency converters and power electronics.	Complete secondary vocational education/ University – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll., training completion and professional practice with power electronics
MAINTENANCE OF FREQUENCY CONVERTER – TECHNICIAN	Maintenance and elimination of malfunctions in frequency converters and power electronics.	Trained/Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.
DETECTING CABLE MALFUNCTIONS – ENGINEER	Drawing up procedures and ensuring they are complied with when eliminating cable malfunctions.	Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.
DETECTING CABLE MALFUNCTIONS – TECHNICIAN	Detecting and eliminating cable malfunctions.	Trained/Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.
MAINTENANCE OF ELECTRICAL TRANSFORMERS – ENGINEER	Drawing up procedures and ensuring they are complied with when performing maintenance and eliminating malfunctions of electrical transformers.	Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.
MAINTENANCE OF ELECTRICAL TRANSFORMERS – TECHNICIAN	Maintenance and inspection of electrical transformers.	Trained/Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.
REPAIR AND MAINTENANCE OF ROAD	Maintenance and repair of lighting systems of EEx technological devices, mast light. of tank parks, roads and buildings.	Trained/Complete secondary vocational education – electrical engineering, Section

AND CORPORATE LIGHTING		21–23 of Decree No. 508/2009 Coll. on hazardous explosive environments
DESIGNING	Drawing up project documentation PRD, SRTP, ASRTP, drawing of factual conditions, developing new solutions.	<ol style="list-style-type: none"> 1. University/Complete secondary vocational education – electrical engineering, Section 22–24 of Decree No. 508/2009 Coll., 2. International designer certificate pursuant to STN EN ISO/IEC 17024, 2. Demonstrating experience in designing electrical devices in an explosive EEx atmosphere pursuant to STN EN 60079-14, Annex A, 3. When designing SIL facilities: Functional safety engineer SIS certificate pursuant to STN IEC 61508 and STN IEC 61511 including 2 years of professional experience in the specific field
Maintenance of electric heaters – technician	Electrical heating – engineer.	Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.
Maintenance of electric heaters – mechanic	Electrical heating – mechanic. Identifying malfunctions in heating cables (damage located under insulation).	Trained/Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.
UPS – MAINTENANCE, OPERATION	UPS – uninterrupted power supply, identifying malfunctions, repair, and maintenance during operation or shut-down.	Trained/Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.
INSPECTION OF ELECTRIC EQUIPMENT – TECHNICIAN	Inspection of electrical appliances (measuring isolation, impedance) pursuant to STN standard.	Trained/Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.

MAINTENANCE OF ELECTRIC MOTOR	Inspection of terminal blocks, Inspection of insulators and tightening of joints.	Trained/Complete secondary vocational education – electrical engineering, Section 21–23 of Decree No. 508/2009 Coll. on hazardous explosive environments of up to 6 kV
Maintenance of electricity distribution board – mechanic	Distribution board – inspection of the distribution board; tightening of joints, replacement of electrical components.	Trained/Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.
OIL ANALYSIS OF HV TRANSFORMER, SAMPLING	Sampling and comprehensive analysis of oil, HV oil transformers.	Trained/Complete secondary vocational education – electrical engineering, Section 22–23 of Decree No. 508/2009 Coll.

Specific requirements for I&C

Performance	Description of activities	Qualification requirements for the activity performance
Analytics	Managing, inspecting and performing works on analysis apparatus pursuant to established procedures. Keeping logbooks and protocols on repairs, inspections, and settings. Decision-making on the next steps and procedures based on results from previous inspections.	Complete secondary vocational education – technical specialisation, trainings on analysis technology, Section 21–23 of Decree No. 508/2009 Coll.
EV, VV, TV inspection – technician	Technical audit of electrical equipment. Responsible for the quality and safety of electrical devices/responsible for the quality of work performed, electrical material used, securing official examinations, inspections, and completion of documentation.	University/Complete secondary vocational education – electrical engineering, Section 24 of Decree No. 508/2009 Coll.
Repair of additional EEx devices – technician	Management and inspection of I&C work when securing operable condition of EEx devices pursuant to established procedures; carrying out inspections and tests of EEx devices; writing down entries or protocols of performed tests or inspections of EEx devices; drawing up reports on the extent of work	Secondary vocational education – electrical engineering, Section 22–23 E2 up to 1000 V, class A, B, B1 (explosive)

