Application for a Permit for the Unloading of Petrol into Storage at a Petrol Station

Pollution Prevention and Control Act, 1999
Environmental Permitting (England and Wales) Regulations 2016

Introduction

When to use this form

Use this form if you are applying for a permit or to vary an existing permit to Huntingdonshire District Council to operate a service station where petrol is unloaded with an annual throughput of petrol over 500,000 litres (500m^3).

References to the term "activity" are references to the unloading into storage of petrol and dispensing of petrol into vehicle tanks. The operator of the activity under the terms of the Regulations is most likely to be the person with management responsibility for the procedures on site.

This does not, however, absolve other people of their responsibilities (for instance of drivers in the case of following unloading procedures or of the equipment owners in the case of installation of equipment) since action can be taken directly under regulation 32(6) of the Regulations.

The appropriate fee must be received to enable your application to be processed. When complete send the form and fee and any additional information to:

Community (People)
Huntingdonshire District Council
Pathfinder House
St. Mary's Street
Huntingdon
PE29 3TN
envhealth@huntingdonshire.gov.uk
01480 388302

Before you start to fill in this form

It is recommended that you read the Defra General Guidance manual and the Secretary of State's Guidance for Unloading of Petrol into Storage at Petrol Stations. Both documents can be found at the following website:

- http://www.defra.gov.uk/industrial-emissions/las-regulations/guidance/.

The EP Regulations can be obtained from The Office of Public Sector Information, or viewed on their website at:

- http://www.legislation.gov.uk/.

It is also recommended that you speak to an officer before you complete and submit the application. We have made the application form as straightforward as possible, but please get in touch with us using the details given below if you need any further advice.

Other documents you may need to submit

There are number of other documents you may need to send us with your application. Each time a request for a document is made in the application form you will need to record a document reference number for the document or documents that you are submitting in the space provided on the form for this purpose. Please also mark the document(s) clearly with this reference number.

Using continuation sheets

In the case of the questions on the application form itself, please use a continuation sheet if you need extra space; but please indicate clearly on the form that you have done so by stating a document reference number for that continuation sheet. Please also mark the continuation sheet itself clearly with the information referred to above.

Submission and copies

Huntingdonshire District Council's public register is kept electronically and would appreciate your application to be submitted electronically. If you are sending the application in hardcopy please ensure that the application is scanner friendly and only one copy is required.

Application Form for a Permit for the Unloading of Petrol into Storage at a Petrol Station

To be completed by the Operator

A	The basics

A1	Name and address of the installation			
	Name	Hemingford Service Station		
	Address	London Road, St.Ives, Cambridgeshire		
	Postcode	PE27 5EU	Telephone N^{o}	01480 493480

A2	Please give details, below, of any existing environmental permits for the installation, include reference number(s).
	P13/98

A3	**The Operator** (the person who it is proposed will have control over the installation in accordance with the permit (if granted))**.** **Please provide the full name of company or corporate body or the name of the sole trader or the names of the partners.**			
	Name	Malthurst Petroleum Limited		
	Trading name if different			
	Registered office address			
	Vincent House, 4 Grove Lane, Epping, Essex			
	Postcode	CM16 4LH	Telephone N^{o}	01992 668704
	Principle office address, if different			
	Postcode		Telephone N^{o}	
	Company registration number	762360		

A4	Any holding company? Please indicate below if the operator is a subsidiary of a holding company within the meaning of section 1159 of the Companies Act 2006.			
	Yes			
	Holding company name			
	Name	MRH (GB) Limited		
	Trading name if different			
	Holding company registered office address			
	Vincent House, 4 Grove Lane, Epping, Essex			
	Postcode	CM16 4LH	Telephone N^{o}	01992 668704
	Principle office address, if different			
	Postcode		Telephone N^{o}	
	Company registration number		6360543	

A5	**Who can we contact about your application?** *It will help to have someone who we can contact directly with any questions about your application. The person you name should have the authority to act on behalf of the operator. This could be an agent or consultant rather than the operator.*			
	Name	Joanne Richards		
	Position	Operation Services Controller – Licences and Permits		
	Address	Vincent House, 4 Grove Lane, Epping, Essex		
	Postcode	CM16 4LH	Telephone N^{o}	01992 668704
	Email	Joanne.richards@Malthurst.co.uk		

A6	**Who can we contact about your permit?** *Assuming your permit will be issued it will help to have someone who we can contact directly with any questions about your permit*			
	Name	Joanne Richards		
	Position	Operation Service Controller – Licences and Permits		
	Address	Vincent House, 4 Grove Lane, Epping, Essex		
	Postcode	CM16 4LH	Telephone N^{o}	01992 668704
	Email	Joanne.richards@malthurst.co.uk		

B	**The installation**

B1	**Why is the application being made? Please tick which statement is correct.**	
	The installation is new.	
	The installation has changed ownership	
	The installation is on a previous service station and is reopening/now above the 500m^3 throughput	
	The installation has undergone a major refurbishment	
	It is an existing installation that a substantial change is proposed	
	It is an existing installation that is required to have a “Stage II” vapour recovery system in place according to SI2006, No. 2311	X
	Process and Control Information	
B2	Is the service station located under permanent living quarters or working areas? See paragraph 2 of the Secretary of State’s Process Guidance Note for Unloading of Petrol into Storage at Petrol Stations (PG1/14(06)).	
		No
B3	When was equipment for vapour collection during filling of underground storage tanks installed or will it be installed?	Date 10/07/17-18/08/17
B4	When was equipment for vapour recovery during filling of vehicle fuel tanks installed or when will it be installed (only for installations that are required to have a “Stage II” vapour recovery system in place)?	Date 10/07/17-18/08/17

<table>
<tr><td rowspan="5">B5</td><td colspan="5">Volume of petrol unloaded into the service station in each of the last three calendar years (See Section 2 of PG1/14(06) for the relevant times scales); in cubic metres (i.e. litres divided 1000).

Circle the appropriate band.</td></tr>
<tr><td>Year</td><td colspan="4">Volume of petrol/m^3</td></tr>
<tr><td>2014</td><td><100</td><td>100-500</td><td>501-1000</td><td>2,533,885 ltrs</td></tr>
<tr><td>2015</td><td><100</td><td>100-500</td><td>501-1000</td><td>2,466,166 ltrs</td></tr>
<tr><td>2016</td><td><100</td><td>100-500</td><td>501-1000</td><td>1,865,370 ltrs</td></tr>
<tr><td rowspan="2">B6</td><td colspan="5">Are deliveries "Driver Controlled"</td></tr>
<tr><td colspan="3"></td><td colspan="2">No</td></tr>
<tr><td rowspan="3">B7</td><td colspan="5">At a maximum, how many tanker compartments discharge into storage tanks at any one time, or will do so once a vapour collection system is in place. If the latter information is not known, a statement of what assessment will be made to determine this information and within what timescale.

The information supplied under item 11 should be supplemented by a site specific assessment (see Section 6 of PG1/14(06)).</td></tr>
<tr><td colspan="2">Number of compartments:</td><td colspan="3">Two</td></tr>
<tr><td colspan="2">Document Reference:</td><td colspan="3"></td></tr>
<tr><td rowspan="2">B8</td><td colspan="5">Are diesel storage tanks connected to the vapour balance system?</td></tr>
<tr><td colspan="3"></td><td colspan="2">No</td></tr>
<tr><td>B9</td><td colspan="3">Please detail below measures taken or to be taken for vapour emission control, both during and in storage.</td><td colspan="2">Document reference:</td></tr>
<tr><td rowspan="2">B10</td><td colspan="5">Please attach process diagrams and plans of vapour collection equipment (including height and location of tank vent pipes). This should include equipment for recovery of vapours during filling of underground storage tanks and for installations that are required to have “Stage II” vapour recovery system in place, for filling of vehicle petrol tanks.</td></tr>
<tr><td>Document reference:</td><td colspan="4">To follow upon completion of works</td></tr>
<tr><td>B11</td><td colspan="5">Unloading procedure and instructions</td></tr>
<tr><td></td><td>Document reference:</td><td colspan="4">Tanker Deliveries Procedures</td></tr>
<tr><td>B12</td><td>Document reference:</td><td colspan="4"></td></tr>
</table>

B13	Schedule of maintenance of vapour collection control (including the system for vapour recovery during of vehicle petrol tanks for installations that are required to have “Stage II” vapour recovery system in place.	
	Document reference:	MRH Safety Management System – Arrangement 6 – Facilities Design Maintenance
B14	Schedule of examination and testing for vapour collection controls (Including the system for vapour recovery during filling of vehicle petrol tanks for installations that are required to have “Stage II vapour recovery systems in place).	
	Document reference:	MRH Safety Management System – Arrangement 6 – Facilities Design Maintenance
B15	Procedures or contingency measures in the event of vapour containment equipment failure (including the system for vapour recovery during filling of vehicle petrol tanks for installations that are required to have “Stage II” vapour recovery system in place.	
	Document reference:	Should vapour containment fail either during petrol delivery for during normal site operations, then a call would be placed via our maintenance call desk for the appropriate contractor to attend site to correct any issues. Failure of the Stage 2 VR equipment is indicated in B18, ie once the equipment goes into Red (indicating an error) then after a short period of time the pumps will stop working.
B16	For petrol stations that are required to have a “Stage II” Vapour recovery system in place only, a certificate to confirm conformity with approval for use under the regulatory regimes or at least one European Union or European Free Trade Association country and to confirm that the hydrocarbon capture efficiency of the equipment is not less than 85% (i.e. that at least 85% of the displaced vapours are recovered, according to the relevant “type approval” test, expressed as the ration of the volume of hydrocarbon vapours displaced to the volume of petrol discharged.	
	Document reference:	Certificate _VAPORIX – UK-E-GRV & Gasr.85-2.174 - GVR
B17	For petrol stations that are required to have a “Stage II” vapour recovery system in place only, details of testing of the vapour containment integrity in accordance with the manufacturer’s specifications (to be undertaken prior to commissioning and periodically at least once every 3 years thereafter and always following substantial changes or significant events that lead to the removal or replacement of any of the components required to ensure the integrity of the containment).	
	Document reference:	MRH Safety Management System – Arrangement 6 – Facilities Design Maintenance

B18	For petrol station that are required to have “Stage II” vapour recovery system in place only, is an ‘automatic monitoring system’ installed to automatically detect faults in the proper functioning of the petrol vapour recovery system including the automatic system; to indicate faults to the operator; and to automatically cut off the flow of fuel on the faulty delivery system if the fault is not rectified within 1 week?	
	Yes	

	Impact on the environment	
B19	Provide an assessment of the potential significant local environmental effects of the foreseeable emissions (for example, is there a history of complaints, is the installation in an air quality management area?)	
		Document Reference:
B20	Are there any sites of special scientific interest (SSSIs) or European Sites which are within 500 metres of the installation?	
		No
		Document Reference:
B21	Provide an assessment of whether the installation is likely to have a significant effect on such sites and, if it is, provide an assessment of the implications of the installation for that site, for the purposes of the Conservation (Natural Habitats etc) Regulations 1994.	
		Document Reference:
	Environmental Statements	
B22	Has an environmental impact assessment been carried out under The Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999, or for any other reason with respect to the installation? If ‘yes’ Please supply a copy of the environmental impact	
		No
		Document Reference:

	Additional information	
B23	Please supply any additional information that you would like us to take account of in considering this application.	
		Document Reference:

C	Fees and Charges, Information Handling, and Declaration

C1	**Fees and Charges**	
	Your application may require a fee to be valid. To determine your fee please either speak to the Environmental Protection Officer on 01480 388363 or visit the Defra website on: http://www.defra.gov.uk/industrial-emissions/las-regulations/charges-risk/	
C2	**Please state the amount enclosed as an application fee for this installation**	
	Please state the amount enclosed as an application fee for this installation: £ _____ (Cheques should be made payable to Huntingdonshire District Council) Electronic payments can be arranged, if you wish to pursue this option please contact the Environmental Protection Officer on 01480 388363 to discuss. We will confirm receipt of this fee when we write to you acknowledging your application.	
	Annual subsistence charges	
C3	If we grant you a permit, you will be required to pay an annual subsistence charge, failure to do so will result in revocation of your permit and you will not be able to operate your installation.	
4	Please provide details of the address you wish invoices to be sent to and details of someone we may contact about fees and charges within your finance section.	
	Name	Helen Keen
	Position	Accounts Payable Manager
	Address	Vincent House, 4 Grove Lane, Epping, Essex CM16 4LH
	Date	27th April 2017
	Telephone No(s)	01992 668658
	Email	Helen.keen@malthurst.co.uk

D	Data Protection

The information you give will be used by the regulator to process your application. It will be placed on the relevant public register and used to monitor compliance with the permit conditions. We may also use and/or disclose any of the information you give us in order to:

- consult with the public, public bodies and other organisations,
- carry out statistical analysis, research and development on environmental issues,
- provide public register information to enquirers,
- investigate possible breaches of environmental law and take any resulting action,
- prevent breaches of environmental law, assess customer service satisfaction and improve our service

We may pass on the information to agents/ representatives who we ask to do any of these things on our behalf.

Please note: it is an offence to provide false etc. information

It is an offence under regulation 38 of the EP Regulations, for the purpose of obtaining a permit (for yourself or anyone else), to:

- make a false statement which you know to be false or misleading in a material particular,
- recklessly make a statement which is false or misleading in a material particular
- intentionally to make a false entry in any record required to be kept under any environmental permit condition
- with intent to deceive, to forge or use a document issued or required for any purpose under any environmental permit condition.

If you make a false statement

- we may prosecute you and, if you are convicted, you are liable to a fine or imprisonment (or both).

E	Declarations A and B for signing

These declarations should be signed by the person listed in answer to question A3. Where more than one person is identified as the operator, all should sign. Where a company or other body corporate is the operator, an authorised person should sign and provide evidence of authority from the board.

Declaration A	
We certify	
EITHER- No offences have been committed in the previous five years which are relevant to my/our competence to operate this installation in accordance with the EP Regulations.	
Signature:	
Name:	Joanne Richards
Position:	Operation Services Controller – Licences and Permits
Date:	27th April 2017

Declaration B	
I/We certify that the information in this application is correct. I/We apply for a permit in respect of the particulars described in this application (including the listed supporting documentation) I/we have supplied. *(Please note that each individual operator must sign the declaration themselves, even if an agent is acting on their behalf.)*	
Signature 1:	
Name:	Joanne Richards
Position:	Operation Services Controller – Licences and Permits
Date:	27th April 2017
Signature 2:	
Name:	
Position:	
Date:	

1. RECEIPT OF BULK FUEL DELIVERIES

This procedure details the specific procedures to be followed for the receipt of bulk fuel deliveries to a Service Station under two identified delivery options. Service stations are now being fitted with stage 1b vapour balancing systems and relevant notes for deliveries to service stations with such facility are contained within section 4 of this procedure.

	SITE CLOSED
ATTENDED	SECTION 1.1
DCD	SECTION 1.2

- **Note**: site closure may be required during a delivery, due to :-

  (a) - Petroleum licence requirement
  (b) - Manpower limitations

- the issue of split deliveries is covered within section 3 of this procedure.

SECTION 1.1 - **Licensee Controlled Delivery – Site Closed during delivery**

The petroleum licence will stipulate when a site must be closed during a delivery and a delivery and a suitable sign displayed to indicate this to potential customers.

Where there is single manning, then it will be necessary, to ensure compliance with the law, for the site to be closed for the duration of the delivery and a suitable sign displayed to indicate this to potential customers.

Day prior to delivery

- Check the ullage of all tanks that will be having a delivery.

Pre Arrival

- Before the tanker arrives, ensure that the tanker offloading area is accessible, clear and free of any ignitable material and cone off.

- Check that there is a clear unobstructed route for the road tanker to and from the filling points. It may be a requirement of the licence that the tanker exit route be coned off to allow the tanker to drive off the site without hindrance.

- Check that your personal clothing is safe and secure; no matches or lighters are being carried and suitable non-slip footwear is worn (no metal tips or studs that could cause a spark).

- If you have a car wash, it may be necessary to close the wash if queuing vehicles interfere with the tanker access/egress and are close to the filling points.

- Be prepared to assist the driver of the tanker if he needs to manoeuvre.

- Check that the areas around the vent and fill points are free from actual or potential sources of ignition e.g. bonfires on neighbouring premises.

- If you have direct fill manholes with platforms, check that the fixings are secure and the landing platform is seated correctly.

- Check that suitable fire extinguishers are available to be placed near the vehicle. Check that there is an adequate supply of sand in buckets.

- Check the availability of 'A' - Boards for coning off the delivery areas.

- Check that you have the correct copies of the Petroleum Certificate.

- Potential hazards associated with pre-arrival tasks. (See risk assessment)
  (1) Remove parked cars from access to offloading position
  (2) Delivery vehicles offloading (dry goods, LPG delivery)
  (3) Contractors working on site
  (4) Customers filling at fuel pumps
  (5) Pedestrians accessing shop
  (6) Customers requiring car wash
  (7) Vehicle impact during pre-delivery procedures
  (8) Weather conditions (slips, trips and falls)

Post Arrival (during delivery)

The following list of items and action points need to be covered by the Site Manager or other competent person, on or immediately after the road tanker arrives to make a delivery, in order to assist in that delivery.

- Ensure that any vehicles that are blocking the path of the tanker to the filling points are removed.

- Remove 'A' - Boards to allow tanker to be positioned at fill points and replace when tanker in position.

- Assist the driver in positioning his vehicle if requested to do so.

- Check the delivery note to ensure the grades and quantities are what you ordered. If the quantity of any one grade exceeds the ullage in the receiving tank, the delivery to that tank should not be made.

