A) Policy Statement

To comply with Hospital Safety Policy S-08-003, all RC Staff members are required to be knowledgeable of all institutional and departmental safety policies, procedures, and contingencies regarding: medical gas safety, fire response, emergency and disaster codes, electrical safety, infection control, workplace body mechanics, occurrence reporting, radiation safety, chemical safety/hazard communications, and facility utilities failure.

During their departmental orientation period, all new Respiratory Care staff will be educated on department specific safety and infection control procedures and policies which are based upon the needs and hazards relevant to Respiratory Care. Annually, all RC Staff members are required to complete the UTMC on-line safety test. Reviews of other safety issues will also be required, as deemed necessary by departmental or hospital management.

All department personnel shall be alert for and report on, any potentially unsafe situations, which include the control of medical gas, electrical problems, flammables or combustibles, explosives, mechanical failures, and hazardous wastes.

B) Purpose of Policy

To provide a safe environment for all patients, staff, and visitors, through the establishment of policy, procedure, contingency, and educational guidelines for identifying safety hazard concerns to better enable the protection from injury and to improve response during emergency situations.

C) Procedure

The Respiratory Care Department shall follow the standards of safety as described by the following authorities: National Fire Protection Association, Compressed Gas Association, Department of Transportation, Safety Code Manual of the American Association of Respiratory Care, local safety regulations and hospital safety policies.

I. SAFETY PROCEDURES/POLICY REFERENCES:

Safety Training: Hospital-specific Safety Training will be in accordance with Safety Policy S-08-003.

Campus Police: Guidelines for contacting Campus Police/Crime Prevention will be in accordance with Safety Policy #SM-08-001.

Occurrence Reporting/Response to Employee Injury: Guidelines for Use of Occurrence Reports for patient, visitor, or staff injury will be in accordance with Safety Policy S-08-018, and the Safe Medical Device Act of 1990, Safety Policy ME-08-002.

FIRE: In the event of fire or disaster guidelines will be in accordance with Hospital Safety Policy LS-08-001 and RC policy #3364-136-01-08 and #3364-136-01-10.
TORNADO RESPONSE (Code Gray): In the event of a code gray, guidelines will be in accordance with Safety Policy EP-08-002, found in the Hospital Safety manual.

EMERGENCY MANAGEMENT OF HAZARDOUS CHEMICAL and RADIOACTIVE CONTAMINATION (Code Orange): In the event of a code orange, guidelines will be in accordance with Safety Policy EP-08-003.

ELECTRICAL HAZARD: If an electrical hazard is noted on any piece of patient care equipment, the Respiratory Care Supervisor and the Technology Support Department, and further, shall be notified in accordance with Hospital Safety Policy S-08-039.

INFECTIOUS HAZARDS: If any potential infectious hazards conditions are identified, they shall be reported to the Infection Control Department and to the Supervisor or Director.

MECHANICAL AND ELECTRICAL HAZARDS: Any mechanical or electrical (non-patient care equipment) equipment found to be inoperable shall be brought to the attention of the Maintenance Department for repairs, and further in accordance with Safety Policies S-08-039 and S-08-040.

HAZARDOUS MATERIALS: Any hazardous materials concerns which arise shall be referred to the Hazardous Materials Manager, and further in accordance with Hospital Safety Policies HM-08-001, HM-08-003, HM-08-013, HM-08-019, and HM-08-020.

II. CONTINGENCY SAFETY PLANS, UTILITY FAILURE:

Should any of the following scenarios occur, specifically the loss or interruption of medical gas supply, water supply, steam pressure, electrical service, or medical vacuum, the respiratory therapist will assure patient safety and then follow the contingency communication and care plans as outlined below, and in accordance with Hospital Safety policy US-08-001, US-08-002 and US-08-003.

