



On approval of the Unified tariff and qualification reference book of jobs and professions of workers (issue 34)

Unofficial translation

Order of the Minister of Labor and Social Protection of Population of the Republic of Kazakhstan dated December 24, 2020 No. 533. Registered in the Ministry of Justice of the Republic of Kazakhstan on December 25, 2020 No. 21909

Unofficial translation

In accordance with subparagraph 16-1) of Article 16 of the Labor Code of the Republic of Kazakhstan dated November 23, 2015 **I HEREBY ORDER:**

1. To approve the Unified tariff and qualification reference book of jobs and professions of workers (issue 34) in accordance with Appendix to this order.

2. The Department of labor and social partnership of the Ministry of Labor and Social Protection of Population of the Republic of Kazakhstan, in the manner established by the legislation, shall ensure:

1) state registration of this order in the Ministry of Justice of the Republic of Kazakhstan;

2) placement of this order on official Internet resource of the Ministry of Labor and Social Protection of Population of the Republic of Kazakhstan after its official publication;

3) submission of information on implementation of the measures provided for in subparagraphs 1) and 2) of this paragraph to the Department of legal service of the Ministry of Labor and Social Protection of Population of the Republic of Kazakhstan within ten working days after the state registration of this order.

3. To recognize as invalid the order of the Minister of Labor and Social Protection of Population of the Republic of Kazakhstan dated October 25, 2012 No. 406-ø-m "On approval of the Unified tariff and qualification reference book of jobs and professions of workers (issue 34)", registered in the Register of state registration of regulatory legal acts under No. 8105, published in the newspaper "Kazakhstanskaya Pravda" dated February 26, 2013 under No. 71-72 (27345-27346).

4. Control over execution of this order shall be entrusted to the First Vice-Minister of Labor and Social Protection of Population of the Republic of Kazakhstan A. A. Sarbasov.

5. This order shall be enforced upon the expiration of ten calendar days after its first official publication.

*Minister of Labor and Social Protection of Population
of the Republic of Kazakhstan*

B. Nurymbetov

Ministry of Education
of the Republic of Kazakhstan

A G R E E D
and Science

Unified tariff and qualification reference book of jobs and professions of workers (edition 34)

Chapter 1. Introduction

1. Unified tariff and qualification reference book of jobs and professions of workers (issue 34) (hereinafter - UTQR (issue 34) contains works on the processing of oil, oil products, gas, shale, coal and maintenance of trunk pipelines.

2. UTQR (issue 34) has been developed by the Ministry of Labor and Social Protection of Population of the Republic of Kazakhstan.

3. Tariff and qualification characteristics are used when tariffing works and assigning qualification categories to workers in organizations, regardless of their form of ownership and organizational-legal forms, where there are productions and types of works specified in this UTQR (issue 34).

Chapter 2. Tariff and qualification characteristics of professions of workers by categories for works in the processing of oil, oil products, gas, shale, coal and maintenance of trunk pipelines

Paragraph 1. Instrument operator, 2nd category

4. Characteristics of works:

switching on and off manometric thermometers, working manometers, resistance thermometers, traction meters, pressure gauges, profile millivoltmeters, ratiometers, flow meters, level gauges and other devices of the simplest modifications;
change of cartograms and rolls.

5. Must know:

schematic diagram of installations and facilities in the serviced area;
purpose and operation of devices and equipment of serviced objects;
principles of measuring pressure, flow rate, level, temperature of water, oil products and others;
design and purpose of control and automation devices;
fundamentals of physics and electrical engineering.

Paragraph 2. Instrument operator, 3rd category

6. Characteristics of works:
checking devices for "O";
transfer of regulators from automatic control to manual;
filling with lubricators of flow rate devices, level devices and actuators;
revision and elimination of emerging malfunctions in direct-acting regulators, gearboxes and filters.

7. Must know:
elements of automatic regulation of remote control and transmission of readings over a distance;
the procedure for using control devices and verification scheme;
methods of testing pyrometric lines and crimping impulse lines;
methods for detecting defects in the operation of devices and eliminating them;
locksmith business;
fundamentals of electronics.

Paragraph 3. Instrument operator, 4th category

8. Characteristics of works:
regulation and adjustment to the process of all systems of regulators at technological installations, in pump and compressor rooms, pipelines;
correction of instrument readings in working conditions;
preparation of devices for testing;
check by control devices of readings and troubleshooting of devices for measuring level, flow, pressure, temperature.

9. Must know:
the procedure for calculating and introducing corrections to the readings of the devices;
the procedure for calculating replaceable glasses;
the procedure for installation of devices;
schemes of alarm and blocking in the serviced area;
devices of the aggregate-unified system;
installation of quality control devices for all systems and their maintenance;
the procedure for the repair of devices with replacement of individual units and their adjustment during the process.

Paragraph 4. Instrument operator, 5th category

10. Characteristics of works:
maintenance and adjustment of automation equipment mounted on serviced installations;
mastering and implementation of new means of control and automatic regulation;

production in laboratory conditions of analysis to determine the tangent of dielectric losses of petroleum products;
control over the periodic inspection of devices and their delivery for state inspection;
preparation of defective statements for current and major repairs;
acceptance of the performed repair works and checking the readiness of devices for launch;
supervising the work of instrument operators of lower qualifications.

11. Must know:

design, repair methods, check and adjustment of maintenance of control and automation devices;
main processes of refining oil, gas, and other products used at this enterprise;
method of calculation of constricting devices, control valves, replacement vessels;
fundamentals of radio engineering.

Paragraph 5. Instrument operator, 6th category

12. Characteristics of works:

maintenance of control panels of combined installations and separate telemechanics devices;
activation and adjustment of automatic regulators of quality and composition;
adjustment of cascade regulation schemes, including those with composition analyzers;
control over implementation of the schedule for periodic checks of devices and automation equipment;
management of lower-skilled instrument operators for the adjustment and repair of devices of aggregate-unified systems, automatic quality analyzers, cascade control systems;
maintenance of technical documentation for the operation of devices;
participation in the start-up of technological installations.

13. Must know:

technological schemes of installation in the serviced area;
requirements of state standards for the quality of petroleum products in installations with automatic quality analyzers;
arrangement of telemechanics equipment, methods of its adjustment and regulation;
equipment of communication channels used for telemetry and telecontrol;
main oil refining processes at the enterprise;
methods for calculating devices and actuators and setting up of interconnected regulation schemes;
fundamentals of radio engineering, telemechanics.

14. Technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 6. Operator of the gas distribution station, 4th category

15. Characteristics of works:

maintenance of apparatuses, instruments of regulation, measurement and metering of gas, automatic equipment systems, gas purification and odorization units and pipeline communications at non-automated gas distribution stations or control-distribution points with a daily gas capacity of up to 1 million cubic meters;

ensuring a given mode of gas supply to consumers;

maintaining the necessary switching of devices, fittings and apparatuses in accordance with the established operating mode;

detection of gas leaks and malfunctions in the operation of devices, fittings and apparatuses;

adjustment and checking the operation of pressure regulators and metering devices;

processing of cartograms of recording devices and calculation of the amount of gas supplied to consumers;

preparation of devices for state verification;

current repairs and participation in carrying out medium repairs of equipment and communications at gas distribution stations and control and distribution points;

keeping the equipment, communications, premises and territory of gas distribution stations and control-distribution points clean;

keeping records of odorant and oil for dust collectors.

16. Must know:

the scheme of gas distribution stations and control-distribution points, communications, strapping of devices and apparatuses;

arrangement and the procedure for operation of equipment, devices for regulation, accounting and control of apparatuses operating under pressure;

the procedure for odorant handling and gas odorization rates;

methods of adjusting pressure regulators and gas metering devices.

When working at non-automated gas distribution stations and control-distribution points with a daily gas capacity of more than 1 million cubic meters, or when working at automated gas distribution stations and control-distribution points with all types of services with a daily gas capacity of up to 1 million cubic meters – 5 category.

When working at automated gas distribution stations and control-distribution points with all types of services with a daily gas capacity of over 1 million cubic meters - 6th category.

17. Technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 7. Lineman linear, 3rd category

18. Characteristics of works:

bypass and maintenance of a single-line section of the pipeline without electrical protection devices against soil corrosion and stray currents, water collectors, wells, shut-off valves, communication lines and other structures on it;

upon detection of leaks of gas, oil and oil products, damages, various violations in the right-of-way and in the security zone, immediately report to the district departments or to the pumping station;

digging pits, cutting shrubs and mowing grass in the right-of-way, correcting coastal fortifications, sodding, wattle cages, rock placement;

maintenance of structures on the highway, including wells and checkpoint buildings;

maintenance of transport and responsibility for its safety;

keeping records in the of the and in the log of the pipeline electrical protection from corrosion.

production of routine repairs of structures on the highway, including wells and roadblock buildings;

maintenance of the assigned transport and responsibility for its safety;

keeping records in the logbook of the linear lineman and in the log of electrical protection of the pipeline from corrosion.

19. Must know:

a fixed section of a single-line pipeline route, the location of structures on it, valves and candles;

the procedure for technical operation of trunk pipelines;

the procedure for using communication and signaling means;

arrangement and purpose of control and measuring devices;

construction and maintenance of cranes and valves on your site;

the procedure for monitoring the right-of-way and the security zone;

the basics of plumbing;

physical and chemical properties of oil, oil products and gas.

Paragraph 8. Lineman linear, 4th category

20. Characteristics of works:

bypass and maintenance of a single-line section of the pipeline with electrical protection devices against soil corrosion and stray currents, a multi-line section of the pipeline, pipeline sections with complex air crossings over rivers, water collectors, wells, stop valves, communication lines, alarms and other structures on them;

supervision over control points of telemechanics and objects of electrical chemical protection;

repair of communication lines;

maintenance of equipment for remote control of pressure in pipelines.

21. Must know:

a fixed section of the route of a single-line or multi-line pipeline and the location of structures on it;

arrangement of telemechanics control points and objects of electrical chemical protection;

switching scheme at multi-line crossings of rivers and wells;

locksmith's trade.

Paragraph 9. Linear pipefitter, 2nd category

22. Characteristics of works:

performance of auxiliary works during opening of pipelines trenches, welding, blowing and testing, during repair of valves, water collectors and other devices and structures on the pipeline;

insurance of workers in gas-polluted wells and pits;

removal of old insulation with cleaning pipes from rust and defective coatings;

drainage of water;

backfilling of trenches and pits;

cleaning and putting in order the territory and premises;

participation in the fencing of accident sites, recovery and loading and unloading operations.

