

**Directive no. 435 “Permit to work”**

# Permit to Work

(2<sup>nd</sup> level of the TMS documentation)

(7<sup>th</sup> Issue)

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**List of Changes**

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## Directive no. 435 “Permit to work”

### 1. Introduction

#### 1.1 Purpose

The directive determines requirements for ensuring the BOZP (Safety and Health at Work) and PO (Fire Protection), coordination of activities and mutual exchange of information about risks during the execution of work in the company ČESKÁ RAFINÉRSKÁ, a.s. (hereinafter referred to as "the Company") together with the conditions, procedures and liabilities for authorization of work with sparks, open fire and other sources of inflammation in order to protect life and health of persons and assets against fires and explosions in accordance with the valid binding rules of law.

In the Company, two types of Permit-to-Work are used:

- **Long-term** for routine activities related mainly to regular (preventive) maintenance of facilities, see the Chapter 3. Risks resulting from these activities can be determined in advance.
- **Short-term** for all other activities, see the Chapter 4. Risks resulting these activities must be assessed as a part of preparing the particular activity.

#### 1.2 Extent of Validity

Provisions of this directive are binding for all participants of the license system. All participants of the license system, including employees of other organizations, must be demonstrably acquainted with this directive in the extent necessary for their job title. The employees of other organizations are getting acquainted with the directive through their head superiors in accordance with the content of the directive placed on the web pages of the company.

#### 1.3 Provision

In cases when the electronic Permit to Work system cannot be used for any reason (e.g. servers or applications outage), it is possible to use the standard “paper” Permit to Work (see appendix no. 435/16 “Permit to work / Order V”).

### 2. Terms, Definitions and Abbreviations

#### 2.1 Terms, Definitions

Terms/Definition	Explanation
<b>Safety ensuring analysis</b>	The process of a systematic analysis of work procedures and activities aiming at ensuring that such procedures and activities are performed in a safe and effective manner.
<b>Risk Assessment</b>	The overall process including identification, analysis and evaluation of risks.
<b>Flammable set</b>	Substantial compound composed of flammable substance and oxidant that can be lit by means of the suitable source of energy (thermal source) and can burn.
<b>Book of reports</b>	The book used for records (without a Permit – see the Appendix no. 435/5 “Example enumeration of works / Reporting duty”) about the movement of persons in the relevant manufacturing plants while meeting the conditions stated in the paragraph 4.1.5. The place where the book of reports is deposited and the liabilities of a person carrying out the reporting operation and employees of the production section are introduced in the Chapter 4, Clause 4.1.6.

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Terms/Definition	Explanation
<b>Book of work handovers</b>	A book used to record handover of the workplace at long-term permitted works (see Chapter 3)
<b>Contractor</b>	A corporation or individual being under the business and legal relationship or civil relationship with the company and as a contracting party (debtor) provides, or is obliged to provide the performance of the company arising from the contract (eventually from the contractual relation arising from the legal performance of the company).
<b>Employee of another organization</b>	Contractor and all persons that, on behalf of the contractor, provide specific performance to Company.
<b>Extraordinary incident</b>	Is a time- and location-confined undesirable incident resulting in a threat or damage to health or life of persons, to assets, to the environment, to the working environment, to reputation
<b>Local conditions</b>	Identification with the workplace risks, safety and fire security of the area (number of the site, delimited working area, prohibited premises, contact persons for reporting the presence, health and safety risks, occurrence of gas, fire hazard on the workplace, location of extinguishers, safety showers and EPS, introduction of warning signals, types of media in pipeline branches, places of First aid, posts for the arrival of an ambulance and fire brigade, evacuation from the workplace in case of an accident, dangerous gas burst, special requirements regarding Health and Safety at Work and Fire Regulations according to the working task).
<b>Dangerous concentration</b>	Mixture of combustible gas, vapor or dust with the air or a different oxidant <b>from 10% of the minimum limit value</b> of explosiveness for gas, vapor and dust.
<b>Zone/Object</b>	The part of the territory or the company's equipment.
<b>Special division</b>	Divisions within the company concerned with the BOZP and/or Fire Protection issues.
<b>Authorized person</b>	A natural person authorized by the Section Manager.
<b>Permit</b>	Permit to work (hereinafter referred to as "Permit") is a written document entitling a person to execute the relevant work, warning against the possible dangers and enumerating preventive measures necessary for the safe work performance.
<b>Fire supervision</b>	The activity of a designated person aimed at the fire security in the course of, during the interruption and after the completion of welding requiring specific fire and safety measures. Fire supervision can be executed during the operations with different sources of inflammation. A member of the fire prevention guard can also execute fire supervision.
<b>Fire prevention guard</b>	A person completing special training which activity is aimed at the observance of the fire protection regulations.
<b>Area with fire hazard</b>	The area structurally divided and undivided including the equipment or its parts (e.g. a container, air conduit, pipeline divide) in which the inflammable substances or substances supporting combustion in solid, liquid or gaseous form or inflammable substances contained in engineering constructions or equipment; in case of using the given welding technology or a different source of inflammation, the combustion and fire might occur.
<b>Area with explosion hazard followed by fire</b>	The area structurally divided and undivided including the equipment or its parts (e.g. a container, air conduit, pipeline divide) in which the dangerous concentration might occur or which contained or still contains explosive substances and materials. In combination with the given welding technology or a different source of inflammation, they might cause an explosion followed by fire.
<b>Temporary welding site</b>	Workplace determined for welding including technological equipment used for welding. Technological sites and operating areas, in which the welding operations are executed, are also considered as welding sites.

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Terms/Definition	Explanation
<b>Party handing over</b>	A person responsible for defining the current conditions and for handing over the worksite in the given area.
<b>Recipient</b>	An authorized person of the contractor, or of the supply company on the basis of the contractual commitment about the fulfillment of the liabilities with the contractor responsible for work performance.
<b>Statement V</b>	A document - defined in its content by the governmental provision no. 406/2004 of Code, about the more specific requirements concerning the provision of health safety and protection at work in the environment with the explosion hazard, as amended
<b>Neighboring zone</b>	A zone bordering with the zone where the works are being performed. The zone on which the Permit was issued and that might be endangered by these performed works or that might endanger safety of performed works.
<b>Specific risk</b>	Risk of welding site from the point of view of the origin or diffusion of fire or explosion followed by fire that is not entirely obvious to persons with the professional qualification for welding (e.g. inflammable insulation under material, hidden pipelines leading inflammation or inflammation supporting substances, inflammable ground covered by paint or thermal insulating material, opened drains leading combustible liquids).
<b>Company</b>	ČESKÁ RAFINÉRSKÁ, a.s.
<b>Welding worksite</b>	A work area designated for welding, including technological equipment used for welding; technological sites and handling areas where welding-related work is carried out related are also considered welding worksites.
<b>SAP system</b>	A system comprising management of all activities in the Company. SAP and the electronic Permit – specification of the request for work (order operations) that provide preparing, organizing, starting up and managing the work or maintenance interventions.
<b>Detached building site/worksite</b>	A specific area outside the operational areas and/or facilities that is defined by the Building Site/Worksite Handover Protocol. A detached building site/worksite is such area where activities of so-called “green-field” nature take place.
<b>Issuer</b>	An authorized person responsible for issuing the Permit to Work on the facility or work with sparks, open fire and other ignition sources, or (if relevant) work with other risk.
<b>Submitter</b>	An authorized person responsible for identifying hazards, preventive measures and for assessing the risks in terms of the operation.
<b>Basic fire and safety precautions</b>	Technical and organizational precautions in order to ensure fire safety before the initiation, during and after the completion of work with open fire and other sources of inflammation including the precautions arising from the applied type of equipment and work.
<b>Basic risk during welding</b>	The risk which may lead to the initiation or diffusion of fire or explosion with resulting fire due to the thermal effect by means of conduction, radiation or convection (e.g. flame or electric arc temperature, splashing of metal or slag burning particles, bursting of burning compound from a sawed joint, thermal radiation, high temperature of welded materials, high temperature of gas products during welding) and the occurrence of inflammation and inflammation supporting gases or current circuits of the welding current.
<b>Company employee</b>	An individual who is in the labor relation with the company on the basis of an contract or agreement of employment, or an individual occupying a post in the company on the basis of different agreements or contracts.
<b>Source of combustion</b>	An energy carrier of different kinds that might cause the inflammation of a substance during given conditions. E.g. a flame, glowing substances, mechanical or electric spark, electromagnetic or other kinds of radiation.
<b>Submitter</b>	A subject selected for the order execution with the concluded contract.

