

# Patient Safety Alert

**Veterans Health Administration Warning System  
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- Item:** Oxygen Utility System
- Specific Incident:** Two VA Medical Centers reported a loss of service in the Oxygen Utility System. In both incidents the alarm on the main tank did not sound until reaching near or completely empty and both sites did not meet the NFPA-99 requirement for two, independent 24/7 supervised areas where mandatory alarm conditions for the Oxygen Utility System are annunciated.
- Actions:** By April 30, 2004:
1. Conduct alarm-set point verification through the use of a qualified third party expert. The set points must be code compliant and this action documented. (see NFPA-99 5.1.3.4.11.6, 2002 Edition)
  2. Ensure that a minimum of two, independent 24/7 and constantly attended monitoring stations are provided for all alarm conditions related to the Oxygen Utility System. Test all alarm conditions to ensure the alarm annunciation is working.
  3. If either of the conditions in 1. or 2. above cannot be met, the Medical Center must publish, over the Director's signature, a comprehensive Interim Life Safety Measure that fully addresses and compensates for the non-compliant condition. The ILSM must remain in effect until the code requirements are met. In addition appropriate staff must be trained on the ILSM requirements, and this training needs to be documented.
  4. Review the oxygen delivery contract and verify the delivery schedule meets current demands to ensure an adequate supply of Oxygen so alarm conditions are not triggered between refills.
  5. Ensure qualified and trained technical staff such as a Biomedical Engineering Technician, SPD Technician or Pipe Fitter monitors tank refilling procedures.
  6. Ensure an adequate supply of portable oxygen with an appropriate mixture of tanks is available for deployment at point of health care delivery in the event of total Oxygen Utility System failure. All tanks must be properly stored.
  7. Set, maintain, and document appropriate Oxygen Utility System preventive maintenance and testing protocols.
  8. Review Medical Center Utility Shutdown Policy, as required by JCAHO to assure appropriate safeguards are in place in the event of unplanned utility shutdowns.

**Addl. Information:** NFPA-99, JCAHO Environment of Care, Utility Systems Standards

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