1. STANDARD OPERATING PROCEDURE

Use this form to document the Health & Safety information associated with the procedure.

|  |  |
| --- | --- |
| **Procedure Title:** | Transporting Compressed Gas Cylinders or Cryogens by elevator |
|  |  |
| **Dept:** |  |  | **Bldg/Rm:** |  |  | **Supervisor:** |  |

**Procedure Overview:** (brief description of the project)

Because of the danger of escaping gases from faulty valves and because elevators are considered a confined space, all compressed gas cylinders shall be unaccompanied in the elevator, with the

appropriate warning sign

This prohibition also applies to cryogens in containers (e.g liquid nitrogen) that, because of the gas generated during a spill or by the continuous container venting if the elevator were to fail for a prolonged period of time, could displace enough air in the elevator to create a suffocation hazard.

In the case of cryogen containers in volumes that can be easily carried, it may be safer and more

expedient for the transporter to use the stairs. If a cryogen container, e.g. large dewar, is too large

to carry, it must be transported via the elevator unaccompanied, correctly secured, and with the

appropriate warning sign, as for the procedure for compressed gas cylinders.

**Procedure:**

1. Do not ride in an elevator with a compressed gas cylinder/dewar.
2. Secure compressed gas tank or dewar onto the appropriate truck/dolly using a restraining chain.
3. Place this warning sign in a clearly visible location on the cart. (i.e. the chain)
4. Load the cylinder/container into an empty elevator. Ensure the warning sign face the doors.
5. Press the number for the destination floor and exit the elevator.
6. Take the stairs to meet the cylinder or by previous arrangement, have a colleague meet the cylinder on the destination floor.
7. Remove the cylinder/container from the elevator at the destination floor.

**Using Substances Requiring Special Procedures?** No [ ]  Yes [ ]

(If Yes; identify authorized personnel, designate a use area and specify specialized safety precautions here. Refer to Section B in the ISU Laboratory Safety Manual for details.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Written By:** |  |  | **Date:** |  |
|  |  |  |  |  |
| **Approved By:** |  |  | **Date:** |  |

 (PI or Lab Supervisor)

1. **HAZARD ASSESSMENT**

Use the hierarchy of controls to document the hazards and the

corresponding control measure(s) involved in each step of the procedure.

Consider *elimination or substitution* of hazards, if possible.

*Engineering Control(s):* items used to isolate the hazard from the user (i.e. fume hood, biosafety cabinet).

*Administrative Control(s):* policies/programs to limit the exposure to the hazard (i.e. authorizations, designated areas, time restrictions, training).

*Required PPE*: indicate PPE including specific material requirements if applicable (i.e. flame resistant lab coat, type of respirator or cartridge).

|  |  |  |  |
| --- | --- | --- | --- |
| **Hazard** | **Engineering Control(s)** | **Administrative Control(s)** | **Required PPE**  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. **Training Record**

Use the following table to record the training associated with this Standard Operating Procedure.

|  |  |  |
| --- | --- | --- |
| **Print Name** | **Signature** | **Date** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Note: Attach to or file with written materials and methods**