- If there is a process of checking road tanker dips, then this should be left to the driver. **You should not climb onto the vehicle to check the dips yourself.**

NOTE ! It is not part of the driver's duties to operate any of the service station equipment nor to lift the manhole covers or to take dips or gauge readings. As a general rule the driver may be prepared to assist in these activities.

- Check that fire extinguishers are available and ready for use near the filling points.

- Check that all storage tank and line valves (where such valves exist) are positioned correctly for receipt of the delivery.

Check that the Petroleum Certificate is completed correctly. Where a delivery involves more than one compartment of the same grade into a single storage tank, then only one line need to be completed. The driver is responsible for ensuring the right connection of the hose from one vehicle compartment to another.

- Specify and instruct the driver which fill pipes will receive which grade and the volume to be delivered to it on the Petroleum Certificate.

- Check that each delivery hose is properly connected to its correct storage tank fillpipe. The competent person must supervise the connection of each hose.

- Authorise the driver to make a delivery for each storage tank individually after completion of details for those tanks on Parts A & B of the Petroleum Certificate.

- The competent person must stay in close proximity throughout the delivery to ensure a complete and safe operation. Failure to remain in close proximity throughout the delivery can result in a prosecution.

- If the driver is in any way concerned that the safety of the operation is being compromised then he may stop the delivery and contact the terminal for advice.

- The competent person must remain alert at all times, in the company of the driver and other forecourt personnel, for customers' passengers who might be smoking etc.

- If you have any problems, queries or concerns about the delivery then you should tell the driver at once. He should then telephone his terminal for advice and instructions before leaving the premises.

- Ensure you have used the correct Petroleum Certificate for Licensee Controlled deliveries.

- Potential hazards associated with post-arrival tasks. (See risk assessment sheets).

  (1) Delivery vehicle unloading (dry goods, LPG delivery)
  (2) Contractors working on site
  (3) Closing site
  (4) Pedestrians accessing shop
  (5) Vehicle impact during post arrival procedures
  (6) Weather conditions (slips, trips and falls)

If your site remains open during delivery, there may be the following additional hazards:

a. Customers filling at fuel pumps.
b. Customers requiring carwash.

Post Delivery

- Clean up any small spillages or drips that may have occurred, treat with sand and remove.

- If the delivery has been concluded with a top loaded tanker ask the driver to a dry dip after the delivery. If you have Stage 1B vapour recovery system installed, then your delivery should be made with a bottom-loaded tanker.

- On a bottom loaded tanker check that the compartments of the tanker are empty by using the faucet sight glasses.

- After the delivery, check that the volume in the storage tank is correct, by comparing the pre-delivery volume plus delivery amount, equates to the post storage tank volume. If abnormal differences are noted you should notify the terminal.

- When the delivery is split between two or more compartments of the vehicle tank, the dips at the conclusion of the delivery from each compartment should be carefully taken and recorded.

- Where water dips are taken using automatic tank gauging equipment prior to a delivery, a further dip should be taken after delivery. Any increase in water should be should be reported to the driver and the terminal.

- Check that the storage line and tank valves are returned to their normal operating positions and check as far as possible that no leaks or spillage's have occurred from them. Lock all tank covers.

- Sign the delivery note to confirm receipt of the documented volumes.

- Hand the driver his copy of the Petroleum Certificate.

- Supervise, and if requested, assist the road tanker driver to leave the site. This is important if the exit is blind or awkward, due to heavy traffic.

- Potential hazards associated with post-delivery tasks. (See risk assessment sheets).

  (1) Spillage
  (2 Over filling of tank
  (3) Tanker exiting site
  (4) Re-opening site
  (5) Weather (slips, trips and falls)

If your site remains open during delivery there may be the following additional hazards:

a. Customers filling at fuel pumps.
b. Customers accessing shop.
c. Customers requiring car wash.
d. Vehicle impact.
e. Customers using ancillary forecourt equipment.

SECTION 1.2 - **Driver Controlled Deliveries - Site closed during delivery**

If you have a DCD facility at your site you may still be required to carry out certain procedures to comply with Part 3 licence conditions which may be as follows: -

Pre Arrival

- Before you leave the site check that the tanker access is unobstructed and free from ignitable material.

- Check that the tanker offloading light is operational.

- Check that the DCD equipment is functioning correctly and the safety equipment is provided and operational.

- Check that the high level alarm is functioning.

- Check storage tank ullages to ensure that there is sufficient spare capacity in the tanks to receive the amount ordered.

- Check that all storage tank and line valves (where such valves exist) are positioned correctly for receipt of the delivery.

- Check that the Petroleum Certificate is completed correctly. Where a delivery involves more than one compartment of the same grade into a single storage tank, then only one line need be completed.

- Leave the relevant petroleum certificate relating to DCD deliveries and relevant tank keys in the DCD cabinet and lock before departing from site.

- Check that the areas around the vent and fill points are free from actual or potential sources of ignition.

- If you have direct fill manholes with platforms, check that the fixings are secure and the landing platform is seated correctly.

- Potential hazards associated with pre-arrival tasks. (See risk assessment sheets).

  (1) Weather (slips, trips and falls).
  (2) Security.

If your site remains open during a DCD delivery there may be the following additional hazards:

a. Remove parked cars from access to offloading point.
b. Delivery vehicles offloading.
c. Contractors working on site.
d. Customers fuelling at fuel pumps.
e. Pedestrians accessing shop.
f. Customers requiring car wash.
g. Customers using ancillary forecourt equipment.
h. Vehicle impact during pre arrival procedures.

Post Delivery

- When you re-open the site, check the storage tank dips or gauges and compare with the amount received and with amount on the delivery note. If abnormal differences are noted you should inform the terminal.

- Where water dips are taken using automatic tank gauging equipment prior to a delivery, a further dip should be taken after delivery. Any increase in water should be investgated.

- Ensure that the storage line and tank valves are returned to their normal operating positions and check as far as possible that no leaks or spillage's have occurred from them.

- Potential hazards associated with post-delivery tasks. (See risk assessment sheets).

  (1) Weather (slips, trips and falls).
  (2) Security (driver and tanker).
  (3) Tanker exiting site.

