

Government of Maharashtra

Directorate of Industrial Safety and Health

Kamgar Bhavan, 5th Floor, Block-E, C-20, Bandra-Kurla Sankul, Bandra (East), Mumbai- 400 51, Phone No. 26572504/09/22/58, Fax No. 26572474, Email ID – dirdish.mum-mh@gov.in

No. DISH/Insp/2974

/7A

Date – 29/05/2020

Circular -7/2020

Subject: Safety Precautions for Cold Storages, Ice factories, Milk, Chilling Centres using Ammonia as a Refrigerant.

Introduction:

In the current situation of Covid-19 lockdown, the inspection of all the factories may not be possible by this directorate. Hence all such type of factories are hereby directed to follow the following safety measures in addition to the provisions of The Factories Act, 1948 and The Maharashtra Factories Rules, 1963.

The given guide lines are not exhaustive in nature; any additional precaution as may be necessary based on specific requirement should be adopted by the factory management for safe manufacturing operation of the factory based on the nature of manufacturing activity

- 1) All hazards associated with ammonia shall be explained to workers. Personal Protective equipments such as – body apron, canister mask, self contained breathing apparatus shall be provided to workers. Workers shall be trained for handling emergencies arising out of ammonia leakage.
- 2) Oil from oil separator and evaporating coils shall be drained out periodically. Activity of draining oil shall be carried out under supervision of the responsible person. Drain line from oil separator shall be provided with spring loaded type valves.
- 3) Before carrying out hot work like welding, gas cutting on pipelines, equipments containing ammonia, same shall be isolated from rest of the system and entire ammonia within the pipeline or equipment shall be evacuated, nitrogen shall be purged.
- 4) Safety valve and pressure gauge fitted on ammonia receiver shall never be isolated from the receiver.
- 5) Water sprinklers shall be provided to ammonia receiver to prevent pressure rising within the receiver due to ambient heat.

- 6) Activity of charging ammonia in the system shall be carried out under supervision of responsible person. Before commencing transfer of ammonia from cylinder to system all connections and transfer work shall be checked.
- 7) An interlock shall be provided so that compressor will not start unless water circulation for condenser resumes.
- 8) Level gauge fitted on receiver shall be protected from impacts.
- 9) Ammonia sensors shall be installed in machine room and near ammonia receiver.
- 10) The doors of cold rooms and machine rooms shall be easily open from inside.
- 11) Ammonia leak control and evacuation drills shall be organized periodically.
- 12) Wearing of personal protective devices such as canister mask, self contained breathing apparatus shall be drilled regularly.

Dr. Mahendra Kalyankar (IAS)
Director
Industrial Safety and Health
Government of Maharashtra
Mumbai (A. C)