



# Department of Facilities POLICY AND PROCEDURE

POLICY NUMBER: 499  
VERSION: 3

## **SUBJECT: GAS CYLINDERS**

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### **POLICY:**

The Plumbing Shop is responsible for monitoring and maintaining the medical gas systems. The systems will be inspected and serviced on a regular basis, as per Regulatory compliance, manufactures specifications and the Preventative Maintenance Program.

Gas System Sources - Cylinders or supply containers shall be tested and maintained in accordance with the U.S. Department of Transportation and manufactures specifications and regulations.

### **PURPOSE:**

To ensure a safe and reliable supply of medical gases, throughout the facility.

### **PROCEDURE:**

Special instructions – Items A through E shall be tested for low and high pressure. Item F shall be tested for low vacuum.

- A. Oxygen: Low 40 PSIG High 60PSIG
- B. Carbon Dioxide: Low 40 PSIG High 60 PSIG
- C. Nitrous Oxide: Low 40 PSIG High 60 PSIG
- D. Nitrogen: Low 140 PSIG High 195 PSIG
- E. Med Air: Low 60 PSIG High 80 PSIG
- F. Vacuum: 12" HG

### **Alarm Signals:**

Alarm indicators shall be checked regularly and indicating lamps and buzzers shall be operational.

- Items above, A, B, C and D should alarm at 40PSIG (low) and 60 PSIG (high).
- Item above, E should alarm at 60PSIG (low) and 80 PSIG (high).
- Item above, F should alarm at 12" HG.

All abnormal conditions should be reported to the Facilities front office and your supervisor.

When test buttons are provided with signal panels, activation of the audible and visual signals are performed on a monthly basis.

### **Reserve-In-Use Warning Signal:**

At any time that the system is determined to be in Reserve status, with the primary banks of tanks depleted, the primary bank will be immediately replaced by Facilities personnel. Always check to ensure the "O" rings on the supply line, are in place before connecting to the new tank.

### **TESTING:**

All components of the Medical Gas system is retested and certified annually. Audible and visual signals are tested monthly.

**ANNUAL:**

The entire Medical Gas system is be checked and certified by a qualified outside vendor. Shutoff valves are checked for external leakage by means of an ultrasonic leak detector. Station outlets are annually checked for leakage and flow. All alarm panels are to be inspected for proper settings and operation. The manufactures recommendations should be followed in making this examination.

**MONTHLY:**

Each Medical Gas panel alarm is to be checked for proper operation on a monthly basis. The pressure gauge connected to the lines being monitored at each area alarm panel location, are checked on monthly basis to ensure proper system pressure.

**DAILY:**

Daily monitoring of all medical gases is done at their sources of supply. The pressure gauges on the main lines are checked on a daily basis first thing in the morning and tanks are to be replaced as needed, or if tank pressures are below the following reading:

- A. Oxygen: 500 PSIG
- B. Carbon Dioxide: 150 PSIG
- C. Nitrous Oxide: 200 PSIG
- D. Nitrogen: 350 PSIG

Regulators are to be checked and set to the following pressures:

- A. Oxygen: 52 PSIG
- B. Carbon Dioxide: 52 PSIG
- C. Nitrous Oxide: 54 PSIG
- D. Nitrogen: 170 PSIG
- E. Med Air: 70 PSIG
- F. Vacuum: 15" HG

Any detected leaks or unusually high usage rates, are to be reported to the Facilities Office and your Supervisor and repaired immediately.

Facilities shall maintain at least 14 extra, full K-tanks of oxygen, in addition to the 14 in use.

**Storage Requirements:**

Nonflammable Gases:

Sources of heat in storage locations shall be protected or located so that cylinders or compressed gases shall not be heated to the activation point of integral safety devices. In no case shall the temperature of the cylinders exceed 130°F. Provisions shall be made for racks or fastenings to protect cylinders from accidental damage or dislocation.

Combustible materials, such as paper, cardboard, plastics, and fabrics shall not be stored or kept near supply system cylinders or manifolds containing oxygen or nitrous oxide. Containers shall not be stored in a tightly closed space such as an unvented closet.

**Flammable Gases:**

Cylinders containing flammable gases and containers of flammable liquids shall be kept out of proximity to cylinders containing oxidizing gases through the use of separate area.

Additional tanks can be procured at:

PRAX AIR - 661-948-8508 43923 N. Division St. Lancaster, CA 93534

Cylinder contents shall be identified by attached labels or stencils naming the components and giving their proportions. Labels shall not be defaced, altered, or removed.

All gas storage areas are to be kept clean, and free of storage of any other materials.

Approved By: Anthony Corliss (MANAGER I, FACILITIES OPERATIONS AND CRAFTS)	
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