Loss of Medical Gases:
In the event of fire (Code Red), use the R.A.C.E.; Rescue, Alert, Contain, Evacuate;
✓ During "Rescue", therapists will assure the safety of all patients using oxygen; supply portable oxygen if required.
✓ During "Contain", therapists will immediately assess the danger of oxygen delivery devices being used, relevant to the spread of the fire. Eliminate the oxygen source in the room if possible, if it is a threat to the fire; if necessary, oxygen should be shut off at the area zone valve.

The supply of all medical gases in the Hospital, including all tanks located in the tank room by Receiving in Dowling Hall basement, and the bulk oxygen vessels outside the Loading Dock area, are the responsibility of Respiratory Care. If the RC Supervisor or Charge Therapist receives any pages or calls regarding medical gas concerns, the supervisor must complete all necessary procedures and communications until the situation is completely rectified to a safe patient care environment. The RC Supervisor or Charge Therapist will notify Facilities Maintenance, will ask the Hospital Operator to notify the Nursing Administrative Coordinator, and will notify the Director of Respiratory Care of the situation. In the event of nitrogen or nitrous oxide gas emergency, the RC Supervisor or Charge Therapist will also ask the Hospital Operator to notify the on-call Anesthesia Attending of the situation.

Facilities personnel will check and document tank pressures nightly (per Facilities Maintenance Policy CC-10). In the event any gas manifolds are depleted, or a low pressure alarm is sounding, the Respiratory Care Supervisor or Charge Therapist will be called via Ascom 383-2552 or pager 218-4573. Facilities will place new tanks of nitrous or nitrogen on the manifold system and may ask Respiratory Care to physically inspect for proper connection.

If full tanks of gas are unavailable in the tank room inventory, the on duty Respiratory Care Supervisor or Charge Therapist must call Airgas (our supplier) (number below and in tank room) and order new cylinders;
Customer account number and the telephone number for Airgas are in the tank room.

All ventilators running will be switched to 100% oxygen (the ventilators will still cycle). The Supervisor or Charge Therapist will attempt to determine length of the shut down. If the problem appears to be severe and a quick repair is not expected by the Facilities Maintenance department, the Supervisor or Charge Therapist will contact a local medical gas supplier, listed below, and make attempts to secure enough compressed air and oxygen H-cylinders to meet the needs of the hospital. Cylinders will be distributed according to the acuity of the patients. ZONE VALVES: All employees shall be familiar with the location of zone valves for the piped oxygen, medical air, and vacuum system in the area they are assigned to work.

**Loss of Vacuum:** In the event of a loss of vacuum pressure, the charge therapist will contact the Director of Central Service and the maintenance department and inform them of the problem. An equipment rental company will need to be called for rental of portable suction machines. They will be distributed by Central Service throughout the hospital based on the acuity of the patients. The Respiratory Care department maintains three (3) portable suction machines which can be put into service if needed.

**Loss of Electrical Power:** In the event of a loss of electrical power, the shift supervisor will contact the Director and the maintenance department and inform them of the problem. The shift supervisor will attempt to determine length of the shut down. The hospital back-up generator should provide electrical power for the mechanical ventilators. It is essential that all mechanical ventilators operated by Respiratory Care be plugged into the proper receptacles. These receptacles are RED. If the hospital back-up generator should fail, the Respiratory Therapists will manually ventilate the patients until one of the power sources is restored.

**Loss of Water:** In the event of a loss of water pressure, the charge therapist will contact the Director and the maintenance department and inform them of the problem. Employees should be informed to conserve water. Loss of water does not affect any equipment in Respiratory Care.

**Equipment Rental Companies:**
- UHS 419-491-3251
- Fitzsimmons 1-800-648-1015 (local)

**Medical Gas Supplier:**
- AirGas 734-641-4301
- Acct. # WYX59

**Liquid Oxygen (bulk oxygen):**
- PRAXAIR: Emergency Service 1-800-772-9247
  - Service Agreement: MM-00614

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**Approved by:**

Michael Taylor  
Director, Respiratory Care  
Date: 3/23/1993  

Daniel Barge  
Vice President Clinical Services  
Date: 10/04/1999  

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**Policies Superseded by This Policy:**