23. Must know:

the purpose of trunk pipelines and its structures;

the procedure for using the trunk shut-off valves;

the procedure for performing earthworks;

methods of connecting a telephone set to the communication line and the procedure for using communication means;

installation of lifting and rigging devices;

the procedure for carrying out loading and unloading operations.

Paragraph 10. Linear pipefitter, 3rd category

24. Characteristics of works:

participation in restoration works on the pipeline;

alignment of pipes;

bending of pipes with a diameter of less than 200 millimeters;

straightening of pipe ends;

gas cutting and metal welding;

cleaning of pipe edges and working off after gas cutting and welding;

installation of lifting and rigging devices for moving pipes, links, assemblies and equipment;

soil development;

lay-out of the trench for laying the pipeline;
performing carpentry works when fixing the walls of trenches and foundation pits with a cast of logs, bars, boards, simple manual painting works during the repair of trunk pipeline structures with preparation of priming and painting compositions, simple plastering works on the constructed trunk pipelines, as well as shotcreting and waterproofing wells;
forging parts according to sketches and templates;
repair of simple blacksmiths, construction tools and manufacture of fasteners and simple products;
opening and closing of taps and valves;
bleeding gas through candles;
installation of rubber balls and clay plugs in the pipeline;
participation in the installation and replacement of valves;
preparation of pipes surface for applying anti-corrosion insulation;
preparation of primer and bitumen mastic;
applying insulation on pipes.

25. Must know:

the procedure for preparing pipe ends for welding;
the layout of the locking devices;
requirements for the installation of fittings and valves;
techniques for working with pneumatic tools;
purpose, properties and procedure for applying anti-corrosion insulation on the pipeline;
properties of metals and steel grades;
welding technology and maintenance procedure for acetylene generators;
the procedure for performing blacksmith, carpentry, plastering and painting works.

Paragraph 11. Linear pipefitter, 4th category

26. Characteristics of works:

installation of assemblies on the pipeline;
alignment of pipes;
bending of pipes with a diameter of over 200 millimeters;
marking and installation of valves and fittings according to sketches;
revision and repair of high pressure shut-off and safety valves;
pressure testing of valves, assemblies and individual sections of pipelines;
elimination of leaks of gas, oil and oil products on pipelines and valves;
stuffing and tightening of stuffing boxes at gate valves;
revision of condensate traps;
restoration works on the networks of water and steam pipelines, dismantling, repair and installation of valves installed on them;

control of a tractor when transporting cargos and metal structures using towing appliances or devices, a bulldozer when performing earthworks;
locksmithing of parts, pipes;
thread cutting;
drilling holes.

27. Must know:

purpose and arrangement of pipeline shut-off valves;
layout and arrangement of condensate traps;
instructions and procedure for detecting and eliminating gas and oil leaks;
device of hydraulic presses;
the procedure and methods of locksmith processing of parts
properties of metals and steel grades;
preventive and current repair of tractors and bulldozers.

Paragraph 12. Linear pipefitter, 5th category

28. Characteristics of works:

performance of installation and restoration works on pipelines;
revision and repair of valves and cranes;
dismantling and installation of control and measuring devices;
purging and pressure testing of pipeline sections and assemblies, installation of transitions , overlaps and coils;

control of a pipe cutting machine (pipe cutter), a pressure tapping device and other devices, performing their repair;

markings for various types of tie-ins, reinforcement bends;
checking for the presence of condensate at low points in the pipeline;
revision and repair of equipment for oil product pumping, gas distribution stations (points) and emergency repair points.

29. Must know:

scheme and arrangement of all pipeline structures;
requirements for the installation of transitions, overlaps and coils;
the procedure for purging and pressure testing of pipelines;
standards for testing pipelines, vessels and switching nodes;
layout of pipelines and arrangement of equipment, oil product pumping, gas distribution stations (points) and emergency repair points;
reading of drawings and sketches.

Paragraph 13. Linear pipefitter, 6th category

30. Characteristics of works:

performance of particularly complex installation and emergency recovery works on oil trunk pipelines;

revision and repair of valves, reducers of domestic and imported production;

marking and installation of transitions, overlaps, coils, outlines;

performance of works with domestic and imported pipe cutting machines, pressure tapping devices and other appliances, their maintenance and repair.

31. Must know:

scheme and arrangement of facilities for trunk oil pipeline, oil pumping stations, emergency repair points;

reading of drawings and sketches;

standards for testing pipelines.

When working to identify the elimination of malfunctions during the operation of machines and mechanisms of equipment of the types "PNA", "TsA" and "UDS-114", appliances of welding equipment, as well as electrical machines and mobile power plants – 7th category.

32. For the assignment of 6th and 7th categories, technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 14. Operator of underground gas generators, 5th grade

33. Characteristics of works:

control of the technological process of gas production at underground gas generators operating on solid fuel, maintaining the specified mode of their operation;

maintenance of wells, scrubbers, pumps, washers, cleaning devices and control of their work;

distribution of blast and gas flows through the gasification channels;

inspection, switching on and off wells;

monitoring the condition of wells and the tightness of well heads, panel communications and gas reservoirs;

regulation of blast supply, gas outlet and water supply for gas cooling;

cleaning and underground repair of wells;

repair and cleaning of communications;

descent and ascent of electrodes;

control over the level of groundwater in the gas generator, their pumping and drainage;

installation of cut-off plugs;

current repair of apparatus and equipment.

34. Must know:

design and operation of underground gas generators, drilling rigs, well heads, valves, centrifugal pumps, scrubbers, washers and other cleaning devices;

scheme of surface communications;

purpose and principle of operation of control and measuring devices;
mining and geological conditions of the coal seam;
methods of drainage of groundwater and the design of wells for opening the formation;
locksmith's trade.

Paragraph 15. Operator of underground gas generators, 6th category

35. Characteristics of works:

maintenance of the technological process of gas production on underground gas generators operating on solid fuel and maintaining the specified mode of their operation with monitoring the presence of moisture, sand, resins and other impurities in the gas, over the operation of devices for purifying combustible gases and taking measures to reduce the level of groundwater in gas generators;

monitoring the tightness of gas generators, wells and communications and taking measures to reduce underground losses of blast, gas and to eliminate their leaks in communications;

determination of the load of individual wells for blast and gas depending on coal reserves, cross-cutting speeds, temperature and other conditions;

management of operators' work, as well as repair of equipment and apparatus of gas generators and underground repair of wells.

36. Must know:

technological scheme of underground gasification;

methods for lowering the level of groundwater in gas generators;

methods and scheme of drainage of the field;

properties of gases;

features of work with harmful gases;

mining-geological and hydrogeological conditions of coal seam occurrence at the site of an underground gas generator;

methods of drainage of underground water, the design of wells of opening and conditions of filtration of gases in rocks.

37. Technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 16. Fitter for the protection of underground pipelines from corrosion, 4th category

38. Characteristics of works:

installation, operation and repair of structural elements of electrical protection of underground pipelines;

conducting electrical measurements on the pipeline route;

determination of specific resistance of soil;

sampling of soil;

adjustment, registration of parameters and operation of non-automatic stations of cathodic protection, polarized electric drainage and protector installations on semiconductor rectifiers.

39. Must know:

structures for anti-corrosion protection of cathode stations, polarized drains, insulating flanges;

methods for measuring the potential state of underground pipelines, soil resistance and soil sampling;

placement of installations of cathodic, electric drainage and protective protection, insulating flanges;

work with portable control and measuring devices;

elementary fundamentals of electrical engineering.

Paragraph 17. Fitter for the protection of underground pipelines from corrosion, 5th category

40. Characteristics of works:

installation, operation and repair of automatic cathodic protection stations and automatic electric drainage installations;

conducting control electrical measurements on underground pipelines and sources of stray currents in difficult corrosive conditions;

determination of the degree of soil corrosion activity;

data processing of electrical measurements on pipelines and sources of stray currents;

plotting the potentials "rail - ground", "pipe - ground";

determination of the degree of corrosion hazard;

inspection of pipeline insulation coatings by visual and instrumental methods;

determination of the need for additional protection for individual sections of the pipeline;

control over the replacement of insulation during pipeline repair;

adjustment and repair of measuring instruments of medium complexity used in anti-corrosion protection;

participation in the works on thermite welding of cathode terminals to the existing pipeline.

41. Must know:

structures and schematic diagrams of automatic cathodic protection stations and automatic electric drainage installations;

methods of electrical measurements in the zones of propagation of stray currents with a high saturation of underground utilities and on sources of stray currents;

methods for determining the corrosion activity of granules;

types of insulating coatings and technical requirements for them;

arrangement of electrical measuring recording and semiconductor devices and electrical installations;

the procedure for working with high-resistance voltmeters, grounding meters, soil ohmmeters, universal corrosion measuring instruments, acid and alkaline batteries;
the procedure for conducting thermite-welding works for welding of cathode terminals to the existing pipeline;
fundamentals of electrical engineering.

Paragraph 18. Fitter for the protection of underground pipelines from corrosion, 6th category

42. Characteristics of works:

installation, adjustment, operation and repair of automatic cathodic protection stations and automatic reinforced electrical drains on semiconductor and electronic circuits;

installation and adjustment of electrical protection installations with complex switching schemes for primary and secondary circuits and complex blocking electrical filters;

checking the insulation coating of pipelines using cathodic polarization methods and using electronic devices;

determination of places of damages and corrosive destructions of the pipeline without opening it;

electrical measurements to determine the ohmic and polarization components of the protective potential;

determination of the output electrical parameters of additional protective equipment and their installation locations;

performance of electrometric works to determine harmonic components and their influence on the railway signaling system;

adjustment and operation of installations using quantum generators;

adjustment and repair of complex measuring instruments for anti-corrosion protection;

management of the team during the works on anticorrosive protection of pipelines.

43. Must know:

structures and schemes of automatic cathodic protection stations and automatic reinforced electrical drains on semiconductor and electronic circuits;

design and schemes of complex switching systems of primary and secondary circuits and electrical protection;

method of electrical measurements of harmonic components of rectified voltage;

arrangement of measuring devices of anticorrosive protection;

design and scheme of blocking filters;

rational use of active electrical protection means;

determination of ohmic and polarization components of the protective potential.

When working with a non-contact complex for monitoring the state of an insulating coating (type "C" - "CA") with computer processing of measurement results - 7th category.

44. For the assignment of 6th and 7th categories, technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 19. Coke cleaner, 3rd category

45. Characteristics of works:

cleaning of coke and dirt from pipes and return bends of tube furnaces, transfer and residual pipelines, tunnel furnaces with pneumatic turbines;

manual cleaning of apparatuses, reaction chambers, rectification columns, evaporators and other apparatuses;

opening and closing oven twins;

sharpening of strikers of coke-cleaning pneumatic turbines.

