**Part B Application form**

# Application to vary a permit for a Part B service station to add PVR Stage II

**Local Authority Pollution Prevention and Control**
**Pollution Prevention and Control Act, 1999**
**Environmental Permitting (England and Wales) Regulations 2007**

## Introduction

**When to use this form**
Use this form if you are applying for a variation to an existing service station permit in order to extend it to cover the operation of PVR Stage II.

A fee is only required to be enclosed if the variation involves a 'substantial change'. A substantial change is defined as "a change in operation which, in the opinion of the competent authority [the regulator] may have significant **negative** effects on human beings or the environment". (Closure of an existing service station and the building of a new replacement station at another location is likely to require a full fresh application, ie not constitute a variation.)

When complete, send the form and the fee and any additional information to:

**Insert local authority address**

**If you need help and advice**
We have made the application form as straightforward as possible, but please get in touch with us at the local authority address given above if you need any advice on how to set out the information we need.

| LAPPC application form: to be completed by the operator | | |
|---|---|---|
| **For Local Authority use** | | |
| **Application reference** | **Officer reference** | **Date received** |

A1.1. **Name of the premises**

**Shell Fenstanton**

A1.2. Please give the address of the premises

**A14 Cambridge Road, Cambridge**

Postcode: **PE28 9HS** Telephone: **01954 232460**

A1.3. Reference number of existing PVR Stage I permit for the installation

**Unknown**

A2.1. **The applicant** - Please provide the full name of company or corporate body or the name of the sole trader or the names of the partners

**SHELL UK LIMITED**

Trading/business name (if different)

.....

Registered Office address

**Shell Centre,**
**York Road,**
**London**

Postcode: **SE1 7NA** Telephone: **0207 934 1234**

A2.2. **Holding companies**

Is the operator a subsidiary of a holding company within the meaning of section 1159 of the Companies Act 2006?

☐ No

**X** Yes

If yes? Name of ultimate holding company: **SHELL TRANSPORT AND TRADING COMPANY PLC**

Ultimate holding company registered office address

**SHELL CENTRE**
**YORK ROAD**
**LONDON**

Postcode: .**SE1 7NA** Telephone: **0207 934 1234**

A3 **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 can be an agent or consultant.*

Name: **Kerry Toms**

Position: **Retailer Contracting Assistant**

Address:

**P O Box 403**
**Staines**
**Middlesex**

Postcode: **TW18 3ZB** Telephone: **0845 309 3091**

Fax number: **01784 897 845** emailaddress:**operations-support@shell.com**

B. **About the installation**

B1.1 Is PVR Stage II equipment already fitted:

☐ No

**X** Yes

B1.2 If the answer to B1.1 is "no",

a) when do you intend to fit it .....

b) what arrangements are in place (eg contract with installers) to fit it

.....

B2.1 What systems have been installed or is it intended to install to comply with PVR Stage II?

**Gilbarco VRC 700 & GR 125**

Doc Reference **1**

B2.2 What is or will be the vapour/petrol ratio?

**95% to 105%**

B2.3 Please attach process diagrams and plans of VPR Stage II system, including pipework layout.

Doc Reference: **2**

B2.4 What arrangements will be/have been made for preventative maintenance of the PVR Stage II equipment.

.....

.....

.....

Doc Reference: **3**

B2.5 What arrangements will be/have been made to ensure relevant staff are adequately familiar with and trained in the use of the PVR Stage II equipment.

.....

.....

.....

Doc Reference: **4**

B2.6 Please attach procedures and contingency measures in the event of vapour containment equipment failure (including the system for vapour recovery during filling of vehicle petrol tanks).

Doc Reference: **4**

B2.7 Please provide a certificate to confirm conformity of the PVR Stage II equipment with approval for use under the regulatory regimes of 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% (ie that at least 85% of the displaced vapours are recovered, according to the relevant 'type approval' test (see Section 5.16 of PG1/14(06)), expressed as the ratio of the volume of hydrocarbon vapours displaced to the volume of petrol discharged.

Doc Reference: **3**

B2.8 What arrangements will be put in place to test delivery systems and vapour recovery systems, including the testing of the vapour/petrol ratio? Please provide 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 system).

Doc Reference: **1 & 3**

B2.9 Is an "automatic monitoring system" installed, or will it be installed, to automatically detect faults in the proper functioning of the petrol vapour recovery system including the automatic monitoring 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?

☐ No

**X** Yes

B3 Additional Information

Please supply any additional information, which you would like us to take account of in considering this application.

Doc Reference: **See Attached**

C1. **Fees and Charges**

C1.1. Please enclose the relevant sum if this variation involves a substantial change, and state the amount enclosed.

£.....

Cheques should be made payable to:

We will confirm receipt of this fee when we write to you acknowledging your application.

C1.2. Please give any company purchase order number or other reference you wish to be used in relation to this fee.

## C2. Annual charges

If we grant you a permit, you will be required to pay an annual subsistence charge. If you don't pay, your permit can be revoked and you will not be able to operate your installation.

C2.1.If different to details provided in relation to your current PVR Stage I permit, please provide details of the address you wish invoices to be sent to and details of someone we may contact about fees and charges.

Shell Shared Service Centre Glasgow Ltd
P O Box 25071
72 Gordon Street
Glasgow

Postcode G1 3WR Telephone.

## C3. Commercial confidentiality

C3.1. Is there any information in the application that you wish to justify being kept from the public register on the grounds of commercial or industrial confidentiality?

If **Yes**, please provide full justification, considering the definition of commercial confidentiality within the EP Regulations (See the General Guidance Manual).

## C4. Data Protection

The information you give will be used by the Local Authority 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,
- make sure you keep to the conditions of your permit and deal with any matters relating to your permit
- investigate possible breaches of environmental law and take any resulting action,
- prevent breaches of environmental law,
- offer you documents or services relating to environmental matters,
- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows)
- 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.

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.

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).

**C5 Declaration: previous offences** (delete whichever is inapplicable)

I/ 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.**

OR

The following offences have been committed in the previous five years which may be relevant to my/our competence to operating this installation in accordance with the Regulations:

.....

.....

Signature .....

Name: **Kerry Toms**

Position: **Retailer Contracting Assistant**

Date: **27th November 2009**

**6 Declaration**

**C6.1 Signature of current operator(s)***

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 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.

For the application from:

Premises name: **Shell Fenstanton**

Signature .....

Name: **Kerry Toms**

Position: **Retailer Contracting Assistant**

Date: **27th November 2009**

Signature .....

Name C Anderson

Position Ops Support

Date 27-11-09

** Where more than one person is defined as the operator, all should sign. Where a company or other body corporate – an authorised person should sign and provide evidence of authority from the board of the company or body corporate.*

(1)

GILBARCO VEEDER-ROOT

# GVR - FEF

## STAGE II VAPOUR RECOVERY

## COMPLIANCE CERTIFICATE

**SHELL FENSTANTON**

**12/10/2009**

# GVR - FEF Stage II Vapour Recovery Test Certificate

Completed certificate to be kept on site with site records and a copy retained by the contractor.

## PART A. Work and Equipment Record

**Date:** 12/10/2009

**Engineer Name:** S.WALTON

**Site Name & Operator:** SHELL FENSTANTON

**Address of site:** CAMBRIDGE ROAD
CAMBRIDGESHIRE
PE28 9HL

**Dispenser/Pump Make & Model:** Gilbarco SK700

**Vapour Recovery system fitted:** Gilbarco VRC 700 & GR125

**Vapour Recovery monitoring system fitted:** Gilbarco VMC

**Tick all boxes that apply:**

- ☐ New Installation
  - ☐ New Pumps with Stage II
  - ☑ Stage II retrofit
  - ☐ Automatic monitoring retrofit
- ☐ Work on Vapour Recovery System
- ☐ Work on Automatic Monitoring System
- ☐ Ordered by customer or other agency
- ☐ Annual periodic test
- ☐ 3 yearly periodic test
- ☐ Test after modification or repair
- ☑

**Remarks:**
VRII LED EXPLAINED AND UNDERSTOOD BY SITE MANAGER

SHELL FENSTANTON

# GVR - FEF Stage II Vapour Recovery Test Certificate

## PART B. VR Efficiency Test Record

The manufacturer's documentation, including approval certificate, contains data required for efficiency tests.

