

Institutional Handbook of Operating Procedures
Policy 09.13.23

Section: Clinical Policies	Responsible Vice President: EVP & Chief Financial Officer
Subject: General Procedures	Responsible Entity: Health & Safety Services

I. Title

Emergency Shut-Off of Medical Piped Gas Zone Valves in UTMB Healthcare Areas

II. Policy

A. It is the responsibility of the unit Authorized Individual (charge nurse, unit manager or their designee) to shut off medical gases (including oxygen and nitrous oxide) that could contribute to the spread of a fire in the event of an emergency that would potentially allow medical gases to escape into the immediate area or room intensifying a fire hazard.

B. When respiratory therapy equipment is in use, the only practical means of stopping the flow of piped medical gas (which accelerates a fire) into a patient room is by closing the pipeline zone valve(s). Zone valves typically control gas flow to several rooms: closing a valve may affect patients in more than one room. Residual pressure in the pipeline allows a short time before gas flow stops completely. Each zone valve must be labeled with the Room or area it controls, e.g., " Rooms 101, 102, 103, 104, etc. Verbiage such as, "Rooms 101-104", or "Rooms 101 thru 104", are not permitted.

C. If a fire occurs in a room in which medical gases are in use, the zone valve(s) controlling that room must be closed, and affected patients requiring respiratory support must be immediately attended to. Failure to close the zone valve(s) risks intensifying and spreading the fire and smoke and placing more lives at risk.

1. The Authorized Individual will receive training relevant to:
 - the effects of oxygen/medical gases and fire
 - patient care and oxygen/medical gases delivery equipment
 - zone valve location and areas controlled on unit
 - who to notify when oxygen/medical gases have been shut off
 - the location of back-up oxygen/medical gas tanks on unit.
2. Once the valve has been shut off, the decision to turn the valve back on will be made by the following:
 - a. **During normal working hours:**
 - Environmental Health and Safety/Life Safety & EOC Compliance
 - Property Services (Maintenance)
 - b. **After hours, weekends, and holidays:**
 - Local Fire Department
 - Property Services, Shift Team

III. Procedure

- A. Prior to shutting off the medical gases zone valve, the Authorized Individual shall:
 - 1. Assess the risk presented by the hazard to the patient (i.e., risk of free-flowing oxygen/medical gas intensifying a fire and involving other combustible objects in the room). If necessary, consult with faculty anesthesiologist or ICU attending physician.
 - 2. Provide for patient oxygen/medical gas needs as appropriate. Maintain emergency supplies for patient evacuation. These supplies should enable respiratory support of patients during transport from the affected area to another smoke compartment or building.
 - 3. If the hazard of fire is imminent, the authorized individual must shut off the medical gas zone valve immediately. For non-imminent hazards, consulting with Pulmonary Care Services, Environmental Health & Safety, and Property Services is encouraged but should not delay necessary action.

- B. Upon shutting off the medical gas zone valve, the Authorized Individual shall:
 - 1. Call 911 immediately after the medical gas zone valve is shut off
 - 2. Provide the following information to UTMB Police Dispatch or Operator, who in turn will convey the following information to Local Fire Department:
 - a. Name, title and contact phone number
 - b. Which zone valve that was shut off, including: building, floor/unit and time it was shut
 - 3. Communicate the zone valve shut off on unit to Property Services, Pulmonary Care Services, Environmental Health & Safety, and Nursing Service Director or designee.
 - 4. Prepare patients for evacuation if indicated.

- C. Environmental Health and Safety, Life Safety & EOC Compliance, shall:
 - 1. Train and drill all hospital staff in execution of this plan

IV. Definitions

Authorized Individual: A unit charge nurse, unit manager, or other designated healthcare professional who has received training on the medical gas system in the facility and understands the impact on patients in the area.

V. Relevant Federal and State Statutes

- The National Fire Protection Association (NFPA)
 - NFPA 99 (2012) Healthcare Facilities Code
- The Joint Commission
 - Medical Gas and Vacuum Safety Management EC.02.05.09**

VI. Related UTMB Policies and Procedures

[UTMB Emergency Preparedness Plan](#)

VII. Dates Approved or Amended

<i>Originated: 12/15/1995</i>	
<i>Reviewed with Changes</i>	<i>Reviewed without Changes</i>
08/06/2014	01/31/2001
10/31/2019	
01/07/2025	

VIII. Contact Information

For further information about this policy or questions and comments, please contact:
Environmental Health and Safety at: 409-747-0515.