**1.0 Purpose**

 The purpose of this procedure is to detail the steps for changing exhausted chlorine cylinders.

**2.0 Background – N/A**

**3.0 Procedure**

General

1. Changing Cylinder(s): On any cylinder change there are to be two operators present. Both operators will be required to don self contained breathing apparatus. One operator will perform the actual disconnection and reconnection of the cylinder(s), while the other operator acts as a back-up or safety person.

Both operators will perform the positioning of the cylinder(s) prior to the actual disconnection.

After the cylinder(s) have been positioned, the safety person will take up position immediately outside the chlorine room door and observe the other operator at all times.

The safety person will not remain inside the chlorine room during the actual disconnection or reconnection of the chlorine cylinders.

2. Cylinder Changing Procedure: The following procedures will be observed with changing cylinders:

    a. Both operators don their breathing apparatus. They will then both activate their breathing apparatus;

    b. The safety person will position him or herself outside the chlorine room door;

    c. The second person will then enter the chlorine room and close the chlorine cylinder valve;

    d. The second person disconnects chlorinator from cylinder, replaced outlet cap and replaces cylinder bonnet;

    e. With the help of the safety person, the second person removes the empty cylinder from scales and places it in the empty cylinder storage area;

    f. With the safety person still assisting, the second person will position a full cylinder on the scale;

    g. The safety person will then return to his station outside the door of the chlorine room;

    h. The second person may now remove the cylinder bonnet, remove outlet cap and ensure outlet is clean and in good condition (ensure there is no old lead washer in outlet);

    i. Second person then installs new lead washer and fibreglass filter, then connects chlorinator to cylinder(s);

    k. Open chlorine cylinder, not more than 1/4 to 1/2 valve turn. Check for leaks. Always leave valve wrench on valve in case quick shutdown is required; and

    l. Position chlorinator switch in the RESERVE position.

3. Leaking Cylinder Procedure: Any attempts to repair a leaking cylinder or any other part of the system without the presence of the local fire department, to act as a safety backup team is not permitted. All leak repairs shall be connected only by personnel wearing self contained breathing apparatus.

If a cylinder persists in leaking after normal procedures have been taken to stop it (e.g. packing nut tightened, lead washer replaced, etc.) the operator may have to utilize the chlorine emergency repair kit to affect repair. If the emergency repair kit is required the supervisor shall be informed as soon as possible and the fire department shall be informed immediately.

When the tanks of the breathing apparatus reach 1700 PSIG the tanks are to be taken to the fire department for recharging.

4. Emergency Procedure: If the operator changing the chlorine cylinder is overcome, the safety person will immediately effect a rescue by removing the victim to a fresh air source and applying first aid as necessary. The safety person will then summon emergency medical aid and the fire hall by the fastest method possible, i.e. RING FIRE ALARM or summon a bystander to call the appropriate emergency number.

Repair to the leak shall not be attempted until emergency medical assistance and the fire department personnel have arrived.

If the leak is serious, the safely person may quickly close the chlorine room door and shut off exhaust as he/she is evacuating the victim to fresh air. This procedure will help to contain some of the chlorine gas to the chlorine room.

Town Manager/Clerk: Signature: Date: