



JOB DESCRIPTION

Technical Assistant - Cryogenic Medical Liquid Oxygen Systems

Position Title	Technical Assistant - EAPOA (Medical Liquid Oxygen Systems)
Programme	East Africa Program on Oxygen Access (EAPOA)
Country	Kenya
Contract Type	Fixed-Term
Reporting To	Essential Medicines Programme Manager, CHAI-Kenya
Contract Duration	Six (6) Months

1. Background

1.1 About CHAI

The Clinton Health Access Initiative (CHAI) is a global health organization committed to saving lives and reducing the burden of disease in low-and middle-income countries. In Kenya, CHAI over the last 19 years, has partnered with the Government through the Ministry of Health to effectively and efficiently develop scalable solutions to deliver lifesaving health services.

1.2 The East Africa Program on Oxygen Access (EAPOA)

Through the East African program on oxygen access (EAPOA) we are focusing on securing the supply chain by supporting the increase of in-country liquid oxygen production. CHAI is supporting the establishment of increased capacity through partnership with two local Oxygen producers which will see an additional 33 Tons/day injected in the pipeline thus increasing daily met need. This investment will also support infrastructure in facilities around the country to improve the utilization of Liquid oxygen.

As part of EAPOA implementation in Kenya, CHAI's is supporting the procurement, installation, and commissioning of Cryogenic Liquid Oxygen (LOX) storage and vaporisation systems across healthcare facilities in the Public and FBO space. This includes civil works (concrete plinth construction), tank installation, pipeline integration, and system commissioning.

2. Position Overview and Objective

CHAI Kenya seeks a technical resource to support the EAPOA project team to supporting the implementation of medical liquid oxygen systems – specifically supervision of construction of concrete plinths, and the installation and commissioning of cryogenic bulk liquid oxygen storage tanks across selected healthcare facilities in Kenya that are at various stages of implementation.



The prospective candidate must be a highly motivated individual with outstanding communication and technical skills in the field of cryogenic medical liquid oxygen systems. The candidate must be able to function independently, be flexible, have a deep personal commitment to producing results, and have a demonstrated ability to implement challenging and complex projects. The successful candidate should be able to demonstrate strong personal qualities including but not limited to resourcefulness, entrepreneurship, tenacity, independence, humility, passion for the mission, and work ethic.

3. Scope of Work and Key Responsibilities

The Technical Assistant will be responsible for, but not limited to, the following:

3.1 Technical Planning and Design Review

- Review and understand site layouts, and engineering drawings for cryogenic LOX installations.
- Coordinate with the installation Contractor and the facility on delivery and installation date.
- Review risk assessment for installation activities and ensure compliance.
- Ensure adherence to the requirements of BCGA code of practice CP 36 standards for cryogenic liquid storage at user premises.

3.2 Concrete Plinth Construction Supervision

- Provide technical oversight and quality assurance during the construction of concrete plinths for LOX tank installations.
- Verify that civil works conform to approved structural drawings and load-bearing specifications for cryogenic tank weights.
- Ensure compliance with soil conditions, anchoring, drainage, and grading requirements.
- Document construction progress, identify deviations, and escalate issues for resolution.

3.3 Installation of Cryogenic LOX Storage Tanks

- Supervise and provide technical guidance during the delivery and placement of cryogenic liquid oxygen storage tanks.
- Supervise medical oxygen cryogenic tanks, vaporizer and control panels installation(Lifting, Positioning, Anchoring, Inter connection with existing pipeleline) in healthcare facilities.
- Ensure functionality of safety relief valves, pressure gauges, level indicators, and isolation valves.
- Supervise installation of medical oxygen pipeline in line with the requirements of Health Technical Memorandum 01-UK in healthcare facilities.
- Coordinate with facility biomedical and engineering staff throughout installation.

3.4 Commissioning and Handover

- Support the commissioning process including initial fill, leak testing, pressure testing, and functional checks of the LOX system.