46. Must know:

design of tube furnaces, condensers, refrigerators, columns and other apparatuses subject to periodic cleaning;

the procedure for cleaning coke using a pneumatic turbine;

the design of the turbine and the procedure for its repair;

locksmith's trade.

Paragraph 20. Coke unloader, 3rd category

47. Characteristics of works:

unloading of coke from the cubes manually or using winches and other mechanisms;

water cooling of coke discharged from the cubes, sorting it according to the quantity and size of the piece;

loading of coke into trolleys, transportation to a warehouse and stacking;

participation in works on opening, closing hatches and laying slings in cubes.

48. Must know:

the procedure for unloading of coke from the cubes;

the procedure for sorting, loading, warehousing and storage of coke.

Paragraph 21. Operator on collection and cleaning of condensate, 3rd category

49. Characteristics of works:

maintenance of condensate collectors, water softening equipment and filters for cleaning condensate;

sampling of condensate;

determination of oil product impurity;

conducting analysis of condensate for hardness, alkalinity, iron;

purification of condensate from oil products;

condensate pumping;

starting, servicing and stopping the pump;

accounting for the amount of condensate;

loosening and regeneration of filters.

50. Must know:

control and communication units of the serviced area;
arrangement of pumps, filters and other serviced equipment and instruments;
methodology and technique for producing analyzes with summarizing the results;
properties of acids, alkalis and other reagents used;
standards for purified condensate;
the procedure for the technical operation of equipment;
the basics of locksmith's trade.

Paragraph 22. Operator of main gas pipelines, 4th category

51. Characteristics of works:

maintenance of main gas and oil product pipelines to consumers and gas collectors on the territory of the station;

managing the operation of pumps for pumping condensate from settling tanks and ensuring its transportation by tank trucks to the industrial site;

monitoring the pressure in the pipeline;

check of main pipelines for tightness;

regulation of locking devices;

timely elimination of malfunctions in the operation of gas pipelines and collectors;

current repair of the serviced equipment.

52. Must know:

technological scheme of location of the gas pipeline and collectors and the procedure for their operation;

properties of gases;

ways for determining and eliminating malfunctions in the operation of gas pipelines and collectors;

the procedure for fencing gas pipeline accident sites;

arrangement of pumps, condensation structures and instrumentation;

locksmith's trade.

Paragraph 23. Operator of the oil product pumping station, 5th category

53. Characteristics of works:

remote control of the technological process for pumping oil, oil products when working at automated oil product pumping stations on main pipelines with a pump capacity of up to 3000 cubic meters per hour;

maintenance and regulation of the specified pumping mode;

monitoring over the load of electric motors, working pressure at pumps and in pipelines, vibration of pumping units, temperature of pump bearings and electric motors by means of control and measuring devices;

taking instruments readings;

accounting for the amount of pumped liquid;

maintenance of pumps, cooling and ventilation systems, valves;

preparation for launch, starting and stopping of pumps;

maintenance of electric motors, starting and control equipment and switchgear;

switching on and off of electric motors;

maintenance of automated boiler houses, water pumping and sewerage stations, tele-equipped substations, perimeter signaling;

identification of malfunctions in the operation of main and auxiliary equipment; remote control automation systems and taking them out for repair;

acceptance of completed repairs and checking the readiness of equipment and devices for launch;

maintenance of technical documentation;

transmission of necessary information to the dispatcher.

54. Must know:

technological process of pumping; technological scheme of oil product pumping stations and power supply scheme;

schematic diagrams of automation systems, control devices and interlocks;

the procedure for technical operation of main and auxiliary equipment;

alarm condition system;

the procedure for safety and labor protection, fire safety;

the procedure for registration the operation of pumping station;

the procedure for compiling defective statements for the repair of equipment, automation and telemechanics.

When servicing electric motors and switchgears, one must have a permit of 4 and 5 groups for electrical safety.

When working at automated oil product pumping stations with a pump capacity of over 3000 to 3500 cubic meters per hour – 6th category.

When working at automated oil product pumping stations with a pump capacity of over 3500 cubic meters per hour – 7th category.

55. For the assignment of 6th and 7th categories, technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 24. Electrician for the repair of equipment of oil depots, 3rd category

56. Characteristics of works:

disassembly, repair, assembly and testing of mechanical and electrical equipment, aggregates and devices for distribution oil depots and petrol stations under the guidance of a highly qualified electrician;

preventive repair of gas dispensing, oil dispensing and mixing dispensers, counters, dispensers, gas separators, compressors;

maintenance of mobile power stations;

inspection, installation, replacement and repair of electrical lines and lighting equipment;

locksmithing of parts according to 11 - 12 grades (4 - 5 accuracy classes);

maintenance of equipment for distribution oil depots and gas stations.

57. Must know:

arrangement of repaired equipment;

technological sequence of disassembly, repair and assembly of columns, equipment, units and devices;

scheme and arrangement of wiring of lighting installations for working, emergency and safe lighting;

techniques and procedure for working in lighting networks;

the procedure for mechanical operation of tank farms and gas stations;

basics of locksmith's trade and general information on mechanics and electrical engineering;

qualities and roughness parameters.

Paragraph 25. Electrician for the repair of equipment of oil depots, 4th category

58. Characteristics of works:

development, repair, assembly and testing of mechanical and electrical equipment, aggregates and devices for distribution oil depots and gas stations;

medium and major repair of gas dispensing, oil dispensing and mixing columns, calculating mechanisms, dispensers, gas separators, compressors;

installation and repair of an automatic station for loading oil products into tanks, unloading and loading risers, drain devices, railway and auto-loading racks, instrumentation, shut-off and regulating equipment for pipelines and equipment for oil-generating plants;

maintenance of mobile gas stations;

locksmith processing of parts and assemblies according to 7-10 grades (2-3 accuracy classes);

preparation of defective statements for repair.

59. Must know:

arrangement of repaired equipment and control and measuring devices;

ways to eliminate defects in the process of repair, assembly and testing of equipment;

the procedure for technical operation of tank farms, steam boilers, loading and unloading racks, oil-generating plants;

fundamentals of mechanics, electrical engineering, electrical, gas welding and drawing;
methods of adjusting and calibrating instruments and apparatus;
the procedure for calculating resistances;
schemes of technological strapping of pumping stations, tank farms, filling unloading racks, oil-generating units, gas stations;
causes of malfunctions of the serviced equipment and methods of their prevention;
physical and chemical properties of petroleum products.

Paragraph 26. Electrician for the repair of equipment of oil depots, 5th category

60. Characteristics of works:
disassembly, repair, assembly and testing of semi-automatic, automatic devices for filling oil products into tanks and control panels for distribution tank farms, petrol dispensers, oil dispensers and mixing dispensers, operating from a remote control panel;
testing and commissioning of devices;
maintenance of floating petrol stations;
checking for the accuracy and performance of instruments and equipment;
calculation of the absolute and relative error when checking and testing devices;
regulation of mechanical and electrical circuits and automatic devices;
locksmithing of parts and assemblies according to 6 - 7 grades (1 - 2 accuracy classes);
disassembly, repair and assembly of units and equipment in conditions of intense and dense landings.

61. Must know:
design features of the repaired equipment of stationary, mobile and floating gas stations, semi-automatic and automatic fuel dispensers, devices for filling oil products into tanks;
the procedure for adjusting all nodes and electronic circuits used at gas stations and oil depots;
methods for determining premature wear of parts;
the procedure for testing equipment for accuracy, power and performance;
the procedure and methods of balancing machines.

Paragraph 27. Electrician for the repair of equipment of oil depots, 6th grade

62. Characteristics of works:
disassembly, repair, assembly and testing of remote control systems and telemechanics of distribution tank farms, complex automation systems for pumping stations;
installation and adjustment of the operation of electric shut-off valves with remote control
;
identification and elimination of defects during the operation of the equipment;
management of the work of electrical fitters of lower qualifications.

63. Must know:

design features, kinematic and electrical schemes of the repaired equipment;
methods of repair, assembly, installation and testing of the repaired equipment;
permissible loads on operating parts, assemblies, equipment mechanisms and preventive measures to prevent breakdowns, wear and accidents.

Paragraph 28. Inspector of oil tanks, 3rd category

64. Characteristics of works:

inspection of railway tanks, containers and oil ships;
control of preparation and determination of their suitability for loading and filling oil and oil products;

determination by external signs of oil and oil product residues, their measurement and sampling;

drawing up acts for tanks and oil ships unsuitable for loading.

65. Must know:

physical and chemical properties of oil and oil products;
arrangement of railtank cars and oil ships, the procedure for their loading and unloading;
technical requirements for the quality of oil and oil products and their transportation.

Paragraph 29. Inspector of oil tanks, 4th category

66. Characteristics of works:

inspection and acceptance of railway tank cars at steam stations;

checking the quality of preparation of containers for filling petroleum products in accordance with state standards;

registration of claim documents for the quality of preparation of containers for filling.

67. Must know:

arrangement and purpose of railway tanks, control and measuring devices;
scheme of fittings and communications, state standards for poured oil and oil products;
main routes of cargos transportation.

Paragraph 30. Inspector for the quality of oil and oil products, 4th category

68. Characteristics of works:

control over the quality of received, stored and sold oil, oil products, reagents and marketable products, over the correct selection and drawing up of control samples, execution of acts, over the preparedness of containers intended for filling oil, oil products, packing dry cargos and reagents;

participation in the development of measures to prevent spoilage and misgrading, and in the analysis of consumer claims to suppliers for the quality of oil, oil products, reagents and commercial products;

development of technology for correcting the quality of petroleum products, semi-finished products and management of work on correcting the quality.

69. Must know:

types of oil, oil products, reagents and commercial products, their physical and chemical properties;

technological piping of the tank farm, overpass, berth;

plan of warehouse layout;

the procedure for preparing tanks, warehouses for receiving products;

state standards and technical conditions for sampling and analysis methods;

the procedure for registration and storage terms of control samples;

the procedure for loading oil, oil products, reagents into tanks, barges and tankers;

the procedure for packing dry cargos into containers.

Paragraph 31. Mechanic on motor tests of fuel, 3rd category

70. Characteristics of works:

maintenance of internal combustion engines provided for by the methods or state standards for determining the octane numbers of leaded and unleaded gasolines and kerosene, cetane numbers of diesel fuel;

dosage of ethyl fluid to fuels and oil additives;

monitoring the readings of control and measuring devices;

participation in the processing of the engine with removal of carbon deposits and repair of equipment;

identification and elimination of defects arising during testing, under the guidance of a more highly qualified mechanic;

maintaining a test log.

