

PUBLIC COMPANY ORLEN LIETUVA

APPROVED BY:
General Director

23 January 2023
Order No TV1(1.2-1)-2023-0030

OCCUPATIONAL HEALTH AND SAFETY PROCEDURE BDS-7 HOT WORKS

I. GENERAL PROVISIONS

Purpose and Scope of Application

1. Occupational Safety and Health Procedure BDS-7 'Hot Works' (hereinafter, the Procedure) defines occupational health and safety (OHS) requirements applicable to hot works performed at Public Company ORLEN Lietuva (hereinafter, the Company).

2. The Procedure shall apply to all employees of the Company and contractors (to the extent required by a relevant contract concluded with the Company) controlling hot works in the Company.

II. REFERENCES

3. This Procedure has been developed in line with effective revisions of the following documents:

3.1. General Fire Safety Regulations approved by the Director of Fire Prevention and Rescue Department under the Ministry of the Interior;

3.2. PKN ORLEN S.A. Standard S1 'Permits to perform hazardous work (including fire hazards)'.

III. TERMS, DEFINITIONS AND ABBREVIATIONS

4. Terms and definitions used herein:

Lower explosive limit (LEL) – lowest concentration of flammable substances in air, below which the atmosphere becomes non-explosive.

Tie-in – cutting into pipeline, apparatus or vessel prepared for hot works using gas cutter, angle grinder, etc.

Potentially explosive atmosphere – atmosphere that may become explosive due to the environment and operating conditions.

Hot works – electric welding, gas arc welding, metal gas cutting, mechanical and thermal treatment works, blowtorch works and any other works performed in any place of the Company where open flame is used, sparks are generated or materials are heated up to the temperatures likely to result in ignition.

Fire watcher – employee assigned to perform duties specified in Annex 2 hereto.

Other terms used herein shall be as defined in the Company's OHS Procedure BDS-6E *Issuing Hazardous Work E-Permits* and OHS Procedure BDS-14E *Issuing Hazardous Work E-Instructions*. Hot works hereunder in the Refinery and Pipelines and Terminal Operations Subdivision shall require a permit and in Power Plant shall require an instruction.

IV. PREPARATION OF PROCESS UNIT AND TERRITORY

5. Before any hot work, equipment subject to maintenance must be isolated with energy isolating devices (EID) from the existing or potential hazardous energy as required by OHS Procedure BDS-29 'Equipment Isolation'.

6. Toxic and hazardous (in terms of explosion and fire) substances as well as residues of flammable products and/or sediments must be removed from repaired equipment prior to hot works. For this purpose, equipment can be flushed with water, steamed or purged with inert gas (depending on the type of substances previously contained in the equipment).

7. Hot works are allowed when the concentration of explosive substances in the prepared equipment and in the work environment air does not exceed 5% of LEL and the concentration of oxygen in the ambient air is between 19.5 % and 23.5 %.

8. Tie-in points must be marked using tags of established form (see Annex 1 hereto).

9. If hot works are performed next to ventilation equipment where ventilator may inhaust sparks and carry them over to ventilated premises where flammable substances are or may be present, such ventilation tubes must be isolated (shut/blinded off) to prevent any entry of sparks.

10. If possible, all flammable and combustible substances/materials must be removed from the area of hot works (within the radius of at least 11 m around the site of hot works). Otherwise, they must be reliably covered with fire blankets or metal shields, or sand, watered or otherwise protected against ignition.

11. Gutters/ducts, channel outlets, wells and any other sewer (wastewater) facilities within the radius of 11 meters around the site of hot works must be tightly closed and covered with a sand layer of at least 10 cm or sealed up using special means designed for this purpose.

12. Each site of hot works must be provided with primary firefighting equipment of good condition, in particular powder or carbon dioxide fire-extinguishers (containing minimum 6 kg of extinguishing medium, for carbon dioxide fire-extinguishers - 5 kg) and optionally with a fire blanket, rubber hose connected to a steam tap, etc.

13. Fire extinguisher must be selected according to substances/materials that are present and may ignite in each specific site of hot works.

V. MAIN CASES WHEN FIRE WATCHERS ARE NECESSARY

14. Fire watcher must be appointed in the following cases:

14.1. For hot works at height when sparks are or may be produced;

14.2. For hot works performed closer than 11 m from units which contain or transport flammable petroleum products or any other flammable substances;

14.3. If flammable substance is closer than 11 meters from the executed hot works;

14.4. If heat generated by hot works poses the risk of ignition of combustible substances/materials behind metal or any other partitions (walls, ceilings, roof, etc.);

14.5. In all other cases where at least minimum risk of fire or danger to the safety of people exists.

15. Fire watcher may be appointed to watch several points of hot works at the same time if such points are located close to each other and it is reasonably possible to keep such under a proper watch.

VI. REQUIREMENTS DURING WORKS

16. Hot works in potentially explosive atmospheres shall be permitted in exclusive cases only when it is impossible to perform them in special workshops intended for hot works.

