

PUBLIC COMPANY ORLEN LIETUVA

APPROVED BY:
Director of Quality, Labour Safety
and Environmental Control
14 March 2023
Order No TV1(1.2-1)-2023-0105

OCCUPATIONAL HEALTH AND SAFETY PROCEDURE BDS-5 COLD REPAIR WORKS

I. GENERAL

Purpose and Scope of Application

1. Occupational Health and Safety Procedure BDS-5 *Cold Repair Works* (hereinafter, Procedure) defines occupational health and safety (hereinafter, OHS) requirements for the execution of cold repair works 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) supervising and/or performing cold repair works at the Company.

II. TERMS AND DEFINITIONS

3. Terms and definitions used herein:

Equipment - any piece of equipment (vessel, pipeline, etc.) that may be dangerous to workers due to energy accumulated in it or supplied from other sources.

Cold repair works (works) – works which do not fall within the scope of the Company's OHS Procedure BDS-6/1 *Equipment Depressurization Works*, OHS Procedure BDS-6/2 *Work in Confined Spaces*, OHS Procedure BDS-7 *Hot Works*, and OHS Procedure BDS-31 *Earthworks*, in particular disassembly, reassembly, cleaning, washing, flushing of depressurized equipment, scaffolding works, thermal insulating works, non-destructive testing of steel structures, concreting works, connection of manual electrical tools, devices and torches and portable lamps of non-ex-proof design (hereinafter, temporary electrical installations) to the grid, other works involving the use of mechanical and battery-powered instruments and tools where sparks are not generated, that are not attributed to hot works (e.g. using wrenches, hammers, battery-powered measuring devices and screwdrivers, etc.).

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

II. MAIN REQUIREMENTS DURING WORK

4. Where wrenches are used:

4.1. Before use, wrenches must be checked for mechanical damages. Use of wrenches with worn-out jaw, metal cracks or dents is forbidden;

4.2. Wrench must fit the size of nut. It is forbidden to adjust wrenches putting metal plates between the jaw and nut, to try to make the wrench longer using other wrench, spanner or arm with attempt to increase the torque;

- 4.3. In order to have a good grip, the nut being adjusted should be fully within the jaws of the wrench;
- 4.4. Pull on a wrench slowly and steadily, avoid fast, jerky movements;
- 4.5. If the nut is rusted and stuck, use special rust removal agents. If special rust removal agent does not help to loosen the nut, inform Work Manager;
- 4.6. Wrenches used in potentially explosive atmospheres must be made of non-ferrous non-sparking metal alloys (chromium-vanadium, chromium-molybdenum, etc.).
5. When using hydraulic or pneumatic tools, do not exceed safe operational pressure of hoses, valves, pipes, filters and other connecting parts, which is specified in operation and maintenance manuals.
6. When using pneumatic tools, ensure that air supply does not exceed operational pressure of pneumatic tool established by the manufacturer or otherwise use pressure regulator.
7. Where hydraulic testing of equipment is performed:
 - 7.1. Work Manager must be always present at the site during the test;
 - 7.2. In order avoid injuries in case of rupture, it is forbidden to stand in front of flanges or other joints;
 - 7.3. Make sure, before pressure increase, that no air is present in the tested equipment;
 - 7.4. Do not exceed established allowable pressure;
 - 7.5. Make sure that machines and devices used for the test are specially designated for the purpose and tested;
 - 7.6. Use two pressure gauges at least, one at the highest and one at the lowest system point;
 - 7.7. Make sure that all joints correspond to the test pressure;
 - 7.8. Prevent unauthorized access to the site (fence it off, place special signs, assign attendant, etc.).
8. Where radiographic tests are performed:
 - 8.1. Fence off dangerous area with warning barrier tape, put signs WARNING - RADIOACTIVE MATERIALS! and DO NOT ENTER!;
 - 8.2. Prevent any unauthorized access to restricted area during entire duration of test.
9. Where high-pressure cleaning equipment is used, fence off dangerous area with panels to protect uninvolved employees.
10. Where hazardous substances are used, observe requirements specified in safety data sheets.

IV. EXECUTION OF WORKS WITHOUT PERMIT/INSTRUCTION

11. Execution of cold repair works without permit/instruction shall be allowed in the following cases:
 - 11.1. For process unit operators, petroleum product operators, loading operators and other employees of the Company operating the process units;
 - 11.2. For employees of the Company responsible for maintenance of structures, buildings, mechanical equipment (civil engineers, mechanical engineers, etc.) engaged in technical servicing;
 - 11.3. For employees of the Company responsible for maintenance of electrical and automation equipment (electrical and automation engineers, electricians and other electrical technical staff) performing inspection, adjustment, control and any other technical maintenance of site instrumentation, automation and electrical equipment and for employees UAB ORLEN Service Lietuva responsible for maintenance of automation equipment performing inspection, adjustment, control and any other technical maintenance of site instrumentation, automation and electrical equipment. Electrical technical staff executing these works must have the rights of operational or operational maintenance staff delegated by the decree of responsible employee of the Company;
 - 11.4. For employees of the Company measuring equipment and piping with the use of electronic devices;
 - 11.5. For contractor' employees performing measurements by using electronic devices under continuous supervision of the Company's work coordinator who must accordingly inform the

manager of the process unit before the commencement of works and indicate the date, time and place of the works, the contractor and the work to be performed;

11.6. For making temporary connections to the power network of temporary non-explosion-proof electrical equipment;

11.7. Using mobile phones, photo cameras and video cameras in potentially explosive atmosphere for operational tasks or works;

12. Employees performing maintenance works, making connections and measurements in potentially explosive atmosphere with the use of mobile phones or photo/video cameras must have a verified and functioning portable gas analyzer to track and monitor the concentration of explosive gases in the air, with such analyzer being permanently switched on and its functioning as well as readings monitored. In case of emergency alarm or gas analyzer activation, immediately terminate all works, switch off equipment used, leave dangerous area and notify employees of the relevant process unit.

13. If works are performed in potentially explosive atmosphere with the use of equipment (tools, instruments, devices, etc.) designed for potentially explosive atmospheres (as specified in the manufacturer's documentation), gas analyzers shall not be mandatory.

V. FINAL PROVISIONS

14. 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.

Prepared by
Control and Prevention Group Manager
Egidijus Luomanas