Compressed Gas Association
The Standard For Safety Since 1913

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POSITION STATEMENT

TRANSPORT OF COMPRESSED GAS CYLINDERS AND CRYOGENIC LIQUID CONTAINERS IN ELEVATORS

Question

Can compressed gas cylinders or cryogenic liquid containers be transported in elevators?

Answer

Yes, but specific precautions need to be considered based upon the type and quantity of the gas and the design of the cylinder/container.

The following provides information for handling cylinders and cryogenic liquid containers and is appropriate for transporting inert and oxidizing atmospheric gases and mixtures in elevators. Additional precautions may be warranted for toxic or flammable gases depending upon the gas, quantity, and type of cylinder/container.

The following information is not applicable to the transport of cylinders or containers in an elevator while in use for patient care.

Compressed gas cylinders

Cylinders containing compressed gases can be heavy and awkward to move. Improper handling of compressed gas cylinders can result in sprains, strains, falls, bruises, or broken bones. Other hazards such as asphyxiation, fire, explosion, chemical burns, poisoning, and cold burns could occur if gases accidentally escape from the cylinder due to mishandling.

Compressed gas cylinders should be handled only by those individuals familiar with these hazards and who are trained in the proper handling technique. The following general recommendations should be considered before moving cylinders:

- Ensure that valve protection devices, if equipped, are installed when the cylinder is moved;
- Verify that cylinders are labeled with the identification of the contents and associated hazards;
- Use a suitable material-handling device such as a hand truck when moving cylinders;
- Secure cylinders from falling when transporting; and
- Guard against dropping or permitting the cylinders to violently strike against each other or other surfaces.

Cryogenic liquid containers

Cryogenic liquids are gases that are handled in liquid form at relatively low pressures and extremely low temperatures, usually below −130 °F (−90 °C). Because of their low temperatures, cryogenic liquids are stored in double-walled, vacuum-insulated containers to lessen the evaporation and venting of gas. Some cryogenic liquids are also handled in small quantities in open, low pressure, thermos-type containers (dewars) in laboratory work.

During the handling (filling, transport, or storage) of cryogenic liquid containers, pressure can build up in the container as a result of temperature changes. To avoid overpressurization and the potential rupture of the container, the containers are designed with pressure relief devices (PRDs). When the pressure in the container exceeds the set pressure of the PRD, the PRD opens to release gas, which is considered normal venting. Once