If your site remains open during the delivery there may be the following additional hazards:

a. Customers fuelling at fuel pumps.
b. Customers accessing shop.
c. Customers requiring car wash.
d. Vehicle impact.
e. Customers using forecourt ancillary equipment.
f. Vehicle impact during post delivery procedures.

SECTION 1.3 - Split deliveries

- Requests for split compartment deliveries should be made during the ordering of the product or before delivery commences as an air lock may form in the delivery hose or fillpipe.

- Potential hazards associated with split deliveries. (See risk assessment sheets).

  (1) Overfill of tank.
  (2) Spillage.
  (3) Crossover.

SECTION 1.4 - Vapour Balancing

- If your site has stage 1b vapour balancing system installed, then you must ensure that the driver connects the vapour recovery hose to the truck before he makes the connection to the recovery valve on the vent stack. Failing to make the connection in this order will release vapours in the closed system to escape onto the forecourt causing a hazardous atmosphere and will give rise to a possible prosecution from the enforcing authority.

  If the pressure relief valve on the vent stack becomes inoperable, then you cannot carry out a full vapour balancing delivery. You will usually be allowed to fill up to two tanks at a time to prevent a pressure build up in the vent system. You must inform your Enforcement Officer of this problem and the time scale that you anticipate to correct the failure.

  Potential hazards associated with vapour balancing facilities. (See risk assessment sheets).

  (1) Pressure build up in tanks.
  (2) Blow back of fill caps.
  (3) Pressure relief valve sticking.
  (4) Driver connecting hoses in wrong order.
  (5) Condensation in below ground vapour recovery line.
  (6) Poppet valve on vapour return line malfunctioning.

1.4.1 Action to be taken in the event of significant release of vapour to the atmosphere. (Where likely to have an impact on local community)

- Stop the delivery or dispensing.
- Close down all pumps.
- Strictly enforce “No Smoking” procedures.
- Notify Emergency Services
- Notify Environmental Health Dept. of Local Authority
- Complete Incident Report Form and retain in Site Register.

SECTION 1.5 – Spillages

- A spillage is any escape of product, irrespective of the quantity involved.

- The most commonly encountered causes of spillages are as follow:-

  a) Spillage or leakage from dispensing unit, often when cutomers overfill vehicle tanks. It can also occur during delivery if a storage tank is overfilled and the air eliminator valve in the pump becomes pressurised.
  b) If an airlock develops in the system during delivery and the driver is required to break the fillpipe connection to release the airlock.
  c) Burst delivery hose. An unlikely event, but significant release of product can take place.

d) Faulty connections and worn fillpipe threads can allow hoses to disconect. Again, significant product releaser can take place.
e) Driver error. (E.g. opening faucet before connections made)
f) Over-filling tanks.
g) Faulty pipework or tanks.

1.5.1 Action to be taken in the event of a minor spillage (less than 5 litres)

- Stop the delivery or dispensing.
- Close down all pumps.
- Strictly enforce “No Smoking” procedures.
- Contain the spill and soak it up with sand or granules. (Contaminated waste procedures to apply).
- Complete Incident Report Form and retain in Site Register.
- Notify Petroleum / Enforcement Officer

1.5.2 Action to be taken in the event of a major spillage (more than 5 litres)

- Stop the delivery or dispensing.
- Close down site electrics using master switch.
- Call the emergency services (“999”) – Fire Brigade and Police.
- Stop all sales and close the service station.
- Prevent drivers starting engines of vehicles on forecourt. Leave vehicles in situ until arrival of Fire Brigade who may allow them to be pushed clear.
- Evacuate all persons from forecourt and buildings.
- Remove and isolate all sources of ignition
- Strictly enforce “No Smoking” procedures.
- Contain spill, if possible, and divert it to forecourt drainage / interceptor.
- Prevent spilt product reaching public drains, if possible.
- Deploy fire extinguishers upwind of spillage.
- Inform Petroleum Officer and petroleum licensee.
- Ensure neighbours are warned, especially if there are basements or cellars.
- Complete Incident Report Form and retain in Site Register.
- Do not re-open site until permission granted by emergency services and/or Petroleum / Enforcement Officer.

1.5.3 Action to be taken in the event of spillage / splash back onto customer Clothing

- Stop the delivery or dispensing
- Strictly enforce “No Smoking” procedures
- Prevent customer entering car or other confined space
- Arrange change of clothing where practicable
- Provide wash facilities
- Supply customer with copy of Product Data Sheet
- Complete Incident report Form and retain in Site register
- Notify Petroleum / Enforcement Officer

MRH(GB) Ltd– Safety Management System

Measuring Performance

(6) - Facilities Design, Construction and Maintenance

Background:

To minimize the risk to health, safety and the environment all new facilities, and modifications to existing facilities, will be designed and constructed to approved standards.

Facilities will be regularly inspected and maintained, routines for these reflecting the level of possible exposure resulting from plant or equipment failure.

Industry guidelines will be adopted as the standards of construction and maintenance of plant and equipment and at a minimum these must meet regulatory requirements. Also wherever necessary, equipment will be maintained in line with the specific recommendations of the manufacturer.

Any damaged or malfunctioning site equipment will be isolated and repaired as soon as identified by site staff.

System Owner: Manager Engineering, SHE Coordinator

Petroleum Retail Stations

Design and Construction

Petroleum Retail Stations must be designed and constructed in accordance with British Standards, APEA and Energy Institute guidance– specifically EI – "Design, Construction, Modification, Maintenance and Decommissioning of Filling Stations" 3rd Edition.

Deviation from these standards must be sought and agreed to prior construction.