71. Must know:

arrangement and operation of serviced generators, electric motors, fuel pumps, instruments and auxiliary mechanisms;

technology for the production of tested fuel and oil products;

influence of the composition of fuel on their octane characteristics and sensitivity to tetraethyl lead;

the procedure for recording the operation of engines with entries in the installation form;

state standards and methods for testing fuel, oils, lubricants and additives;

the procedure for maintaining the log of records;

the basics of locksmith's trade.

Paragraph 32. Mechanic on motor tests of fuel, 4th category

72. Characteristics of works:

maintenance of internal combustion engines provided for by methods or state standards for motor testing of fuel and oil products with the removal of external characteristics;
determination of detergent, extreme pressure, antioxidant and other motor properties of oils, lubricants and additives;
preparation of engines for testing;
adjustment of knock sensors, electronic detonometers, ignition and injection indicators;
preparation of primary reference and control fuel with dosages;
removal of transition scales from primary reference fuel to secondary;
determination of the grade of fuel and petroleum products, complex motor tests and classification of oils under the guidance of a more highly qualified mechanic;
installation of the engine on a test bench, mantling and dismantling of it;
performance of current repairs and participation in medium and major repairs of engines;
disassembly, inspection and assembly of the engine during the audit;
evaluation of the test results obtained by comparison with the reference scale.

73. Must know:

arrangement of machines and installations for testing fuel and oil products, knock sensors, detonometers, ignition and injection indicators and other devices, the procedure for their regulation;
the procedure for compiling the primary reference and control fuel with dosages;
physical and chemical properties of oil products;
state standards and methods for conducting motor tests;
the main properties of the metals, alloys and non-metallic materials used;
the procedure for maintaining a test log and repair charts;
locksmith's trade.

Paragraph 33. Mechanic on motor tests of fuel, 5th category

74. Characteristics of works:

maintenance of internal combustion engines, provided for by methods or state standards during complex motor qualification testing of fuel, oils, lubricants and additives;
determination of thermal stability under dynamic conditions and grade of fuel, classification of oils;
adjustment of systems, units and devices in accordance with the operating instructions;
conducting medium and major repair of the engine;
assessment of test results and classification in accordance with the requirements of the state standard;
mantling and dismantling of test benches;

reading assembly drawings, engine schemes and bench equipment.

75. Must know:

construction of internal combustion engines, installations for testing fuel and oil products;
the procedure for setting up and regulating control and measuring devices;
methods of detecting malfunctions in the operation of engines, bench systems and their elimination;
registration of test reports and repair cards.

Paragraph 34. Mechanic on motor tests of fuel, 6th category

76. Characteristics of works:

maintenance of internal combustion engines provided for by the methodology or state standard during reference motor tests with the subsequent classification of the test sample;
adjustment of all bench thermal control systems;
regulation and calibration of electrical and braking devices;
elimination of defects identified during testing;
disassembly and trimming with the production of micrometry and fitting of parts;
conducting measurements to determine wear, mechanical efficiency of the engine;
medium and major repair of the engine and test bench;
management of mechanics with lower qualifications.

77. Must know:

design features of internal combustion engines;
methods of motor tests;
methods of regulation of engines and bench systems according to the indications of control and measuring devices;
methods of calibrating braking devices;
methods for evaluating test results;
methods for calculating the wear of engine parts and its mechanical efficiency;
production of micrometry and keeping test reports, micrometric and repair charts.

Paragraph 35. Furnaces loader-unloader, 3rd category

78. Characteristics of works:

loading oil shale into wagons according to the established scheme and leveling the surface of the oil shale;
supply and removal of wagons from the tunnel furnace;
unloading of semi-coke from wagons by various tippers;
supply of wagons for loading oil shale;
monitoring the signaling board;
starting and stopping loading and unloading devices;

cleaning the gratings and sub-grating space of wagons and blowing pipes;
performing routine repairs of serviced equipment and furnaces.

79. Must know:

technological process of oil shale processing in tunnel furnaces;
installation of drum screens, tunnel furnaces, pneumatic systems, signaling, vehicles at the section for supply of wagons with oil shale in the furnaces;
scheme of hydraulic and water communication;
the procedure for servicing transport equipment;
influence of the quality of load on the amount of products produced;
the basics of locksmith's trade.

Paragraph 36. Furnaces loader-unloader, 4th category

80. Characteristics of works:

loading of semi-coking and chamber furnaces with coal and shale;
measuring the level of shale and coal in the furnaces;
adjustment of: uniform descent of coal or shale along the sections of the mine and chambers, temperature and pressure of the upper zone and bottom of the furnace, operation of loading and unloading mechanisms, the process of cooling semi-coke and coke, unloading and transportation of semi-coke from the furnace;
transportation of coke to coke feeders;
stoking of coal when hovering;
coordination of the work of loading wagons and conveyors;
cleaning chambers of gas collection channels with oblique passages;
sealing material seams and hatches;
elimination of malfunctions;
participation in the current and major repairs of the loading wagons and loading devices;
keeping records in the production log.

81. Must know:

technological process of semi-coking and processing of oil shale in chamber furnaces;
basic properties of coal, shale, semi-coke, coke, tar and gas;
installation of chamber and semi-coking furnaces, serviced equipment, mechanisms, communications and control and measuring devices;
temperature and hydraulic operation of the furnaces;
systems for unloading and transportation of semi-coke and coke;
influence of the loading process on the productivity of the furnaces;
factors influencing the release of gas and oil from shale;
locksmith's trade.

Paragraph 37. Planimetrist, 4th category

82. Characteristics of works:

processing of diagrams of recording devices using linear, polar, radial planimeters and other devices;

systematization of indicators of a group of devices;

introduction of corrections for deviations of actual parameters from their calculated values

;

calculation of average values from planimetric diagrams;

certification of control and measuring devices;

drawing up maps of the heat and gas balance of the workshop, enterprise;

checking the correct operation of the planimeters, adjusting and repairing them.

83. Must know:

design, arrangement and purpose of the main control and measuring devices;

the procedure for working with different types of planimeters;

methods for processing the diagram of recording devices and outputting average values;

the procedure for accounting and certification of instrumentation;

technological schemes of the serviced industries and their relationship.

Paragraph 38. Operator of equipment for distribution oil depots, 3rd category

84. Characteristics of works:

management of equipment for distribution tank farms with an annual sales volume of petroleum products up to 1 thousand tons;

cleaning, lubrication, fastening of equipment;

monitoring the operation of the equipment according to the indications of control and measuring devices;

determination by ear of defects in the operation of machines;

maintenance of pumps, pumping stations for pumping oil and oil products, compressors, internal combustion engines, steam boilers, mobile power plants, steam boiler houses, tank farms, pipeline communications, unloading and loading railroad and truck loading racks and oil berths under the guidance of a more highly qualified operator;

participation in the arrangement and cleaning of tanks and vessels and in loading and unloading operations;

lifting and lowering of walkways;

opening and closing of hatches and valves on the pipeline;

connection of bottom drain devices, filling of hoses.

85. Must know:

arrangement of the serviced equipment;

the procedure for arranging tank cars and ships;

fundamentals of electromechanics and locksmith's trade;

purpose and device of control and measuring devices.

Section 39. Operator of equipment for distribution oil depots, 4th category

86. Characteristics of works:

management of equipment for distribution tank farms with an annual sales volume of petroleum products over 1 to 20 thousand tons;

maintenance of a pumping station for pumping oil, oil products, mobile power plants, steam boiler houses, tank farms, pipeline communications, unloading and loading railway and auto-loading racks and oil berths, compressors, pumps, internal combustion engines and steam boilers;

regulation of the operating mode of engines and pumps when pumping oil products, loading and unloading railway tank cars, loading tank cars, intra-base transfers from tank to tank;

preventive inspection, troubleshooting, current and major repairs, lubrication, start-up and shutdown of the serviced equipment;

technical inspection of tanks and vessels;

monitoring the operation of engines, generators, regulating equipment, control and measuring devices, mobile power plants, steam-boiler pumps, compressors, pipeline communications;

participation in the installation and dismantling of the equipment of a tank farm;

accounting for the operation of pumps, compressors, engines and other equipment of a tank farm.

87. Must know:

technological process of receiving, storing and dispensing petroleum products;

the procedure for technical operation of the equipment of a tank farm, reservoirs;

arrangement of pumps, internal combustion engines, electric motors;

operating instructions for the equipment of pumping stations, steam boiler houses, power plants, valves and control and measuring devices;

general information on hydraulics, mechanics, heat engineering, electrical engineering;

locksmithing and blacksmithing;

scheme of technological piping of the pumping station, reservoir park, filling and unloading racks;

scheme of remote control of pumping stations and electric shut-off valves;

causes of malfunctions in the operation of mechanisms and other equipment of a tank farm, ways of their preventing and eliminating;

physical and chemical properties of the pumped oil products;

consumption rates of lubricants and fuel.

When managing the equipment of distribution tank farms with an annual sales volume of oil products over 20 to 100 thousand tons - 5th category.

When managing the equipment of distribution tank farms with an annual sales volume of oil products over 100 to 150 thousand tons - 6th category.

Paragraph 40. Commodity operator, 2nd category

88. Characteristics of works:

metering of oil, oil products in reservoirs, cisterns, on oil vessels;

sample selection;

pumping out or draining from tanks and reservoirs of water and dirt;

weighing tankers, containerized oil products, gas cylinders;

preparation of seals, filling;

suspension of passports;

delivery of oil filters to consumers and acceptance of waste oils from them;

checking the technical condition and cleanliness of consumer containers, its clogging;

heating of oil products;

loading and unloading operations with containerized oil products and other liquid products.

89. Must know:

the purpose of tanks, measuring tanks, their full capacity and per unit height;

sampling procedure;

elementary information about the properties of oil, oil products and gas;

unloading and filling technology;

methods of sealing reservoirs, cisterns, oil ships;

methods of heating oil products;

design of measuring instruments, measuring devices and appliances;

the purpose of various oil filters, characteristics of used oils;

the procedure for storing containerized oil products;

methods of cleaning cisterns, reservoirs, racks, containers from oil residues, oil products and dirt;

the procedure for technical operation of the serviced equipment;

main causes of losses and spoilage of oil, oil products and reagents during storage and pumping and methods of their prevention;

natural loss rates;

the procedure for processing documents for acceptance and delivery of oil and oil products.

Paragraph 41. Commodity operator, 3rd category

90. Characteristics of works:

maintenance of equipment for a distribution tank farm with an annual sales volume of up to 10 thousand tons of oil products and management of all works, with an annual sales volume of oil products exceeding 10 to 40 thousand tons;

reception and placement, pumping, supply and storage of oil, oil products, liquefied gases, trap product, reagents and other products;

switching gate valves at the direction of a more qualified operator;

preparation of tanks, racks, risers, berths and pipelines for receiving, dispensing and storing oil, oil products, reagents, liquefied gases and other products;

determination of the specific weight of oil, oil products and other liquid products in tanks, cisterns and other containers;

determination of temperature, content of mechanical impurities and water;

collection of oil and oil products from oil traps, pumping them into measuring tanks;

pumping out water and dirt from tanks;

determination of the specific weight of oil, oil products and other liquid products in tanks;

determination of the volume of liquid products in tanks using calibration tables;

participation in the measurement of reservoirs, tanks;

sealing of cisterns;

preparation of reservoirs, pipelines, loading and unloading equipment and other equipment for repair;

draining alkali, acid and other reagents from tanks;

maintenance of alkalization of liquefied gas, regulation of gas supply, filling of cylinders and cisterns at gas-filling stations and compressed gas filling plants;

crushing, sorting and sealing of catalysts;

service of oil traps;

ignition and extinguishing of the torch;

purification of gas condensate;

pumping of solvents and fuels in the production of ozokerite;

weighing and stacking ozokerite by grade;

maintenance of documentation for received and delivered products

91. Must know:

control and communication nodes of the serviced area, types of pumps, their performance, normal and permissible pressure;

the procedure for pumping hot, viscous and paraffinic oil products and gases;

technical specifications for ozokerite and solvents;

the procedure for operation of pipelines;

physical and chemical properties of oil, oil products, reagents and gas;

main causes for the loss of oil products and reagents during storage, pumping and methods to prevent these losses;

design and purpose of sampling valves, safety and breathing valves, gauging devices, crackers, oil seals, compensators;

the procedure for preparing communications for the sequential pumping of oil, oil products and reagents;

methods of ignition and extinguishing of torches;

methods of performing the simplest analyzes;

methods for determining the weight of oil and oil products in tanks and oil vessels and measuring reservoirs;

the procedure and established terms for loading and unloading railway tank cars, oil ships and the completeness of their discharge, loading and unloading cars and oil ships according to the charter and contracts with the railway and shipping company;

operating conditions of access roads and berths;

basics of locksmith's trade.

Paragraph 42. Commodity operator, 4th category

92. Characteristics of works:

servicing of equipment for a distribution tank farm with an annual sales volume of oil products over 10 to 40 thousand tons and management of all operations with an annual sales volume of oil products over 40 to 100 thousand tons;

servicing of commodity and reservoir parks, railway and truck loading racks, berths, loading points, main oil product pipelines, transshipment oil depots and loading points of oil refineries with a cargo turnover, the volume of pumping or loading of oil and oil products up to 5000 tons per day

servicing of liquefied gas parks with a capacity of up to 500 tons;

servicing of ethyl mixing plants, oil traps, flare facilities, high and low pressure gas and oil product pipelines, gas tanks, discharge of loading racks and berths;

preparation of alkali and acid solutions of the required concentration;

conducting the process of purification of industrial wastewater, separation of the captured oil product;

control over sampling and pumping mode;

maintenance of all transfers performed per shift in the serviced economy;

ensuring the safety of oil, oil products, gas and reagents;

monitoring the heating of reservoirs, the condition of product and steam lines on the territory of serviced parks, overpasses, oil traps;

arrangement of cisterns along the loading and unloading front and wagons along the loading and unloading front;

keeping records and operational reporting on the work of the commodity park;

execution of documentation for all operations for pumping, receiving and delivering products, for receiving empty wagons;

registration of acts for off-period of cisterns;
monitoring the serviceability of the serviced inventory and equipment;
management of the work of drainers-fillers.

93. Must know:

state standards or interdepartmental conditions for the quality of all products stored in the serviced park;

the procedure for conducting targeted blending of petroleum products;

conditions and procedure for the carriage of cargos by rail and water;

conditions of contracts with the railway for the operation of the plant's access roads;

the procedure and terms of unloading and loading of cisterns, ships, loading and unloading of wagons;

standards for the quality of sent and received oil products and dry cargo ships;

locksmith's trade.

Paragraph 43. Commodity operator, 5th category

94. Characteristics of works:

servicing of equipment for a distribution tank farm with an annual sales volume of oil products over 40 to 100 thousand tons and management of all works with an annual sales volume of oil products over 100 thousand tons;

servicing of commodity and tank farms, railway and truck loading racks, berths, loading points of main oil product pipelines, transshipment oil depots and loading points of oil refineries with a cargo turnover, the volume of pumping or loading of oil and oil products over 5,000 to 10,000 tons per day;

servicing of liquefied gas parks with a volume of over 500 tons;

servicing of parks with high quality oil products and a complex communications system;

compounding of petroleum products for the preparation of commercial products, ethylation of gasoline, addition of additives and inhibitors;

conducting operations on delivery, shipment and registration of settlements with transport organizations;

conducting financial settlements with the railway;

drawing up a balance of the movement of oil and oil products per shift;

management of the work of drainers-fillers.

95. Must know:

state standards for the quality of all products stored in the park;

the procedure for preparing reservoirs for filling it with a product of a higher quality;

the procedure for acceptance and delivery of petroleum products and liquefied gases;

conditions for regulating cargo flows through supply and discharge pipelines;

the procedure for financial settlements with the railway.

Paragraph 44. Commodity operator, 6th category

96. Characteristics of works:

servicing of equipment for a distribution tank farm with an annual volume of sales of oil products over 100 thousand tons to 130 thousand tons and management of all works;

servicing of commodity and tank farms, railway and road racks, berths, filling points of main oil product pipelines of oil refineries, transshipment oil depots with a cargo turnover, the volume of pumping or loading of oil and oil products over 10,000 tons up to 16,000 tons per day;

servicing of reservoir parks with remote control systems and telemechanics systems;

guidance and supervision over operation of the automatic system for loading oil products into tank trucks;

ensuring the quantitative and qualitative safety of petroleum products;

taking the necessary measures to reduce the loss of oil products;

conducting accelerated physical and chemical analyzes of oils;

improving the performance properties of oils by introducing additives and mixing;

monitoring the serviceability of structures, equipment and inventory;

preparation of coded information for the computing center;

managing the work of lower-skilled operators.

97. Must know:

charters and contracts with the railway and shipping company on the terms and procedure for loading and unloading of tanks, open-top wagons, bunkers and oil ships, loading and unloading cars and oil ships;

physical and chemical properties of petroleum products and areas of their application;

signs of aging of oils, methods of their stabilization and mixing;

standards for the quality of received, dispatched and released petroleum products;

arrangement of remote control and telemechanics equipment, their adjustment and regulation;

arrangement of electronic textured machines.

Paragraph 45. Operator of technological compressors, 4th category

98. Characteristics of works:

servicing of compressors with various drives for compressing inert, natural oil and artificial gases at compressor stations of oil and gas producing fields, main gas and oil product pipelines;

starting, stopping and regulating the operating mode of the compressors in accordance with the flow chart according to indications of control and measuring devices and after repair;

servicing of apparatuses and gas communications, identification and elimination of malfunctions in their work;

adjustment, current and medium repair of compressors, their drives, apparatuses, gas communication units and auxiliary equipment of workshops;

supervising a team of operators in a shift, monitoring compliance with safety and labor protection order;

keeping records of the consumption of fuels and lubricants and records in production logs.

99. Must know:

gas transportation technology;

arrangement and operation of serviced compressors, their drives, auxiliary equipment, apparatuses, gas communications, control and protection devices for machines and apparatuses;

theoretical foundations of operation of compressors and their drives, as well as auxiliary equipment of workshops;

layouts of pipelines of the workshop and inter-workshop communications;

schematic diagram and operating procedure for automation and relay protection;

the procedure and instructions for the production of hazardous gas works;

technical conditions and technology for all types of maintenance and repair of compressors, their drives, valves and equipment, automation and relay protection;

materials used for repairs and their possible substitutes;

types of instruments, control and measuring devices, appliances used in the performance of relevant works.

When servicing gas engine piston compressors with a total capacity of up to 75,000 cubic meters per hour - 4th category.

When servicing gas engine piston compressors with a total capacity of over 75,000 cubic meters per hour or turbocompressors with a total capacity of compressors with a total capacity of up to 750,000 cubic meters per hour - 5th category.

When servicing turbochargers with a total capacity of over 750,000 cubic meters per hour - 6th category.

100. Technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 46. Operator of technological installations, 2nd category

101. Characteristics of works:

servicing of apparatuses, pumps, ventilation and heating systems under the guidance of a more qualified operator;

pumping, pouring and packing of lubricants, oils, paraffin, bitumen and other similar products;

measuring measuring instruments, sampling;

loading and unloading of catalysts;

cleaning of equipment and furnaces.

102. Must know:

arrangement of the serviced equipment, fittings and communications;
the purpose of control and measuring devices;
physical and chemical properties of raw materials and manufactured products;
the order of packaging and registration of products.

Paragraph 47. Operator of technological installations, 3rd category

103. Characteristics of works:

conducting the technological process at oil, oil products, gas, shale and coal refineries in accordance with work instructions under the guidance of a more qualified operator;
servicing of apparatuses, fans, waste-heat boilers or steam superheaters, pyrite separators, boat, tunnel furnaces, gas generators and other similar equipment at technological installations;
switching from operating equipment to standby;
alkali change;
drainage of water from apparatuses;
regulation of the supply of reagents, fuel, steam, water, electricity in the serviced area;
adjusting the feed of raw materials for crushing and grinding, the degree of grinding;
conducting the combustion process in the furnace of a drying oven or mill oven;
quality control, accounting for the consumption of raw materials, reagents and the amount of products produced;
loading and unloading of coke from wagons of storage silos;
cleaning of coke from conveyor belts, classifiers, feeders, on railway tracks;
participation in the repair of the technological installation.

104. Must know:

technological processes, schemes and maps of serviced installations;
the procedure for regulating the technological process;
arrangement of the serviced equipment;
purpose and principle of operation of control and measuring devices;
physico-chemical properties of raw materials, reagents, products obtained, materials used;
the basics of locksmith's trade.

