Rink Manager Asphyxiated

An assistant ice rink manager suffocated from lack of oxygen when he tried to stop a refrigeration system gas leak.

The system had been leaking CFC-22 for hours when a maintenance supervisor, a maintenance worker and the victim entered the compressor room through self-closing doors. All three lost consciousness.

Emergency personnel rescued and resuscitated the other two. The slipperiness of refrigerant oil covering the floor and clothing made the rescue difficult. Firefighters wore full gear and self-contained breathing apparatus. The victim was not in plain sight, having fallen behind equipment and being covered with refrigerant mist, so he was not immediately removed. After a witness said a third person was in the room, rescuers extracted the victim. He could not be revived, and was pronounced dead on arrival at hospital.

The victim and the supervisor wore air-purifying respirators, which were little help. CFC-22 in high concentrations displaces too much oxygen.

This incident is a reminder that an asphyxiating atmosphere can develop wherever CFC-22 is under pressure in a refrigeration system enclosed inside a room. The system should be inspected regularly by qualified specialists. If a problem can’t be repaired immediately, shut the system down. There should be emergency remote controls outside the room. Machinery rooms should have continuous ventilation or a vapor detector that will automatically start and sound an alarm when oxygen levels fall.

What you can do:

- Follow the recommended maintenance and testing schedule for any equipment or systems used in your work area.
- Make sure your workers know how to report emergencies and procedures to account for everyone after emergency evacuation.

- Enforce the use of proper personal protective equipment for conditions employees might encounter.