Correction factor for air (in manufacturer's documentation): 1.00

Maximum certified fuel flow rate: 42 L/min Outdoor temperature: 16'C

Tolerance range for V/P ratio: 95% to 105%

| Pump side | Pump Number | Grade Name | | V/P ratio at air test flow rate | | | |
|---|---|---|---|---|---|---|---|
| | | | | Before adjustment | | After adjustment (if applicable) | |
| | | | | [%] | [l/min] | [%] | [l/min] |
| 1 | 2 | G1 | Unleaded | 97 | 38 | | |
| | | G2 | | | | | |
| | | G3 | | | | | |
| 2 | 1 | G1 | Unleaded | 97 | 38 | | |
| | | G2 | | | | | |
| | | G3 | | | | | |
| 1 | 4 | G1 | Unleaded | 96 | 38 | | |
| | | G2 | V Power Unl | 96 | 38 | | |
| | | G3 | | | | | |
| 2 | 3 | G1 | Unleaded | 96 | 38 | | |
| | | G2 | V Power Unl | 96 | 38 | | |
| | | G3 | | | | | |
| 1 | 6 | G1 | Unleaded | 96 | 38 | | |
| | | G2 | V Power Unl | 96 | 38 | | |
| | | G3 | | | | | |
| 2 | 5 | G1 | Unleaded | 96 | 38 | | |
| | | G2 | V Power Unl | 96 | 38 | | |
| | | G3 | | | | | |

If more than 4 pumps see additional page 2A.

**Note:** If the Vapour Recovery monitoring device is equipped with a regulation or correction function then this has to be disabled during the measurements.

If an Automatic Monitoring system is fitted, is this operating correctly - indication for normal operation, alarm condition and stop condition. **YES**

**Date of this inspection:** 12/10/2009

**Date next inspection due:** 12/10/2012

**Certifying Engineer:** S.WALTON

## PART C. Initial Installation Inspection and Test

Leak test executed and passed on Vapour Recovery pipes & components:

[X] Inside of dispenser (retrofit kits) [ ] Between dispenser and tank

| | Test steps | Details - Pass/Fail or Values | | | |
|---|---|---|---|---|---|
| | | P1/2 | P3/4 | P5/6 | P7/8 |
| 1 | Conforms with installation instructions. | PASS | PASS | PASS | |
| 2 | Visual inspection of Vapour Recovery system for security of fittings. | PASS | PASS | PASS | |
| 3 | Visual inspection of Vapour Recovery monitoring device - if fitted. | PASS | PASS | PASS | |
| 4 | Leak test to internal dispenser pipes and components. (Retrofit kits) | PASS | PASS | PASS | |
| 5 | Leak test to pipes connecting dispenser to tank or other external systems. | N/A | N/A | N/A | |
| 6 | Running of Vapour Recovery pump - no loose or vibrating pipes. | PASS | PASS | PASS | |
| 7 | Confirm operation of Vapour Recovery monitoring device and alarm test. ***Note 1*** | PASS | PASS | PASS | |
| 8 | Dry measurement at each petrol nozzle. | PASS | PASS | PASS | |

| | Test steps | Details - Pass/Fail or Values | | | |
|---|---|---|---|---|---|
| | | P9/10 | P11/12 | P13/14 | P15/16 |
| 1 | Conforms with installation instructions. | | | | |
| 2 | Visual inspection of Vapour Recovery system for security of fittings. | | | | |
| 3 | Visual inspection of Vapour Recovery monitoring device - if fitted. | | | | |
| 4 | Leak test to internal dispenser pipes and components. (Retrofit kits) | | | | |
| 5 | Leak test to pipes connecting dispenser to tank or other external systems. | | | | |
| 6 | Running of Vapour Recovery pump - no loose or vibrating pipes. | | | | |
| 7 | Confirm operation of Vapour Recovery monitoring device and alarm test. ***Note 1*** | | | | |
| 8 | Dry measurement at each petrol nozzle. | | | | |

***Note 1*** The alarm signal and the switch off function has to be tested for every nozzle if the switch off function is nozzle specific.

**Date of inspection:** 12/10/2009

**Certifying Engineer:** S.WALTON

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# Man Chamber Test for Stage II Vapour Recovery

## Inspection of Man Chamber

Date of Inspection **12/10/2009**

Site Address **SHELL FENSTANTON**
**CAMBRIDGE ROAD**
**CAMBRIDGESHIRE**
**PE28 9HL**

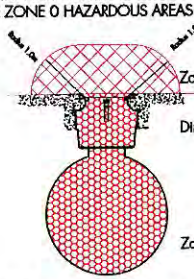
Confirm Tank Tested **TANK FIVE**

Vapour Recovery return line man chamber Vapour check (Prior to retrofit) **PASS**

Vapour Recovery return line man chamber Vapour check (When operating) **PASS**

Inspecting Engineer **S.WALTON**

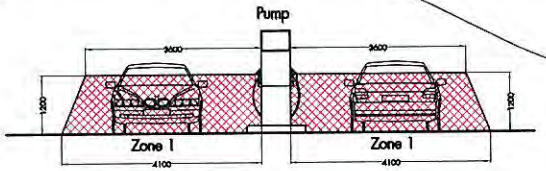
NOTE:
DIRECT AND OFFSET FILL BELOW GROUND CHAMBERS ARE ZONE 0 HAZARDOUS AREAS.



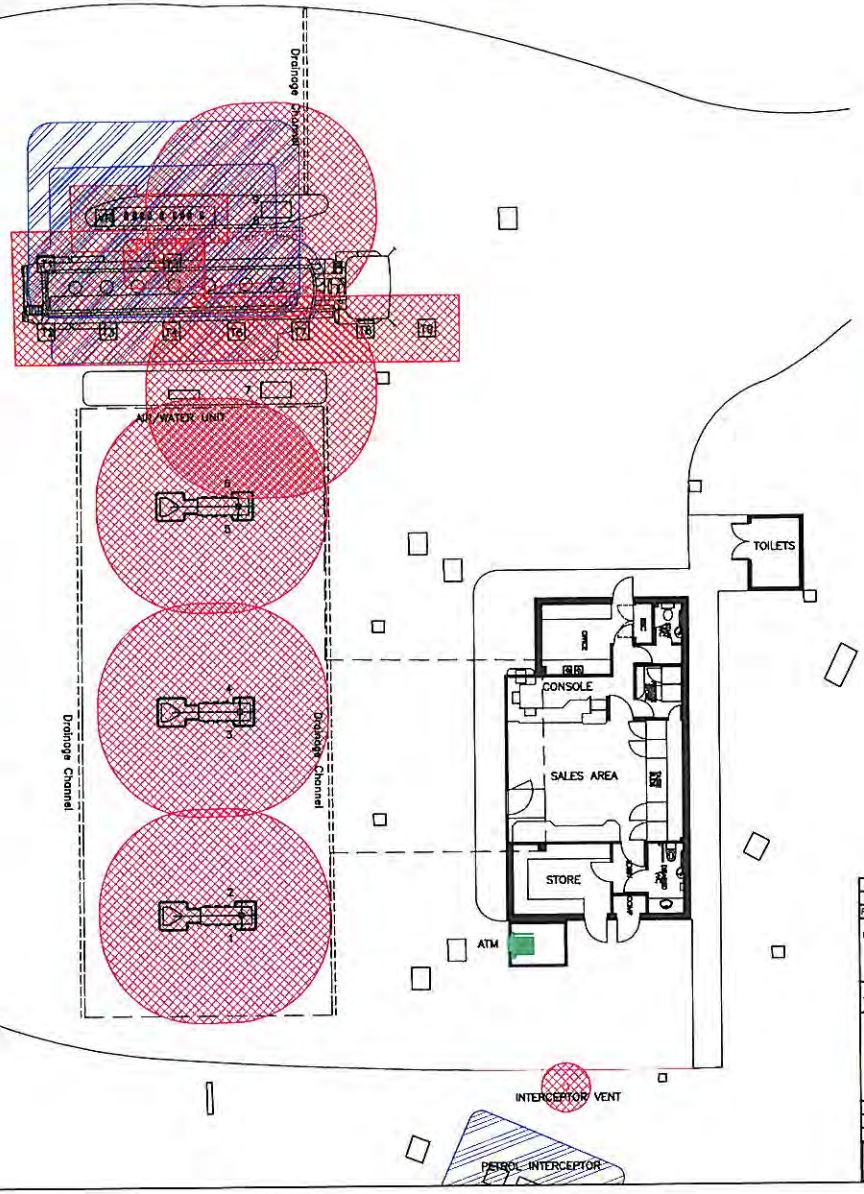

Fill Point Zone 0 Cross Section.
(n.t.s.)

TANK TO PUMP SCHEDULE

| TANK No. | GRADE | MAX WORKING CAPACITY (L) | NOMINAL (97%) CAPACITY (L) | PUMP ISLANDS 1-2 | 3-4 | 5-6 | 7 | 8-9 |
|---|---|---|---|---|---|---|---|---|
| 1 | V-POWER | 12610 | | | ● | ● | | |
| 2 | V-POWER DIESEL | 12610 | | ● | | | | |
| 3 | UNLEADED | 25220 | | ● | | | | |
| 4 | UNLEADED | 25220 | | | ● | | | |
| 5 | NOT IN USE | * | | | | | | |
| 6 | DIESEL | 25220 | | | | ● | | |
| 7 | DIESEL | 25220 | | ● | ● | | | |
| 8 | DIESEL | 25220 | | | | | ● | ● |




Pump Zone 1 Cross Section. (n.t.s.)




