PUBLIC COMPANY ORLEN LIETUVA

APPROVED BY
Director of Quality, Labour Safety
and Environmental Control
12 November, 2015
Order No. TV1(1.2-1)-319

OCCUPATIONAL HEALTH AND SAFETY PROCEDURE BDS-26 ASBESTOS HANDLING

I. GENERAL PROVISIONS

Purpose and scope of application

- 1. The purpose of the present Occupational Health and Safety Procedure BDS-26 for Asbestos Handling (hereinafter the Procedure) is to establish the occupational health and safety (hereinafter OHS) requirements for storage, use, disposal, transportation and utilization of asbestos as well as of asbestos containing materials.
- 2. The requirements of the present Procedure shall apply to and be binding upon the employees of Public Company ORLEN Lietuva (hereinafter the Company) and the contractors, if so provided in respective work (service) contracts concluded by contractor organizations with Public Company ORLEN Lietuva, involved in the storage, use, disposal, transportation and utilization of asbestos as well as of asbestos containing materials.
- 3. The requirements hereof (except for the requirements in Items 23 and 24) shall not apply to asbestos handling in the cases when an employee's exposure to asbestos is accidental and of low intensity, and his/her work is a short-lasting interruptible activity that involves handling of other than fragile, disrupted, bulk asbestos containing materials only, also taking of asbestos samples.

II. REFERENCES

- 4. This Procedure shall be applied in conjunction with the below listed legislation (as effective at the moment):
- 4.1. Asbestos Handling Provisions, as approved with Order No. A1-184/V-546 as of 16 July 2004 by the Minister of Social Security and Labour of the Republic of Lithuania and the Minister of Health of the Republic of Lithuania (as amended with Order No. A1-323/V-716 as of 8 June 2015):
- 4.2. Competence Requirements for Enterprises Involved in Demolition of Buildings with Asbestos Containing Structures, Disposal of such Structures or of Asbestos, as approved with Order No. A1-199 as of 12 July 2005 by the Minister of Social Security and Labour of the Republic of Lithuania:
- 4.3. Lithuanian Hygienic Norm HN 23:2011 Occupational Exposure Limits for Chemical Substances. General Requirements for Measurement and Impact Assessment, as approved with Order No. V-824/A1-389 as of 1 September 2011 by the Minister of Health of the Republic of Lithuania and the Minister of Social Security & Labour of the Republic of Lithuania;

4.4. Good Practice Manual *Prevention or Mitigation of Asbestos Risks at Work Related* (or Likely to be Related) to Asbestos. For Employer, Employees and Labour Inspector' published by the Senior Labour Inspectors' Committee of the European Union, 2006.

III. TERMS AND DEFINITIONS

- 5. The following are the terms used herein and definitions thereof:
- 5.1. **Asbestos** naturally occurring, fibrous silicate minerals resistant to temperature exposures and having good thermal insulation capacities. Asbestos can be found in pipeline and heater thermal insulation, electric equipment, fire resistant walls and doors, flooring and ceiling slabs, roofing slates, and other products;
- 5.2. **Asbestos fiber** a lint which is more than 5 microns long (1 μ m is 0.001 mm) and less than 3 μ m wide, with its length-to-width ratio larger than 3:1, and which can be counted by way of phase contrast microscopy [3.5];
- 5.3. **Asbestos handling** any works, including demolition of buildings with asbestos containing structures, warehousing, transportation, utilizations and disposal of asbestos, a person performing which is or may be exposed to asbestos or asbestos containing materials.

IV. RISKS TO HEALTH FROM EXPOSURE TO ASBESTOS

- 6. Asbestos has been enrolled onto the list of carcinogens prepared by the International Agency for Research on Cancer as a substance causing cancer with a long-lasting (20 to 30 years) negative effect on human health. Production of, trading in and use of all kinds of asbestos as well as products and materials containing asbestos has been placed under a ban in Lithuania since 2005.
- 7. As long as asbestos containing buildings, structures or products are not touched, the substance does not pose any significant risks to human health. Those who run the greatest risk to health from asbestos are the employees involved in demolition, renovation of buildings with asbestos containing structures, also in asbestos disposal activities. When asbestos or asbestos containing materials are being broken into pieces, dissembled or processed, very fine fibers (lint fibers) get spread in the atmosphere. Asbestos fibers are dangerous to a human being after such are inhaled only. When in lungs, the fibers settle down, stay there for years and may cause cancer as well as other long-lasting health disorders.

V. RESPONSIBILITIES OF EMPLOYEES

- 8. An employee of an organizational unit led by the Company's Director of Maintenance who has been assigned with a decree from Deputy Director of Maintenance or Chief Mechanical Engineer to organize and coordinate proper course of works while performing maintenance of and repairs to the respective organizational unit's equipment, buildings/structures shall, prior to the start of the scheduled asbestos handling works, inform the head of the company which will be doing the works that the to-be-handled materials contain or might contain asbestos.
 - 9. The head of the company which will be doing the works shall:
- 9.1. In case any data about the composition of the to-be-handled materials is absent, however, upon suspecting that the materials may contain asbestos, deliver samples of such to a laboratory for quality analysis thereof prior to starting the works.
- **NOTE.** Asbestos fibers in taken samples shall be tested at accredited laboratories or those certified according to the procedure established by the Ministry of Social Security & Labour and the Ministry of Health;
- 9.2. Before starting asbestos handling works, present the following to the State Labour Inspectorate as prescribed by legal acts effective in the Republic of Lithuania:
 - 9.2.1. A notification of intended asbestos handling works,

