

AB ORLEN LIETUVA

APPROVED BY:
Director of Quality, Labour Safety
and Environmental Control

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OCCUPATIONAL HEALTH AND SAFETY PROCEDURE BDS-18 USE OF MOBILE VACUUM EQUIPMENT

I. GENERAL

Purpose and Scope of Application

1. Occupational Health and Safety Procedure BDS-18 'Use of Mobile Vacuum Equipment' (hereinafter – the Procedure) establishes the minimum occupational health and safety (OHS) requirements applicable to the extraction of solid and liquid materials from enclosed vessels using mobile vacuum equipment at AB Public Company ORLEN Lietuva (hereinafter – the Company).

2. This Procedure shall apply to Company employees responsible for organizing works involving the use of mobile vacuum equipment and, where required under a contract (or other agreement) between the Company and the Contractor (hereinafter – the Contractor), to Contractor employees performing such work at the Company.

II. REFERENCES

3. This Procedure has been developed in accordance with the current versions of the following documents:

3.1. ORLEN S. A. Standard S7 T5 *Vessel packing discharge using vacuum equipment*;

3.2. ORLEN S. A. Standard S7 T6 *Safe operation of slurry tankers (ASN) in hydrocarbon sludge pumping processes*;

3.2. *General Rules for the Installation of Electrical Equipment*, approved by the Minister of Energy of the Republic of Lithuania.

III. TERMS AND DEFINITIONS

4. Terms used herein shall be defined as follows:

Mobile vacuum equipment – mobile or portable vacuum units designed for the extraction of solid or liquid materials.

Vacuum equipment for solid materials – a mobile unit that creates a vacuum to safely and efficiently extract solid materials from enclosed vessels, equipped with all accessories necessary for the extraction, collection, transportation, and discharge of solid materials.

Vacuum equipment for liquid materials – a mobile unit that creates a vacuum to safely and efficiently extract liquid materials from enclosed vessels, equipped with a tank and all accessories necessary for the extraction, storage, transportation, and discharge of liquid materials.

Solid materials – materials contained in an enclosed vessel (such as spent catalysts, adsorbents, and other solid materials) which, due to the nature of the production process, may contain explosive and/or flammable substances or materials prone to dust generation.

Liquid materials – oily sludge, sludge, petroleum product residues, and other liquid oily wastes contained in an enclosed vessel.

Technical documents – technical documentation provided by the manufacturer of the mobile vacuum equipment containing all information required for its safe operation. The scope of the technical and operating documentation shall comply with the requirements of legislation applicable to

vacuum equipment (the Machinery Directive, Pressure Equipment Directive, ATEX Directive, and other applicable legislation).

Enclosed vessel – a vessel or space large enough for an employee to enter and perform assigned work, but with limited or restricted means of entry or exit that prevent free access or egress, and which is not designed for continuous occupancy. Enclosed vessels include columns, reactors, tanks, heaters, wells, railcars, excavations two meters or more in depth, open recessed structures, etc.

Work Coordinator – a Company employee who organizes and/or coordinates the removal of solid or liquid materials from enclosed vessels using mobile vacuum equipment.

Work Manager – a Contractor employee who has successfully passed the Company's work manager qualification test and is responsible for the removal of solid or liquid materials from enclosed vessels using mobile vacuum equipment.

Workers – employees who perform the removal of solid or liquid materials from enclosed vessels using mobile vacuum equipment.

ADR – the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), which establishes the classification of dangerous goods and the requirements for packaging, marking, documentation, transportation, and safety. Its purpose is to ensure the safe transport of dangerous goods and to reduce risks to people, the environment, and property.

IV. EMPLOYEE RESPONSIBILITIES

5. When submitting a request to the Company's Procurement Department for the vacuum extraction of solid or liquid materials, the **Work Coordinator** shall provide information on the properties of the materials to be extracted (e.g., Safety Data Sheet, ADR classification certificate, etc.). If the properties of the solid or liquid materials are unknown, the request shall indicate that the materials may possess hazardous properties (e.g., they may be explosive and/or flammable).