NOTATION AND SPECIFICATION :

1. THE CLASSIFICATION OF HAZARDOUS ZONES AS SHOWN ON THE LAYOUT IS IN ACCORDANCE WITH THE H & SE. GUIDANCE NOTES CS/4 & HS/G 34 AND BS 7117 and GUIDANCE FOR THE DESIGN, CONSTRUCTION, MODIFICATION AND MAINTENANCE OF PETROL FILLING STATIONS.

DESIGNATION OF ZONES :

2. ZONE 0 : AN AREA IN WHICH ANY FLAMMABLE ATMOSPHERE IS LIKELY TO BE CONTINUOUSLY PRESENT IN CONCENTRATIONS WITHIN THE UPPER AND LOWER LIMITS OF FLAMMABILITY.

ZONE 1 : AN AREA IN WHICH A DANGEROUS ATMOSPHERE IS LIKELY TO OCCUR IN NORMAL OPERATING CONDITIONS.

ZONE 2 : AN AREA IN WHICH A DANGEROUS ATMOSPHERE IS LIKELY TO OCCUR ONLY IN ABNORMAL OPERATING CONDITIONS AND NOT IN NORMAL OPERATING CONDITIONS.

3. LEGEND:

HAZARDOUS ZONE : 0
HAZARDOUS ZONE : 1
HAZARDOUS ZONE : 2

| REV | | DATE |
|---|---|---|
| B | TANK TO PUMP CHART UPDATED. | JULY07 |
| A | GRADE CHANGE V-POWER REPLACED OPTIMAX. | OCT06 |

PROJECT : FENSTANTON SERVICE STATION,
A14 CAMBRIDGE ROAD, FENSTANTON,
CAMBRIDGESHIRE. PE18 9HV.

TITLE : HAZARDOUS AREAS DETAILS

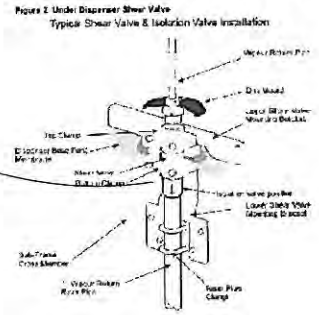
| | | | |
|---|---|---|---|
| DRAWN BY : | MW/MAH | SCALE : | 1:200 |
| DATE : | APR10.05 | PLOT DATE : | - |
| CAD FILE : | E:\ARCHIVE\DRAWINGS\HAZZONE\FENSTANTON308490-HAZ | | |

| DWG No. | 308490 | HAZ | 001 | B |
|---|---|---|---|---|

(2)

VENT POSITION.

TYPICAL UNDER PUMP VAPOUR RETURN - SHEAR VALVE DETAIL

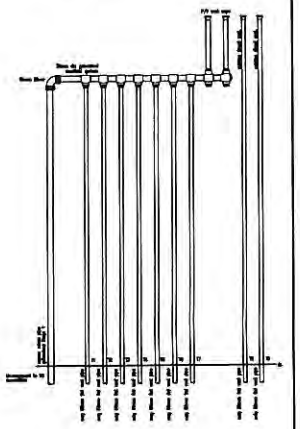


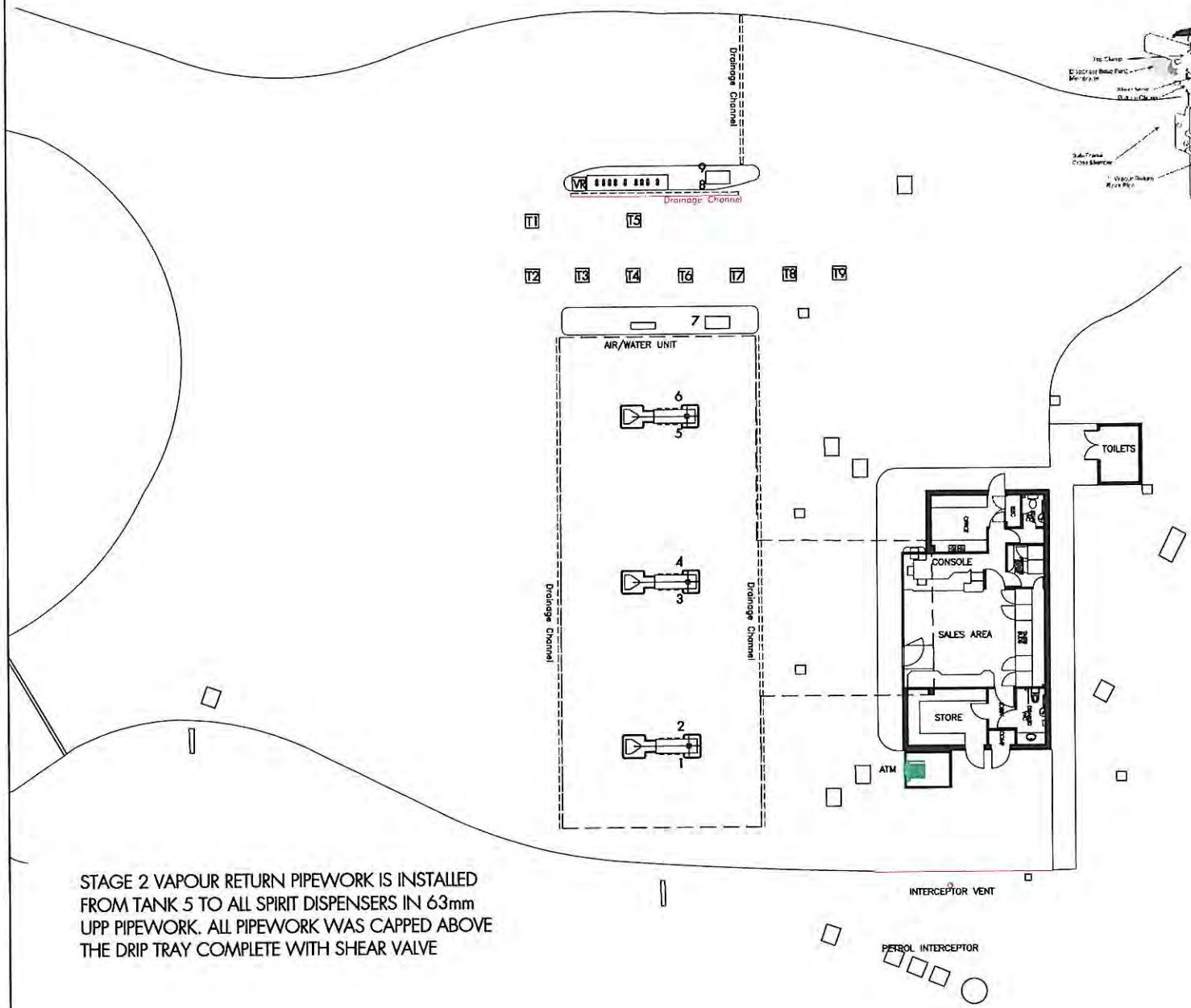
POST CONSTRUCTION

TANK TO PUMP SCHEDULE

| TANK No. | GRADE | ANT WORKING CAPACITY (l) | NOMINAL BTW CAPACITY (l) | PUMP BANKS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 1/2 | 3/4 | 5/6 | 7 | 8 |
| 1 | V-GRADE | | 13640 | | ● | ● | | |
| 2 | V-DIESEL | | 13640 | ● | | | | |
| 3 | UNLEADED | | 22720 | ● | | | | |
| 4 | UNLEADED | | 22720 | | ● | | | |
| 5 | UNLEADED | | 22720 | | | ● | | |
| 6 | DIESEL | | 22720 | | | ● | | |
| 7 | DIESEL | | 22720 | ● | ● | | | |
| 8 | DIESEL | | 22720 | | | | ● | ● |

EXISTING VENT STACK MANIFOLD DETAIL - HIGH LEVEL






STAGE 2 VAPOUR RETURN PIPEWORK IS INSTALLED FROM TANK 5 TO ALL SPIRIT DISPENSERS IN 63mm UPP PIPEWORK. ALL PIPEWORK WAS CAPPED ABOVE THE DRIP TRAY COMPLETE WITH SHEAR VALVE


A. J. Bayliss
Petroleum Engineers Ltd.
Petroleum, Fuel Oil and Electrical Installations
Hollie Road, Sandy Lane Industrial Estate, Stourbridge, Worcestershire DY13 9QB
Telephone: 01299 826547 Fax: 01299 827636 E-mail: enquiries@ajbliss.com


| REV No. | DATE | DESCRIPTION | BY | CHKD BY |
|---|---|---|---|---|
| A | | | | |

PROJECT : SHELL FENSTANTON SERVICE STATION, A14 CAMBRIDGE ROAD, FENSTANTON, CAMBS, PE18 9HV.

TITLE : VR2 INSTALLATION DETAILS

| | | | |
|---|---|---|---|
| DRAWN BY : | RLam | SCALE : | 1:200 |
| DATE : | APRIL 08 | PLOT DATE : | N/a |
| CAD FILE : | E:\ARCHIVE\DRAWINGS\VR2\FENSTANTON\308490-VR2 | | |

| DWG No. | 308490 | VR2 | 001 | · |
|---|---|---|---|---|

(2)

GILBARCO VEEDER-ROOT

# VAPOUR RECOVERY ALARM INDICATORS (TRAFFIC LIGHTS)

Your dispensers may be fitted with either one or two LED indicators ('Traffic Lights') on the display.

These are to indicate the status of the vapour recovery system and to alert you as to possible problems that may be about to occur, giving you time to arrange a service call.

The traffic lights will display one of three colours after a transaction (either green, amber or red).

***THESE SHOULD BE CHECKED ON A DAILY BASIS!***

The meaning of these is as follows:

**Green** - The vapour recovery system is OK and working within prescribed limits.

**Amber** - A series of consecutive transactions have fallen outside the vapour recovery tolerance.

The dispenser is now in alarm condition and will shut down in 7 days!

**ARRANGE A SERVICE CALL AS SOON AS POSSIBLE!**

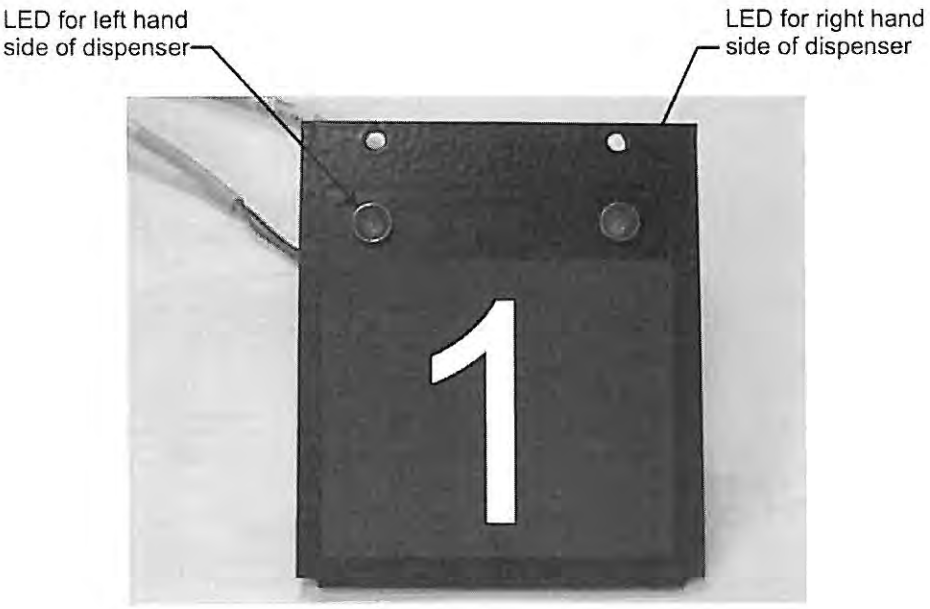
**Red** - The fault has not been fixed within 7 days and the dispenser has therefore shut down!

The location of the LED indicators will vary depending on the type of dispenser. Details for each of the dispensers may be found on the following pages:


| | |
|---|---|
| EUROLINE | PAGE 2 |
| ENTERPRISE | PAGE 2 |
| ENCORE 510 | PAGE 3 |
| EUROLINE GM | PAGE 3 |
| SK700 | PAGE 4 |

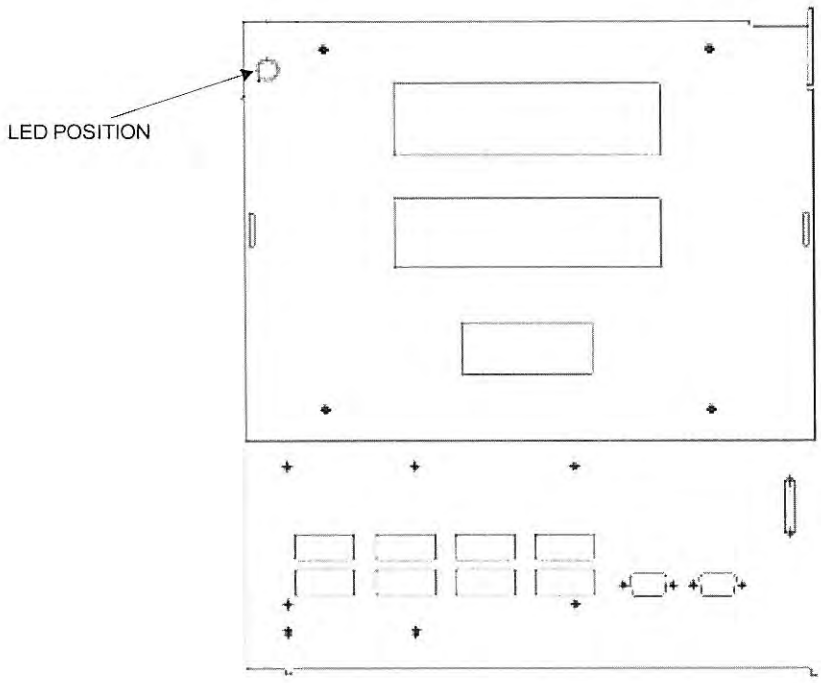
## *EUROLINE :*

If your dispensers are Eurolines, the traffic lights will be found on one side of the display head and will look as follows:



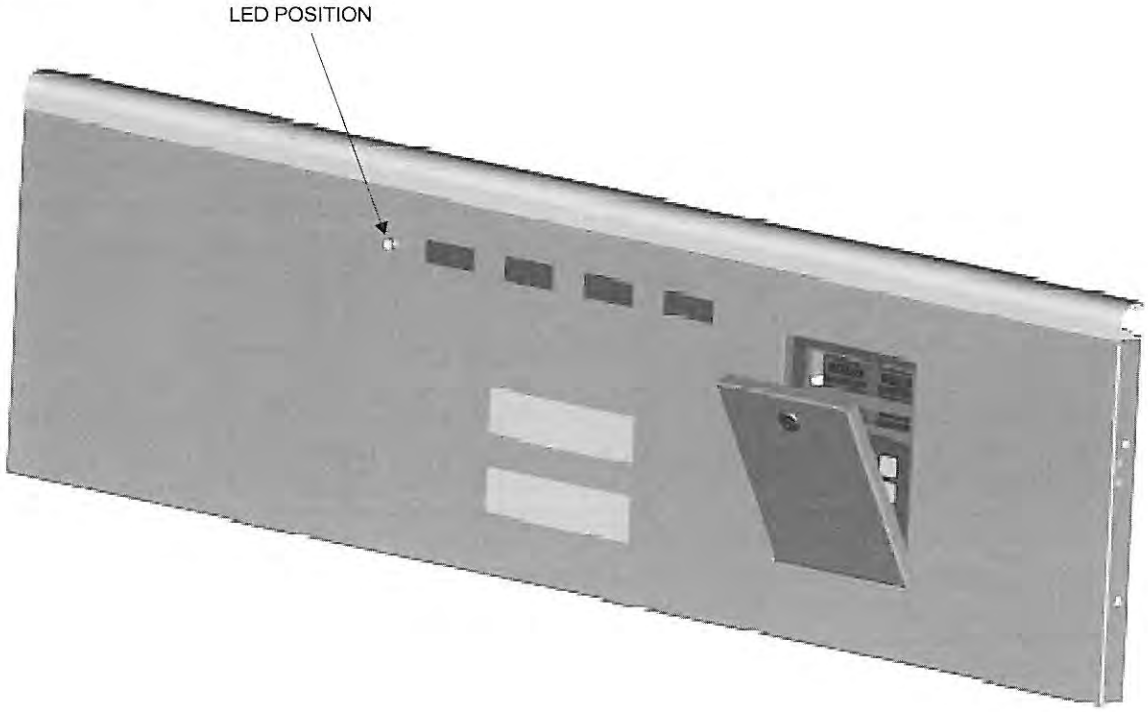

## *ENTERPRISE:*

On the Enterprise, one LED will be found in the top left hand corner of each display bezel.