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Terms/Definition	Explanation
<b>Special zone</b>	A part of the territorial unit or equipment serving to the determination of authorization and control methods during works.
<b>Special fire and safety precautions</b>	Technical and organizational precautions for ensuring fire safety before the initiation, in the course of and after the completion of the work with open fire and other inflammable sources considering the particular kind of hazard (an area with the combustion hazard followed by fire and an area with fire hazard), location of the welding site, fire and safety provision of the building site, fire protection security system not only on the welding site but also in the neighboring premises.

## 2.2 Abbreviations

Abbreviation	Explanation
<b>AIM*</b>	Database system for storing historical data
<b>AMS</b>	Database system for communication with instruments of field setting (Asset Management Solutions)
<b>BOZP</b>	Health safety and protection at work
<b>BP</b>	Work safety
<b>CCTV</b>	Industrial television
<b>ČSN</b>	Czech technical standard
<b>DCS</b>	Distributed Control System
<b>DMV/LEL</b>	Minimum level of combustion – describes the lowest concentration of inflammable gas mixture or vapors with the air or a different oxidant during which the mixture is already combustible.
<b>EPS</b>	Electric fire signalization
<b>EZ</b>	Electrical equipment
<b>FAR</b>	Self-service pinion
<b>FAS</b>	Cell with the technological setting including sanitary facility for the attendance of operations
<b>GDS</b>	Equipment for detection of inflammable gas and vapors
<b>HP</b>	Fire-extinguisher
<b>HSQ</b>	Health, Safety and Quality Department
<b>HW</b>	Hardware
<b>HZS</b>	Fire brigade
<b>IDP</b>	Individual breathing apparatus
<b>IPS</b>	Instrument Protective System
<b>IT</b>	Information technology
<b>JHA</b>	Job Hazard Analysis
<b>NCV</b>	New central control room
<b>NPK-P</b>	The highest available concentration of chemical substances in the working environment to which the employee cannot be exposed in any interval of a working shift.
<b>OO</b>	Open fire
<b>OOPP</b>	Personal protection working means
<b>OZO v PO</b>	Professionally qualified person in fire protection
<b>PHZ</b>	Semi-extinguishing system
<b>PLC</b>	Programmable Logic Controller
<b>PO</b>	Fire protection
<b>PP</b>	Permit-to-Work
<b>PRP</b>	Work procedure
<b>SAP</b>	Systems, Applications and Products in Data Processing

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<b>SDS</b>	Road distribution centre
<b>SHZ</b>	Fire extinguishing system
<b>SKP</b>	Liquid gas warehouse
<b>SO</b>	Building object
<b>SW</b>	Software
<b>TOP</b>	Technical and organizational procedure

**Directive no. 435 “Permit to work”****3. Permit to Work – long-term Permits****3.1 Issuing a long-term Permit**

- 3.1.1 A long-term Permit to Work cannot be issued for all activities, it is primarily meant for activities related to preventive or planned maintenance of facilities.
- 3.1.2 Activities, which can be performed under the long-term Permit to Work, must meet the following criteria:
- it concerns a repeated activity, conditions and risks for performing the work can be clearly defined,
  - the scope of work remains unchanged, or only certain selected activities described in the Permit are performed,
  - risks associated with the activity performed or resulting from the technology in place are low or are eliminated by an effective measure.
- 3.1.3 Long-term Permits must be approved by a committee composed of representatives of the Production Section, Maintenance Section, HSQ Department and a representative of another organization who is responsible for carrying out the given activities.
- 3.1.4 The Maintenance Section representative is responsible for preparing the long-term Permit, so-called Card. In cooperation with the representative of another organization that carries out the given activity, he/she shall state in the Card the description of the activity with an emphasis on individual steps, which the given activity consists of. For these steps, he/she shall then determine the resulting either from the technology operated, or from the activity performed, and determine effective measures to address them.
- 3.1.5 Such prepared Card is assessed by the committee. The committee may change the conditions in the Card, it also has the authority to reject the use of the Card for the selected activity.

**3.2 Persons working under the long-term Permit**

- 3.2.1 Work under the long-term Permit may only be carried out by designated employees of another organization who have been demonstrably acquainted with the scope of the card and who are aware of the risks resulting not just from their activity but also from the technology operated by the Company.
- 3.2.2 Acquainting employees of other organizations takes place 1x per year and it is done on the selected days by employees of the HSQ Department. In case an employee of another organization cannot, for whatever reason, attend the training on the selected days, the training shall be conducted by a representative of a contractor holding a position for the BOZP area.
- 3.2.3 Attendance to the acquainting will be confirmed to employees of another organization to passes created for this purpose. An employee of the Company or a contractor representative conducting the acquainting shall record on the pass the Card no., date and his/her signature.

**3.3 Commencing the work under the long-term Permit**

- 3.3.1 Employees of another organization perform the work under the long-term Permit with respect to the schedule of work set for the given week.
- 3.3.2 From the SAP system, no permits to work are generated to an electronic system for such activities.
- 3.3.3 Employees of another organization shall report having commenced the activities to the foreman of the operation unit or to an appointed operator at the given unit where the work is to take place. Handover of

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the worksite to maintenance shall be confirmed by both parties by signing in the Book of work handovers. For these purposes, it is necessary to state the following information:

- date and time of commencing (if the activities take longer than 1 day, the handover needs to be recorded each day),
- place/facility, on which the work will take place,
- name and signature of the person having handed over the worksite to maintenance,
- name and signature of the person having taken over the worksite to maintenance,
- name of the company performing the work,
- **no. of the Card, which pertains to the activity,**
- **additional conditions** – this serves to record current conditions that cannot be assessed in advance and therefore cannot be a part of the risks identification and assessment contained in the Card. Also, the readings of the air measuring at the worksite prior to commencing the work shall be recorded.

3.3.4 After completing the work, the following information needs to be entered:

- time of completion of the activity,
- name and signature of the person having handed over the worksite back to the operation,
- name and signature of the person having taken over the worksite back to the operation.

3.3.5 The Shift Manager, the operations foreman or an appointed operator at the given unit is bound to check that the work will only be performed by those employees of another organization who have a valid training. When taking over the worksite, a representative of another organization taking over the Permit is, for this purpose, bound to present the passes with the valid dates of training of all persons who are to take part in the given activity.

3.3.6 Employees of another organization are not bound to have a copy of the Card, which they work under, at the place of work. It is their duty to know all the risks associated with the activity performed and resulting from the place of work (the given part of the technology).

3.3.7 The worksite is normally handed over by an employee of the Company who shall notify the employees of another organization of the local condition, mainly in terms of a possible extraordinary incident, i.e. the locations of fire protection means or EPS buttons, GDS sensors and locations of the closes phone for being able to call the HZS (fire brigade) or rescue services.

3.3.8 The long-term Permit cannot be used for activities requiring a standpoint of a contiguous division (works on pipeline bridges etc.). In such case the work group must be issued with the short-term Permit on the standard form.

### 3.4 Approving and storing the Cards

3.4.1 The approved Card must be signed by all representatives of the committee, subsequently it shall be converted to an electronic form and stored in the central database on the Company's intranet.

3.4.2 Copies of the approved and signed hardcopies of the Cards are stored at the worksites of the persons responsible to permit the commencement of the work at the given unit (typically with the foremen or appointed operators for the given unit). The HSQ Department is responsible that the approved and signed hardcopies of the Cards located at the said worksites are up-to-date. In case of an update, they shall supply the current versions of the Cards to the said worksites.

3.4.3 At the beginning of each calendar year, all current Cards must be reviewed (including those that have been prepared during the preceding year). The review shall be attended by the committee in its full composition. The committee shall discuss the content of the Cards and propose any adjustments, if necessary. The review is completed by signing the reviewed Card by all members of the committee.

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### 3.5 Validity of the Permit

- 3.5.1 The validity of the long-term Permit is stated on the long-term Permit's Card, usually it is one calendar year.

## 4. Permit to Work – short-term Permit

### 4.1 Introductory Provisions

- 4.1.1. For works on process equipment, buildings and lands belonging to the company or in its custody or rented by it (i.e. repairs, investment operations, maintenance, preparation and special works) not including the exceptions stated in the Article 4.1.2, 4.1.3 a 4.1.5, the Permit to Work has been issued (hereinafter referred to as “Permit”).
- 4.1.2. The Permit is not issued for works and operations related to the diversion from damage on the assets, life or health of persons, should the danger in delay impend (e.g. the intervention of fire brigade, salvage operations, operations leading to the immediate insurance of the full functioning of computer systems regarding the technological procedures etc.).

The Permit is not to be issued in connection with producing photographic documentation and/or a video recording of an extraordinary incident, provided that the provisions of the directive no. 402, item 4.7 are adhered to.

