

Oxygen Plant Warranty Contract Guidelines

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This document was developed by [Build Health International](https://www.bhioxygen.org) to support global medical oxygen infrastructure planning, site preparation, operation, maintenance, and sustainability. Additional technical resources are available at www.bhioxygen.org.

This guideline document outlines the key components and considerations that should be included in a warranty contract for Oxygen plants to ensure clarity and comprehensiveness, thereby protecting the interests of all parties involved. Understanding and clearly defining the warranty terms is crucial to avoid inadvertently voiding it and to ensure the hospital's interests are protected.

1. Duration of Warranty

- a. Specify when the warranty begins and clearly define when the warranty expires, specifying the exact day or operating hours where possible (e.g., "24 months from the date of commissioning or 30 months from the date of delivery, whichever comes first"). This is crucial, especially if the PSA plant is not installed immediately upon arrival
- b. Extension: Indicate if there is an option to extend the warranty period and under what terms.

2. Scope of Warranty Coverage

- a. Coverage of Parts and Repairs
 - i. Parts Covered: Clearly state which parts are covered, including those susceptible to workmanship defects or malfunctions.
 - ii. Extent of Repairs Covered: Specify the extent of coverage for repairs, such as the cost of parts, shipping fees, labor, and travel costs.
- b. Exemptions from Warranty
 - i. Clearly explain cases that are exempt from warranty coverage, such as improper installation, negligence, or damages due to natural disasters, etc.
 - ii. Specify parts that are not covered, such as cosmetic issues (e.g., fading, discoloration) and wearing or consumable parts scheduled for regular replacement.

3. Processing Warranty Claims

- a. Claims Procedure: Outline the steps for processing warranty claims, including how to communicate a defect and what documentation is required.
- b. Defective Parts: Indicate whether defective parts need to be shipped to the manufacturer for confirmation and who is responsible for the shipping costs.
- c. Onsite Evaluation: Specify if a manufacturer-trained technician needs to come onsite to evaluate the claim and who covers the cost of this visit.

4. Financial Responsibilities

- a. Visit Costs: Clarify who covers the cost of a visit from an authorized representative. If not covered by the warranty, the hospital's maintenance budget should include a provision for these costs.
- b. Travel and Incidental Expenses: Specify whether travel and incidental expenses incurred by service technicians are covered under the warranty.
- c. Clarify who covers the cost of spare parts and shipping spare parts to and from the manufacturer. If not covered by the warranty, the hospital's maintenance budget should include a provision for these costs.

5. Authorized Personnel and Permitted Actions

- a. Authorized Personnel: Identify who is permitted to operate and maintain the plant, typically hospital staff trained by the supplier.
- b. Permitted Actions: Define what actions authorized personnel are allowed to perform under the warranty, such as turning on the plant, conducting basic maintenance tasks and completing daily maintenance checks.
- c. Training Others: State whether authorized hospital staff can train others to operate and maintain the plant.

6. Electrical Requirements

- a. Voltage Requirements: Specify the acceptable nominal voltage range (e.g., IEC +/- 10%) and the acceptable voltage difference between phases.
- b. Frequency Range: Define the acceptable frequency range (e.g., +/- 1 Hz).
- c. Power Outages: Detail the backup power requirements, including the maximum generator start-up time and the frequency of allowable switchovers.
- d. Maximum Downtime: Specify the maximum downtime allowed during a power outage.

7. Conditions That Void the Warranty

- a. Unauthorized Maintenance: The warranty is void if maintenance is conducted by hospital staff or others not trained by the manufacturer.
- b. Lack of Maintenance: Failure to perform maintenance per the manufacturer's minimum requirements can void the warranty.
- c. Tampering and Unauthorized Repairs: Modifications, alterations, or repairs by unapproved personnel void the warranty.

8. Communication and Support

The warranty should detail the hospital's ability to contact the supplier for remote support, including contact information, contact procedures, and the supplier's hours of operation for remote support. Once these details are established, the warranty should also specify the following:

- a. Include clear instructions on steps to take when there is an equipment breakdown or fault.
- b. The timeframe within which the supplier is expected to respond to remote support requests.
- c. Steps the hospital can take if the supplier fails to respond within the specified time.
- d. Procedures for escalating the issue if there is no response, ensuring the hospital receives the necessary support promptly.
- e. Dedicated Support Line: Provide a direct line of communication from the user to the supplier for technical support.