

FESHM 5032.3: TRANSPORTING GASES IN BUILDING ELEVATORS

Revision History

Author	Description of Change	Revision Date
William Soyars	In 1.0 specify that this procedure is applicable only at Fermilab site.	January 2018
Michael Geynisman	Incorporated comments from experts and includes minor editorial changes. <ol style="list-style-type: none">1. Remove “fully empty” condition from definition2. Include “all dewars” in scope3. Remove list of dewar types4. Added “personnel not permitted to ride in elevator with dewars”5. Restricted number of dewars in elevator to two at a time6. Included requirements for properly parking the cart where dewar is seated7. Added a statement related to no stopping at intermediate floors	December 2013
Akadiy Klebaner	Incorporated comments from experts and includes minor editorial changes. <ol style="list-style-type: none">1. Changed Division/Section to Division/Section/Center2. Changed Laboratory Safety Committee to FESHCom	February 2011

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1.0 INTRODUCTION

Transporting cryogenic dewars and room temperature gas cylinders in enclosed building elevators could be hazardous to passengers under certain conditions. This chapter defines procedures to be used for this operation at the Fermilab site in Batavia, Illinois.

2.0 DEFINITIONS

A building elevator is an enclosed car which has only a fan for ventilation when the door is closed.

Platform lifts with no sides or roof are not included in this chapter.

3.0 RESPONSIBILITIES

3.1 The Division/Section/Project Head (D/S/P)

D/S/P controlling the operation using the dewar or gas cylinder is responsible for carrying out the requirements of this chapter.

3.2 The Cryogenic Safety Subcommittee (CSS)

CSS will serve the Division/Section/Project Head as consultant in all matters concerning this chapter.

3.3 The Environment, Safety, Health, & Quality Section (ESHQ)

ESHQ shall audit divisions/sections/projects for compliance to this chapter.

4.0 PROCEDURE FOR CRYOGENIC DEWARS AT FERMILAB

4.1 Scope

This procedure is to be followed when transporting all dewars, whether open or closed mouthed dewars, in enclosed elevators.

Open-flask style dewars are not to be used for transporting liquid in elevators.

4.2 Inspection

Before a dewar is placed on the elevator, it is to be inspected for the following:

- a. No frost, sweating, or venting of dewar contents may be present to transport a dewar.
- b. The pressure building valve(s) must be closed on any dewar transported in an elevator.
- c. The pressure of any dewar to be loaded into an elevator must be less than $1/2$ of the pressure setting of the dewar's main relief valve.

4.3 Moving the dewar

The dewar must be moved according to the following:

- a. Personnel is not permitted to ride in elevator with dewars.
- b. Not more than two dewars may be moved on an elevator at a time.
- c. Transport of cryogenics in the Wilson Hall elevators is prohibited except by explicit written permission from the Fermilab Chief Safety Officer. The Chief Safety Officer approval is documented by his/her signature on a written Hazard Analysis for the transportation of a dewar(s) in the Wilson Hall elevators.
- d. A dewar must not be removed from its transporting cart. If a dewar is transported seated in the cart, then the cart must be properly parked inside the elevator car.
- e. The elevator must be programmed not to stop or open the doors before it reaches the destination floor. Authorized personnel must be the first at the destination floor to enter the elevator car.

5.0 PROCEDURES FOR GAS CYLINDERS AT FERMILAB

5.1 Scope

This procedure is to be used for moving all gas cylinders in enclosed elevators.

5.2 Moving the cylinders

- a. Gas cylinders to be moved must have the valve cap securely in place.
- b. Gas cylinders must be moved on a cylinder cart. The cylinders shall be belted or chained to the cylinder cart.