In an explosion hazard area, concentrations of flammable gases and vapors (and other harmful substances, as applicable) must be checked prior to commencing the activities, along with making a record in the Appendix no. 435/9. The meters may only be operated by employees who have passed the training and practical drill with the particular meter.

- 4.1.3. The Permit to Work is not issued for work on a detached building site/worksite related to a new construction.

The works are executed on the detached building site/worksite in accordance with the conditions stated in the Certificate of acceptance, furthermore based on the activities submitted and on the Plan of Securing the Work Safety and Health Protection at Work, Fire Protection and Environmental Protection at the building site/worksite.

Shall more companies execute the works on the detached building site/worksite, an employee of one of them must be appointed (a coordinator) in the Certificate of acceptance as a superior whose liability is to ensure the coordinated procedure for securing BOZP and PO.

Decision to define a detached building site/worksite shall always be made by a committee composed of:

- Investment Section representative,
- Contractor representative,
- Production Section representative,
- HSQ Department representative,
- Representative of other parties involved.

If the construction activities take place in an area where there already are operational activities and/or if the work is performed on the current facilities and/or if attaching or connecting to such facilities is a part of the construction work, such area cannot be considered a detached building site/worksite.

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- 4.1.4. In case of the execution of a new building or equipment within the investment, the authorized employee from the investment department becomes the issuer of the Permit. The SUBMITTER is an authorized person on the workplace in which the new building or equipment is executed.
- 4.1.5. The exception from the Clause 4.1.1 is made by the example specification of works, stated in the Appendix no. 435/5 of this directive that can be executed without the Permit only on the Reporting duty, i.e. while the work is approved by an employee of the given workplace where the work will be executed. Persons performing the mentioned operations must be acquainted with the risks of the given workplace before initiating the work - preventive precautions, emergency alarms and response to emergency situations or alarms. The method of work performance stated in the Appendix no. 435/5 of this directive must be appointed by the relevant building service documentation, PRP, TOP etc. The exception from the reporting duty is granted to the employees of the given workplace in which the operation will be executed.
- 4.1.6. Reporting duty (list of work stated in the Appendix no. 435/5) is executed by means of “the Book of reports”.

Book of reports is placed:

**Litvínov Zone**

Plant 1: SO 1365 (FAS 1); SO 2314 (FAS 2); SO 3412 (NCV)  
 Plant 2: SO 4408 (FAS 3); SO 3405; SO 3605  
 Plant 3: SO 3515  
 Laboratories: SO 1326  
 Administration buildings: SO 3411/3411A; SO 4835

**Kralupy n/V Zone:**

Central Control Room: SO 2520 (NCV)  
 Plant 2: SO 8613 (SKP); SO 4705 (SDS)  
 Laboratories: SO 2510  
 Administration buildings: SO 1011; SO 0501

A person executing the operation on Reporting duty signs out in “the Book of reports” that he was acquainted before the initiation of work with the operation area where the operation will be performed, especially with the method of ensuring the workplace regarding the protection against explosion, alerts used on the workplace before explosion hazard. The given person also confirms that he understood the aforesaid instructions.

The Production section employee confirms by his signature that he understood the presence of a person in the relevant area and that this person got acquainted with the risks of the given workplace.

- 4.1.7. The initiation and completion of any work must be reported by the recipient to the superior of the division or to the authorized employee where the work is executed, **it is also necessary to report leaving of the workplace during the interruption of work and its re-initiation**, also in case of works to which the Permit is not issued (see the Appendix no. 435/5). The initiation and completion of work must be also announced to the superior of the contiguous or special division, if this one was invited to the license system.
- 4.1.8. If the safe execution of work requires other emergency measures during which the ISSUER is not entirely sure, he is entitled to invite the appropriate representative of the special unit, or other specialists. The task of the team is to consider all possible risks of the executed work and set the measures that would eliminate or reduce these risks (the measures are stated in a report). The report, to be signed by all participants, is an appendix to the Permit and all employees of the appropriate workplace and persons who will take part in the executed work must get acquainted with its content.
- 4.1.9. In case of work involving hazards, particularly if the relevant safety measures cannot be fully implemented according to generally valid safety regulations, the work procedure and the scope of the safety measures

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must be defined by a committee, which is summoned by the SUBMITTER (see the item 4.3.5). The output of the committee is a written analysis of ensuring the job hazards (JHA) as per the work procedure “Analysis of ensuring the work safety” (3<sup>rd</sup> level document).

The JHA output (Appendix no. 435/10) is a part of the Permit. When a hazardous activity and/or an insufficient work progress (interruption of the permitted work) is discovered, an additional JHA needs to be carried out. The output of the systematic analysis of procedures and activities includes a **review of existing** protective and safety measures and, in case of insufficient measures, a **proposal and adoption of further** measures.

Note: The Job Hazard Analysis must always be produced in case of entry and work in confined spaces and below the terrain level (see the Directive no. 408). Furthermore, also in cases of work when a piece of equipment is opened, which contained or can contain hydrogen sulfide (see the Directive no. 432). In other cases it is up to the SUBMITTER whether he/she initiates the committee to be summoned.

- 4.1.10. Grouping the operations – within the Permit to Work process, operations can be grouped, i.e. a single Permit can be issued for several operations. The grouping is done by the ISSUER when preparing the Permit. The SUBMITTER is responsible for its correctness within his/her responsibilities. To check or, if relevant, adjust the grouped operations is the responsibility of the SUBMITTER.

For the grouping, the following rules apply. Operations can be grouped into one Permit, if they meet one of the following criteria:

- individual operations will be performed by a single contractor,
- risks of activities within individual operations are identical,
- the grouping can be applied to one operational unit.

## 4.2 Issue of the Permit

- 4.2.1. The ISSUER is the person authorized. The Permit is issued by the ISSUER in cooperation with the SUBMITTER and the RECIPIENT of the Permit.
- 4.2.2. The ISSUER fills in the header of the electronic Permit form by following the “Permit to Work” manual (3<sup>rd</sup> level TMS documentation). He/she specifies the type and a detailed work description, which is going to be executed, the planned start (day, starting which the Permit can be issued) and planned finish of the work, specifies the precise location (functional location and building) and he/she indicates the name of the RECIPIENT to receive the electronic Permit that performs the given activity. For work within an investment project, also the project no. shall be stated.
- 4.2.3. Safety measures concerning mechanical aspects (e.g. working process, tools and/or equipment that will be used) must be specified by the ISSUER before he/she forwards the electronic Permit to the appropriate SUBMITTER.
- 4.2.4. The ISSUER may fill in the header of the electronic Permit either by directly entering the data manually in an application on the intranet (see the “Permit to Work” manual) or by means of the information entered into order operations in the SAP system (such information is then transferred to the intranet application automatically upon approval and release of the relevant order).
- 4.2.5. The ISSUER fills in the column 1-5 of the electronic Permit form.
- 4.2.6. The ISSUER is responsible for the quality of the information on the electronic Permit header, mainly for ensuring that there is enough information on the electronic Permit header to enable to subsequently define general and current conditions of the work.

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- 4.2.7. The name of the ISSUER is automatically stated on the electronic Permit header in the column 1. The person responsible for executing the work (generally it may be a person different from the ISSUER of the electronic Permit) is stated in the column 4 “Person responsible”.
- 4.2.8. The ISSUER may be, in exceptional cases (work outside the regular working hours) the person authorized by the Production Section.

**4.3 Submitting the general conditions of the work**

- 4.3.1 The SUBMITTER of the general work conditions may only be a person authorized to do so. The SUBMITTER is a representative of the Production Section, with the following exceptions:
- The SUBMITTER for the work in the FARs and electrical distribution rooms is the authorized maintenance technician, the Production Section representative in such cases signs the Permit as a contiguous division.
  - The SUBMITTER for the work of the Administration Department or the IT Section, which do not interfere with production facilities or areas, is the authorized employee of the Administration Department or the IT Section. A signature by a representative of the Production Section as a contiguous division is not required in these cases.
  - The SUBMITTER for the work in laboratories is the Head of Laboratories or his/her authorized deputy in the given location.

The above applies also outside the regular working hours (Saturdays, Sundays, public holidays), and also for afternoon and night shifts.