Inspection and Maintenance

Correct levels of inspection and maintenance will be carried out to ensure the safe and efficient operation of storage tanks and associated product handling equipment – including the adoption of a plant / equipment defect system. See "Design, Construction, Modification, Maintenance, and Decommissioning of Filling Stations"

For safety critical equipment - where failure can affect the integrity of the installation – a robust inspection and maintenance routine must be adopted in line with industry standards. These are summarised in the chart below:

Safety Critical Safety Devices for Petroleum Retail Stations – Maintenance and Inspection

Plant /Equipment	Inspection & Maintenance	When	By Who	Relevant Standard or Guideline
Storage Tanks & Pipes	Monitored for leakage by real time wet stock monitoring systems. As such periodic testing is not required as lines are considered to be under test at all times. Inspection of leakage	Constant monitoring. Inspect only when leakage suspected	Wet stock monitoring systems e.g. Fairbanks. Accredited and competent tank maintenance and inspection Company.	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • Section 8 o 8.3 o 8.4 o 8.6 o 8.8 o 8.9 • Section 11.5
Vapour Emission Control Systems – Stage 1 and 2	Vapour Recovery stage 1b Inspected for correct operation	Upon Modification If fault suspected The following items will receive a visual inspection or a full systems check on an annual alternating basis: • Vent system emission control device • PV valves and orifice plates	Accredited and competent pipework maintenance and inspection company.	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • Section 10.2.12 (Testing Commissioning and Maintenance) • Annex 10.3 (Commissionin

		• Flame arresters – flame arrester elements • Vapour transfer hose integrity (when stored on site) • Vapour transfer hose electrical continuity (when stored on site) • Vapour connection point adapters including valves and lockable tethered dust caps • Positioning and clarity of safety signs • Manifold drain		g and Periodic Testing /Maintenance of Stage 1b System) Process Guidance Note 1/14(13)
	Vapour stage 1b – vapour containment integrity test	On commissioning every 5 years	Accredited and competent pipework maintenance and inspection company.	Process Guidance Note 1/14(13) – Section 4
	Vapour Stage 2 Containment Integrity Test	On commissioning Every 3 years vapour recovery system test Every 5 years vapour return line test. Integrity test will also occur on as a result of any substantial change to the system.	Accredited and competent pipework maintenance and inspection company.	Environmental Permitting (England & Wales) Regulations 2010 EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • 10.3.3 (Commissioning and Testing) • 10.3.5 (Maintenance) • 10.3.6 (Maintenance Operations on Sites fitted with Stage 2 Vapour Recovery).
	Vapour Recovery stage 2 Inspected for correct operation.	5 Yearly inspection and testing of the following components:	Accredited and competent pipework maintenance and inspection company.	Environmental Permitting (England & Wales) Regulations 2010

	Records of maintenance will be held both on site in the 'Safe Operations Register' and electronically on RITA	• Visual inspection of flame arresters • Physical inspection of co-axial vapour hoses • Testing of vapour pump operation • Testing of regulating system • Visual inspection of non-return valves • Visual inspection of Isolation valves • Visual inspection of shear valves		EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • 10.3.3 (Commissioning and Testing) • 10.3.5 (Maintenance) • 10.3.6 (Maintenance Operations on Sites fitted with Stage 2 Vapour Recovery).
	Vapour Recovery Stage 2 calibration system	3 year check where monitoring system is fitted, annual check where one is not	Accredited and competent pipework maintenance and inspection company.	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • 10.3.4 (Calibration)
	Vapour Recovery Stage 2 Pumps (only automatic systems installed)	On commissioning and every 3 years	Accredited and competent maintenance and inspection company.	Process Guidance Note 1/14(13) – Section 4
	Vapour recovery stage 2 visual assessment for damage and functionality verification	Daily as part of forecourt equipment Due Diligence checks	Site Operator	Environmental Permitting (Eng & Wales) Regulations 2010
High Level Alarms	*Strict procedure for accepting deliveries and 'Competent person' prevent overfills.*			Approved Code of Practice L133 – Unloading Petrol from Road Tankers
Bund Area and Bund Wall Integrity	Visual Inspection	Every 3 months	Retailer	Taken from FPS Guide to Good Practice – Depot Maintenance

				See appendix 6.1
Retail Dispensers	Maintenance Contracts in place for faults and repairs. Testing of Pumps Visual checks by Retail staff Hose replacement policy	If fault suspected Following repair or modification Daily/ weekly/ monthly When inspection indicates failure	Accredited and competent dispenser maintenance and inspection Company. Retailer	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations section 9.7
Vehicle Unloading Facility – Discharge	Inspected if leak suspected	When leakage suspected	Accredited and competent pipework maintenance and inspection Company.	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • 4.4.2 • 8.5.2.1 • 8.5.2.5 • 8.5.3 • 8.6.1.4 • 8.8.3 • 8.9.3 Approved Code of Practice L133 – Unloading Petrol from Road Tankers

Electrical Installations	Electrical equipment in hazardous area Portable equipment Circuits feeding car washes and other areas used by the public Electrical earthing Kiosk Fixed wiring	Annually / upon modification Every 24 months / upon modification Annually / upon modification Annually / upon modification Five years / upon modification	Accredited and competent electrical maintenance and inspection Company with 17th edition and CompEx qualifications or similar.	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations • section 14.10 • annex 14.1 IEE Code of Practice for in-service Inspection and Testing of Electrical Equipment
Car / Jet Wash – Legionnella (above ground reclaim only)	As per risk assessment *MRHRRA02* Weekly temperature check and monthly bacteria sample from following risk areas: • Car wash reclaim tank • Car Wash intercept or • Building water storage tank Systems will be disinfected with biocide in the event of a positive result being obtained.	Weekly/Monthly As required	Retail Site Audit Provider Accredited and competent car wash maintenance and inspection Company.	The Control of Legionella Bacteria in Water Systems (ACOP L8) IP Legionella Assessment of Recycling Car Washes
Air Compressors	Written scheme of examination required	Variable - as indicated by previous written scheme of examination	Accredited and competent pressurised system maintenance and inspection Company.	Pressure System Safety Regulations 2000 Compresses air safety HSG39