6. Work Manager shall:

6.1. Ensure that mobile vacuum equipment is properly prepared for the extraction of solid or liquid materials in accordance with the manufacturer's requirements;

6.2. Maintain records of periodic maintenance and inspection of the mobile vacuum equipment;

6.3. Ensure that workers are informed of the properties of the solid or liquid materials to be handled;

6.4. Provide workers with all necessary personal protective equipment and other protective measures appropriate to the properties of the materials being handled;

6.5. Assign only workers who are trained, qualified, and familiar with the manufacturer's operating and maintenance instructions for the mobile vacuum equipment;

6.6. Ensure that the mobile vacuum equipment is grounded prior to the commencement of work in accordance with the requirements of this Procedure;

6.7. Ensure that work does not commence until a hazardous work permit/work permit has been issued in accordance with Company procedures, the workers have been instructed, a last minute risk assessment (LMRA) has been completed, and the workers have signed the hazardous work permit/work permit and the risk assessment card for the work to be performed.

V. REQUIREMENTS FOR MOBILE VACUUM EQUIPMENT

7. Mobile vacuum equipment shall be subject to periodic maintenance and inspection.

8. Mobile vacuum equipment shall be suitable for the solid or liquid materials to be extracted.

9. Mobile vacuum equipment shall be accompanied by an EU Declaration of Conformity, documentation confirming CE marking, and the manufacturer's operating and maintenance instructions.

10. The hoses and other accessories used with the mobile vacuum equipment shall be in good condition and comply with applicable safety requirements (e.g., be made of materials that prevent the accumulation of static electricity).

11. The use of modified mobile vacuum equipment without the manufacturer's approval is prohibited. Any modification shall be approved by the manufacturer and documented by the relevant certification or inspection authority in accordance with applicable legal requirements.

12. Vacuum equipment for liquid materials shall be equipped with an electrical safety disconnect switch that enables the operator to disconnect the battery from the electrical system at any time during the extraction or discharge of liquid materials.

VI. REQUIREMENTS FOR EXTRACTION OF SOLID AND LIQUID MATERIALS

13. Prior to the commencement of extraction activities, the enclosed vessel (excluding wells, railcars, excavations two meters or more in depth, and open recessed structures) shall be isolated from all existing or potential sources of hazardous energy in accordance with the Company's OHS Procedure BDS-29 'Equipment Isolation'.

14. Mobile vacuum equipment shall be connected to a protective grounding system using grounding conductors in accordance with the requirements of the General Rules for the Installation of Electrical Equipment [3.3]. In accordance with these Rules, natural grounding electrodes may be used, including metal and reinforced concrete building structures having adequate contact with the ground, metal structures of hydraulic facilities and installations, water supply pipelines and other metal pipelines installed underground, excluding pipelines for flammable liquids and gases.

15. The grounding connection shall be visually inspected by the Contractor's Work Manager who, if the grounding is satisfactory, shall enter the statement 'Grounding verified' in the printed hazardous work permit/work permit and sign it. The extraction of solid or liquid materials using mobile vacuum equipment shall not commence unless the hazardous work permit/work permit contains a record confirming that the grounding inspection has been completed.

16. Solid materials shall be removed from enclosed vessels using the gravity discharge method (a process in which materials are discharged without the use of additional mechanical energy). Vacuum extraction shall be used only in exceptional cases where gravity discharge is not technically feasible.

17. Should it be necessary for workers to enter an enclosed vessel, the requirements of the Company's OHS Procedure BDS-6/2 'Work in Confined Spaces' shall be followed.

18. Where solid materials are extracted in a nitrogen atmosphere, the requirements of the Company's OHS Procedure BDS-27 'High-Risk Works' shall be followed. A Risk Management Group protocol specifying the necessary organizational and technical measures for safe execution of the work shall be prepared and approved.

19. Where vacuum equipment used for liquid extraction is fitted with both upper and lower connection nozzles, the lower extraction nozzle shall always be used.

20. Work involving open flames is prohibited within 30 meters of liquid extraction operations. Continuous atmospheric monitoring shall be carried out at the liquid extraction worksite using a portable gas detector.

V. REQUIREMENTS FOR THE TRANSPORTATION OF LIQUID AND SOLID MATERIALS

21. Where solid or liquid materials classified as dangerous goods are to be transported, the vehicle shall be selected such that the tank code complies with the requirements of the ADR Agreement applicable to the substance being transported.

22. The vehicle shall carry all mandatory ADR documentation, including the dangerous goods transport document, the certificate of approval for vehicles carrying certain dangerous goods, and written instructions, as well as all required equipment.

23. The vehicle shall be marked with the appropriate orange plates and hazard labels as required by the ADR Agreement.

VII. FINAL PROVISIONS

24. The Company's Director of Quality, Labour Safety, and Environmental Control shall be responsible for organizing the periodic review and, where necessary, updating of this Procedure.