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- Verify system performance against agreed parameters (flow rates, delivery pressures, purity levels).
 - Conduct on-site training for facility staff on safe operation, monitoring, and emergency procedures for cryogenic LOX systems.
 - Prepare formal handover documentation including operations and maintenance Manuals.
 - Ensure all the safety and Hazard signs are in place.
 - Prepare and submit handover documents including operations and maintenance manuals
 - Maintain accurate Installation records for all site across all facilities including a register bearing serial numbers for each asset.

4. Qualifications and Experience

4.1 Academic Qualifications

- Bachelor's degree or higher in Civil or Mechanical Engineering is the preferred qualification for this role. Candidates with a degree in Structural Engineering or Construction Engineering will also be considered.
- A postgraduate qualification, professional certification, or demonstrable specialisation in Mechanical Engineering, Piping Engineering, or Industrial Gas Systems is a strong added advantage.
- Registration with the Engineers Board of Kenya (EBK) or eligibility for registration is required.

5.2 Essential Technical Experience

- Minimum of 5 years of practical field experience in civil and structural construction works, including reinforced concrete foundations, equipment plinths, and industrial site preparation.
- Demonstrated hands-on experience in the installation of cryogenic liquid oxygen (LOX) storage tanks, including site preparation, tank placement, anchoring, and connection to vaporiser and pipeline systems.
- Proven experience in the construction and installation of medical gas pipeline systems (MGPS), including copper piping, zone valve boxes, area alarm panels, and terminal unit outlets in healthcare facilities.
- Working knowledge of pressure testing, leak detection, and commissioning procedures for both cryogenic LOX systems and medical gas pipelines.
- Familiarity with structural load calculations and foundation design requirements for large cryogenic vessels.
- Understanding of relevant standards and codes including NFPA 55, ISO 10083, HTM 02-01 (Medical Gas Pipeline Systems), BS EN 13458, and applicable Kenyan/EAC standards.
- Experience in quality assurance and quality control (QA/QC) for civil and mechanical works on construction sites.
- Ability to read, interpret, and review civil, structural, and mechanical engineering drawings and as-built documentation.
- Ability to work independently across multiple sites simultaneously and in resource-limited healthcare environments.



4.3 Desirable Attributes

- Prior experience working on medical oxygen or similar infrastructure projects in Kenya.
- Experience supervising contractors and subcontractors in multi-site civil and mechanical construction programmes.
- Familiarity with Kenya’s health system, county health structures, and Ministry of Health infrastructure standards.
- Experience in training and capacity building for biomedical technicians, facility engineers, or maintenance staff on LOX and medical gas systems.
- Proficiency in preparing clear, structured technical reports, site inspection records, and commissioning documentation.

5. Personal Competencies

CHAI seeks a candidate who embodies the following:

- High personal drive and intrinsic motivation to produce results in a complex, evolving programme environment.
- Flexibility and adaptability to respond to changing field conditions and programme priorities.
- Integrity and professionalism in all interactions with government partners, facility staff, and contractors.
- Collaborative spirit with a commitment to knowledge transfer and building local capacity.
- Attention to detail and a quality-first mindset in all technical outputs.
- Strong problem-solving skills and sound judgement in the face of technical challenges.

6. Working Arrangements

- This position is a 6 month fixed term contract.
- The position is based in Kenya with significant travel to health facilities across the country.

7. How to Apply

Interested and qualified candidates should submit the following documents to hr@artemiske.com with the subject line “Application: Technical Assistant - Medical Liquid Oxygen Systems” by 28th May 2026.

- A cover letter (maximum 1 page) summarizing relevant experience and motivation for the role.
- A current curriculum vitae (CV) not exceeding 5 pages.
- A technical expression of interest (maximum 2 pages) outlining the candidate’s proposed approach to the assignment.
- Names and contact details of three professional referees with direct knowledge of the candidate’s technical work.
- Copies of relevant certifications or professional registrations.



Only shortlisted candidates will be contacted. CHAI Kenya is an equal opportunity employer and encourages applications from qualified candidates regardless of gender, disability, or background.