LPG	1) Vessels 2) Vessel fittings, pressure relief valves 3) Pipework fittings 4) Routine inspections 5) Dispensers	10 years (unless underground without cathodic protection-seek advice) 5 years (unless stainless steel springs – then 10 years) 10 years Annually Twice per year	Accredited and competent pressurised system maintenance and inspection Company.	LPG Association, Code of Practice 1. Bulk LPG Storage at Fixed Installations Part 3 : 2000, Examination and Inspection Written scheme of examination required for 1 to 4 5) Advise of maintenance engineers
Interceptors	Inspection / cleaning	6 months	Accredited and competent waste disposal Company	EI, Guidelines for soil, groundwater and surface water protection and vapour emission control at petrol filling stations
Fire Extinguishers / Alarms	Inspection	Annual	Accredited and competent fire appliance Company	Regulatory Reform (Fire Safety) Order 2005
Coffee Machines with pressurised boilers	Inspection	Every 14 months	Accredited maintenance company	Pressure System Safety Regulations 2000

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Certificate No. M-20.1 UK

Industrie Service

Issued for an Automatic Monitoring System

The TÜV SÜD, Industry Service GmbH, Westendstr. 199, D-80686 Munich, Test/Certification Body for Vapour Recovery Systems, hereby certifies that the automatic monitoring system outlined below complies with:
Process Guidance Note 1/14 (06)
"Unloading of Petrol into Storage Tanks at Petrol Stations" as issued by:
Llywodreth Cynulliad Cymru Welsh Assembly Government
Department for Environment Food and Rural Affairs (DEFRA)
SCOTTISH EXECUTIVE.

• Type:	**VAPORIX**-System including **pulse correction**
• Manufacturer:	**FAFNIR GmbH** Bahrenfelder Straße 19; D - 22765 Hamburg
• System components: *Gas flow sensor:*	**VAPORIX - Flow** calorimetric flow sensor installed in the vapour recovery pipe in front of the vapour recovery pump or the control valve
Operating electronics:	**VAPORIX - Control** analyses and evaluates the vapour flow, generates alarm and shut-off signals
Pulse correction[1]*:*	The correction of signals for the activation of the vapour recovery system can also be done by the dispenser controller (e.g. SK700/2) or by the pulse correction module **VAPORIX - PCM**
• Applicability:	Application is possible where the VAPORIX-system is used only to obtain measurement results and evaluation according to the Process Guidance Note 1/14 is carried out by a site controller[2].

The tests have been carried out according to VDI 4205-5 and addressed the requirements outlined in Process Guidance Note 1/14 (06) -paragraph 5.20.

This automatic monitoring device for active vapour recovery systems is suitable for fitting onto new and existing fuel pumps and dispensers. It also allows for monitoring of different makes or types of fuel pumps and dispensers.

Munich, 26 June 2007

TÜV SÜD Industrie Service GmbH

The officially autorized expert

Peter Szalata

Peter Szalata

[1] The pulse correction does not affect application of dry measurement as per VDI 4205, sheet 3. If wet measurement as per VDI 4205, sheet 2 is applied, the pulse correction must be deactivated by means of the FAFNIR dongle.

[2] A valid certificate for the site controller must be available.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Zertifikat Nr. 85-2.174 GER

Certificate No. 85-2.174 GER

TÜV SÜD Industrie Service

Die Prüfstelle für Gasrückführungssysteme der
TÜV SÜD Industrie Service GmbH, Westendstr. 199, D-80686 München,
bescheinigt die Prüfung gemäß:
VDI 4205-4 „Systemprüfung von aktiven Gasrückführungssystemen“
für folgendes Gasrückführungssystem:

The TÜV SÜD Industrie Service GmbH Test Body for Vapor Recovery Systems,
Westendstr. 199, D-80686 Munich, certifies having conducted tests as per the following code:
VDI 4205-4 “System test of active vapour recovery systems”
on the following vapor recovery system:

- Zapfventil: / Fuel-hose nozzle: **ELAFLEX ZVA 200 GR / ELAFLEX ZVA SLIMLINE 2 GR**
- Schlauch: / Hose: **ELAFLEX Conti Slimline 21/8 Coax**
- Steuerventil: / Control valve: **Veeder-Root, EPV10**
- Betriebselektronik: / Control board: **Gilbarco Veeder-Root, VRC 390 / VRC 390/x / VRB**
- Gasrückführungspumpe: / Vapor recovery pump: **Dürr, MEX 0831-10 / MEX 0831-11 / MEX 0544**

Folgende Randbedingungen sind bei der Installation einzuhalten:
The following general conditions must be observed during installation:

• maximaler Kraftstoffvolumenstrom: / Maximum volumetric fuel-flow rate:	**38**	**l/min**
• maximaler Gegendruck in der Rückführleitung: / Maximum counter pressure in recovery line:	**50**	**mbar**
• Korrekturfaktor für die Systemeinstellung mit Luft bei simuliertem Kraftstoffvolumenstrom von 38 l/min: / Correction coefficient for system settings with air by simulation of a volumetric fuel-flow rate of 38 l/min.:	**1,15**	

Der geforderte Wirkungsgrad von mindestens 85 % wurde nachgewiesen.
The required minimum efficiency ratio of 85% was proved.

Das Gasrückführungssystem entspricht dem Stand der Technik im Sinne der 21. BImSchV (Verordnung zur Begrenzung der Kohlenwasserstoffemissionen bei der Betankung von Kraftfahrzeugen) vom 07.10.1992 zuletzt geändert am 6.5.2002.
The vapor recovery system corresponds to the state of the art as defined in the 21st BImSchV (Air-pollution Control Regulation on the restriction of hydrocarbon emissions during vehicle refueling) of October 7, 1992, last amended on May 6, 2002.

