

COMPRESSED GAS CYLINDERS

1.0 PURPOSE

The purpose of this section is to ensure that all empty and full cylinders are handled and stored in accordance with all applicable standards.

2.0 ORGANIZATIONS AFFECTED

This policy applies to all City of Wilson employees and contracting employees who, in their normal course of business, either transport, receive, or utilize compressed gas cylinders containing oxygen, argon, acetylene, or other gasses. This policy's primary focus is on the proper use of gas cylinders in welding or cutting operations, but can be applied to other operations if compressed gas cylinders are being utilized.

3.0 PROCEDURES

3.1 Storage

Cylinders will be kept away from radiators and other heat sources.

- 3.1.1 Inside of buildings, cylinders will be stored in a well-protected, well-ventilated, dry location, at least 20 feet from highly combustible materials, such as oil or excelsior. Cylinders should be stored in definite assigned places away from elevators, stairs or gangways. Assigned storage spaces will be located where cylinders will not be knocked over or damaged by passing or falling objects. They will also not be subject to tampering by unauthorized persons. Cylinders will not be kept in unventilated enclosures such as lockers and cupboards.
- 3.1.2 Empty cylinders will be stored with their valves closed.
- 3.1.3 Valve protection caps, where cylinders are designed to accept a cap, will always be in place, and hand-tightened, except when they are in use or connected.
- 3.1.4 Acetylene cylinders will be stored valve end up.
- 3.1.5 Oxygen cylinders will not be stored near highly combustible materials, such as:
 - 3.1.5.1 Oil and Grease;
 - 3.1.5.2 Reserved stocks of carbide and acetylene or other fuel-gas cylinders;
 - 3.1.5.3 Other substance likely to cause or accelerate fire, or in an acetylene generator compartment.

3.1.6 Oxygen cylinders in storage will be separated from fuel gas cylinders or combustible materials (especially oil and grease), a minimum distance of 20 feet, or by a non-combustible barrier at least five (5) feet high having a fire resistance rating of at least one-half hour.

3.2 **Operating Procedures**

3.2.1 Cylinders, cylinder valves, couplings, regulators, hoses and apparatus will not be handled with oily hands or gloves.

3.2.2 A jet of oxygen must never be permitted to strike an oily surface, greasy clothes, or enter a fuel oil or other storage tank.

3.2.3 When transporting cylinders, valve protection caps will be in place.

3.2.4 Valve protection caps will not be used for lifting cylinders from one vertical position to another.

3.2.5 Unless cylinders are secured on a special truck, regulators will be removed and a valve protection cap will be put in place before cylinders are moved.

3.2.6 Cylinders not having fixed hand wheels will have keys, handles, or non-adjustable wrenches on the valve stem while these cylinders are in service.

3.2.7 Cylinder valves will be closed before moving cylinders.

3.2.8 Cylinder valves will be closed when work is finished and lines relieved of pressure.

3.2.9 Valves of empty cylinders will be closed.

3.2.10 Cylinders will be kept far enough away from the actual welding or cutting operation so that sparks, hot slag, or flames will not reach them. If this is not possible, fire resistant shields must be provided. (See Chapter 10 on "Welding and Cutting" procedures).

3.2.11 Cylinders will not be placed where they might become a part of an electrical circuit.

3.2.12 Cylinders will not be dropped or roughly handled.

3.2.13 A hammer or wrench will not be used to open cylinder valves. If valves can not be opened by hand, the supplier will be notified.

3.2.14 Cylinders will be secured by chains or cylinder supports while being used or stored.