



GENERAL OHS INSTRUCTIONS for the safe storage of cylinders of technical gases

QUALIFICATIONS – PROFESSIONAL BACKGROUND

Technical gas cylinder storage facilities may hire employees who have:

1. Knowledge of the hazards of the types of gases stored in the warehouse.
2. Good knowledge of fire protection regulations and the ability to use handy firefighting equipment.
3. Good health confirmed by a medical certificate.
4. At least 18 years of age.

The worker should be provided with work clothes, a cap or beret, work boots without steel toe caps, protective gloves and, if necessary, a mask with a suitable absorber. Clothing and footwear should be made of materials that do not collect static electricity.

BASIC TECHNICAL CONDITIONS FOR SAFE STORAGE

1. Cylinder storage can only take place in single-story, free-standing buildings. It is desirable for the building to have a ramp.
2. The construction of the building should comply with the provisions of the Construction Law and fire protection for explosive atmospheres.
3. The minimum clear height of the room is 3.25 m.
4. Doors and windows should open outward.
5. Maximum room temperature: +35 °C.
6. The glass in the windows is painted white.
7. When storing flammable gases, mechanical exhaust ventilation should be of explosion-proof design, and the electrical system should be of the same design as for areas with explosion hazards.
8. In rooms for flammable gas cylinders, the floor should be of non-sparking materials.
9. Lighting of enclosed spaces in the building should be of explosion-proof design, lighting intensity of at least 50 lux.
10. The warehouse should be equipped with an adequate amount of firefighting equipment or firefighting devices. The amount and type of equipment, as well as its deployment, should be determined by the fire defense plan.

STORAGE OF CYLINDERS IN THE WAREHOUSE

1. Cylinders of flammable non-flammable gases may be stored in one room except for cylinders of oxidizing gases.
2. Gas-filled cylinders with feet should be stored in an upright position and protected by baffles or barriers against accidents.
3. Cylinders filled with gas, without feet, should be stored horizontally, in wooden frames protected from spreading, in stacks up to 1.5 m high.
4. Empty cylinders can be stored in stacks up to 1.5 m high, protected from spreading.

5. Cylinders of poisonous agents should be stored in a separate, ventilated room.
6. Cylinder valves should always be secured with caps.
7. Empty cylinders can be stored in the same room containing the same agent, but should be separated from each other.
8. It is permissible to set up to two bundles of flammable gas cylinders, 16 cylinders each, outside production and storage buildings, if the place is enclosed on three sides by solid walls with a fire resistance class of not less than "REI-120" and they are connected by a manifold to the expansion stations.
9. In storage facilities for cylinders of flammable materials, mechanical means of transport must be explosion-proof.

PROHIBITED ACTIVITIES

Employees of the cylinder warehouse are prohibited from:

- Entering the storage of cylinders of toxic and highly toxic gases without a mask and a suitable absorber.
- Smoking and use of open flame in the warehouse with flammable gas cylinders.
- Storage of flammable materials and use of open flame within 10 m of the cylinder storage area.
- Contamination of oxygen and nitrous oxide cylinder valves with fats, oils, greasy rags or tools.
- Throwing, knocking or hitting cylinders against cylinders.
- Carrying full or empty cylinders of more than 10 liters by one person.
- Obstructing access to fire equipment and moving it arbitrarily.

EMERGENCY PROCEDURES

1. In the event of a fire, strictly adhere to the fire protection instructions, with which every employee should be familiar.
2. In other cases, immediately notify your supervisor and (if necessary) the appropriate emergency services
3. In the event of a fire or an accident where cylinder explosions may occur, it is imperative to evacuate workers from the area of danger and to secure the area from outsiders.

CONCLUDING REMARKS

1. The above instructions do not apply to the storage of cylinders associated with wireless gasification.
2. Employees must have free access to a properly equipped first aid kit, which should be operated by people with premedical first aid skills.
3. If there is any doubt about the safe conduct of work, the warehouse employee should immediately report it to the supervisor to clarify the situation.
4. Report every workplace accident that occurs to your supervisor, and leave the workplace in the condition in which the accident occurred.

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