- 4.3.2 General conditions for executing the work are such conditions that are independent of the work execution time. In the electronic Permit, they are included in the columns 6 to 11, with the following breakdown:
- The columns 6 and 7 define the conditions that must be met prior to commencing the work.
  - The columns 8 to 11 define the conditions that must be met during the execution of the work.
- 4.3.3 The SUBMITTER shall, in the columns 6 to 11, in detail specify the preventive measures required prior to and during the work. To define these general conditions of the work, he/she shall use the information from the electronic Permit header. In case of a potential interaction between concurrent operations, he/she shall make measures necessary for managing them, i.e. he/she shall ensure that the proposed work does not cause a risk (hazard) or a conflict with other activities in the given area (of a work underway and/or planned). He/she shall specify, which areas (districts) will be impacted by the Permit (work between two or more areas) and shall invite the persons responsible to take part in the permit procedure.
- 4.3.4 If the nature of the work requires, in terms of safety, a deeper analysis (specific risks), the SUBMITTER shall tick the “committee required” field in the column 11, by means of which he/she shall submit the general conditions of the electronic Permit for a more detailed review. The SUBMITTER is bound to request the committee at least for the following typical activities:
- Work with open fire or other ignition sources on facilities containing flammable substances.
  - Work with open fire.
  - Entry and work in confined vessels and below the terrain level.
  - Work, at which a piece of equipment is opened, which contained or can contain hydrogen sulfide.
- 4.3.5 The committee under the item 4.3.4 meets at the place of execution of the work and its mandatory members are:
- Shift manager, or Shift Foreman or his/her deputy.
  - Head of the relevant facility/operation or his/her deputy.
  - Person responsible for execution of the work (see the column 4 “Person responsible”).
  - HSQ Department representative.
  - Representative of a special, contiguous division, HZS and other discipline employees, if stated in the Permit.

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**Note:** The fire assistance<sup>1</sup> at the planned work needs to be agreed two days in advance, unless it is a case with a risk of delay involved.

- 4.3.6 Recording the output of the committee shall be made by the SUBMITTER to the relevant form, which will thus become an attachment to the electronic Permit. The SUBMITTER shall write the number of the form into the electronic Permit, column no. 11.
- 4.3.7 Approval of the general conditions shall be made by the SUBMITTER by ticking the field “Printing allowed”. The date of the last definition (change) of the conditions and the name of the last SUBMITTER will automatically appear in the column 11 “Conditions defined by / on (date):”.
- 4.3.8 The SUBMITTER is responsible that the general conditions defined by him/her in the columns 6 to 11 will allow a safe execution of the work specified in the header of the electronic Permit.
- 4.3.9 The SUBMITTER shall specify in detail the preventive measures required prior to and during the work.

### 4.4 Submitting the current conditions of the work and issuing the Permit to Work

- 4.4.1 The current conditions of the work are those that can depend on the timing of execution of the work. In the electronic Permit, they are included in the columns 12 to 15. The current conditions can only be defined by a person responsible – the PARTY HANDING OVER. The PARTY HANDING OVER is a representative of the Production Section, with the below exceptions:
- a) The PARTY HANDING OVER for the work on the FARs and electrical distribution rooms is the authorized Maintenance Technician.
  - b) The PARTY HANDING OVER for the work of the Administration Department or the IT Section is the authorized employee of the Administration Department or the IT Section, respectively.
  - c) The PARTY HANDING OVER for the work in laboratories is the Head of Laboratories or his/her authorized deputy in the given location.

The above also applies outside the regular working hours (Saturdays, Sundays, public holidays, afternoon and night shifts).

- 4.4.2 The current conditions are always determined on the day of executing the work. If the work takes several days, then the current conditions shall be determined on each day when the work is executed.
- 4.4.3 Within defining the current conditions, the PARTY HANDING OVER shall confirm, in the column 12, that the general conditions defined by the SUBMITTER are met.
- 4.4.4 If it is required by the SUBMITTER that in order to execute the work, the concentrations of flammable gases, flammable liquids vapors mixed with air or another oxidizer, shall be measured (either prior to commencing or on an ongoing basis), the PARTY HANDING OVER shall ensure the initial analysis on and around the worksite prior to issuing the Permit to Work to the RECIPIENT and outcomes of such analysis shall be recorded into the electronic form of the Permit. If the analysis is required to be done on an ongoing basis, further measurements on the given day are ensured by the RECIPIENT through a person having been demonstrably acquainted with operating the given analyzer.
- 4.4.5 Prior to issuing/printing the Permit, the PARTY HANDING OVER shall state a day and time interval of the validity of the Permit. The printed copy of the Permit is valid only within this timeframe. If the work were to

<sup>1</sup> Planned assistance of the HZS = a set of technical and organizational measures performed by the fire brigade squad of UNIPETROL RPA, s.r.o. or SYNTHOS Kralupy a.s. at work on equipment, with open fire, or other technological procedures, in case of which the Committee or the SUBMITTER of conditions defined it a duty to perform such measures in advance. It concerns ensuring the fire safety at repair work and maintenance of the equipment, and thus avoiding dangerous situations; it does not concern activities at a substance leakage, fire or another extraordinary incident, which has already occurred.

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take place in another time interval, under unchanged conditions, the Permit needs to be extended. In case of a change of the conditions, a new Permit must always be printed.

- 4.4.6 The issued/printed or extended Permit serves as a document for physical handover of the facility to the maintenance / investment. The actual handover must take place directly on the location of the work.

### 4.5 Takeover of the Permit to Work

- 4.5.1 The RECIPIENT of the electronic Permit may only be a person authorized by the executor of the work (i.e. by the management of the vendor).
- 4.5.2 The RECIPIENT is bound to submit to the SUBMITTER the relevant risk analyses produced during planning the work, in two copies.

**Example listing of risk analyses:** information on risks resulting from the activities of the recipient of the Permit to Work, list of designated employees carrying out the work in areas with explosion hazards, analysis of ensuring the work safety (risks assessment), emergency plan or a persons rescue plan, safe work system (flanging plan), specific equipment operation manuals, technical datasheets, technological procedures, etc.

**Note regarding the “Information on risks resulting from activities of the recipient of the Permit to Work” form:** The graphical appearance of the “Information on risks resulting from activities of the recipient of the Permit to Work” form is fully up to the RECIPIENT of the Permit. It must, however, contain the name, surname (in block capitals) and a signature of the person having processed the risks, then also the date of elaborating it, name, surname (in block capitals) and a signature of the person having taken over these risks on behalf of the Company. The form must contain a number of the specific Permit. Besides the risks, the attachment must also contain information on the measures proposed by the elaborator and OOPP to minimize the risks to an acceptable level. Standard OOPP, which are to be always used in the production facilities area, are not to be listed, i.e. antistatic protective clothing made out of inflammable fibers, protective helmet, safety goggles with a side guard, anti-static safety boots with hardened toe caps, punch-resistant (type S3), protective gloves, emergency escape breathing apparatus (on designated premises).

- 4.5.3 The RECIPIENT, by means of his/her signature, confirms that:
- The work shall be carried out under the conditions stated on the Permit, that tools and equipment to be used to perform the repair (work) will be in a safe condition, that it will not endanger employees nor assets of the Company and that all safety and fire protection regulations will be adhered to,
  - He/she is aware of his/her responsibility for ensuring that all other employees that the Permit applies to and other employees additionally entrusted with the work are informed about all conditions and preventive measures stated on the Permit,
  - He/she is aware of and fully understands the conditions and all preventive measures related to the work,
  - In case of work in an explosion hazards area, all his/her employees, including employees of subcontractors designated to perform the work stated in the Permit, have been demonstrably acquainted with the content of the Permit.

Note:

The acquainting shall be recorded into the Appendix no. 435/7 to this directive. The Appendix shall always be filled in with a copy, the original belongs to the SUBMITTER and the copy is for the RECIPIENT. In case of any changes and amendments, these must be made in parallel in the original as well as in the copy of the Appendix. The Appendix is an integral part of the Permit. After demonstrably acquainting all employees who are to take part in the work, the RECIPIENT is bound to hand over the filled in Appendix (the original) to the SUBMITTER. Upon a change of the conditions defined in the Permit, the RECIPIENT

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is bound to carry out a repeated demonstrable acquaintance of all employees involved with the change of the conditions defined to execute the work.

In case of personnel changes, he/she is bound to ensure, always prior to commencing the work, a demonstrable acquaintance with the content of the Permit and to ensure amending the current Appendix. Such amended Appendix shall be handed over to the SUBMITTER.

4.5.4 The RECIPIENT is not allowed to issue a Permit for himself/herself.

### 4.6 Handing over the work to the maintenance or investment

4.6.1 HANDOVER of the work to Maintenance or Investment (hereinafter referred to HANDOVER) is, in terms of this document, considered the act when a representative of the entity operating the given equipment (PARTY HANDING OVER) hands over the equipment, which is to be subjected to the work, or directly related surroundings (worksite) to a representative of the executor of the work (RECIPIENT).

