



## Drum Filling Station Enclosure

**Client:** United Kingdom Atomic Energy Authority (UKAEA)

### Aims and objectives

Cyclife Aquila was awarded the contract to design, manufacture and test a Mobile Drum Filling Station Enclosure to facilitate the removal of potentially highly contaminated effluent for the United Kingdom Atomic Energy Authority (UKAEA).



Containment

Cyclife EDF Group - Subsidiaries



# 01 Project overview

A major Deuterium/Tritium (DT) campaign known as DTE2 was planned for 2019. The UKAEA required a suitable Drum Filling Station Enclosure for the collection of potentially highly tritiated water and other solutions in order to support this campaign. Aquila designed a mobile stainless-steel enclosure mounted on castors.

The Drum Filling Station Enclosure is required to accept the loading and unloading of one, part-filled, closed top 200l Briggs drum via a Powell Drum Lift.

The Drum Filling Station Enclosure includes a leak proof bund capable of retaining 110% of the Briggs drum, within this bund there is a pumping

arrangement to transfer water from the bund to a Briggs drum inside the enclosure, without breaking containment. Operation of the quick release coupling is completed using glove ports, therefore preventing any risk of contamination.

The design also includes an automatic shut off valve that is triggered by activation of the Drum Overfill Limit Switch, which is fastened to the Drum Support Frame. This will prevent any spillage into the bund through overfilling.

The Drum Filling Station Enclosure has been fitted with a Control Panel and Human-Machine Interface (HMI), the HMI is used to control all aspects of the assembly.

PHOTO  
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UKAEA



The HMI is touch screen with 4 buttons to aid navigation of the controls.

The whole assembly is mounted on weigh scales which monitor the mass of drum contents in real time with the output signal processed by the HMI to ensure the level in the drum is within acceptable limits.

## 02

## Summary



An excellent example of working in collaboration with our Client UKAEA converting the design produced during the tender stage into a pragmatic, cost effective solution.

## Contact us

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