

## AMMONIA SYSTEMS: OIL DRAINING

### 1. GENERAL

- Only competent persons should be allowed to carry out work to drain oil from ammonia systems.
- A full risk assessment for this activity must be undertaken before proceeding
- Oil drains should be provided with a double drain valve arrangement.
- In addition to the operation of manual valves, there should be an automatic closing spring or weight loaded valve, (commonly known as a dead-man valve). **NEVER JAM OR LOCK THIS VALVE IN THE OPEN POSITION.**
- You must have a second person in attendance for back up.

### 2. USE OF PERSONAL PROTECTIVE EQUIPMENT AND BREATHING APARATUS

- If BA equipment is available on site, check that it is fully charged and in good condition and that there is a person competent to use it on site.
- You and the second person must each wear a full face mask filter respirator around your neck in case it is needed
- Ensure that the respirator is suitable for ammonia and in good condition
- You and the second person must each wear suitable eye protection and gloves.

### 3. OTHER SAFETY CONSIDERATIONS

- If you need to use a hose to extend the drain connection, this should be a stainless steel braided type with fixed unions that screw onto the nozzle on the spring loaded valve. The hose should have a pressure test certificate and be tested to at least twice the system maximum working pressure.
- If oil is slow to drain from the system never try to improve the flow by poking a rod into or through the drain valves.
- Always drain the oil into a suitable container.
- Oil should be left in a suitable container to vent off any ammonia (Min 1 hour).
- The oil should then be deposited in the designated waste oil tank only.
- If it is necessary to drain oil out of normal hours, over a weekend or holiday period, it will be necessary to have two persons in attendance.

### 4. DEFINITION OF A COMPETENT PERSON

- Only competent persons may undertake the above operations regarding draining oil from an ammonia system.
- A competent person is one who has received specific instruction/training in the correct operational procedures for the work being done and has the necessary qualifications (CITB or City & Guilds Ammonia Handling Certificates)

The information contained in this Guide should be seen as a guide to interpretation of relevant industry standards, legislation and statutory information which should be consulted by the relevant competent person responsible for servicing refrigeration equipment. The Service Engineers' Section and the Institute of Refrigeration accept no liability for any errors or omissions.

Service Engineers' Section of the Institute of Refrigeration, Kelvin House, 76 Mill Lane, Carshalton SM5 2JR