

Design & Access Statement

Barnsley Hospital VIE Installation

Application Ref: PP-14362843

Introduction

Barnsley Hospital NHS Foundation Trust have an existing Medical Oxygen Storage Vessel that has reached the end of its service life and they need to install a new medical system to allow for uninterrupted and continuous supply to the hospital services whilst the older vessel is decommissioned and replaced.

The Medical Oxygen Storage Vessel consists of a primary cryogenic storage tank (V-100-18) for the main supply with Vapouriser skid and secondary cryogenic storage tank (V-200-18) with process vapouriser for the back-up supply.

The Medical Storage / VIE (vacuum insulated evaporator) compound will be securely protected with a 2.4 metre high prison rated security fencing with double gated access and secondary emergency escape gate.

Please refer to CES technical proposal document for full installation and technical details including relevant safety distance criteria and pressure systems safety regulations.

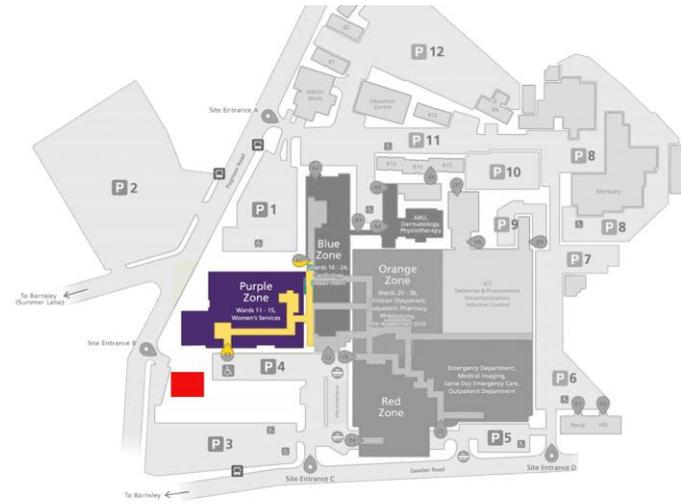
Technical Requirements

Following client discussions with BOC Gases Limited the technical proposal was developed in accordance with HTM 02-01, Part A following the guidance and best practices for medical gases use in healthcare.

- 6.62 *The location of the liquid oxygen compound should permit the supplier to gain safe access with the appropriately sized tanker. It is the supplier's responsibility to assess the space requirements for vehicular access.*
- 6.63 *The design of the liquid oxygen installation should take into account the gas supplier's requirements for discharging the liquid oxygen from the cryogenic tanker. The area directly in front of the vessel should be kept clear to provide access for the delivery vehicle at any time.*

The document also highlights the long-term advantages of having two storage areas at opposite locations on hospital premises, to mitigate potential failures and supply issues from a single location.

Site Location and Context



The site to the east of the main hospital (O-Block) was selected as the preferred location as it is currently unused (with only small numbers of contractors using the concrete area for car parking and storage) and achieves the adequate levels of airflow to the vapourisers and minimum safety distance criteria from the public and building services.

6.55 *When considering the space requirements for the liquid oxygen compound(s), there may be operational advantages in having two compounds in different areas on the hospital site, rather than one larger site utilising either a single large vessel or multiple tanks. This arrangement may also have benefits with respect to both planning permission and meeting the safety distances specified in the British Compressed Gases Association’s (BCGA) Code of Practice 19 (CP19): ‘Bulk liquid oxygen storage at users’ premises.*

Image below showing location of both existing westerly storage compound and proposed eastern storage compound.



James Totty Partnership LLP

The site is directly opposite the ground floor plant room where the medical gas supply will enter the hospital via an underground trench. There is currently a large Air Handling Unit compound with secure fencing to this area and secure staff cycle shelter.



Design considerations

The site is accessed from Pogmoor road next to site entrance B and car park number 3. The hospital's 'Women's Services' O-Block is opposite the site and the Medical Oxygen Vessel via an underground trench will connect into the plant area at ground floor level at this location.

Opposite the hospital is Summer Lane Primary School, although their main entrance is located on Summer Lane adjacent Pogmoor road.

The site is approximately 1.5 metres above the street level with large section of concrete retaining wall, has a small set of steps leading onto the hospital site and has three mature trees to the north of the entrance.

Site Photographs



View from Pogmoor road / Gawber road



View of proposed site / entrance B



Existing ground floor hospital plant room



View of Summer Lane Primary School

Design Proposal

Our proposal is for three elements to reduce the visual impact of the VIE compound,

- 1) To cloak the visible part of the medical oxygen storage pipework, control panel and Vessel Skid steelwork with a 2-metre high Corten Steel vanity screen, with floral pattern perforated into the panels.
- 2) To paint the visible parts of the storage vessels with a purple motif / flower artwork to provide a visual connection / wayfinding landmark to the Women’s services building from the road and car park.
- 3) To have a concrete relief mural depicting an educational / wildlife underground burrow artwork scene to introduce a stronger identity to the immediate vicinity for both the public (including school pupils) and patients that access the site from entrance B, with an overarching theme of motherhood and growth throughout the three elements.