17. If hazardous chemical substances or their vapours may escape, leak, be released or emitted during hot works, continuous air monitoring using gas analyzer for uninterrupted analysis of the selected parameters of work environment with audible alarm of deviations from the values set must be ensured.

18. If sparking occurs or may occur during hot works, precautions (flameproof blankets, metal shields, etc.) shall be taken to protect people, equipment, power cables, etc. against falling sparks.

19. In case of welding, additional measures shall be undertaken to prevent exposure to rain and moist to ensure the safety of work (e.g. special shelters made from fire-retardant materials, dielectric mats, etc.).

20. If gas or vapors of dangerous chemical substances can be released during unsealing of equipment, it is prohibited to perform hot works and unsealing works in the same area and at the same time.

21. It is prohibited to weld or cut tight containers, double-wall vessels without prior check if they are free from any explosive substances.

22. It is prohibited to perform any welding or cutting without sufficient ventilation. Natural ventilation is insufficient and exhaust ventilation must be used when:

22.1. Works are performed in spaces with volume less than 284 m³ per welder;

22.2. Works are performed in spaces with height less than 5 meters;

22.3. In confined spaces where adequate air circulation is restricted or affected by inside partitions, trays or any other barriers.

VII. REQUIRMENTS FOR PERMANENT WORKSHOPS OF HOT WORK

23. Permanent workshop can be installed on the basis of a permanent workshop arrangement plan prepared by a work manager which must be agreed with the manager of respective organizational unit and the manager of the Occupational and Process Safety Control Department (hereinafter – OPSC Department);

24. Such plan must be registered in the OPSC Department and is effective for the period indicated in the plan;

25. Hot work permits are not required for hot works performed in such workshops.

VIII. EMERGENCY PROCEDURES

26. In case of release of hazardous (harmful, flammable, highly flammable) substances, fire, accident at work or any other incident, activation of emergency alarm or gas detector (analyzer) and if instructed by the fire watcher, hot works must be immediately terminated, and all ignition sources turned off/suppressed.

27. In case of a fire during hazardous works, fire watchers and workers shall immediately arrange evacuation of all non-involved persons from the hazardous territory and extinguish the fire with available firefighting equipment.

28. All incidents must be immediately reported by the workers, work managers work supervisors and work coordinators to the Company's dispatcher by phone number 3333 (for fixed-line calls) or +370 443 9333 (for any calls) and the staff of the unit where the works were carried out. If works are performed in the Būtingė Terminal, Mažeikiai–Būtingė pipeline sections and Būtingė – SPM buoy, all incidents must be immediately reported by the workers, work managers and work supervisors to the Terminal Operations Group shift supervisor by phone number +370 443 93459 or +370 686 78112. If works are performed in Biržai and Joniškis Oil Transshipment Stations or Ilūkstė-Ventspilis, Polockas-Biržai-Mažeikiai, Polockas-Biržai-Ventspilis pipeline sections, all incidents must be reported to the Main Pipelines Service Group dispatcher by phone number +370 443 93483 or +370 689 89845.

IX. FINAL PROVISIONS

29. Responsibility for periodic review and updating of this Procedure, if needed, shall lie with Director of Quality, Labour Safety and Environmental Control of the Company.

X. ANNEXES

Annex 1 – Tie-in point tag (specimen)

Annex 2 – Duties of fire watcher.

Prepared by
Control and Prevention Group Manager
Egidijus Luomanas

Tie-in point tag (specimen)

ĮSIPJOVIMO Į ĮRENGINĮ VIETA TIE-IN POINT	
 DĖMESIO! ATTENTION!	NEPRADĖKITE DARBŲ, JEI: - ŠIS ŽYMEKLIS NĖRA PASIRAŠYTAS - NETURITE DARBŲ LEIDIMO - NĖRA DARBŲ KOORDINATORIAUS
	DO NOT START WORKING IF: - THIS TAG IS NOT DULY SIGNED - WORK PERMIT IS NOT POSSESSED - WORK COORDINATOR IS ABSENT
Darbų leidimo reg. Nr. <i>Work Permit Reg. No.</i>	<i>(įrašyti darbų leidimo registracijos numerį)</i>
Įrengimas paruoštas, įsipjovimo vieta pažymėta <i>Equipment is ready, tie-in point is marked</i>	<i>(leidimą išduodančio asmens vardas, pavardė, parašas)</i> <i>(darbų koordinatoriaus vardas, pavardė, parašas)</i>

DUTIES OF FIRE WATCHER

1. Prior to hot work, visually check if primary firefighting equipment is in good technical condition and ready for use.
2. Wear a high visibility vest.
3. Be present at the site of hot works all the time and monitor the performed works.
4. Stay as close as possible (within a safe distance) to places with a fire hazard.
5. Keep fire extinguishers and other primary firefighting equipment within easy reach for immediate access in case of fire.
6. Take care no flammable substances are kept on the site.
7. Immediately terminate hot works in case of release of hazardous (harmful, flammable, highly flammable) substances, fire, accident at work or any other incident.