	carried out when restoring EEx devices to an operable condition.	pursuant to Decree No. 508/2009 Coll.
Supporting elect. work – technician	Management and inspection of works when securing operable condition of I&C devices pursuant to established procedures; carrying out inspections and tests of I&C devices; writing down entries or protocols of performed tests or inspections of I&C devices; drawing up reports on the extent of work carried out when restoring I&C devices to an operable condition.	Secondary vocational education – technical specialisation, Section 21–23 of Decree No. 508/2009 Coll.
Maintenance of field devices	Implementation of I&C works in accordance with the established procedures; Implementation of I&C device settings in accordance with the established procedures at the location as well as in the workshop. Issuing protocols on settings.	Secondary vocational education – technical specialisation, Section 21–23 of Decree No. 508/2009 Coll. in class A, B objects
Qualified personnel – mechanic	<i>GPRS will be available for employment for complex work within CAPEX, MINOR CAPEX, MOC, TO, GR, etc.</i> – Preparing orders, processing of price quotations, coordination of procedures with the customer and other activities related to the order's performance, management and supervision of work in accordance with the established procedures, processing of logbooks and protocols on repairs, decision-making on the next steps and procedures based on results.	University/Complete secondary vocational education – technical specialisation, Section 22–23 of Decree No. 508/2009 Coll.
Qualified personnel – mechanical engineer	Management and inspection of works on machine components of electrical devices in accordance with the applicable procedures. Drawing up reports and protocols on the extent of work and inspections carried out when restoring electrical devices to an operable condition. Deciding on the next steps in the technical procedure based on the results. Specifying spare machine parts of the electrical device and its components.	Complete secondary vocational education – mechanical engineer
DESIGNING	Drawing up project documentation (PD), drawing of factual conditions, developing new solutions.	<ol style="list-style-type: none"> 1. University/Complete secondary vocational education – electrical engineering, Section 22–24 of Decree No. 508/2009 Coll., 2. International designer certificate pursuant to STN EN ISO/IEC 17024, 3. Demonstrating experience in designing electrical devices in an explosive EEx atmosphere pursuant to STN EN 60079-14, Annex

		A, 4. When designing SIL facilities: Functional safety engineer SIS certificate pursuant to STN IEC 61508 and STN IEC 61511 including 2 years of professional experience in the specific field
DIAGNOSTIC MEASUREMENT – ENGINEER	<i>GPRS will be available for employment for complex work within CAPEX, MINOR CAPEX, MOC, TO, GR, etc.</i> – Measuring insulation conditions, inspection of measuring instruments – professional diagnostics, Section 23–24 of Decree No. 508/2009 Coll., or project management.	University/Complete secondary vocational education – technical specialisation, Section 23–24 of Decree No. 508/2009 Coll.
DIAGNOSTIC MEASUREMENT – TECHNICIAN	Measuring insulation conditions, routine diagnostics, Section 21–22 of Decree No. 508/2009 Coll.	Secondary vocational education – technical specialisation, Section 21–22 of Decree No. 508/2009 Coll.
TÜV safety engineer	Certified TÜV safety engineer	Functional safety engineer SIS certificate pursuant to STN IEC 61508 and STN IEC 61511 including 2 years of professional experience in the specific field

The supplier shall be obliged to record the required worker qualifications in the GEM (Global Entry Management) system. If there is no such record in the system and the worker performs an activity for the SLOVNAFT a. s. company, his/her activities will be suspended until demonstrating his/her competence.

Abbreviations:

MGS – MOL Group Specifications

TTD – Technical terms of delivery

SP – Spare part
GR - General revision
TO – Technological outage
TE – Technological equipment
PR – Pipeline route
PTC - Professional technical control
RM – Running maintenance
OSF – Operations shift foreman
HSE – Health, safety, environment
SN – Slovnaft
PO – Price offer
PT – Pressure test
PZ – Gas devices
FFAP - Fire-fighting assistance patrol
ST – Safety technician
WPS – Welding procedure specification
PWHT – Post weld heat treatment
TI SR - Technical Inspection of the Slovak Republic
PD – Project documentation