4.6.2 Handing over the work to Maintenance or Investment is documented on the signature part of the printed version of the electronic Permit by means of a signature of the PARTY HANDING OVER and the RECIPIENT of the Permit to Work or by a representative of a contiguous division or a special division (columns no. 16 and 17).

4.6.3 When handing the work over to Maintenance or Investment, the representative of the contiguous division confirms, by means of his/her signature, that the work defined in the Permit to Work and performed under the conditions stated in the Permit to Work will not jeopardize the safety of persons performing the work and operations at the given contiguous division.

### 4.7 Interrupting the work

4.7.1 An INTERRUPTION of the work is, in terms of this document, considered a temporary interruption of the work:

- a) interruption of the work in order to have a work break,
- b) short term leaving the worksite in order to get the necessary materials, tools, etc.,
- c) completion of the work and handing over the equipment back to operation.

4.7.2 At each INTERRUPTION, the RECIPIENT is bound to inform the PARTY HANDING OVER about this and to submit to him/her the Permit to Work related to the given work being interrupted.

4.7.3 The PARTY HANDING OVER shall, at the INTERRUPTION of the work, which is not to be resumed during the given day, record this into the electronic database to the relevant Permit to Work.

4.7.4 Continuation of the work after an INTERRUPTION is extended in the electronic system by the SUBMITTER; the PARTY HANDING OVER shall, by his/her signature, then confirm the handover of the worksite and the current conditions for performing the work into the printed Permit to Work.

4.7.5 In case of change of the conditions, the PARTY HANDING OVER shall notify the SUBMITTER who shall record the change into the electronic system of Permits to Work. The PARTY HANDING OVER shall then print a new version of the hardcopy of the Permit to Work, which he/she shall subsequently extend, unless another change of the conditions occurs.

### 4.8 Completion of the work and handover back to use

4.8.1 A COMPLETION of the work and handover back to operations is, in terms of this document, considered the act when a representative of the executor of the work (RECIPIENT) hands over the equipment having

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been subjected to the work or a directly related surrounding environment (worksite) to a representative of the party operating it (PARTY HANDING OVER).

- a) The PARTY HANDING OVER for work in the FARs and electrical distribution rooms is the authorized Maintenance Technician,
- b) The PARTY HANDING OVER for work of the Administration Department or the IT Section is the authorized employee of the Administration Department or the IT Section, respectively.
- c) The PARTY HANDING OVER for the work in laboratories is the Head of Laboratories or his/her authorized deputy in the given location.

The above also applies outside the working hours (Saturdays, Sundays, public holiday, afternoon and night shifts).

4.8.2 The COMPLETION is documented on the signature part of the printed version of the Permit to Work by means of signatures of the RECIPIENT and the PARTY HANDING OVER.

4.8.3 At each COMPLETION of the work, the PARTY HANDING OVER shall close the Permit to Work in the electronic database.

### 4.9 Validity of the Permit

4.9.1 The validity of the Permit is from the date of commencing the activity to the date of its completion. Upon completion of the work, the Permit must always be ended. In case of **work with open fire**, the validity of special fire-safety measures is 14 calendar days. The Permit needs to be extended after each interruption of the work, **including executing the air monitoring** at the worksite, if defined in the Permit.

4.9.2 At any moment, the work may be interrupted and the Permit to Work withdrawn by any employee of the Company based on a change in the working conditions or the condition of the unit or if the work is not performed in compliance with the prescribed measures.

### 4.10 Archiving

4.10.1 The way of keeping and archiving hardcopies of interrupted/closed Permits is governed by the 3<sup>rd</sup> level TMS document – *Regulation 001 “Keeping and archiving interrupted/closed Permits to Work”* and also by the *Regulation no. 003 “Filing and Shredding Regulations”* and by the *Directive no. 707 “Organization of Archiving Services”*.

### 4.11 Provisions

4.11.1 All work is subject to a unified Permit to Work form stated in the Appendix no. 435/1 hereto and if necessary also the Appendix no. 435/18 “Permit to Work / Validity Extension Table”.

4.11.2 The Permit is issued in two copies (numbered hardcopy document). One copy of the Permit, including all attachments issued for the Permit, shall stay with the PARTY HANDING OVER, the other copy of the Permit, including the same attachments, shall stay with the RECIPIENT at the location of the work. Both copies, approved by both parties must contain identical data.

4.11.3 Attachments issued to the Permit shall be stored with the first copy of the particular Permit and shall be valid during the whole duration until a full completion of the work. If the content of any of the attachments issued changes during the work, such attachment needs to be reviewed and amended to the particular Permit. This duty is fulfilled by the role and responsibility in the area of attachments to the Permit (see the Appendix no.435/11).

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- 4.11.4 Detailed instructions for filling in the Permit form are contained in the “Permit to Work” manual (3<sup>rd</sup> level of TMS documentation).
- 4.11.5 Under no circumstances may one person sign the Permit to Work within the responsibilities of the SUBMITTER and at the same time also the RECIPIENT of the Permit (the only exception is the work in the FARs and electrical distribution rooms, work of the Administration Department or the IT Section, which do not interfere with the production facilities, and the work in laboratories).
- 4.11.6 A Permit may only be issued after all persons involved in the relevant Permit have signed it.
- 4.11.7 The terms ISSUER and RECIPIENT represent for one particular work or one Permit to Work a specific unchangeable person, who can only be substituted within the standard substitutability due to illnesses, vacations, etc. The terms SUBMITTER and RECIPIENT, however, for one particular work or one Permit to Work represent a role, not a particular person. This role is filled in with persons rotating on shifts based on the shift schedule.
- 4.11.8 Authorization for participants of the Permit to Work issuing process is issued in two original copies, out of which one copy stays in the possession of the person authorized, the other copy needs to be submitted by the relevant Section Manager to the Human Resources Section.
- 4.11.9 The relevant Section Manager is bound to produce a list of persons authorized (the list must contain a cost center, name and surname, SAP no., specification of the “role”, location, validity of the authorization, last training date). The list must be published in such a way that it is permanently available to all persons concerned and it must be updated upon each change impacting its content.

### 4.12 Work with sparking, open fire and other sources of inflammation

- 4.12.1 For all work with sparking, open fire and other sources of ignition, a Permit needs to be issued hereunder.

#### 4.12.2 Work with sparking

This obligation refers to:

- the use of working aids and objects not corresponding to the given environment by their implementation and due to which the initiation of inflammation set such as electric drill etc. might occur in the premises with fire or explosion hazard with consequent fire.
- the use of electric instruments, tools and equipment not corresponding to the given environment by their implementation, including photographing, filming and use of mobile phones (it is strictly forbidden to bring mobile phones into the production premises of the company).
- the entry of vehicles into the premises with fire hazard, explosion hazard with consequent fire and into the premises with dangerous concentration.

#### 4.12.3 The Work with open fire and other sources of inflammation

This obligation refers to:

- work with open fire,
- works during which used tools produce sparking in form of sparkle,
- works due to which used tools produce the increase of temperature of the machined material, the contact with inflammable substance might produce dangerous inflammation.

Following operations are considered as works with open fire and other sources inflammation with potential fire hazard:

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- welding such as heat sealing, grooving and thermal division of metallic and non-metallic materials in case these work are executed by the use of open fire, electric arc, plasma, electric resistance, laser, friction, aluminothermic welding,
- the use of electric soldering iron and petrol soldering lamps,
- the use of grinding machines during the machining of metallic materials,
- the use of open fire,
- warming of asphalt in fuse vessels,
- the use of thermal sources the energy (heat) of which may initiate fire or explosion.

Note: An example listing of hazardous activities in terms of the used equipment, instruments, tools, etc. and of subsequent requirements is stated in the *Appendix no. 435/17 “Requirements for hazardous activities”*.

### 4.13 Conditions for commencing the work with sparking, open fire and other sources of inflammation

- 4.13.1 Before the initiation of work with sparking, open fire and other sources of inflammation, the SUBMITTER and the RECIPIENT shall evaluate the risks arising from the considered sources of inflammation and conditions of the fire safety in the premises where the operation will be executed, as well as in the contiguous premises and whether these operations require special fire and safety measures. During this operation a fire hazard represented by inflammable substances contained in the building constructions (e.g. walls, ceilings, screens) is also evaluated. If the fire safety conditions are modified in the course of work with open fire and other sources of inflammation, it is possible to continue the operation only after a new evaluation and ensuring the corresponding basic or special fire and safety measures.

The Permit to Work with open fire and other sources of inflammation must be issued in advance in conformity with the weekly maintenance plan. The Permit to Work with open fire outside the weekly plan can be issued in exceptional cases only.

