



PLANNING REFERENCE P/2018/0053

06.11.18

Fuel storage - Condition 13

RISK ASSESSMENT FUEL TANK INSTALLATION

Introduction

The information obtained from the SI report confirms that ground water was encountered between 2.3 and 2.8m in some areas of the overall site. One of the bore holes TPS to one side of the petrol forecourt tanks indicated water at 2.3m, however borehole TPR on the opposite side of the tanks had no water present. In the area of the HGV forecourt tanks there are two boreholes sited either side of the proposed tanks, neither of these indicated the presence of water. Please see attached drawing M18-26-24 Bore Hole layout.

Principle

The proposed tank installation relates to a petrol filling station set within the context of a mixed use retail and commercial zone and separated from a residential zone by the A539 Ffordd Llangollen .

There will be four 70,000 litre fuel storage tanks 2500mmØ x 15100mm long as shown on the submitted plans M18-26-16 and M18-26-17. It should be noted that the previously submitted plans have in them a risk assessment note for the installation of the tanks, together with references to the depth of installation and the water table levels taken from the boreholes.

The tanks are to be stored below ground in accordance with guidelines and technical requirements of the APEA blue book Design, Construction, Modification, Maintenance and Decommissioning of Filling Stations. The installation detail is in accordance with Annex H Containment systems, Figure H1.

In this respect the installation recognises section D1 of The Environment Agency's approach to groundwater protection as follows:

You must design and maintain storage and transmission facilities, such as tanks, lagoons and pipework, in such a way that hazardous substances are prevented from being released to the environment and the input of non-hazardous pollutants to groundwater is limited so as to not cause pollution. The Environment Agency expects operators to adopt appropriate engineering standards, taking into account the nature and volume of materials stored and the sensitivity of the groundwater. For petrol filling stations, systems should meet the specifications within the accepted industry standards in design, construction and operation (**Blue Book**).

Tank Installation Risk Assessment

The purpose of this risk assessment is to ensure there is no increase in risk to ground water or land contamination as a result of this installation.

The tanks are double skin steel manufactured to industry standards. The interstitial space is monitored with leak detection on a 24hr. basis with an alarm system back to the operator. Any leak or external damage therefore, would not breach the integrity of the twin skin tank.

The installation of the tanks is designed to provide maximum protection against damage and corrosion.

The fill pipes will be twin skin UPP pipe work installed in one continuous length surrounded in pea gravel to avoid external damage.



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The suction lines and vent lines are UPP pipe work installed in pea gravel to avoid external damage. These will be integrated with a Berrys Technologies tank access chamber and boot assembly system for pipework penetrations as attached.

There will be a tank gauge / monitoring system. This will monitor stock loss on a 24/7 basis but it is also monitored by an independent monitoring company.

There is an over fill alarm system attached to the gauging system.

There will also be a Fairbank wet stock accounting system in place.

The tank farm, pump area and fill points are contained within a fully drained zone and taken through a full retention class 1 forecourt separator with coalescing filter, automatic closure alarm and pollutant level monitor.

The PFS installation as a whole is designed and constructed in accordance with the best practice guidance and standards of the APEA Blue Book – “Design, Construction, Modification, Maintenance and Decommissioning of Filling Stations”.