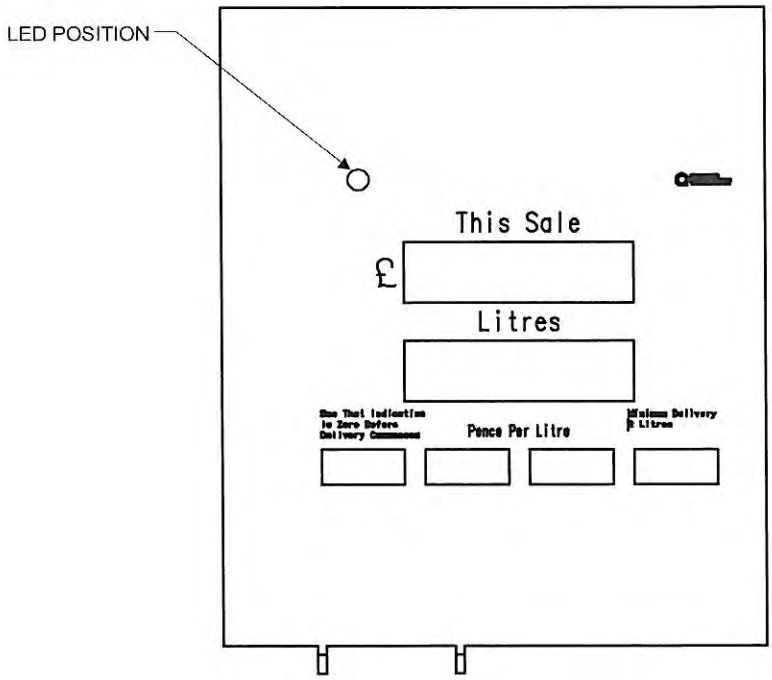
## *ENCORE* 510*:*

On the Encore 510 there is an LED on each display bezel adjacent to the PPU (Price Per Unit) display/s.



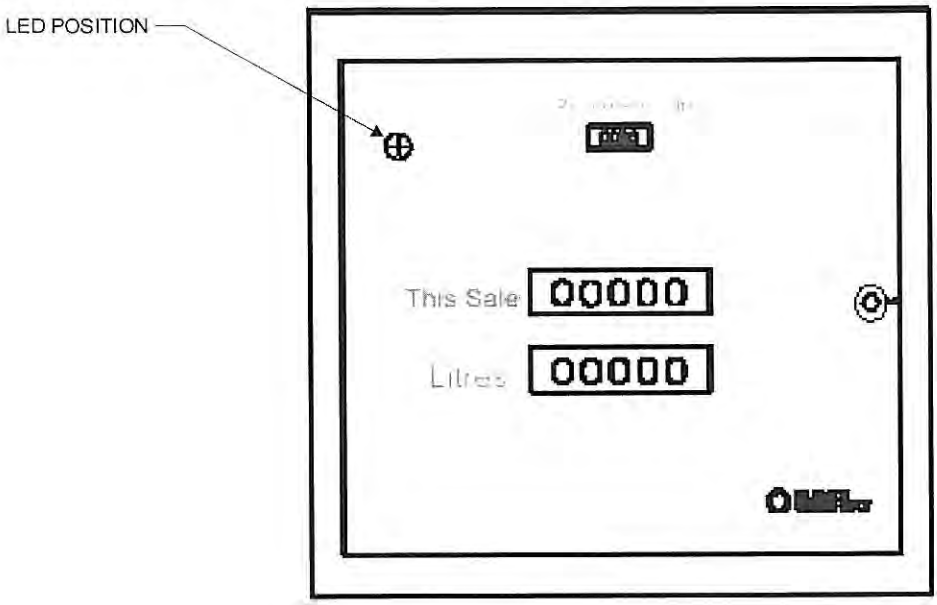

## *EUROLINE GM:*

On the Euroline GM, one LED can be found in the top left hand section of each dial face above the 'This Sale' window.



## *SK*700*:*

On the SK700, one LED can be found in the top left hand section of each dial face, to the left of the 'Pence Per Litre' window.



(2650/55) dti III(5)a

# Certificate
## Pursuant to section 12 of the Weights and Measures Act 1985

***Certification No*** 2650/55

***Valid Until*** 2 ***July*** 2016

*In accordance with the provisions of section* 12 *of the Weights and Measures Act* 1985, *the Secretary of State for Trade and Industry hereby certifies as suitable for use for trade a pattern of a liquid flowmeter, as described in the descriptive annex to this Certificate, and having the following characteristics:-*

| | |
|---|---|
| *DISPENSER:* | *Gilbarco SK*700 *as described in Certification No* 2650 |
| *KIOSK CONTROL UNITS AND POINT OF SALE SYSTEMS:* | *Any approved POS/KCU equipment previously approved with Certification* 2650 |
| *OUTDOOR PAYMENT TERMINAL:* | *Any approved Outdoor Payment Terminal equipment previously approved with Certification* 2650 |
| *BANK NOTE ACCEPTOR:* | *Any approved Bank Note Acceptor equipment previously approved with Certification* 2650 |
| *VAPOUR RECOVERY SYSTEM:* | *With any of the Stage II Vapour Recovery Systems fitted as described in the descriptive annex* |

*Under the provisions of section* 12(6) *of the said Act, the validity of this certificate is limited as shown above.*

*Note: This certificate relates to the suitability of the equipment for use for trade only in respect of its metrological characteristics. It does not constitute or imply any guarantee as to the safety of the equipment in use for trade or otherwise.*

*Submitted by:* ***Gilbarco Veeder-Root Ltd***
***Crompton Close***
***Basildon***
***Essex***
***SS*** 14 3***BA***

*Signatory:* *R N Willans*
for Chief Executive
National Weights & Measures Laboratory
Department of Trade and Industry
Stanton Avenue
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United Kingdom

Reference No: T1117/0016

Date: 3 July 2006

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CERTIFICATION NO 2650/55

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ILLUSTRATIONS

**Figure 1** Typical Vapour Recovery System

# Descriptive Annex

## 1 INTRODUCTION

### 1.1 General

Stage II Vapour Recovery Systems are used during refuelling to recover the vapour contained within the vehicle fuel tank and are scheduled to become mandatory in the UK by 2010. They are normally required on Petrol grades only, and the recovered vapour is returned to the underground tank. Although the vapour recovery system is not itself a legal metrological requirement, NWML authorisation is required to permit the connection of the various systems described within this descriptive annex to the approved dispenser.

Stage II Vapour Recovery Systems have been in use in other European Countries, notably Germany. The Environmental (non weights and measures) approval of these systems in the UK will be based upon environmental approvals obtained in these other European countries. The systems described herein all have such approvals and are certified accordingly.

### 1.2 Vapour Recovery Monitoring

As well as the Vapour Recovery system, an optional Vapour Monitor system can be fitted. This checks for the correct operation of the system, and if after a number of consecutive transactions the system is found to be functioning incorrectly an Alarm system is activated. This indicates to the operator or owner of the Dispenser, that the Monitor has detected a fault condition with the Stage II Vapour Recovery System and the system should be serviced or repaired. The alarm can either be local at the Dispenser (Indicating Lamp) or can be remotely located in the kiosk area. If, after a certain period, the Dispenser has not been repaired, the appropriate fuelling position will be automatically disabled until the repair is carried out.

## 2 CONSTRUCTION

### 2.1 Components

The systems described typically consist of a mix of standard components described below :-

| | | |
|---|---|---|
| a) | Vapour Recovery Nozzle | Elaflex ZVA 200 GRV Series<br>Elaflex ZVA Slimline GRV Series<br>Alternatively any Vapour Recovery Nozzles approved for use by TUV |
| b) | Vapour Recovery Hose | Elaflex Conti Slimline 21 Series<br>Alternatively any Vapour Recovery Hoses approved for use by TUV |
| c) | Vapour Pumps | ASF 8014 Series<br>Durr MEX 0831 Series<br>Alternatively any Vapour Recovery Pumps |

| | | |
|---|---|---|
| | | approved for use by TUV<br>(Note: These Vapour pumps are typically driven via either a single ended or double ended AC Motor) |
| d) | Proportional Valve | Burkert 2832 series<br>Burkert 6022 series |
| e) | Fuel / Vapour Splitter Adaptor | Elaflex ZAF series |
| f) | Electronic Control Unit for Vapour Recovery System | Burkert 1094 Series<br>Gilbarco VRC390/392 Series |
| g) | Optional Vapour Meter | Gilbarco Veeder-Root GE1 Meter.<br>Alternatively any Gilbarco Veeder-Root Meter for Vapour Monitoring systems approved for use by TUV |
| h) | Electronic Control Unit for Vapour MonitoringSystem | Gilbarco VMC390 /392 series<br>Alternatively any Gilbarco Veeder-Root Electronic Control Unit for Vapour Monitoring systems approved for use by TUV |
| i) | Kiosk Alarm Indicator | Gilbarco KAI392<br>Any Kiosk Equipment (eg:POS) with suitable Interface.<br>Alternatively any Gilbarco Veeder-Root Electronic Control Unit for Vapour Monitoring systems approved for use by TUV |

## 2.2 Systems

### 2.2.1 Vapour Recovery Systems

The European Environmental approvals certificates for Vapour Recovery Systems normally specify the following components –

| | |
|---|---|
| Nozzle type | *eg: Elaflex ZVA200GR* |
| Hose type | *eg: Elaflex Conti Slimline 21/8 Coax* |
| Proportional valve And Control Electronics | *eg: Burkert 6022 / 2832* |
| Vapour Pump | *eg: Durr MEX 0831* |

They also specify the Maximum flowrate for each system, the maximum backpressure and the Correction Factor to be used when calibrating the system.

