

PUBLIC COMPANY ORLEN LIETUVA

APPROVED BY
Director of Quality, Labour Safety
and Environmental Control

18 June 2019
Order No. TV1(1.2-1)-287

OCCUPATIONAL HEALTH AND SAFETY PROCEDURE BDS-10 USE OF WORK EQUIPMENT IN POTENTIALLY EXPLOSIVE ATMOSPHERES

I. GENERAL PROVISIONS

Purpose and Scope of Application

1. Occupational Health and Safety Procedure BDS-10 'Use of Work Equipment in Potentially Explosive Atmospheres' (hereinafter – the Procedure) aims to define the occupational health and safety (OHS) requirements applicable to portable and mobile work equipment (hereinafter – the work equipment) used in potentially explosive atmospheres.

2. This Procedure shall apply to all staff members of Public Company ORLEN Lietuva (hereinafter – the Company) and of contracting organizations (where so provided in contracts concluded with the Company) carrying out works in potentially explosive atmospheres.

II. REFERENCES

3. The Procedure has been drafted with account of the following documents:

3.1. Safety Regulations for Employees Working in Potentially Explosive Environments approved by the Minister of Social Security and Labor of the Republic of Lithuania;

3.2. Technical Regulation on Equipment and Safety Systems Operated in Potentially Explosive Atmospheres approved by the by Minister of Economy of the Republic of Lithuania.

III. TERMS, DEFINITIONS AND ABBREVIATIONS

4. Terms used herein are defined as follows:

Work equipment – electronic equipment and motor vehicles.

Electronic equipment – equipment with autonomic power supply (mobile phones, picture cameras, video cameras and computers).

Motor vehicles – vehicles containing an internal combustion engine (e.g., truck cranes, cherry pickers, fork-lift trucks, freight vehicles, other special cars and tractors, compressors, mowers, etc.).

This Procedure shall not apply to the operation of electrical equipment and tools in potentially explosive atmospheres. Use of such equipment requires a permit issued for category 2 hot works in accordance with the Company OHS Procedure BDS-7 'Hot Works'.

User – Company or contracting organization employee using work equipment in a potentially explosive atmosphere.

Permit for use of work equipment in potentially explosive atmosphere (or permit) – a document of established form authorizing the use of work equipment in a potentially explosive atmosphere (Attachment 1).

Permit issuer – manager, engineer or shift supervisor of an organizational unit (operations subdivision, process unit, section, etc.) where a potentially explosive atmosphere may occur. Permit issuer shall be entitled to issue permits only for the assigned organizational unit.

Potentially explosive atmosphere – an atmosphere which could become explosive due to local and operational conditions. Access to areas where a potentially explosive atmospheres may occur is marked with an Ex sign (Fig.1).



Fig. 1. Explosive atmosphere

Potentially explosive atmospheres are classified into hazardous zones 0, 1 and 2:

Zone 0 – a place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapor or mist is present continuously, for long periods or frequently, e.g., conditions typical for this zone usually occur inside of tanks, reactors, towers and other installations;

Zone 1 – a place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapor or mist is likely to occur occasionally in normal operation., e.g., sampling points, near draining systems, breathers, vents, pumps, valve packings, etc.;

Zone 2 – a place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapor or mist is not likely to occur in normal operation but, if it does occur, will persist for a short period only (areas around Zone 0 and Zone 1).

IV. DUTIES AND RESPONSIBILITIES OF EMPLOYEES

5. In case of need to use work equipment in a potentially explosive atmosphere the **user** shall:

5.1. Complete the permit form (Attachment 1 thereto) and submit it to a permit issuer;

5.2. Use the work equipment solely for the purpose specified in the permit and comply with the safety requirements defined in this Procedure;

5.3. In case of leaks of dangerous substances (hazardous, noxious, flammable, etc.), operation of emergency alarm or gas analyzer, immediately discontinue the works, shut down the vehicle engine or equipment, leave the dangerous area and notify the process staff.

6. Permit issuer shall:

6.1. Issue permit only after making sure that there are no leaks or any other hazards in the unit;

6.2. When issuing a permit for motor vehicle entry to organizational unit area, mark the vehicle route on a scheme attached to the permit;

6.3. Register the permit in the Logbook of Permits for Use of Work Equipment in Potentially Explosive Atmospheres (Attachment 2);

6.4. In case of leak of dangerous substances (hazardous, noxious, flammable, etc.), operation of emergency alarm, immediately instruct work equipment users that have been issued permits to shut down their motor vehicles or equipment and to leave the dangerous area.

7. Organizational unit manager shall:

7.1. Ensure that entries to an organizational unit territory with potentially explosive atmospheres (hereinafter – unit territory) are marked with 'Ex' signs and entries for vehicles are additionally marked with an 'Entry prohibited' sign.