- 9.2.2. A work plan for demolition of buildings with asbestos containing structures, for disposal of structures or asbestos (hereinafter the Work Plan);
- 9.3. According to the procedure prescribed by legal acts effective in the Republic of Lithuania, assign the following for asbestos handling:
- 9.3.1. A duly trained and certified competent person (an organizational unit manager or any other employee of the company) who is to supervise and control that demolition of buildings with asbestos containing structures, disposal of structures or asbestos is performed in a safe manner, by applying all the necessary precautions,
 - 9.3.2. A duly trained employee for taking of samples at work sites,
- 9.3.3. An employee responsible for filling in of the Register of Employees Exposed to Asbestos (Item 38 of the Asbestos Handling Provisions [3.1]);
- 9.4. Make sure asbestos handling works are performed in compliance with all the requirements set in the Work Plan, the present Procedure, legal acts effective in the Republic of Lithuania, the Good Practice Manual [3.5] as well as any other OHS procedures effective at the Company.

VI. MAIN OHS REQUIREMENTS

Requirements for personal protection equipment

- 10. Employees performing asbestos handling works shall wear dustproof disposable coveralls with a hood, gloves, working footwear (preferably without shoe laces) as well as respiratory protection equipment.
- 11. Respiratory protection equipment shall be selected in consideration of the kind of the being performed work, actual or assumed contamination of the working atmosphere with asbestos fibers, duration and complexity of works disposal respirators, half-masks, masks with P3 filters shall be used in the cases where the concentration of asbestos fibers in the air is under 20 times the long-term exposure limit; in case the concentration is larger, tight-fitting respiratory protection equipment shall be used.

Preparatory works

- 12. Based on the Company's Occupational Health and Safety Procedure BDS-20 for Enclosures, the work site shall be enclosed and marked with clearly visible OHS signs.
- 13. In order to prevent spreading of asbestos fibers all over and other employees' exposure to such, a barrier shall be equipped for access to an asbestos handling site (where possible). The surfaces within a barred/enclosed area shall be even and impermeable or covered with polyethylene. The area shall be enclosed with durable (at least 250 µm thick) polyethylene which, upon the work completed, shall be disposed of just like asbestos contaminated waste.
 - 14. The following shall be equipped within an enclosure:
 - 14.1. An air chamber to be passed by employees entering or exiting an enclosure:
- 14.2. A separate air chamber (sometimes referred to as a 'bag chamber') for taking of duly packed (e.g. placed in bags and/or wrapped in polyethylene) waste from an enclosure;
- 14.3. Exhaust ventilation for ensuring that air pressure inside an enclosure is lightly below atmospheric pressure (recommended pressure 20 Pa) as well as for ensuring continuous flow of fresh air across the enclosure. The air exchange rate in an enclosure shall be at least 8 times an hour;
- 14.4. Only the employees performing asbestos handling works shall be allowed to enter an enclosure while wearing appropriate respiratory as well as any other personal protection equipment.

- 15. Any items which, in case such get contaminated with asbestos fibers, will be difficult to clean shall be removed from an enclosure or duly covered.
- 16. Any openings (e.g. those of air conditioning systems, ventilation systems, etc.) shall be closed and sealed so to prevent spread of asbestos fibers in the air outside an enclosure.
- 17. It shall be made sure that an enclosure does not obstruct any evacuation exits. Where compliance with this requirement is impossible, alternative exits shall be anticipated and marked with signs showing evacuation direction.

Requirements during works

- 18. It shall be ensured that asbestos containing materials remain moist at all times.
- 19. Breaking of asbestos containing materials shall be avoided.
- 20. Sweeping of debris and waste shall be avoided; larger pieces shall be cleaned off with wet cloths and smaller ones shall be vacuumed up with category H vacuum cleaners, i.e. cleaners equipped with high-efficiency particulate air (HEPA) filters. The filtration efficiency of such cleaners is 99.997%.
- 21. Where electric impact tools are used, such shall be operated at their lowest speed, and work shall be done under local exhaust ventilation.
- 22. Upon completing asbestos cleaning works, the concentration of asbestos fibers in the ambient air shall be determined the concentration shall not exceed 0.1 fiber / cm³.

Requirements for disposal of waste

- 23. Asbestos waste shall be wrapped in polyethylene or packed into double polyethylene bags and attached with the label provided in Attachment 1 hereto.
- 24. Large prices of asbestos shall be disposed without breaking them into smaller pieces. Before the waste is shipped out, such shall be placed into and kept in a covered box or tented truck, or wrapped into polyethylene.

VII. FINAL PROVISIONS

- 25. This procedure establishes only basic and minimal OHS requirements for asbestos handling; so, therefore, heads of the companies whose employees will be performing asbestos handling works shall anticipate the additional precautions and ensure compliance with such with works in progress.
- 26. Occupational Health and Safety Manager shall be responsible for periodic review and, where appropriate, revision of this Procedure.

Prepared by Senior Occupational Safety and Health Specialist Egidijus Luomanas

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Label warning about asbestos and asbestos containing materials