- 4.13.2 **Basic fire safety measures** (elementary risk - premises without explosion hazard)

Basic fire and safety measures are appointed in premises without direct danger of the origin of fire and its diffusion. This especially concerns workplaces with the elementary risk during work with open fire and other sources of inflammation.

Basic fire and safety measures do not require the elaboration of “Special fire and safety measures” on condition that the Permit to Work will contain safe conditions for the given operation and the attachment for recording fire supervision in case of welding or grinding will be the part of this Permit (Appendix no. 435/4).

Elementary conditions during work with open fire and other sources of inflammation are:

- elimination of inflammable, inflammation supporting or combustible substances from the workplace and its surrounding that might be endangered,
- prevention of heat transmission, cinder impact, sparkles to inflammable substances that cannot be eliminated from the workplace (e.g. covering or sealing by means of fire-resistant or hardly inflammable material in order to prevent at the same time soaking inflammable substance into covering material),
- covering of drainage shafts, technologic drain, inlets sealing of transmissions by fire-resistant materials,
- covering of cabling,
- concentration measurement of inflammable gas, inflammable liquid vapors and dust in the mixture with the air and other oxidant and maintaining the concentration under the limit for dangerous concentration,

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- placement of technical equipment against splashing of hot particles so that the equipment prevents against the action of sparkles, metal particles and slag,
- other conditions stated by the submitter, e.g. fire supervision, preventive fire guards, free emergency exits, secure workplace (bucket with water, extinguishers, chilling, ventilation etc.) and conditions of implementation before the initiation of work, its duration and completion according to the need and specific conditions on workplace in accordance with valid regulations.

### 4.13.3 Special fire safety measures (specific risk - premises with explosion hazard)

Special fire and safety measures are stated during the operations with specific risk. It mostly concerns the operations in the premises or equipment with the direct danger of fire or explosion with consequent fire, in the premises with dangerous concentration requiring exceptional and extensive safety measures.

These works are subject to the Permit which integral part must be represented by the record “Special fire and safety measures” for the execution of work on the particular operation set (building site etc.) determined by commission proceedings (see the item 4.3.5). The committee is summoned and chaired by the SUBMITTER.

The committee evaluates risks arising from the nature of work, executes the visit of a workplace and determines the method and measure for its safe performance including the responsibility. The committee’s meeting minutes must contain the date, names and surnames and titles of the participants and signatures of members of the committee. The minutes must be numbered and this number stated in the Permit form (column 11).

The expiration of validity of special fire and safety measures and stipulation of new measures is executed while changing the nature of work, technology, technological process, conditions for work or while changing the issuer or submitter.

Under unchanged conditions, the validity period of these minutes is 14 calendar days.

The form to define special fire-safety measures is specified in the Appendix no. 435/3 of this directive.

Work with fire on the equipment during the operation and under pressure containing inflammable or fire supporting substances. These works are subject to the work regulation Maintenance section PPU\_104 “Installing necks during the operation (Hot tapping)”. The integral part of the Permit is “the Approval for installing necks during the operation on the equipment” stated in the aforesaid Work procedure for maintenance. It is necessary to add the Permit number in this form. It is necessary to mark to the column 5 of the Permit form, in a highlighted manner, the following: “WORK ON THE EQUIPMENT DURING THE OPERATION - HOT-TAP”.

In case welding is performed that repeatedly requires special fire-safety measures and on similar (in terms of structures of design) welding worksites, for which such fire-safety measures can be defined in a unified way, this can be done in the relevant working or technological procedure.

## 4.14 Fire supervision

- 4.14.1 Fire supervision is executed continuously in the course of welding. During the interruption of welding or after its completion, the fire supervision is executed for the determined period continuously or with regard to the nature of works and area for a determined period in the intervals stated by special fire and safety measures.
- 4.14.2 After the completion of welding requiring special fire and safety measures, it is necessary to control fire safety of the welding workplace and contiguous premises within the fire supervision and ensure it in assigned intervals. Intervals are assigned with regard to the basic, eventually specific risk of the welding

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workplace. The minimum period for fire supervision is 8 hours. In reasoned cases, especially during thermal division of metals and in broken areas, it is necessary to predict the possibility of fire even after 8 hours while setting time during which fire supervision should be executed.

- 4.14.3 It is not necessary to execute fire supervision if welding workplaces and contiguous premises are equipped with working electric fire alarms and stable extinguishing system. If these premises are equipped only with electric fire alarm, it is possible to drop fire supervision only on condition that a responsible person able to execute the primary fire intervention will be on place.
- 4.14.4 The fire supervision is recorded into the Appendix no. 435/3 “Special fire safety measures” in case of work with fire with specific risks. If the relevant columns are added, the Appendix no. 435/4 “Fire supervision” shall be used. If a work with fire with the basic risks is concerned, the fire supervision shall be recorded in the Appendix no. 435/4 “Fire supervision”.
- 4.14.5 If the fire supervision after the completion of the work is performed by a representative of the Production Section of the Company, the fire supervision must be recorded in the form “Fire supervision” (Appendix no. 435/4) and attached to a copy of the relevant Permit.
- 4.14.6 LONG-TERM PERMIT to Work with open fire is issued by the professionally skilled person within PO and/or a fire protection engineer.
- 4.14.7 For workshops, non-manufacturing premises and buildings with no potential risk of fire and explosion, with nor risk from the neighboring environment and on the contrary, it is possible to issue a long-term Permit to Work with fire on the basis of the evaluation of fire safety conditions.
- 4.14.8 Permanent welding workplace must correspond to the provisions of current legislation. The sample of the Permit is introduced in the Appendix no. 435/6 of this directive.
- 4.14.9 The superior in cooperation with the appropriate OZO in fire protection elaborates for the given workplace the examination of operation in the necessary content and OZO in PO issues the long-term Permit to Work with open fire. Before the issue of the long-term Permit, the approval of the division superior is necessary.
- 4.14.10 All employees executing works with fire must be demonstrably acquainted with the obligations arising from these operations.
- 4.14.11 In case of a change of the conditions that might influence the safety on the workplace, for which a long term Permit to Work with an open fire has been issued, the superior is obliged to stop works and inform OZO in PO about this fact with regard to the company owning the relevant premises.

Long-term Permit is valid till the period indicated on the Permit. Its validity expires in cases of the change of the corporation or individual for whom the Permit was issued or the original conditions changed and consequently assigned measures.

### 4.15 Requirements for temporary welding workplaces

- 4.15.1 Parts of the equipment and materials are placed in the welding workplace so that the possibility of free passage is respected and narrow or collision places are not created.
- 4.15.2 Welding equipment is secured in order to avoid its movement or the movement of its parts, and consequently its damage that might lead to the origin of diffusion of fire or explosion with consequent fire, to the relevant aggravation of conditions for emergency exits.
- 4.15.3 Welded material is deposited in the workplace in order to prevent its movement or movement of its parts during which the welding equipment might be damaged, especially the damage of mobile conductors and

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- electric parts of the welding equipment, gas distribution, pipes, which damage might lead to the origin or diffusion of fire and/or explosion with consequent fire.
- 4.15.4 Temporary welding workplaces (except the permanent equipment such as extinguishers and fire systems) are equipped with at least two portable extinguishers with the appropriate content, one of which is the portable dry-powder extinguisher with the weight of extinguishing agent of 5kg.
- 4.15.5 If any part of the welding equipment is damaged, it is not possible to initiate neither continue welding.
- 4.15.6 Conductors of electric current and pipes distributing gas to the welding equipment are led and embedded in order to avoid their damage by sharp movements, material, grease, chemicals, effects of welding process etc. In case of danger regarding the mechanical damage, the equipment is protected by solid casings.
- 4.15.7 In premises where inflammable gases, vapors or dust might be presented, pressure bottles with welding gas, or acetyl producers and current sources for welding works cannot be placed. In case of necessity regarding placing of pressure bottles for welding, acetyl producers and electric current sources, the safe conditions for work must be stepped up.
- 4.15.8 While leaving these premises it is necessary to remove blowpipes and inlet gas pipes for welding.
- 4.15.9 If the danger of drawing the welding conductors or pipes occurs, these are fixed to the solid construction or to any suitable solid equipment.
- 4.15.10 Welding on the machines and equipment in the area where the dangerous concentration may arise (the dangerous concentration represents the concentration of inflammable gas, vapors or dust with the air or another oxidant **from 10% of the minimum lower limit value** of the combustibility for gases, vapors and dusts which means that the dangerous concentration is related not only to the dusts but also to all dangerous substances causing fire that exist or might exist in the premises with specific risk) can be executed only on the machines or equipment that cannot be removed from the given area. It is necessary to prevent leakage of gases, vapors and dusts from the area, machines and equipment and to measure the concentration of the air before the initiation and in the course of work with open fire and other sources of inflammation.
- 4.15.11 During welding in the premises from the 2m height above the places that must be protected against the effects of these works it is necessary to set the protection zones regarding the PO workplace. These zones determine the minimum distance from which it is necessary to remove inflammable materials or to ensure their safe insulation before the initiation of welding, or it is necessary to execute other efficient measures, especially before the effects of hot particles. Protection zones are stipulated with regard to PO individually with the accent on used technology and welding method so that the centre of the protection zone is always under the place of welding and the circle with the 10cm radius in the horizontal position is determined as minimum. During welding at heights of more than 2m for every extra meter the protection zone should be extended by at least 0,3m up to the height of 7m; for every extra meter the protection zone should be extended by 0,1m up to the height of 20m. The mentioned increases are added up to the radius. Protection zones for welding executed at heights of more than 20m are determined individually. During the application of technologies using compressed gases (e.g. oxygen cutting) and during the action of the air current for the air speed surpassing 1m sec<sup>-1</sup>, the protection distance should be extended to the area determined by the ellipse up to the distance of 20m according to the individual examination of fire hazard.