Any Vapour Recovery system using the components described in Section 2 can be used providing they have a suitable European environmental approval certificate
(eg: TUV Certificate).

## 2.2.2 Vapour Monitor System

The European Environmental approvals certificates normally specify the following –

| | |
|---|---|
| Type Designation of the System | *eg: Gilbarco VMC (Vapour Monitoring Controller)* |
| Manufacturer | eg: Gilbarco GmbH & Co. KG<br>Ferdinand-Henze-Str. 9<br>33154 Salzkotten |
| System Gas Flow Meter | *eg: Gilbarco Veeder-Root GE1 Meter.* |

Any of the monitoring components described in Section 2 can be used providing they have an environmental approval certificate for such a Vapour Monitor System (eg: TUV Certificate) which lists the appropriate Monitoring component.

## 3 OPERATION

3.1 When fuelling commences, the fuel delivered displaces the vapour contained within the vehicle fuel tank and the vapour is therefore forced out. The vapour pump is used to collect the vapour as it emerges from the fuel tank. Referring to Figure 1, the path of the vapour flow is –

Via the outer ring of the nozzle >
On into the inner core of the coaxial hose >
Into the splitter hose connector (ZAF) >
Out of the splitter hose connector into the vapour pipe >
Through the vapour monitor meter (if fitted) >
Through the proportional valve >
Through the Vapour Pump >

Then out through the shear valve and back to the underground tank

3.2 The Vapour Recovery Controller Electronics is used to match the recovered vapour rate with the fuel flow rate. It does this by adjusting the proportional valve to obtain the vapour flow rate in line with the fuel flow as indicated by the fuel meter pulser. This way, the vapour recovery volumetric efficiency is kept within the 95 to 105% level.

3.3 The Vapour Recovery Controller Electronics is calibrated using an external Gasmeter connected to a handheld terminal. The handheld terminal interfaces to the Vapour Recovery Electronics by a serial port and initiates a calibration sequence. This is accomplished without any fuel delivery and with only air being measured, also with a calibration factor being used which makes allowance for the difference between air and vapour and the particulars of the system components used.

3.4 An optional Vapour Monitoring System may also be used. This is used to check the correct operation of the Vapour Recovery system. A Vapour meter is used to measure the vapour being recovered. This interfaces to the Vapour Monitor Electronics, which compares this with the fuel delivered and, if after a number of consecutive transactions the vapour recovered is outside of specification, the monitor will indicate an alarm. This gives the owner time to have the system repaired before the Fuelling point is automatically shut down.

3.5 If a Vapour Monitoring system is not used, the recovery system will need to be checked for correct operation on a regular basis.

3.6 The Monitor Alarm can be either indicated at the Dispenser (eg: via an LED) or a signal can be sent to the Kiosk via the standard data communication line to the POS and indicated at the POS itself. Optionally, a special 'Kiosk Alarm Indicator' (KAI) can be fitted which interfaces to the Monitor system via a serial channel and indicates the alarm details in the kiosk.

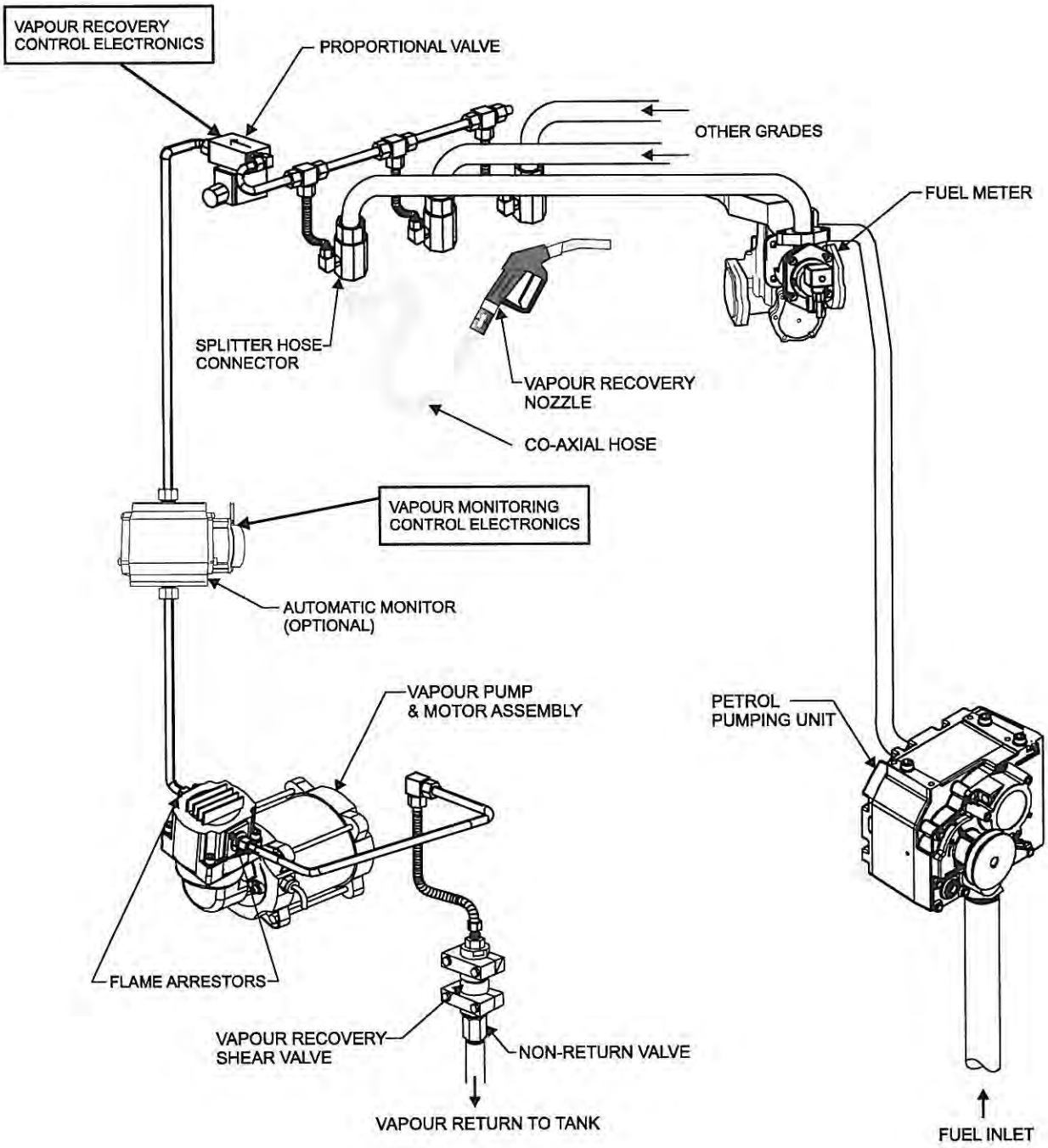


**Figure 1 Typical Vapour Recovery System**
**(Non Vapour Recovery components shown within greyed area)**

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

TÜV SÜD Industrie Service

# Zertifikat Nr. 85-2.156

Certificate No. 85-2.156

Die Prüfstelle für Gasrückführungssysteme der
TÜV SÜD Industrie Service GmbH, Westendstr. 199, D-80686 München,
bescheinigt die Prüfung gemäß dem Merkblatt:
**„Systemprüfung für aktive Gasrückführungssysteme und deren Überwachungssysteme in Deutschland (Merkblatt I)"** vom 17.6.2002
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:
**"Testing of active vapour recovery systems and their monitoring devices in Germany (Code I)"** of June 17, 2002 on the following vapor recovery system:

- Zapfventil: Fuel-hose nozzle: **ELAFLEX ZVA 200 GR**
- Schlauch: Hose: **ELAFLEX Conti Slimline 21/8 Coax**
- Steuerventil: Control valve: **Bürkert 6022 / 2832,** Ansteuerung Gilbarco VRC 390 und 390/2 Gilbarco control VRC 390 and 390/2
- Gasrückführungspumpe: Vapour recovery pump: **Gardner Denver Thomas 8014-5.0, 8014-6.0**

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

| | | |
|---|---|---|
| • maximaler Kraftstoffvolumenstrom: Maximum volumetric fuel-flow rate: | **42** | **l/min** |
| • maximaler Gegendruck in der Rückführleitung: • Maximum counter pressure in recovery line: | **75** | **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. | **1,08** | |

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 vapour 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.