48. Operator of technological installations, 4th category

105. Characteristics of works:

maintaining the technological process and monitoring the operation of equipment at installations of category III for the processing of oil, oil products, gas, shale and coal in accordance with the working instructions;

maintaining the technological process and monitoring the operation of individual units at installations of categories I and II under the guidance of a more qualified operator;
regulation of productivity of a block, installation, department;
prevention and elimination of process deviations from the specified mode;
carrying out control over the output and quality of products, consumption of reagents, energy resources;

start-up and shutdown of the heating system of chamber and tunnel furnaces and adjustment of their hydraulic mode, maintenance of belt conveyors, screening, classification of petroleum coke by fractional composition under the guidance of a more qualified operator at delayed coking units;

servicing of control and automation devices;

preparation of cartograms, changing them, filling pens with ink;

checking devices for "O";

monitoring the condition of the heating system masonry;

start-up, shutdown of the installation and its output to the mode;

preparation of individual apparatuses and the installation as a whole for repair;

participation in the repair of technological installations.

106. Must know:

technological processes, schemes and maps of serviced installations;

arrangement of technological equipment, control and measuring devices, pipelines, fittings;

factors affecting the course of the process and product quality.

Paragraph 49. Operator of technological installations, 5th category

107. Characteristics of works:

maintaining the technological process and monitoring the operation of equipment at installations of category II for the processing of oil, oil products, gas, shale and coal in accordance with the working instructions;

conducting the technological process at installations of category I under the guidance of a more highly qualified operator;

control over the observance of the technological regime, the quality of raw materials and manufactured products according to the indications of control and measuring devices and the results of analyzes;

control over the consumption of raw materials, products, reagents, catalysts, fuel and energy resources;

prevention and elimination of process deviations from the specified mode;

filling out the register of reception and delivery of duties.

108. Must know:

technological processes, schemes and maps of serviced installations;

arrangement of the serviced equipment;

physical and chemical properties of raw materials, reagents and manufactured products;
state standards for raw materials and products.

109. Technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 50. Operator of technological installations, 6th category

110. Characteristics of works:

maintaining the technological process and monitoring the operation of equipment at installations of category I for the processing of oil, oil products, gas, shale and coal in accordance with the operating instructions;

management of elimination of arising deviations of the technological process and accidents;

placement of operators in workplaces.

111. Must know:

technological processes, schemes and maps of serviced installations;

kinematic and electrical schemes of technological equipment;

schematic diagrams of main installations of the plant and their relationship;

production technology.

112. Technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 51. Locksmith for the repair of technological installations, 2nd category

113. Characteristics of works:

disassembly, repair, assembly and testing of simple units and mechanisms of machines, apparatuses, pipelines, fittings;

repair of simple installations, units and machines, as well as of medium complexity under the guidance of a more highly qualified locksmith;

locksmithing of parts according to 12-14 grades (5-7 accuracy classes);

flushing, cleaning and lubricating parts;

marking and drilling of holes on the flanges;

straightening, filing and threading of pipes;

production of simple devices for assembly and installation of repaired equipment.

114. Must know:

arrangement, purpose and principle of operation of individual apparatuses and units of equipment being repaired;

working conditions of the serviced equipment;

basic techniques of locksmith works;

general procedure for welding and soldering;
the procedure for testing small diameter pipelines;
basic concepts of tolerances and landings, qualities, classes of accuracy and purity of processing;
purpose and procedure for using devices and tools;
pipe marking techniques, drawing elements;
the procedure for using oils, detergents and lubricants.

115. Examples of works:

- 1) hatch covers of machines and apparatuses - removal and installation;
- 2) fences - removal and installation;
- 3) gaskets - manufacturing;
- 4) "pipe-in-pipe" heat exchangers - disassembly;
- 5) pipes of the cooling and lubrication system - cleaning;
- 6) gas injectors - revision.

Paragraph 52. Locksmith for the repair of technological installations, 3rd category

116. Characteristics of works:

disassembly, repair, assembly and testing of medium complexity of units and mechanisms of machines, apparatus, pipelines, fittings;

repair of medium complexity of installations, units and machines, as well as complex ones under the guidance of a more highly qualified locksmith;

locksmithing of parts according to 11 - 12 grades (4 - 5 accuracy classes);

disassembly and assembly of piping devices, pumps, compressors,

production of medium complexity devices for assembly and installation of repaired equipment.

117. Must know:

arrangement and principle of operation of repaired equipment, fittings;

technical specifications for pipes, profile steel, fasteners;

basics of welding;

properties of the metals being welded;

the procedure for laying pipelines;

the procedure for operation of equipment;

basic technological scheme and communications scheme of the serviced installation;

tolerances and fit, quality and roughness parameters.

118. Examples of works:

- 1) low pressure fittings - removal, repair, installation;
- 2) compressors - disassembly and removal of valves, oil seals, oil baffles, crossheads, bearings, valve covers and cylinders;
- 3) oil pumps, lubricators - disassembly, repair;

- 4) piston pumps, plunger, centrifugal and gear pumps - disassembly, repair;
- 5) oil seals - packing;
- 6) pipelines and apparatuses of the cooling and lubrication system of compressors and pumps - disassembly;
- 7) furnace pipes, plates and inter-tray space of columns, tubes and inter-tube space of heat exchangers, tubes of condensers of refrigerators - cleaning from coke and deposits.

Paragraph 53. Locksmith for the repair of technological installations, 4th category

119. Characteristics of works:

disassembly, repair, assembly of complex installations, machines, apparatuses, pipelines and fittings using lifting mechanisms;

locksmithing of parts according to 7 - 10 grades (2 - 3 accuracy classes);

removal and installation of working and control safety valves from tank equipment;

testing, adjustment and delivery of equipment after repair;

manufacturing of complex devices for the assembly and installation of repair equipment;

preparation of defective statements for repairs.

120. Must know:

purpose, arrangement of complex equipment;

technical conditions for the repair, testing, adjustment and delivery of the repaired equipment;

basics of planned preventive maintenance;

system of tolerances and landings, qualities and roughness parameters;

ways of marking and processing simple various details;

arrangement of lifting mechanisms and the procedure for using them;

basics of rigging;

the procedure for checking repaired and assembled units and devices.

121. Examples of works:

1) apparatuses of air cooling - disassembly of the gearbox;

2) column-type apparatuses - repair, assembly of internal devices, removal and installation of covers, heads;

3) heat exchange apparatuses - assembly;

4) granulators, crystallizers, mixers, filters - disassembly, repair, assembly;

5) reciprocating compressors - disassembly, repair and assembly of cylinders, crankshaft, crosshead assembly, valves, pistons;

6) centrifugal compressors - disassembly of the rotor, repair of bearings and gear couplings;

7) centrifugal pumps, double-casing and multistage pumps with more than four impellers - disassembly;

8) tubular furnaces - replacement of pipes, twins;

9) reactors - replacement of the lantern, removal of heads, removal and installation of the pocket of the zone thermocouple, assembly of the seal assembly and coupling joints;

10) gearboxes - repair, assembly, adjustment.

Paragraph 54. Locksmith for the repair of technological installations, 5th category

122. Characteristics of works:

disassembly, repair, assembly of particularly complex installations of machines, apparatuses, units, pipelines, valves using mechanisms and delivery after repair;

locksmithing of parts and assemblies for 6-7 grades (1-2 classes of accuracy);

disassembly, repair and assembly of components and equipment in conditions of intense and dense loadings;

technical inspection of equipment.

123. Must know:

arrangement and design features of complex equipment;

technological sequence and organization of labor during the repair, assembly, installation of equipment;

all types of materials used in the repair;

methods for determining premature wear of parts;

static and dynamic balancing of machines;

geometric constructions for complex markings;

ways to restore worn parts;

methods of repairing equipment and apparatus operating under high pressure.

124. Examples of work:

1) apparatuses - repair of the body (not requiring heat treatment), checking the plates for bubbling;

2) shut-off, safety and control valves - disassembly, repair, lapping, assembly and adjustment;

3) ventilation ducts - assembly;

4) blowers, gas blowers and superchargers-repair, testing;

5) compressors, pumps - scraping of bearing shells and other machine parts, repair of safety and non-return valves;

6) piston compressors - adjustment and commissioning;

7) gas-engine compressors - repair;

8) condensers-refrigerators - removal and installation of sections;

9) ball mills, roller mills, crushers, screens, smoke exhausters, granulators - repair, testing, commissioning;

10) centrifugal pumps, double-casing and multistage pumps with more than four impellers - repair, assembly, commissioning;

11) tubular furnaces - inspection, rejection of pipes;

- 12) reactors - repair;
- 13) heat exchangers (raw materials) of hydrotreating, catalytic reforming, hydrocracking units and others over 200 atmospheres - repair;
- 14) centrifuges - repair.

Paragraph 55. Locksmith for the repair of technological installations, 6th category

125. Characteristics of works:

repair, installation, disassembly, assembly, testing and adjustment of especially complex unique installations, apparatuses, machines and aggregates using mechanisms;

identification and elimination of defects during the operation of equipment and during inspection in the repair process;

checking for accuracy and testing under load of the repaired equipment.

126. Must know:

design features of particularly complex equipment;

technical conditions for the repair, testing and commissioning of especially complex unique equipment;

metal technology;

ways to restore particularly complex and critical nodes;

permissible loads on working parts, assemblies and equipment mechanisms;

systems of technical maintenance and repair of the equipment.

127. Examples of works:

1) apparatuses of air cooling - assembly and alignment of the gearbox;

2) drum vacuum filter - replacement of intermediate bearing shells, faceplate repair, adjusting the cam head, commissioning;

3) granulators - sorting of parts, repair and assembly of the drive head, rod, alignment of the main drive electric motor, alignment of the knife support;

4) centrifugal compressors - repair of labyrinth seals and rotor, rotor balancing, alignment, assembly;

5) gas-engine compressors - fitting, adjustment, testing;

6) waste heat boilers – major repair, hydraulic tests, lens seals of high pressure pipelines (700 - 2500 atmospheres - repair;

7) tubular furnaces - test (hydraulic or pneumatic) of the coil;

8) reactors - hull repair, hydraulic testing;

9) catalytic cracking reactors - replacement of the stuffing box liner, lens compensator and straight section of the pressure riser, separation plate nozzle, side pipes and header of the outlet header;

10) catalytic reforming and hydrotreating reactors - repair and assembly of the nozzle, switchgear, zonal thermocouple pocket;

11) reactors with a stirrer - installation of a stirrer and bottoms in a high-pressure reactor, alignment and assembly of coupling joints, hydraulic testing;

12) catalytic cracking regenerators - replacement of the coil, defective areas, distribution grid, manufacturing of an air box, replacement of defective areas;

13) planetary gearboxes and with a complex tooth profile - assembly;

14) heat exchangers (raw materials) of hydrotreating, catalytic reforming, hydrocracking and others over 200 atmospheres - assembly, testing;

15) high-pressure pipelines for any liquids and gases, as well as pipelines of reactor blocks of catalytic reforming, hydrotreating, hydrocracking units - repair, assembly;

16) steam turbines - checking the clearance between the blades, casing, rotor, repairing and setting the clearances in the diaphragm seals, stuffing box seals, in the thrust and support bearings, alignment, adjustment;

17) turbo compressors - major repairs and delivery;

18) centrifuges - pressing in clutch couplings, aligning shafts, pressing out and assembling the mechanical seal housing, disassembling and assembling of probe handles, scraping bearings, bushings, sorting out parts, putting into operation.

128. Technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 56. Locksmith for the repair of technological installations, 7th category

129. Characteristics of works:

adjustment and complex commissioning of especially complex technological complexes, combined and large-capacity installations;

servicing and diagnostics, including vibration diagnostics of machinery during operation and repair;

testing under load and setting up particularly complex mechanisms and repaired equipment;

maintenance of technical documentation for the operation and repair of equipment;

participation in the launch of complex technological complexes and installations;

management of workers with lower qualifications.

130. Must know:

methods of setting up complex technological complexes and installations;

constructive features of especially complex equipment;

technical documentation for the repair, testing and commissioning of especially complex equipment;

technology of metals;

system of tolerances and landings;

modern metal plastics and other systems of planned preventive repair of equipment at oil refineries.

131. Technical and vocational (secondary specialized, secondary vocational) education is required.

Paragraph 57. Operator of technological pumps, 2nd category

132. Characteristics of works:

servicing of pumping stations and installations for pumping and processing oil, oil products and other viscous liquids on the main pipeline, a transshipment tank farm and at oil refineries;

monitoring the operation of pumps, lubrication, cooling and ventilation systems, the serviceability of pipelines, valves, control and measuring devices;

preparation for operation of the scheme of technological strapping of the pumping station;
elimination of leaks of the pumped-over products under the guidance of a more qualified operator;

stuffing of oil seals and change of gaskets;

starting, stopping and wiping of pumps;

opening and closing valves;

samples selection.

133. Must know:

the scheme of the serviced pumping station;

principle of operation of pumps;

characteristics of pumps and their wires;

the procedure for technical operation;

the procedure for lubricating mechanisms;

properties of the pumped-over liquids;

location of shut-off valves and safety devices.

Paragraph 58. Operator of technological pumps, 3rd category

134. Characteristics of works:

servicing of pumping stations for pumping and processing oil, oil products and other viscous liquids on main pipelines or transshipment oil depots with a total pump capacity of up to 500 cubic meters per hour;

servicing of pumping technological units of oil and gas processing enterprises with a total capacity of up to 1000 cubic meters per hour;

servicing of pumps together with electric motors with a total capacity of up to 500 kilowatts at pumping stations and technological installations of main pipelines, transshipment oil depots and oil refineries;

monitoring of the load of electric motors, the working pressure on pumps and pipelines, the operation of automation devices, lubrication, cooling and ventilation systems, switchgears, shut-off valves by means of control and measuring devices;

starting and stopping electric motors;

checking the presence of grease in the bearings;

disassembly, washing, wiping of bearings;

replacement of fuses;

elimination of leaks of the pumped-over products;

execution of locksmith works on the repair of electrical equipment;

supervision of the equipment operating mode.

135. Must know:

technological process and scheme of the serviced pumping station, technological unit, commodity park, trap facilities;

purpose and application of control and measuring devices, regulators and means of mechanization;

fundamentals of electrical engineering;

basic information on hydraulics and mechanics;

methods of troubleshooting equipment operation and elimination of accidents;

conditional signaling system;

the procedure for technical operation of electrical equipment;

the procedure for safety when servicing current collectors and networks;

types of electrical materials, their properties and application;

grounding system for electrical installations;

power supply scheme;

starting devices and switchboards;

purpose and properties of transformer oils;

permissible heating temperature and load of electric motors and electrical appliances;

locksmith's trade.

When servicing electric motors and switchgears, one must have a permit of group III.

Paragraph 59. Operator of technological pumps, 4th category

136. Characteristics of works:

servicing of pumping stations for pumping and processing oil, oil products and other viscous liquids on main pipelines or transshipment oil depots with a total pump capacity of 500 to 1000 cubic meters per hour;

servicing of pumping technological units at oil and gas processing enterprises with a total pump capacity of over 1000 to 3000 cubic meters per hour;

servicing of pumps together with electric motors with a total capacity of 500 to 3000 kilowatts at pumping stations and technological installations of main pipelines, transshipment oil depots and oil refineries;

servicing of drives of contactors of alkylation units, air cooling devices;

control over the set pressure at the pump outlet;

servicing of transformer substations under the guidance of a more qualified operator;

keeping records in the log.

137. Must know:

arrangement and operation of centrifugal, piston pumps and turbopumps of various systems and pressure;

arrangement and location of pipelines with valves, wells and control- measuring devices;

the procedure for starting and stopping all equipment of the pumping station;

the procedure and procedure for eliminating the accident;

keeping records of the pumping station;

locksmith's trade.

When servicing electric motors and switchgears, one must have a permit of group IV.

Paragraph 60. Operator of technological pumps, 5th category

138. Characteristics of works:

servicing of pumping stations for pumping and processing oil, oil products and other viscous liquids on main pipelines and transshipment oil depots with a total pump capacity from 1000 to 3000 cubic meters per hour;

servicing of pumping technological units at oil and gas processing enterprises with a total pump capacity of over 3000 cubic meters per hour;

servicing of pumps together with electric motors with a total capacity of over 3000 kilowatts at pumping stations and technological installations of main pipelines, transshipment oil depots and oil refineries;

servicing of the control panel;

servicing of switchgear transformer substations.

139. Must know:

arrangement and operation of equipment for pumping stations and high-power technological units equipped with motors and pumps of various systems;

fundamentals of hydraulics, mechanics, automation, telemechanics;

methods and techniques for identifying and eliminating malfunctions in the operation of the pumping station;

the procedure and forms of keeping records of the work of pumping stations;

locksmith's trade.

When servicing electric motors and switchgears, one must have a permit of group V.

Paragraph 61. Operator of technological pumps, 6th grade

140. Characteristics of works:

servicing of pumping stations for pumping and processing oil, oil products and other viscous liquids on main pipelines and transshipment oil depots with a total capacity of more than 3000 cubic meters per hour;

start-up, regulation of the operating mode and shutdown of all equipment of the pumping station;

identification, prevention and elimination of malfunctions in the operation of pumping equipment;

supervising the work of less qualified operators.

141. Must know:

design schemes, the procedure for operating the pumps and high-power electric motors and auxiliary equipment of the station;

terms and procedure for planned preventive repair;

preparation of defective statements for equipment repairs;

revision of pumps, engines, instrumentation and other mechanisms of the serviced pumping station.

When servicing electric motors and switchgears, one must have a permit of group V.

When servicing pumping stations for pumping and processing oil, oil products and other viscous liquids at transshipment oil depots with a total capacity of more than 3500 cubic meters per hour - 7 category.

142. For the assignment of 6 and 7 categories, technical and vocational (secondary specialized, secondary vocational) education is required.

Chapter 3. List of technological installations and productions by categories

143. The list of technological installations and productions by categories is given in Appendix 1 to UTGR (issue 34).

Chapter 4. Alphabetical index of professions

144. The alphabetical index of professions is given in Appendix 2 to the UTGR (issue 34)

145. The list of names of workers' professions provided for by this UTGR (issue 34) and, indicating their names according to the previously valid UTGR (issue 34), edition of 2012 is given in Appendix 3 to the ETKS (issue 34).

List of technological installations and productions by categories

Installations of the 1st category, served by the operators of technological installations of 6th category

A. Oil refining

1. Atmospheric-vacuum (tubular) with a capacity of over 3200 tons per day.
2. Vacuum (tubular).
3. Atmospheric tubular with a capacity of over 4500 tons per day.
4. Atmospheric tubular with a capacity of over 3200 tons per day with a simultaneous process of leaching of distillates.
5. Combined installation of the "LK-6U" type.
6. Thermal cracking.
7. Cracking (combined installation).
8. Catalytic cracking with a fixed catalyst.
9. Catalytic cracking with mobile catalyst.
10. Installation of the "GK-3" type.
11. Catalytic reforming.
12. Combined installation for catalytic reforming of diesel fuel hydrotreating ("ZHEKS").
13. Installation of pyrolysis.
14. Installation for the production of xylenes (paraxylene and orthoxylene) and products based on them.
15. Installation of hydrotreating.
16. Urea refining of light oil products.
17. Combined non-standard unit (combined "ELOU" with oil distillation) with a capacity of more than 1000 tons per day.
18. Hydrocracking.
19. Combined units for complex treatment of oil and gas.
20. Semi-continuous thermal coking "Miley".

B. Gas processing and purification

21. Gas fractionating, absorption-gas fractionating and oil absorption installations.
22. Installations for the splitting and separation of gases.
23. Installations for gas purification with arsenic-soda and copper-ammonia solution.
24. Gas conversion.
25. Installation for separation of synthesis products from residual gas.
26. Combined installations for the joint processing of gas and condensate.
27. Installations for the production of helium.
28. Installations for stabilization of gas condensate and fractionation of unstable gasoline.
29. Installation for cleaning and drying gas from sulfur compounds.
30. Ammonia, propane and ethane refrigeration installations.