#### 4.16 Permit for drift - cross drift - development

The issue of excavation works on the company's territory is stated in the directive no. 422 “Safety rules for employees of other organizations”.

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**Directive no. 435 “Permit to work”****5. Responsibility**

Responsibility is given by the individual clauses of the Chapters 3 and 4. Non-fulfillment of the individual clauses of this guideline will be according to its consequence implicated in accordance with the regulations and standards of the company and in accordance with the contractual clause (working regulations, motivation system in the BOZP area etc.).

**5.1 Assignment of responsibilities****Production Section Manager**

The Production Section Manager who has the overall responsibility for HSE management in the production units is responsible for:

- applying the relevant Permit to Work system (hereinafter referred to as PP) and ensuring the implementation thereof in line with the valid directive no. 435 (defining general and current work conditions, handover and takeover of the worksite, archiving the Permit as per the Regulation 001, etc.),
- setting up and maintaining competent resources through relevant training programs (appointing individual disciplines of the Production Section employees and assigning the roles of ISSUER, SUBMITTER, PARTY HANDING OVER to these disciplines according to their competences),
- ensuring an ongoing suitable and effective PP system through monitoring, audit and periodic reviews based on the discrepancies found (supervision bodies, audits, safety observations, MU, etc.), ensuring effective remedies (e.g. through appointing a particular competent employee to resolve or make good),
- demonstrably acquainting the contractors (RECIPIENTS) with the valid Permit-to-Work system,
- cooperating at preparing the Cards of long-term Permits-to-Work, nominating the Company’s Production Section employees participating in the preparation.

**Maintenance, Investment, Services and IT Section Manager and Technologists Department Manager**

The relevant Section/Department Manager is responsible for:

- applying the relevant Permit to Work system (hereinafter referred to as PP) and ensuring the implementation thereof in line with the valid directive no. 435 (defining general and current work conditions, handover and takeover of the worksite, archiving the Permit as per the Regulation 001, etc.),
- setting up and maintaining competent resources through relevant training programs (appointing individual disciplines of the relevant Section/Department employees and assigning the roles of ISSUER, SUBMITTER, PARTY HANDING OVER to these disciplines according to their competences),
- ensuring an ongoing suitable and effective PP system through monitoring, audit and periodic reviews based on the discrepancies found (supervision bodies, audits, safety observations, MU, etc.), ensuring effective remedies (e.g. through appointing a particular competent employee to resolve or make good),
- demonstrably acquainting the contractors (RECIPIENTS) with the valid Permit-to-Work system,
- cooperating at preparing the Cards of long-term Permits-to-Work, nominating the Company’s Production Section employees participating in the preparation.

**Process Owner / HSQ Department**

The Process Owner is responsible for:

- creating a PP system and providing a qualification source during applying it,
- monitoring the PP system performance,
- getting feedback from the PP system users,
- conducting user trainings,
- regular inspections of the work managed under the PP system,
- performing systematic checks / audits of the PP system,
- cooperating with the ISSUER within preparation of the Cards for the long-term Permit-to-Work,
- participating in the approval committee for the long-term Permits-to-Work,
- placing the current Cards at the relevant worksites of the persons in charge of permitting the commencement of the work at the given unit (typically with foremen for the given unit) and on the intranet,

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- informing the ISSUER in case of a change of procedure of any of the activities or in case of an insufficient identification and assessment of risks related to the given work. The ISSUER shall subsequently prepare an update of the risk assessment and summon the approval committee,
- training of employees of another organization for the work under the long-term Permit-to-Work.

**Application administration / Information Technology Section**

The application administrator is responsible for:

- deployment, operation and maintenance of HW equipment and SW applications related to the electronic Permit-to-Work system,
- development of the application, system upgrades,
- providing expert advice and consultations to the application users,
- support to the application users through HelpDesk service.

**ISSUER**

The issuer is responsible for:

- detailed work description that should be executed, description of the equipment used for work, description of the used method, area, used tools and instruments,
- the preparation of all documents so as to enable the SUBMITTER to define the conditions for the work,
- performing checks that the work in the given area has been performed / completed and that the facility / equipment is in a satisfactory condition,
- ensuring contacts with contractors,
- the preparation of the Cards for the long-term Permit-to-Work, including the description/procedure of activities and identification and assessment of risks,
- deploying only trained personnel to work under the Card of the long-term Permit-to-Work,
- updating the Card and summoning the approval committee in case of a change in the procedure of any of the activities or in case of an insufficient identification and assessment of risks related to the given work, or based on a contractor's request,
- participating in the long-term Permits-to-Work approval committee.

**SUBMITTER**

The submitter is responsible for:

- the risk identification, preventive measures and risk analysis in term of the operation,
- the approval of the life-saving plan,
- the control that all attachments to the Permit are attached (see the example listing of attached risk analyses within the responsibility of the RECIPIENT),
- the provision of operational preparations stated in the Permit,
- the affirmation that working area is safe in order to initiate work,
- the specification (in the Permit) of the additional measures that must be adopted during work, including the use of means of protection and safe equipment,
- monitoring in case the operation conditions during which the Permit was issued change,
- the identification of conflicts between the proposed and/or planned work and other activities in the area, adopting relevant measures and, if necessary, mutual references to the Permit,
- informing all persons that might be affected by work,
- the provision that the Permit holder knows the exact place of work, all risks issuing from the implemented operation, and all prevention measures and/or conditions that must be adopted during work (it also includes the signing of the Permit by all employees),
- the organization of the meeting (of the commission) regarding safety before the initiation of work,
- the summary of operations in their course (where it's possible and/or available with the use of the monitoring equipment) and the report of the status to the incoming shift during the shift changeover,
- the control regarding the observance of conditions stated in the Permit during the whole period of its validity,
- monitoring regarding the personnel changes (persons introduced in the Permit, compliance with the original and copy of the Permit),
- the extension of the Permit validity in case that the defined conditions, during which the Permit was issued, did not change.

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- termination and cancellation of the Permit after completed, or suspended work,
- cooperation at preparing the Cards of the long-term Permit to Work,
- participating in the long-term Permits-to-Work approval committee,
- checking the documents about training of employees of another organization when permitting the work under the Card of the long-term Permit-to-Work; in case the employee of another organization does not have the training, the SUBMITTER shall inform the ISSUER who shall resolve the situation with the contractor,
- the correctness of the data, including the current conditions stated in the Book of work handovers, within handing over the work, he/she shall, together with the RECIPIENT, jointly check the conditions for performing the work stated on the Card of the long-term Permit-to-Work,
- informing the ISSUER in case of a change of the procedure of any of the activities or in case of an insufficient identification and assessment of risks related to the given work. The ISSUER shall subsequently prepare an update of the risk assessment and summon the approval committee.

