

AB ORLEN LIETUVA

APPROVED BY:
Director of Quality, Labour Safety
and Environmental Control
Order No TV1(1.2-1)-2025-0364 of
30 September 2025

OCCUPATIONAL HEALTH AND SAFETY PROCEDURE BDS-6/1 EQUIPMENT DEPRESSURIZATION WORKS

I. GENERAL

Purpose and Scope of Application

1. Occupational Health and Safety Procedure BDS-6/1 *Equipment Depressurization Works* (hereinafter, the Procedure) aims at defining the occupational health and safety (hereinafter, OHS) requirements for equipment depressurization works carried out 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) exercising control over equipment depressurization works in the Company.

II. REFERENCES

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

3.1. ORLEN S.A. Standard S1. Permits to perform hazardous work (including fire hazards);

3.2. ORLEN S.A. Standard ST S1 T1. Safe opening of flanged connections and vessels.

III. TERMS, DEFINITIONS AND ABBREVIATIONS

4. The following terms and their definitions are used herein:

Equipment depressurization works – equipment dismantling works (e.g., opening of pipeline flanges, vessel manholes, valves, vents, removing of gaskets, installing blinds, etc.) by depressurizing the confined space inside such equipment that contained, contains or may contain substances of different temperatures, pressures and state (e.g., petroleum products, water, steam, etc.), also the works of depressurized equipment dismantling/assembly (e.g. demounting and assembling of heat exchanger tube sheets, closing manholes, installing shutoff valves, vents, etc.), removal of studs from flanged joints leaving every second stud.

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*. Equipment depressurization hereunder in the Refinery and Pipelines and Terminal Operations Subdivision shall require a Permit and in the Power Plant shall require an Instruction.

IV. PREPARATION OF EQUIPMENT

5. Before any work, equipment must be isolated with valves from the existing or potential sources of hazardous energy as required by OHS Procedure BDS-29 *Equipment Isolation*.

6. Pressure in the depressurized equipment shall be reduced to atmospheric pressure.

7. All hazardous substances (flammable, noxious, toxic, corrosive, etc.) present in the equipment must be removed.

8. The equipment must be cooled down to a temperature below 40°C.

9. Where it is not possible to fully prepare the equipment as required by Par. 5 – 8 above, and it is not possible to check if the equipment has been prepared, additional OHS measures must be applied during the depressurization operations:

9.1. Use of covers, enclosures or shields that are resistant to chemical substances and protect work executors against spills as well as direct the spilled products to spill collectors;

9.2. Work executors must be provided with and wear chemical resistant clothing, panoramic safety glasses, protective face shields, etc.;

9.3. In case of possible contact with corrosive materials (acid or alkali) during depressurization, an emergency shower and eyewash station must be installed within a distance of max. 50 meters. In case no stationary emergency washing equipment is available within the said distance, other alternatives (e.g., portable washing equipment, container with water, water hose, etc.) must be provided. Prior to commencing the work, the washing equipment must be checked for its proper operation and easy accessibility;

9.4. If the temperature of equipment is above 40°C, the workers must wear heat resistant work clothing and heat resistant gloves and face shields.

10. If any release of liquid or emission of gaseous flammable substances is possible during depressurization, the below extra requirements must be followed:

10.1. The hazard area must be free from any sources of ignition (no hot works in progress, machinery with internal combustion engines, temporary electrical connections, etc.);

10.2. Only the means of work, including work equipment, tools and protective equipment, designed for potentially explosive atmospheres (as specified in the manufacturer's documentation) must be used;

10.3. Work tools must be made from non-sparking metal;

10.4. Work executors are required to wear anti-static and fire-retardant clothing.

11. Prior to transferring the equipment to other organizational units for maintenance, the equipment must be depressurized and prepared (washed, cleaned, steamed, etc.) by removing all hazardous substances (flammable, toxic, noxious, corrosive, etc.).

12. Prior to delivering the equipment to the place of preparation for maintenance, it must be properly prepared to prevent any leaks of hazardous substances (e.g., by blinding off open sections, wrapping the equipment or its parts with a leak-proof cover, etc.)

13. The manager of organizational unit that owns the respective equipment shall be responsible for implementing the requirements of Par. 11, whereas the contractor that organizes equipment delivery to the place of preparation for maintenance shall be responsible for implementing the requirements of Par. 12.

V. REQUIREMENTS DURING WORKS

14. If the release of liquid or emission of gaseous hazardous substances is likely during depressurization works:

14.1. Work must be executed by two workers at least;

14.2. Continuous air monitoring must be ensured using a gas analyzer for continuous analysis of the selected parameters of work environment, with audible warning of deviations from the values set;

14.3. Means allowing to collect the leak and prevent the entry onto paving, into the soil or sewage must be used.

15. Depressurized equipment (e.g., flanged connections) must be treated as if it contains pressure.

16. Flanged connections must be depressurized standing with back turned against the wind.

17. Workers must first loosen the furthest bolts and only then bolts next to them.

18. Nuts may not be completely loosened and removed from bolts until flanged connections are fully depressurized. If flanged connection does not depressurize after the bolts are loosened, then they must be depressurized using spreaders.

19. In case of release of liquid or emission of gaseous hazardous substances during depressurization works and activation of gas analyzer alarm:

19.1. Work executors must immediately reseal equipment by tightening flanged joint bolts, suspend their work and report this to work manager and the permit/instruction issuer;

19.2. Permit/instruction issuer must clear out the causes of unsafe conditions of work and:

19.2.1. Allow to resume works only after the causes are removed and only when conditions specified in the permit/instruction are met;

19.2.2. If emission or leak cannot be prevented (e.g. gas is emitting to work atmosphere from leaking valve), the permit/instruction issuer must assess potential risks and provision equipment required to ensure the safety of work (e.g. respective respiratory protection equipment) and amend the permit/instruction accordingly.

20. It is allowed to resume works only after the causes of unsafety are identified and removed and only when conditions specified in the permit/instruction are met.

VI. EMERGENCY PROCEDURES

21. All incidents must be immediately reported by work executors, Work Managers and Work Supervisors to the Company's Production Control Department Dispatcher by phone number 3333 (for landline calls) or +370 443 92510 (for any calls), and the staff of the unit where the works were carried out. If works are performed in Būtingė Terminal, all incidents must be immediately reported by work executors, 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 – to the Main Pipelines Service Group Dispatcher by phone number +370 443 93483 or +370 689 89845. If fire, accident or other incident occurs during the depressurization works, the permit ceases to be valid and all its counterparts shall be handed over to the respective incident investigation committee.

22. In the event of accident caused by release of hazardous substances, information about such substances (safety data sheets, written procedures and other documents) shall be immediately presented to the healthcare facility providing medical treatment to the casualties.

VII. FINAL PROVISIONS

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

VIII. ANNEXES

Annex 1 – Specimen tag for depressurization points

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Specimen tag for depressurization points

