



Maintenance Training

For PSA Medical Oxygen Plants

This document was developed by Build Health International for the Global Fund's Project BOXER.

Purpose: This five-day, onsite course provides training on preventative maintenance and routine repairs of pressure swing adsorption (PSA) plants. It aims to equip attendees with the knowledge and skills they need to run PSA plants safely and sustainably.

Who is this course for?

Biomedical Engineers and Technicians, Facilities Managers, or Hospital Operations Staff.

When to take this course

Training is recommended to be taken immediately after a PSA plant has been installed and commissioned. Timely training ensures that PSA plants are operated and maintained correctly as soon as they are operational. Ongoing training and virtual support are available to reinforce knowledge and accountability and to provide additional instruction when maintenance guidance is updated.

Learning outcomes

Through classroom instruction, participants will:

- Build a strong understanding of the key components of PSA plants and their functions.
- Receive detailed instruction around safety hazards in PSA plants and how to address them.
- Learn strategies for mitigating the risk of ear and eye injuries, fires, electrocution, oxygen displacement and musculoskeletal injuries.
- Understand the importance of daily maintenance checklists and preventative maintenance plans and how to implement them.
- Develop a shared vocabulary about PSA plants and medical oxygen systems.

Participants will also put their theoretical knowledge into practice during daily practical sessions. This enables them to practice new skills and gain valuable insights into how different PSA plants are maintained and operated. Daily learning assessments allow BHI trainers to identify any areas of confusion and provide one-on-one support where needed.

Real-world expertise

This course was developed in close collaboration with engineers, technicians, and electricians with deep expertise in installing, maintaining and repairing PSA plants. BHI refines and improves training materials based on learnings from medical oxygen projects, and from previous editions of this course delivered in Lesotho, Liberia, Nepal, Sudan, Rwanda, and Guinea.

Available in
English and
French!



For more detail on the exact topics this course covers or on the other PSA plant training BHI offers, please email

bhi-gf@buildhealthinternational.org

or visit <https://www.theglobalfund.org/en/covid-19/medical-oxygen-respiratory-care-and-therapeutics/>

Training materials

All attendees receive:

- An electronic and spiral-bound copy of the training presentation
- A PSA plant daily maintenance checklist
- A PSA plant preventative maintenance log
- A PSA plant repair log