31. Installation for gas purification from mercaptans on a solid adsorbent.
 32. Installation for obtaining elemental sulfur
 33. Installation for processing hydrogen sulfide containing condensate.
 34. Installation for producing a broad fraction of light hydrocarbons.
 35. Nitrogen-oxygen installation.
 36. Installation for stabilization of hydrogen sulfide containing condensate, purification of propane-butane fraction from mercaptans with alkali and production of propane coolant.
 37. Installation of sulfur granulation.
 38. Installation of degassing, storage and shipment of sulfur.
 39. Installation of second-stage treatment of waste gases by the "Clean-air" method.
 40. Installation of second-stage treatment of waste gases by the sulfrene method.
 41. Installation of filtration and storage of amine.
 42. Installation of regeneration and storage of monoethylene glycol.
 43. Installation of combustion of sulfur-containing liquid effluents and activated carbon.
 44. Installation for pumping industrial wastewater into the reservoir.
 45. Installation of gas dehydration and purification with a total capacity of over 10 million cubic meters per hour per day with diethanolamine using artificial cold.
- C. Production of high-octane additives and synthetic products
46. Alkylation with sulfuric acid, aluminum chloride and orthophosphoric acid.
 47. Production of octol.
 48. Hydrogenation and dehydrogenation (aromatization).
 49. Vapor-phase hydrogenation (at least two blocks).
 50. Synthesis and extraction of hydrocarbons.
 51. Production of reference fuels, individual hydrocarbons and higher alcohols.
 52. Formalin production.
 53. Installation for isomerization of gasoline fractions "LI-150".
- D. Production of oils, lubricants and oil additives
54. Deasphalting.
 55. Selective cleaning with phenol and other solvents.
 56. Dewaxing of oils.
 57. Dewaxing of oils with carbamide.
 58. Production of synthetic resins.
 59. Production of synthetic fatty acids.
 60. Installation of contact filtration with a capacity of over 20 thousand tons per month.
 61. Production of lubricants when servicing at least 10 cooking devices.
 62. Atypical combined installation for contact cleaning of special oils with a capacity of less than 20 thousand tons per month.
 63. Production of special oils and aromatized heat transfer oil "AMT-300".
- E. Production of catalysts

64. Production of all catalysts when working without a shift supervisor.

65. Production of anti-aging rubber.

F. Production of gas, semi-coke, processing of shale, gasification and semi-coking products

66. Gas generating stations and workshops.

67. Chamber furnaces.

68. Coal semi-coking furnaces.

69. Thermal processing of shale gasoline.

70. Rectification of phenols and oxygen compounds.

G. Other productions

71. Semi-continuous and contact coking.

72. Hydrogen production by conversion of hydrocarbons in the presence of a gas purification section in the installation.

73. Production of foundry fasteners from products at installations with a capacity of 12,000 tons per year or more.

74. Production of paraffin.

75. Experimental and semi-industrial installations.

76. Production of detergents.

77. Production of refined alkylaryl sulfonate.

78. Installation for ditolylmethane production.

79. Production of elemental sulfur.

80. Installation of demercaptanization of gasoline "Merox".

81. Production of synthetic fatty alcohols.

82. Installation for the preparation and classification of coal and semi-coke.

83. Production of plasticizers.

84. Production of liquid helium.

85. Production of gas mixtures.

Installations of the II category, served by the operators of technological installations of 5th category:

A. Oil refining

1. Electric desalting and thermo-desalting installations.

2. Atmospheric vacuum (tubular) installations with a capacity from 1000 tons to 3000 tons per day.

3. Combined installation "Bormann".

4. Rectification and azeotropic distillation.

5. Purification and alkalization of light oil products.

6. Stabilization of oil and distillates with a capacity of over 1000 tons per day.

7. Atmospheric (tubular) installations with a capacity of less than 4500 tons per day.

8. Secondary distillation and clear rectification.

9. Atmospheric (tubular) installations with a capacity of less than 3200 tons per day with simultaneous leaching of distillers.
10. Vacuum distillation of the system "Badger".
- B. Gas processing and purification
11. Gasoline recovery and gas dehydration.
12. Installation for gas purification: sodium phenate, monoethanolamine.
13. Production of natural gasoline.
14. Installation of purification from physical impurities and dehydration of gas with a capacity of over 10 million cubic meters per day on the main gas pipelines.
15. Installations for stabilization of gas condensate and secondary distillation of gasoline, type "22/4".
16. Installations for stabilization of unstable gasoline and gas condensate.
17. Oil-absorption gas-topping installations.
18. Installations of low-temperature condensation ("NTK").
19. Installations of diethanization.
20. Installations for storage and transportation of liquefied gases.
- C. Production of high-octane additives and synthetic products
21. Alkylation with a phosphate catalyst
22. Polymerization.
23. Hydrogenation of isooctylene.
24. Hydrogenation of synthesis products.
25. Oxidation of ceresin.
- D. Production of oils, lubricants and oil additives
26. Acid-alkaline cleaning.
27. Alkaline cleaning when the apparatus is under pressure.
28. Production of lubricants when servicing less than 10 welding machines in oxidizing installations.
29. Production of wax products and ceresin.
30. Installation of contact filtration with a capacity of less than 20 thousand tons per month.
31. Oxidizing installation of plants for the production of lubricants.
- E. Production of catalysts
32. Production of cleaning mass for fine desulfurization.
33. Production of airgel.
- F. Production of gas, semi-coke, processing of shale, gasification and semi-coking products
34. Condensation and trapping of resin or synthesis products.
35. Thermodesalting and distillation of resins.
36. Extraction of phenols and oxygen compounds.

37. Production of resins, glue, tanning agents and other products from raw shale.

38. Tunnel furnaces and processing of small oil shale with solid heat carrier.

G. Other industries.

39. Installation of inert gas with a capacity of over 2000 cubic meters per hour.

40. Production of coke in cubes.

41. Production of contact (white, neutralized black and contact "Petrov").

42. Production of bitumen at installations with a capacity of over 100 thousand tons per year.

43. Production of oil shale bitumen.

44. Production of azolate.

45. Installation of a casting fixture by compounding with any capacity.

46. Production of rubraks.

47. Regeneration of acid sludge, de-oiling and deoxidation of alkaline waste.

48. Regeneration of waste clay.

49. Electrical cleaning of transformer oil in a high voltage field.

50. Production of foaming agent.

51. Sulfuric acid purification.

52. Installation of incineration of chemically contaminated water.

53. Installation of preparation of raw materials and release of products.

Installations of category III, serviced by the operators of technological installations of 3-4 categories:

A. Oil refining

1. Oil refining at installation up to 1000 tons per day.

B. Gas processing and purification

2. Installations for gas purification with tripotassium phosphate, washing with water or alkali solution, swamp ore, fine desulfurization.

3. Installation for purification, drying and odorization of gas.

4. Installations for gas purification from physical impurities and dehydration with a capacity of less than 10 million cubic meters per day.

5. Coal adsorption installations.

C. Production of oils, lubricants and oil additives

6. Alkaline cleaning of oils when operating equipment with normal pressure.

7. Vacuum distillation of oils and slack.

D. Other productions

8. Production of naphtha-soap and asidolnaphtha-soap.

9. Production of nitrogen.

10. Installation for inert gas production with a capacity of less than 2000 cubic meters per hour.

11. Crushing and activation of bleaching clay (when servicing all departments).

12. Installation for the production of petroleum growth substances ("PGS").
13. Production of bitumen at installations with a capacity of less than 100 thousand tons per year.
14. Production of sulfofresol.
15. Sulfonation of petrolatum and oils.
16. Dry leaching of fuel oil.
17. Distillation of naphthenic acids (production of distilled asidol).
18. Gas distribution and gas metering points.
19. Refrigeration units of the compressor shop.
20. Installation for the production of catalyst ("KFK").
21. Installation of blowing off, alkalization and water washing of oil hydrogenated product from hydrogen sulfide, rich gases from ammonia and hydrogenated product separation.

Appendix 2
to the Unified tariff
qualification reference book
of jobs and professions of
workers (issue34)

Alphabetical index of professions

№ п/п	Name of professions	Range of categories	Page
1.	Instrument operator	2-6	3
2.	Operator of the gas distribution station	4-6	6
3.	Lineman linear	3-4	7
4.	Linear pipefitter	2-7	8
5.	Operator of underground gas generators	5-6	12
6.	Fitter for the protection of underground pipelines from corrosion	4-7	13
7.	Coke cleaner	3	16
8.	Coke unloader	3	16
9.	Operator on collection and cleaning of condensate	3	16
10.	Operator of main gas pipelines	4	17
11.	Operator of the oil product pumping station	5-7	18
12.	Electrician for the repair of equipment of oil depots	3-6	19
13.	Inspector of oil tanks	3-4	22
14.	Inspector for the quality of oil and oil products	4	22
15.	Mechanic on motor tests of fuel	3-6	23
16.	Furnaces loader-unloader	3-4	26
17.	Planimetrist	4	27
18.	Operator of equipment for distribution oil depots	3-6	28
19.	Commodity operator	2-6	29
20.	Operator of technological compressors	4-6	35

21.	Operator of technological installations	2-6	36
22.	Locksmith for the repair of technological installations	2-7	39
23.	Operator of technological pumps	2-7	45

Appendix 3
to the Unified tariff
qualification reference book
of jobs and professions
of workers (issue 34)

List of names of workers' professions provided for by this UTQR (issue 34), indicating their names according to the acted UTQR (issue 34), edition of 2012

№ п/п	Names of professions listed in this UTQR (issue 34)	Range of categories	Names of professions according to the acted UTQR (issue 34) edition of 2012	Range of categories
1.	Instrument operator	2-6	Instrument operator	2-6
2.	Operator of the gas distribution station	4-6	Operator of the gas distribution station	4-6
3.	Lineman linear	3-4	Lineman linear	3-4
4.	Linear pipefitter	2-7	Linear pipefitter	2-5
5.	Operator of underground gas generators	5-6	Operator of underground gas generators	5-6
6.	Fitter for the protection of underground pipelines from corrosion	4-7	Fitter for the protection of underground pipelines from corrosion	4-6
7.	Coke cleaner	3	Coke cleaner	3
8.	Coke unloader	3	Coke unloader	3
9.	Operator on collection and cleaning of condensate	3	Operator on collection and cleaning of condensate	3
10.	Operator of main gas pipelines	4	Operator of main gas pipelines	4
11.	Operator of the oil product pumping station	5-7	absent	no
12.	Electrician for the repair of equipment of oil depots	3-6	Electrician for the repair of equipment of oil depots	3-6
13.	Inspector of oil tanks	3-4	Inspector of oil tanks	3-4
14.	Inspector for the quality of oil and oil products	4	Inspector for the quality of oil and oil products	4
15.	Mechanic on motor tests of fuel	3-6	Mechanic on motor tests of fuel	3-6
16.	Furnaces loader-unloader	3-4	Furnaces loader-unloader	3-4
17.	Planimetrist	4	Planimetrist	4
18.	Operator of equipment for distribution oil depots	3-6	Operator of equipment for distribution oil depots	3-5
19.	Commodity operator	2-6	Commodity operator	2-6
20.	Operator of technological compressors	4-6	Operator of technological compressors	4-6
21.	Operator of technological installations	2-6	Operator of technological installations	2-6

22.	Locksmith for the repair of technological installations	2-7	Locksmith for the repair of technological installations	2-6
23.	Operator of technological pumps	2-7	Operator of technological pumps	2-6

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