

Supports

- ✓ The staff are great
- ✓ An interesting job
- ✓ Keeping Safe & Legal

Purpose

To help staff to understand what Vapour Recovery means and how it affects the operation of the petrol station.

What Good Looks Like

- Staff understand what Vapour Recovery entails and how it affects them.
- Staff can respond to questions asked by an Environmental Health Officer confidently.

Vapour Recovery Stage 1b

The Environmental Protection Act 1990 stipulates that the vapour displaced at the time of a fuel delivery must be prevented from entering the atmosphere.

To comply with this legislation, all Tesco Petrol Stations have a Stage 1b Vapour Recovery system installed. The system comprises of a series of pipes that enables the petrol vapour displaced at the time of a tanker delivery to be returned to the tanker. The tanker will, in turn, take the petrol vapour back to the depot where it will be safely processed.

The tanker driver must attach the hose to the Vapour Recovery connection before delivering any petrol. Failure to do so can create a massive build up of pressure that will result in a major fuel spillage.

The vapour recovery connection is recognisable by its 'orange' cap and must, by law, have a sign attached (as shown in the picture below).



Note: Further information on the procedures for when there is an excessive vapour loss can be found in the 'Fuel Deliveries' section, 'Abnormal Vapour Loss procedure'.

Information

Stage 1b Vapour Management

A growing number of Tesco forecourts now have a Vapour Management system installed. At the time of delivery, rather than the 'rich' petrol vapour being returned to the delivery tanker, the Vapour Management system balances the vapour across all the underground (petrol) tanks. This enables Tesco to retain the rich vapour within the underground storage tanks which will eventually condense back into fuel.

See picture below for an example of the Vapour Management system.



Information

Stage 2 Vapour Recovery

Petrol contains volatile organic compounds which evaporate inside the fuel tank of a vehicle and fill the air space above the liquid fuel.

Petrol vapour escapes when drivers fill the empty or partially empty tanks of their vehicles at a petrol station. This petrol vapour is forced out from the fuel tank by the incoming fuel and, unless controlled, escapes into the atmosphere through the filler neck of the fuel tank.

Petrol vapour recovery systems can be installed at petrol stations to reduce the amount of petrol vapour that escapes to the atmosphere from vehicle refuelling; these are known as 'stage 2' controls.

Information

Most Stage 2 Vapour Recovery systems comprise of a vacuum within the nozzle and hose that sucks the vapour, displaced at the time of the customer dispensing fuel, back into the pump.

At this point it can either be returned to the underground storage tank or condensed back into fuel at the pump.

Information

The Department for the Environment have stipulated, by law, that all sites that sell over 3.5 million litres of 'petrol' per year must have a Stage 2 Vapour Recovery system installed prior to the 1st January 2010.

Note: Tesco are rolling out two solutions for Stage 2 Vapour Recovery.

CleanAir – a small standalone unit which sits next to the dispenser. Some sites with Petrotec pumps have this unit built in.

Standard VR2 – captured vapour returns down a pipe to the tank farm and is processed by a condensing unit.

Information