Der Sachverständige
The officially authorized expert

München, 11.09.2007
Munich, 11 September 2007

TÜV SÜD Industrie Service GmbH

Peter Szalata

# On-Site Sign-off Document

GILBARCO VEEDER-ROOT

All Clearance Certificates and associated H&S documents completed ☐

Work completed using correct H&S procedures at all times ☐

All Dispensers retrofitted with Stage II VR components ☐

All equipment tested and certified ☐

Appropriate PPE worn at all times ☐

Site left operational and fully Stage II VR compliant ☐

Date: _____

Signed
(Lead Engineer) _____

Signed
(Site Manager) _____

## 4.2 Receive Wetstock

### Overview

Fuels must be discharged in an efficient and safe manner. This is both a legal and Shell requirement. It is the Retailer's responsibility to ensure that all processes and procedures are carried out at the retail site.

The responsibility for any delivery must be delegated to a competent member of staff in the event of the Retailer not being available on site to accept a delivery.

### Procedure Description

The process describes how to accurately and safely complete the transfer of fuel from road tankers to site storage tanks in line with HSSE Shell policy requirements. In most countries Legislation plays a key role in the requirements of this procedure.

### Objectives

- To ensure that every fuel delivery is carried out in accordance with all legal requirements and Shell procedures to minimise the risk of injury to people or damage to property and/or to environment.
- To ensure the safe discharge of fuel from a road tanker into the correct site storage tanks and the accurate recording of the delivered volume per tank whilst meeting Shell Group minimum HSSE standards and any local legal requirements. *(For HSSE requirements see Section 1 of this manual)*
- To identify any short deliveries e.g. fuel fraud/theft
- To identify any fuel product grade that is delivered into a tank containing a different product grade.
- To provide accurate delivery volumes of fuel (by tank and product grade) to enable site reconciliation process.

## Minimum Standards & Big Rules

- The Retailer is trained in all aspects of Shell's policy and procedures regarding the requirements in this section plus any local legislation requirements
- The Retailer must train the Nominated Principal and site staff to execute this procedure according to Shell minimum standards and must retain training records for each individual
- The Retailer must make available all training records for himself and his staff at all times at site.
- Deliveries must not be made to any tank showing evidence of leakage.
- Both local legislation and Royal Dutch Shell Group HSSE standards are met on every delivery
- The Retailer must monitor the condition of all fill points and advise Shell of any potential connection faults
- Where assisted delivery is required the Retailer (or Nominated Principal) must:
  - ensure a competent member of staff is on site to receive a delivery
  - verify that the delivery paperwork clearly identifies that the delivery is intended for the site
  - ensure that there is adequate ullage in each tank prior to a discharge of fuel being made
  - advise the tanker driver of the correct fuel connections
  - agree with the tank driver that all relevant compartments on the tanker are dry when the delivery is completed
  - sign the delivery ticket and hand to driver and enter all details in the site fuels stock record
- If either the Retailer (or Nominated Principal) or the driver identifies insufficient tank ullage or it is not safe to discharge a complete compartment from the road tanker, the fuel will either remain on the tanker or be discharged to another appropriate tank on the site
- The tanker compartments must not be split in two different tanks or tank systems (unless accurate onboard tanker meters are available and the delivery paperwork accurately reflects what has happened whilst discharging)

- To execute reconciliation procedure the Retailer (or Nominated Principal) will use volumes detailed as indicated on the delivery note unless the volume measured at the time of delivery is outside local agreed tolerance levels *(see Section 4.2.1 or 4.2.2)*
- The Retailer (or Nominated Principal) must follow the local agreed process for any delivery discrepancies outside the tolerances.
- Tank level measurement must be made shortly after a delivery to ensure that the discharge of product grade has been made to the tanks intended
- The tanker driver and the Retailer (or Nominated Principal) must ensure that if there are any spillages during the discharge element of this process are reported in line with Shell HSSE requirements. *(See Section 1.5 of this manual)*
- In case of contamination caused by fuel crossover, the Retailer (or Nominated Principal) must execute the local process to close to the customers all dispensers that are affected by this event
- The Retailer (or Nominated Principal) must retain all documentation related to this procedure and must be available at site.
- The Retailer (or Nominated Principal) must endeavour to facilitate a prompt, safe and efficient delivery. If the delivery vehicle is delayed at the site due to failure on the part of the Retailer to fully co-operate with the implementation of agreed processes then this will be recognised and referred to the Shell Territory Manager for use in performance management
- The Retailer or Nominated Principal must ensure that adequate working lighting is available at all filling points for after dark deliveries
- The Retailer must provide feedback from site if there is a short delivery (compared to ordered quantity), spillage, split tanker compartment or incorrect delivery paperwork
- The delivery frequency and volumes may vary where VMI is implemented.

## Procedure execution tools

- Either electronic tank gauges or manual dipsticks to record both pre and post physical dip measurements.
- Delivery paperwork from Distribution that shows delivered volumes.
- Process to provide feedback from site if there is a short delivery, spillage, split tanker compartment or incorrect delivery paperwork.
- Training material supplied by Shell
- See Appendices for templates

## 4.2.1 Retailer/Site Staff Assisted Delivery

Only individuals who have been accredited as a "Competent Person" should be involved in the procedure. (The Register of Competent persons should be displayed adjacent to the "Deliveries to a Retail Service Station" wallchart)

See Appendix 3: Example "Competent Person Register" COMMON PRACTICE
See Appendix 4: Example "Competent Person Form Of Certification" COMMON PRACTICE
See Appendix 8: Example of Delivery Note document

### What to do before the delivery?

- **Floor conditions:** Check for slippery condition in the delivery area. When slippery conditions exist, but site is accessible, use sand, salt etc. to create safe working area.
- **Accessibility:** check accessibility and ensure that all obstructions (e.g. parked vehicles, snow, etc.) are removed prior to arrival of delivery vehicle.
- **Entering the site:** Assist the driver while entering in the site in case of difficult maneuvering. The delivery vehicle must be positioned in such a way that it can be easily driven off the site in an emergency in forward gears
- **Adequate Lighting:** The discharge area must be well lit during deliveries after dark (minimum 100 lux.) If a delivery is to be made during hours of darkness, check **all** lights in the delivery area are working.
- **Manhole:** The chambers should be free of water, fuel, snow, ice and debris
- **PPE** to be available for all staff working on the forecourt, i.e. High Visibilty clothing

- Ensure means of opening manholes is available and manhole platforms, where fitted, are in good order and secure, **particularly following tank maintenance**
- Ensure fire extinguishers (*in date and sealed*) and sand bucket, are available
- If required, assist driver to manoeuvre on the forecourt
- Ensure you comply with restrictions arising from your site Risk Assessment, including partial or full closure of the forecourt
- Where appropriate or necessary, switch off car wash, air machine and vacuum cleaner

## What to do during the delivery?

- **Documentation:** Retailer or competent staff member checks all documents, making sure delivery is for the site (e.g. not for sites with similar address if located close), if grades and volumes are as expected, if compartments are properly marked etc.
- **Fill Pipes/dipping pipes/Central Delivery Points:** Unlock dip (where appropriate) and fill pipes (Note: Keep fill pipes locked at all times except during deliveries, stock checks and approved repairs. Each fill pipe must be clearly labeled showing tank compartment number, fuel grade, and tank maximum working capacity. If site equipped with automatic level gauging system - print out pre-delivery report. If the site is NOT equipped with level gauges, measure the fuel contained in the tanks before delivering (in cooperation with the driver).
- **Ullage:** Check volumes/ullage in tanks. Instruct driver in what compartments/tanks product needs to be delivered.
- **Clothing:** Wear High Viz vest / clothing while working on the forecourt
- The Retailer needs to check to ensure delivery is done in a safe manner
- **Fire Extinguishers:** Ensure fire extinguisher(s) are near discharging place

