

Construction Quality Assurance Report - Silage Clamp

The following CQA report covers the silage clamps used to store silage and feedstock for the anaerobic digester at Much Fawley Farm. Construction details for the in-situ poured can be found in the attached drawing EMS Section 18. 01180-03-B Much Fawley "Wall and Floor construction". The construction is in situ poured walls in front of sandstone back wall to the north and horizontal precast panels along the southern side. The horizontal panel construction detail is identical to the bund construction in drawing 01180-01-A Horizontal Panel Install.

Site Plan Drawing

The site plan EMS Section 7 shows the clamps and their context with the rest of the site.

Design Drawing Confirming the materials used

Concrete type, C45. Membrane Grades 1m HDPE. Reinforcing 16mm.

Silo Walls are constructed as per CIRIA 759b SSAFFO and to BS5502-22. See EMS Section 18 Unbrako Pre Cast Concrete Limited Guarantee.

Monitoring

As per Management System Tanks and Clamps Maintenance Schedule. EMS Section 27

In Summary

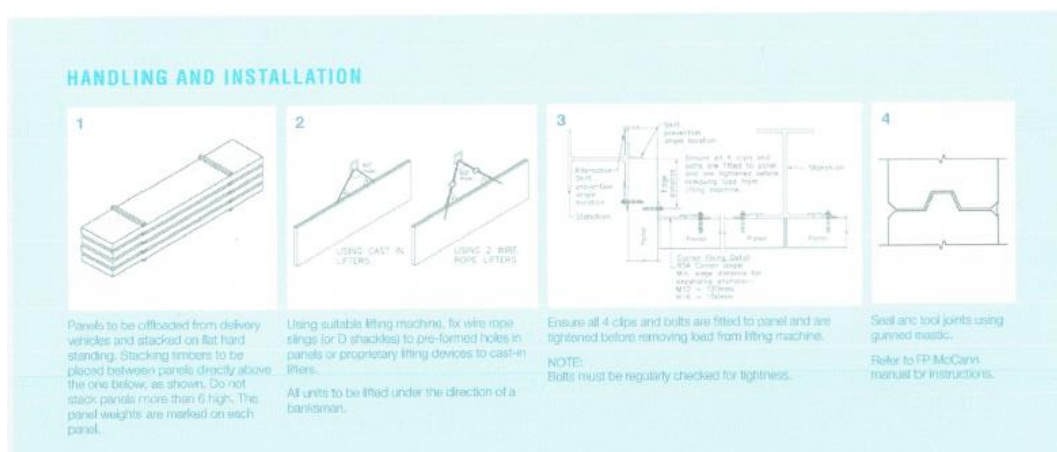
Visual Inspection – Daily and record in checklist.

Weekly perimeter leak detection in effluent containment south west corner of silage clamp. Inspection in south east corner in addition.

Seasonal check and repair when empty.

Installation and Testing

Wall and pad integrity visually checked prior to use. Installation carried out as per digrams below. Leak detection pipework left uncovered following initial use to observe for issues. Leak detection checked with Ammonia test kit and results recorded.



Construction Documentation

Concrete Specification

C45, base backfill and walls. Galvanised metalwork used.

C45 Walls to BS EN 1992-3:2006

Joints

Polysulphide Sealant and water bars used. Hydrotite used on poured sections against steel.

Life expectancy

20 years with monitoring and inspection. Installation as per supplied guidance.

Leak Detection Systems

Potential emissions of silage and feedstock effluent reaching groundwater. To comply with CIRIA C736 and prevent these emissions perimeter leak detection has been installed draining into below ground effluent tank southeast corner of yard. See site plan 01180-00-00-F EMS Section 18.

Visual monitoring with Ammonia Testing to clarify status of liquids collected. Perimeter leak detection installed within 1mm membrane and visual sampling in southeast inspection chamber as well as receiver to yard area effluent collection pit. Leak detection left exposed following initial clamp use. Leak Detection runs behind both poured in situ and horizontal panels.


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