München, 21.06.2012
Munich, 6/21/2012

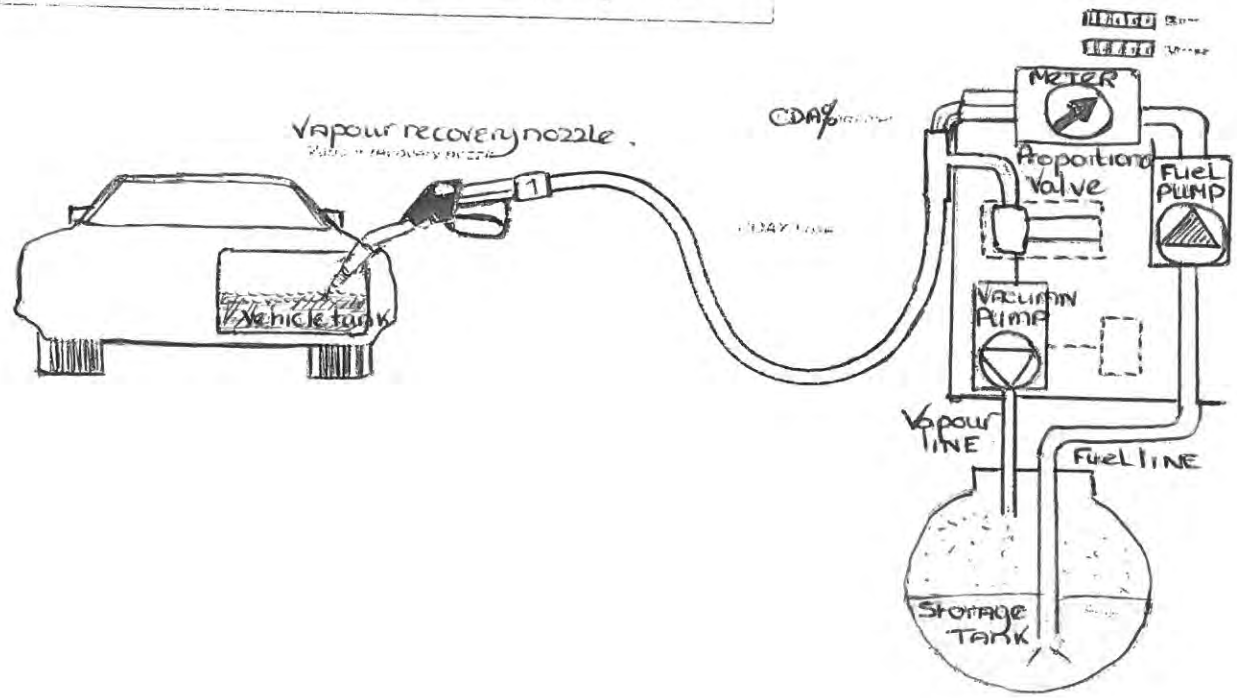
TÜV SÜD Industrie Service GmbH

Der Sachverständige
The officially authorized expert

Peter Szalata

TÜV®

Stage 2 Vapour Recovery System



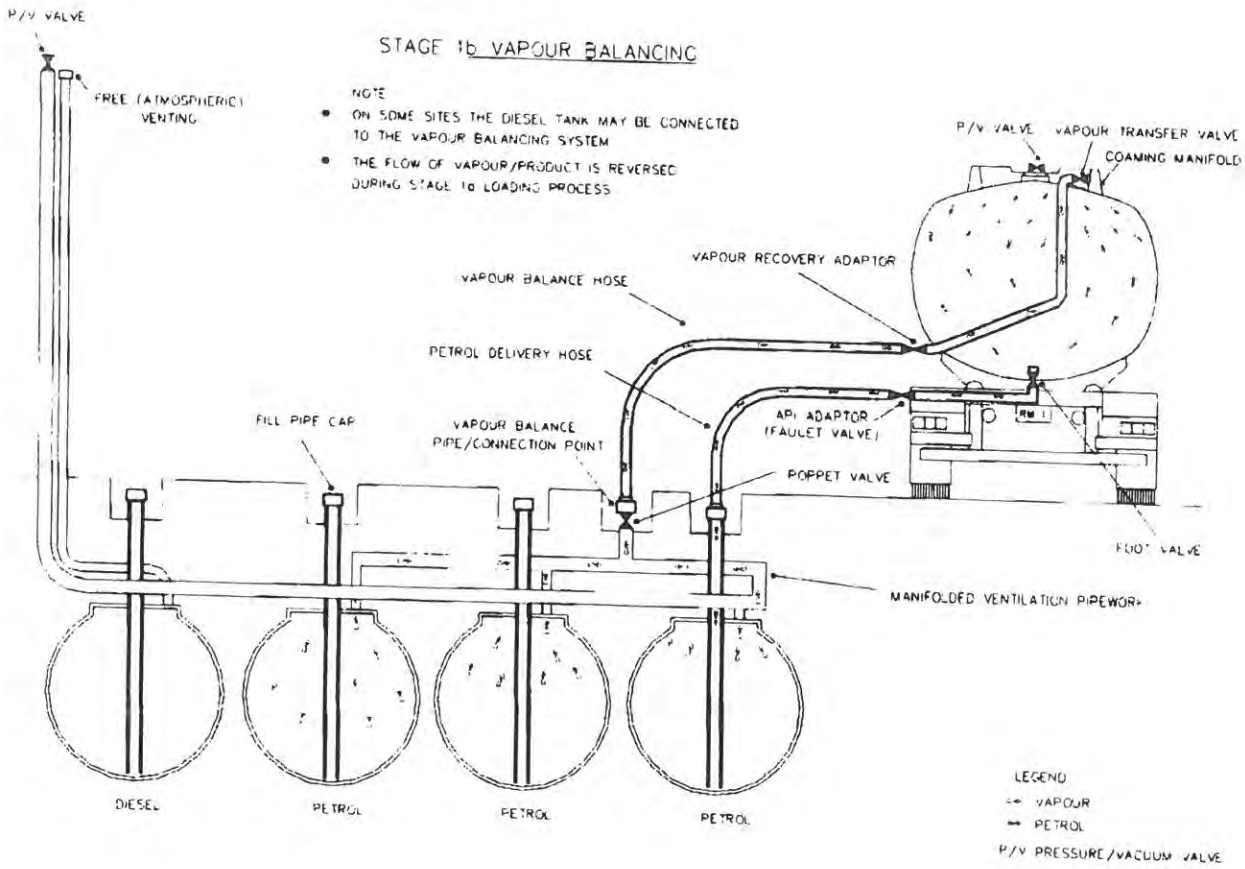


Figure 1 - Stage 1b vapour balancing
Courtesy of West Yorkshire Fire Service