

EVACUATION PROCEDURE IN CASE OF OXYGEN DEFICIENCY HAZARD (ODH) CHESS No.: ESS-0123173 **Date**: 2017-09-01 Revision: 1 Prepared by: D.Phan Area Supervisor: Ila Sjöholm (+46 Reviewed by: I.Sjöholm, P.Arnold, S.Birch, J.Svensson 722478712) **Approved by:** J.Weisend Safety Representative: Duy Phan (+46) **Location**: Helium Compressor Building (G04) 721792066)

HAZARD DESCRIPTION

The use of cryogenic fluids can be associated with two main hazards:

Cold burns due to the damages of cold vapors and gases on the lungs in case of inhalation and on the skin in case of direct contact (cold burns).



 Oxygen deficiency due to the displacement of oxygen in air lowering its volumetric concentration below the acceptable value of 18% O_2 .



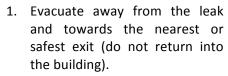
It shall also be noted that cryogenic liquids expand when evaporating from liquid to gas.

The following cryogenic equipment located in the Helium Compressor Building contain significant quantities of asphyxiant fluids (helium and nitrogen):

- Compressor stations.
- Piping.
- Gas bag.
- High pressure gas storage bottles.
- External purifier with Liquid Nitrogen bath.

EVACUATION

If you notice any gas leak inside the building (vapor cloud, noise) you SHALL:





2. Trigger one of the evacuation alarm button on your way to the nearest or safest exit.



3. Go to the nearest assembly point.



If the O2 monitoring alarm is triggered (red strobe and sounder) when the O2 drops below 18%, you SHALL:



1. Evacuate away from the leak and towards the nearest or safest exit (do not return into the building).



2. Go to the nearest assembly point.



INSTRUCTIONS

If the O2 monitoring alarm is triggered (red strobe and sounder) when the O2 drops below 18%, you SHALL NOT:



• Enter the building. Not even to attempt to rescue anyone.

CONTACT

In case of ODH, reach a safe place and report immediately to:

- The Area Supervisor: Ila Sjöholm (+46 722478712).
- The Safety Representative: Duy Phan (+46 721792066).

If the ODH involves any serious accident/injury, reach a safe place and call 112.











Oxygen Level vs Physiological Effects

oxygen levels

threshold

Fast breathing, drowsiness. nausea

Unconsciousness