**RECIPIENT (contractor)**

The recipient of the Permit is responsible for:

- the danger identification and risk analysis in term of the executed operation,
- adjustment of work with the issuer of the Permit before its signature,
- the elaboration of appendices in the workplace (see the example listing of risk analyses),
- the introduction of work procedures to working groups, the exact location and equipment necessary for the execution of work,
- the explanation of work details to the working group, all potential risks, adopted preventive measures and/or conditions stated in the Permit,
- the identification of the working group with the content of the Permit and with alert signals that will be used for warning in case of explosion hazard,
- the provision of the observance of all measures during work, the work (including persons executing work) will be restricted (area, kind of work, period) by the definitions in the Permit during the whole period,
- the suspension of work and help from the issuer of the Permit in case of changes in the workplace,
- the provision that the workplace is left in the safe and clean condition before handing over the Permit in case of completed, or suspended work. (Also includes removing of safety signs, barriers, labels etc.),
- notifying the PARTY HANDING OVER or the SUBMITTER in case of having identified conflicts between the proposed and/or planned work and other activities in the area, notification about possible conflicts,
- notifying the PARTY HANDING OVER or the SUBMITTER about a change of the conditions of the work, which requires a modification in the definition of the conditions for performing the work in the Permit to Work,
- cooperation at preparing the Cards of the long-term Permit to Work,
- participating in the long-term Permits-to-Work approval committee,
- deploying only trained personnel to work under the Card of the long-term Permit-to-Work,
- presenting a document proving that the training for performing the work under a particular Card has been attended,
- informing the ISSUER in case of a change of the procedure of any of the activities or in case of an insufficient identification and assessment of risks related to the given work. The ISSUER shall subsequently prepare an update of the risk assessment and summon the approval committee,
- the correctness of the data, including the current conditions stated in the Book of work handovers, within handing over the work, he/she shall, together with the SUBMITTER, jointly check the conditions for performing the work stated on the Card of the long-term Permit-to-Work.

**PARTY HANDING OVER**

The employee, at handing over the work, confirms by his/her signature that:

- the conditions defined in the column 7 of the Permit to Work have been met,
- form the part of the Company, there is a room created and all cooperation provided for adhering to the conditions as per the column 8 of the Permit to Work,
- persons present at handover of the worksite are provided with the relevant OOPP,
- all analyses have been performed as required by the column 10 of the Permit to Work and the values have been entered in the column 14,
- also further additional conditions as per the column 11 of the Permit to Work have been or can be met,

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- the person of the RECIPIENT has been acquainted with the local conditions / risks valid for the given day and the given worksite,
- the activity may be executed and does not create any danger or conflict with another running and/or planned work,
- the Permit to Work contains all necessary attachments (see the example listing of risks analyses),
- he/she will discuss further safety measures that he/she will propose to add to the Permit to Work, if he/she thinks the work environment is not safe (discussion with the SUBMITTER),
- he/she notifies the SUBMITTER about a change of the conditions of the work, which requires a modification in the definition of the conditions for performing the work in the Permit to Work,
- he/she will take over the form Information on risks resulting from activities of the RECIPIENT of the Permit to Work,
- upon completion of the work, he/she will carry out a check of the area and/or the equipment/systems with regard to the safe and tidy condition.

### **Authorized employee executing measurement**

The authorized employee executing measurement is responsible for:

- measuring of the concentration of inflammable gases, vapors of inflammable liquids in the mixture with the air or different oxidant (oxygen, toxicity and flammability) in the frequency defined in the Permit and relevant documents,
- suspension of work and instructions to the persons in order to leave of the area anytime when the gas test or change of conditions indicate that it is dangerous to continue the works, drawing the report to the issuer and submitter.

### **Person responsible for supervision**

The person executing supervision is responsible for:

- the identification with the content of the Permit,
- monitoring work and working environment in case of changes that might influence safety of persons,
- calling for help in case of emergency,
- the provision of the qualified delegate in case of the responsible leaves the workplace.

The person executing supervision activity is not allowed to execute any other unrelated work.

### **Person executing fire supervision**

The person executing fire supervision is responsible for:

- the identification with the content of the Permit,
- the control of ensuring the workplace before the initiation of work in accordance with the Permit,
- the identification with the fire protection organization (location of fire alarm guidelines, the way of fire alarm etc.),
- the implementation of necessary measures in order to safe persons in danger in case of fire/accident (e.g. to remove pressure bottles from the reach of fire, call the fire brigade unit, participate in fire disposal),
- ensuring the qualified delegate while leaving the workplace,
- making a record of the fire supervision performed into the relevant form.

The person executing fire supervision is not allowed to execute any other work that is not related to fire supervision.

### **Persons signing the relevant documents (e.g. a representative of the HSQ Department, representative of the special and contiguous division and persons signing the Permit to Work with an open fire) are responsible for:**

- confirming that in connection with the hazardous work contained in relevant documents, hazards have been identified and that in the planning and preparation of the work, adequate measures have been defined,
- specifying (on the relevant documents) the work risks and preparations that are to be performed by the submitter as well as the recipient of the Permit,
- defining measures that must be adopted during the work,
- ensuring that all legal requirements and rules of the Company are adhered to when defining the measures.

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### 6. List of Related Documents

#### 6.1 Generally binding legal regulations

**Act no. 309/2006 Coll.**, which modifies other requirements of the work safety and occupational health protection in labor-law relationships and on ensuring safety and health protection at activities or rendering services outside labor-law relationships (act on ensuring other conditions of safety and health protection at work), as amended

**Act no. 262/2006 Coll.**, the Labor Code, as amended

**Regulation no. 87/2000 Coll.**, stipulating fire safety conditions during welding and asphalt heating in melting vessels, as amended.

**ČÚBP Regulation no. 48/1982 Coll.**, which defines the core requirements for ensuring work safety and safety of technical equipment, as amended

**Government Decree no. 406/2004 Coll.**, on more specific requirements concerning the insurance of health safety and protection at work in the environment with explosion hazard, as amended.

**Government Decree no. 591/2006 Coll.**, on more specific minimum requirements for safety and health protection at work on construction sites, as amended

#### 6.2 Technical standards

**ČSN EN 1127-1 (38 9622)** Explosive environments – Prevention and protection against explosions – Part 1: Basic concepts and methodology

#### 6.3 Internal documentation of the company

<b>Regulation no. 001</b>	"Work Code"
<b>Regulation no. 003</b>	"Filing and Shredding Regulations"
<b>Directive no. 208</b>	"Management of an Investment Project"
<b>Directive no. 402</b>	„Rules Obeyed while Walking and Driving Vehicles at the Premises of ČESKÁ RAFINÉRSKÁ, a.s.“
<b>Directive no. 406</b>	"Electrical Securing of Equipment for Engineering Repair"
<b>Directive no. 407</b>	"Mechanical Securing of Equipment"
<b>Directive no. 408</b>	"Safeguarding of Entry and Work in Confined Spaces and below the Ground Level"
<b>Directive no. 422</b>	"Safety rules for employees of other organizations"
<b>Directive no. 425</b>	"Scaffolding"
<b>Directive no. 432</b>	"Duties Resulting from the Risk of Occurrence of Hydrogen Sulphide"
<b>Directive no. 707</b>	"Organization of Archiving Services"
<b>Process manual</b>	"Develop and Improve Facility"
<b>Work Procedure</b>	"Analysis of Ensuring the Work Safety" - 3rd level of the TMS documentation
<b>PPU 103</b>	"Cleaning work using high-pressure water"
<b>PPU 104</b>	"Installing necks during the operation (Hot tapping)" - 3rd level of the TMS documentation
<b>Manual</b>	"Plan of Securing BOZP on the Construction Site" - 3rd level of the TMS documentation
<b>Regulation 001</b>	"Keeping and archiving interrupted/closed Permits to Work" - 3rd level of the TMS documentation
<b>Manual</b>	"Permit to work" - 3 <sup>rd</sup> level of the TMS documentation

**Directive no. 435 “Permit to work”****7. Appendices**

<b>Appendix no. 435/1</b>	“Permit to Work on the equipment / Work with open fire / Welding order / Order V”
<b>Appendix no. 435/3</b>	“Special fire safety measures”
<b>Appendix no. 435/4</b>	“Fire supervision”
<b>Appendix no. 435/5</b>	“Example enumeration of works / Reporting duty”
<b>Appendix no. 435/6</b>	“Long-term Permit to Work with open fire”
<b>Appendix no. 435/7</b>	“List of specific employees executing works in the premises with explosion hazard”
<b>Appendix no. 435/8</b>	“Permit”
<b>Appendix no. 435/9</b>	“Record of detecting flammable gases and vapors (or other harmful substances)”
<b>Appendix no. 435/10</b>	“Job Hazard Analysis (JHA)”
<b>Appendix no. 435/11</b>	“Responsibilities and roles regarding the form and attachments of the Permit to Work”
<b>Appendix no. 435/16</b>	“Permit to Work / Order V”
<b>Appendix no. 435/17</b>	“Requirements for hazardous activities”
<b>Appendix no. 435/18</b>	“Permit to Work / Validity Extension Table”
<b>Appendix no. 435/19</b>	“Template of the Card of the Long-term Permit-to-Work”

**Note:**

All appendices are only developed in the Czech language.