7.2. Ensure that permits are issued in compliance with the requirements laid down in the present Procedure;

7.3. Ensure that in case of gas leaks or other emergencies inside the unit territory, all entries (for people and vehicles) are physically restricted, i.e. barriers installed, and the hazard zone enclosed with a warning tape, etc.

V. GENERAL REQUIREMENTS

8. Work equipment can be used in a potentially explosive atmosphere only where this is necessary for performing operational tasks or works (taking photos of emergency/accident scenes, delivering cargoes (materials, wastes, scaffolds, equipment, etc.), performing crane lifting operations and in other cases of operational needs).

9. A permit is required for use of work equipment in a potentially explosive atmosphere.

10. Permit shall be issued for a period needed to accomplish a task, however, no longer than for one shift.

11. It is prohibited to issue permits for and/or use the work equipment in:

11.1. Zone 0 of potentially explosive atmosphere;

11.2. Zone 1 of potentially explosive atmosphere where there is a probability of release of flammable gas or vapors of other flammable materials.

12. In zones referred to in Article 11 it is permitted to use only equipment with appropriate Ex protection [3.2].

13. Electronic devices can be used in potentially explosive atmospheres without permit only if the user has a verified and functioning portable gas analyzer capable of tracking explosive gas concentrations in the air provided that the analyzer has appropriate Ex protection and is always turned on during the use of equipment with its operation and/or readings being continuously monitored by the user.

VI. ADDITIONAL REQUIREMENTS FOR USE OF MOTOR VEHICLES

14. Before entering the unit territory, a vehicle driver must affix a duly issued permit to the windscreen of the vehicle and keep it there for the duration of vehicle stay in the unit territory.

15. It is prohibited to exceed speed limits valid in the unit territory. The driving speed shall not exceed 20 km/h, unless established otherwise.

16. While entering and staying in the unit territory, vehicle driver must keep the vehicle emergency flashers on. Special vehicles (truck cranes, cherry pickers, fork-lift trucks, etc.) shall be operated with their flashing lights turned on.

17. Vehicles in unit territories shall be parked reverse (facing the exit) to enable prompt evacuation in case of emergency.

18. Upon completing loading/unloading, maintenance, lifting or other works, a vehicle shall immediately leave the unit territory.

19. Permit for entering the unit area shall not be issued to vehicles for the transportation of people or entry in the absence of operational need.

20. Long-term permits (valid for up to one 1 month) may be issued for motor vehicles that go to the unit territory via the same route on a regular basis for sampling and for prompt inspections and maintenance of equipment, facilities, mechanisms, valves, electrical equipment, control and measuring instruments. Vehicle driver shall have a verified and functioning portable gas analyzer capable of tracking explosive gas concentrations in the air that must be always turned on during the use of vehicle with its operation and/or readings being monitored by the user.

21. A long-term vehicle entry permit shall be issued only by an organizational unit manager. Prior to issue of a long-term permit, organizational unit manager shall:

21.1. Determine a regular vehicle route;

21.2. When a long-term permit needs to be issued for a vehicle used by a group of employees, it shall be issued to the manager of employees. The manager shall instruct the employees (driving of vehicle) on the requirements of this Procedure.

VII. DOCUMENT CUSTODY

22. Logbook of Permits to Use Equipment in Potentially Explosive Atmospheres shall be stored at the organizational unit through the period of its validity and 1 year after its completion.

VIII FINAL PROVISIONS

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

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2019-06-

	PERMIT TO USE WORK EQUIPMENT IN POTENTIALLY EXPLOSIVE ATMOSPHERES (permit form)	Reg. No. _____ Reg. date _____
Validity date from _____ to _____ Time from _____ hr. to _____ hr. Organizational unit _____ Place of Use _____ Org. unit, contractor using the equipment _____ Work equipment _____ Purpose _____ _____		
Agree and accept the safety requirements: _____ (User's job title, full name and signature)		
I hereby allow to use the equipment _____ (Job title, full name and signature of person authorized to issue a permit)		

The reverse side of permit

<p>SAFETY REQUIREMENTS</p> <p>VEHICLE REQUIREMENTS</p> <ul style="list-style-type: none"> ● Attach the permit to the vehicle windscreen and keep it there for the duration of vehicle presence in the unit territory. ● Keep the vehicle emergency flashers on. ● Driving speed shall not exceed 20 km/h. ● Park the vehicle reverse (facing the exit). ● Leave the unit territory after completion of works. <p>Emergency procedures</p> <ul style="list-style-type: none"> ● In case of leak of dangerous substances, operation of emergency alarm or gas analyzer, immediately stop the works, shut down the vehicle engine or equipment, and notify the process staff. ● In case of fire, accident, emergency during the use of equipment, permit becomes invalid and must be handed over to the respective investigation committee.
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