# HYPERBARIC OXYGEN THERAPY COMPLIANCE CHECKLIST

The Joint Commission specifically addresses hyperbaric oxygen chambers under Environment of Care (EC) Standard EC.02.04.03 (which addresses medical equipment inspection, testing, and maintenance), Element of Performance (EP) 10: "All occupancies containing hyperbaric facilities comply with construction, equipment, administration, and maintenance requirements of NFPA 99-2012: Chapter 14." However, aspects of these complex spaces are covered by other standards: fire safety training, in EC.02.03.01; utilities management, in EC.02.05.01; and medical gas management, in EC.02.05.09. The Joint Commission references, includes a detailed chapter (Chapter 14) on safety requirements related to hyperbaric oxygen chambers and are the source reference for this checklist

This checklist, the use of which is not required by The Joint Commission, is divided into two sections: (1) Administrative and Training Requirements and (2) Fire and General Safety and Maintenance Requirements. The checklist is not exhaustive and is not intended to be a substitute for a comprehensive training program.

Answers to all questions ideally should be Y for Yes (unless marked NA for Not Applicable). Use the Comments section to indicate any required follow-up action(s) identified by an N for No response.

Center:	Date of Review:
Program Director:	Safety Director:

#### **QUESTION:**

Y | N | NA COMMENTS:

### Administrative & Training Requirements

If the center has one or more hyperbaric oxygen chambers, do they have a designated hyperbaric safety director, who is in charge of all hyperbaric equipment and the operational safety requirements described in Chapter 14?	
Does each hyperbaric facility have a designated chamber operator and is the Center in compliance with the SG Staffing Policy?	
<ul> <li>Before each treatment, does the chamber operator record the following information?</li> <li>The treatment</li> <li>The occupant (patient) of the chamber</li> <li>Types of gas utilized for the treatment</li> </ul>	
Does the hyperbaric safety director participate with facility management personnel and the hyperbaric physician(s) in developing procedures for operation and maintenance of the hyperbaric equipment?	

QUESTION:	Y	I	N	I	NA	COMMENTS:
Does the hyperbaric safety director make recommendations for departmental safety policies and procedures? (Note: Often hyperbaric services are contracted out to a third party, and the corporate contractor will implement its own safety policies and procedures. If so, it is critical that your facility's on-site hyperbaric safety director tailor the contractor's P&Ps to the local setting.)						
Does the hyperbaric safety director have the authority to restrict or remove any potentially hazardous supply or equipment items from the chamber? Note: This should be mentioned in the safety director's job description.						
Does the organization's leadership and governing board prioritize rules, regulations, and best practices related to its hyperbaric facilities?						
<ul> <li>Are the following issues addressed in your organization's policy?</li> <li>Qualifications and training of hyperbaric personnel</li> <li>(Credential Card/ Staff Competencies in current)</li> <li>Adherence to regulations and other requirements for the inspection, testing, and maintenance of hyperbaric equipment</li> <li>Controls regarding the conduct of personnel in and around hyperbaric chambers</li> <li>A description of the apparel and footwear allowed in hyperbaric chambers</li> <li>Controls pertaining to the periodic inspection of static-dissipating materials</li> </ul>						
<ul> <li>Are the Center personnel familiar with the content of Chapter 14?</li> <li>Administrative professionals</li> <li>Technical staff</li> <li>Hyperbaric medicine medical director and other clinicians</li> <li>Staff involved in the operation and maintenance of hyperbaric chambers</li> <li>(Note: The education of these personnel can be the responsibility of the on-site hyperbaric safety director. One good practice is to have a standing hyperbaric safety agenda item for routine staff meetings. Such a standard agenda item keeps the focus on establishing and maintaining a culture of safety.)</li> </ul>						
<ul> <li>Have the medical director of hyperbaric medicine and the hyperbaric safety director jointly developed minimum staff qualifications based on the following criteria?</li> <li>Number and type of hyperbaric chambers in use</li> <li>Maximum treatment capacity</li> <li>Type of hyperbaric therapy typically provided (Note: SG Policy and UHMS Guidelines for Hyperbaric Facility Operation provides guidelines on staffing and training.)</li> </ul>						

QUESTION:	Y   N   NA	COMMENTS:
Have emergency procedures specific to the hyperbaric chambers been established? (Note: These procedures should address mechanical, operational, and medical emergencies.)		
Are all hyperbaric staff trained in your organization's emergency procedures? (Note: It is important to do more than conduct periodic fire drills. The hyperbaric safety director should develop a plan to conduct both didactic and performance demonstration drills so that EVERY emergency procedure is addressed at some recurring frequency.)		
Have all hyperbaric staff been trained on the purpose, application, operation, and limitations of specific emergency equipment?		
Are hyperbaric staff trained to control the chamber(s) and decompress occupants when all powered equipment has been rendered inoperative?		
Are emergency and fire training drills specific to hyperbaric chambers held at least annually?		
Are these drills worst-case-scenario drills, with all chambers occupied?		
<ul> <li>Has the Center conducted drills to address the following situations?</li> <li>A medical emergency in a hyperbaric chamber</li> <li>A fire in a hyperbaric chamber</li> <li>Contaminated breathing gas</li> <li>Are the drills documented by the safety director?</li> <li>(Note: Hyperbaric-specific drills can be integrated into the emergency response exercises and fire drills The Joint Commission requires of all accredited health care organizations. The time required to evacuate all persons from a hyperbaric area with a full complement of chamber occupants at treatment pressure must be measured during the drills.)</li> </ul>		

## Fire & General Safety & Maintenance Requirements

Does the organization ensure that any room used for hyperbaric oxygen chambers is not used for any other purpose?	
Are signs posted at the entrance to every hyperbaric oxygen chamber that warn not to bring any flammable liquids, gases, or other article prohibited by Chapter 14 into the chamber? (Note: Signage placed on the door of a Class B chamber might not be noticed by the patient because the door would typically be open. It is recommended that hazard signage be posted in additional locations, such as the patient changing area.)	

## Serena Group

QUESTION:	Y   N   NA	COMMENTS:
Is a fire alarm signaling device located in the room housing the hyperbaric oxygen chamber(s)? (Note: The NFPA technical committee on hyperbaric facilities considers a telephone to be a fire alarm- signaling device. So, in the absence of an alarm pull station, a phone is an acceptable device.)		
Is the room housing the hyperbaric oxygen chambers sprinklered, using sprinkler heads of an approved type with fusible elements?		
In the event that air in the vicinity of chambers is fouled by smoke or other combustion products during a fire, is a source of breathable gas allowing unrestricted mobility available outside each chamber? Are fire and smoke escape hoods not expired?		
In case the hyperbaric oxygen chambers and the rooms housing them need to be evacuated quickly during a fire, are the chambers compliant with the following NFPA 99-2012 standards for depressurization? "Class B chambers must be capable of depressurizing from 3 ATA to ambient pressure in 2 minutes or less."		
In accordance with Chapter 14, are the following ignition sources/activities prohibited in the immediate vicinity of and within the hyperbaric oxygen chamber(s)? • Smoking and vaping • Cigarette lighters, matches, and vaping devices • Open flames • Hot objects • Personal warming devices (such as therapeutic chemical heating pads and hand warmers) • Cell phones and pagers • Personal entertainment devices • Toys that emit sparks • Paper Products • Hearing aids (batteries)		
For Class B (single-person occupancy) hyperbaric chambers, if a chamber contains more than 23.5% oxygen, does the organization ensure electrical grounding of the patient(s) by providing a high- impedance conductive pathway in contact with the patient's skin (usually in the form of a wrist strap)?		

QUESTION:	Y   N   NA	COMMENTS:
<ul> <li>Are the following restrictions/recommendations implemented regarding hyperbaric patients' clothing?</li> <li>Silk, wool, and synthetic textiles or any combination of these materials (except as noted below) must not be worn in hyperbaric chambers.</li> <li>Garments that are 100% cotton or a blend of cotton and polyester are allowed in Class A chambers equipped with fire protection and in all Class B chambers.</li> <li>(Note: Health care facilities should issue special garments meeting the above criteria for patients to wear in hyperbaric chambers. Although tighter-fitting garments are preferred, hospital gowns are permitted to be worn by patients undergoing procedures.)</li> </ul>		
Regarding medical/surgical supplies to be used in a hyperbaric chamber, does the physician or surgeon work with the hyperbaric safety director to determine which of the following normally prohibited materials may be permitted in specific cases? • Suture material • Alloplastic devices • Bacterial barriers • Surgical dressings • Biological interfaces • Synthetic textiles (Note: If any of the above items or other Medical Devices have been placed in the chamber was a SG Risk Assessments performed and Exception to protocol Completed?		
Are flammable hair sprays, hair oils, and skin oils prohibited hyperbaric patients and staff?		
Has your organization developed a policy on safe use of gases in a hyperbaric oxygen chamber?		
Does your hyperbaric safety director ensure that all valves, regulators, meters, and similar equipment used in the hyperbaric chamber(s) are tested as part of the facility's routine maintenance program? (Note: This requirement still applies to Class B chambers. Make sure to keep up-to-date maintenance logs that demonstrate compliance with this requirement.)		
Has your organization developed a policy on safe use of gases in a hyperbaric oxygen chamber?		

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QUESTION:	Y   N   NA	COMMENTS:
Are pressure relief valves tested and calibrated as part of the routine maintenance program for your organization's hyperbaric chambers? (Note: Review the annual chamber service (APM) and ensure it is documented in the service report.		
Does your facility make sure that hyperbaric chamber rooms are not used to store hazardous materials?		
Does your organization ensure that any installations, repairs, and modifications of equipment related to hyperbaric chambers meet the following criteria? • Tested under pressure • Approved by the safety director • Evaluated by Corporate Safety Director		
If power to critical electrical equipment associated with hyperbaric chambers is interrupted, can emergency electrical power be restored within 10 seconds?		
Are Class B chambers in your facility certified and stamped in accordance with criteria established by the American Society of Mechanical Engineers (ASME) in ANSI/ASME PVHO-1 Safety Standard for Pressure Vessels for Human Occupancy?		
Do staff know where the medical gas alarms are located?		
Does the organization include in its fire response plan a process for shutting off oxygen to the department and to the hyperbaric chambers?		