- Ensure any construction or maintenance work going on at the site does not cause a risk during the delivery
- Check that truck is connected to the ground
- On Tanker's arrival check the delivery note for the vehicle compartment allocation
- Complete the delivery certificate in the driver's presence.
  **Do not sign lower part at this stage**
- Check sight glasses are full with the ball floating at the top
- Agree with the driver the sequence of delivery, grades and quantities, tank number and compartment number. **Do not proceed until the sequence is agreed.**
- Where practical, Diesel should be discharged first (unless into above ground Diesel tanks, where it should be discharged last)
- **Unlock only the fill points needed for the delivery** and the vapour recovery.
- Manhole covers should only be removed when necessary to avoid the risk of falling down open manholes
- **IT IS A LEGAL REQUIREMENT THAT THE DRIVER AND COMPETENT PERSON STAY AT THE DELIVERY POINT THROUGHOUT THE DELIVERY**
- Should there be any vapour leaks, refer to the Vapour Recovery Stage 1B Emergency procedure document which should be displayed adjacent to the "Deliveries to a Retail Service Station" wallchart, together with the Register of Competent Persons
- The vapour recovery hose should be connected (tanker end first) before any delivery hose
- You must ensure that each delivery hose is connected to the storage tank end first and then to the

road tanker to reduce the risk of fuel leaks

- The number of tanker compartments connected shall not exceed 2, regardless of grade
- You **MUST** also ensure the driver has connected to the correct compartment on the vehicle. This is done by checking the grade label on the outlet of the vehicle, cross-referencing this with the delivery note
- You and the driver can now sign the delivery certificate for the specific tank. Delivery can then commence
- The above procedure should be repeated for each compartment. Remember to replace manhole lids and lock fill point caps as necessary as you progress with the delivery.
- When all compartments have been delivered, check the outlet sight glasses, which should be empty, with the balls at the bottom.
- After each compartment has been discharged, the delivery hose will be disconnected at the road tanker end first and then at the storage tank end.
- The Vapour recovery hose will be disconnected (storage tank end first) when all the delivery hoses have been fully disconnected at both ends

**The above are requirements under the 2003 Approved Code of Conduct. A Retailer would be vulnerable under the law if an incident occurred and it was found that the guidelines had not been followed.** You can be particularly vulnerable during periods of adverse weather, when some of the procedures may be prone to shortcut.

### What to do after delivery?

- Lock dip and filling points and replace any manhole covers

- When driver has completed the delivery, record and check tank volumes before driver leaves site to confirm correct quantities have been delivered to each tank.
- Sign off delivery papers. Site retains one copy of delivery certificate and delivery note. Tank gauge reports taken before and after delivery, or delivery reconciliation report from tank gauge, should be retained and attached to the delivery certificate.
- Remove any barriers and cones
- Assist the driver while exiting from the site in case of heavy traffic or difficult maneuvering.
- If the delivered quantity of fuel is believed to be short against the documented quantities, ensure that a tank gauge calibration error or administration error is not misinterpreted as a short delivery. If delivery is still believed to be short, report the issue to the Fuels Ordering line on 08708 500 924 following the options given.
- Delivery certificates should be retained on site for a minimum of 12 months
- Any spillage of fuel must be reported to the Customer Service Centre. If a spillage occurs, follow the emergency procedure contained in section 1 of this manual.

### What to do in case of fuel crossover?

A fuel crossover is the incorrect delivery of one product into a tank containing another, for example, delivery of unleaded fuel into a storage tank containing diesel. That should not occur if delivery procedures are correctly followed.

- As soon as a crossover is suspected, all dispenser nozzles fed by the tank or tanks involved should be closed until it is confirmed that the product within the tank is suitable for sale.
- The driver will contact the terminal control centre.
- The retailer should inform the Fuels Quality Focal Point (via the Customer Service Centre) and Territory Manager.

- The Fuels Quality Focal Point will determine the necessary action and inform the Retailer and Distribution.

## 4.2.2 Driver Controlled or Unassisted Deliveries

Approval for unassisted deliveries may be site specific therefore authorisation must be received from Shell before they may commence. A risk assessment for Driver Controlled or Unassisted deliveries should be completed and a copy filed at site before the delivery process is changed from site assisted deliveries to driver unassisted deliveries or driver controlled deliveries. As there are equipment and procedural differences between the two methods of delivery, where differences occur they appear in separate sections listed below.

Driver Controlled Deliveries (DCD) require a separate box on the forecourt containing tank gauge equipment, telephone and emergency equipment. DCD requires no involvement from site staff during the delivery.

Driver Unassisted Deliveries do not require the additional forecourt equipment. Sites which are equipped with either overfill prevention valves and/or alarms, along with spillage containment to separate the delivery area from members of the public and the environment, will be able to receive deliveries by a driver, without a nominated competent person in attendance during the delivery. However a nominated person will be required on site to complete the delivery certificate.

**Approval for unassisted deliveries is site specific and must be received from Shell before they may commence**

### What to do before the delivery? (DCD & DUD)

- **Accessibility:** Check for accessibility and ensure that all obstructions (e.g. parked vehicles, tables, snow) are removed prior to arrival of delivery vehicle. The delivery vehicle must be positioned in such a way that it can be easily driven – forwards – off the site in case of an emergency.

- **Floor conditions:** When slippery conditions exist, but site is accessible, use sand, salt, etc. to create a safety working area.

- **Adequate Lighting:** The discharge area must be well lit during deliveries after dark. If a delivery is to be made during hours of darkness, check all lights in the delivery area are working.

- **Manholes / dipping / filling:** The chambers should be free of water, fuel and debris.

- **Fill Pipes / dipping pipes / Central Delivery Points:** Keep fill pipes locked at all times except during deliveries, stock checks and approved repairs. An agreement regarding keys and locks is set up locally with Supply and Distribution. Each fill and dip pipe must be clearly labeled showing tank compartment number, fuel grade, and tank ullage. See section "Manage Wet Stock at site" for details.

- Ensure tanker **delivery area is clear** of obstructions and does not present any slip or trip hazards. In wintry conditions, the area must be clear of snow and be well gritted.

- Ensure **fire extinguishers** (*in date and sealed*) and sand bucket, are available

- Where appropriate or necessary, switch off car wash, air machine and vacuum cleaner

- Ensure Statutory Notices (No Smoking Large sign for the Vent Pipes & No Smoking small sign for the pump islands) are displayed

**DRIVER CONTROLLED DELIVERIES (DCD) only** ***(DUD procedure continues on next sub section)***

**Only individuals who have been accredited as a "Competent Person" should be involved in t**he procedure. (The Register of Competent persons should be displayed adjacent to the "Deliveries to a Retail Service Station" wallchart)

**Complete certificate with the exception of the signature boxes, as close to the estimated delivery time as possible. You will have been advised of the load, grade, quantities and compartment allocation. When completing the certificate you should have the ullage available at the time of completion. Do not estimate future sales when completing the certificate.**

- Ensure the forecourt equipment and lighting is in good working order. Test the audible alarm, check the visual display, printer and paper, and telephone all work. Ensure the forecourt box is

only locked with standard key, i.e. no padlocks. Each fill point should have a unique key and padlock. Ensure that fire extinguishers are in date and sealed, and that sand and tools are available

- All fill points and vapour points should be locked. Keep padlocks maintained and free moving

- Ensure the driver is able to comply with any special conditions as required by the Petroleum Licensing Authority or your risk assessment (*Conditions to be displayed in forecourt box, e.g. if it is a requirement for an area to be coned off, site should provide cones or barrier*)

- If your pre-delivery checks on the forecourt box fail or highlight a problem which means that the driver will be unable to use the forecourt equipment, you will still be able to accept an unassisted delivery providing the site is open and the driver has access to the site telephone and dip reports from within the shop. Please note that if high level alarms have failed then unassisted deliveries may only take place if the site is equipped with overfill prevention valves.

- Ensure that the tanker delivery area is kept clear and does not present any slip or trip hazards. In wintry conditions, the area must be clear of snow and ice and be well gritted.

- Place the completed delivery certificate in the forecourt box, together with the keys required for the delivery. **Only leave the keys for the tanks shown on the delivery certificate, plus the vapour recovery key.**

- If you expect two unassisted deliveries on the same day you **MUST**:
    i. Complete two delivery certificates
    ii. Keep the keys separate for each load

- On sites where you do not have two boxes, or two key compartments within one forecourt box, it is recommended that the keys and delivery certificates for each delivery are put in different envelopes and clearly marked so the driver is in no doubt which envelope is for which load.

- If the same tank is to be utilised for 2 deliveries, you must ensure 2 keys for that tank are available and one is placed in each envelope.

- Remember to leave the vapour recovery key out separately for each load.

- Should there be any vapour leaks, the Vapour Recovery Stage 1B Emergency procedure should be followed. This document should be displayed adjacent to the "Deliveries to a Retail Service Station" wallchart, together with the Register of Competent Persons

### What to do during the delivery?

- Assist the diver if required to adhere to any local licence conditions (or control measures identified on the site specific risk assessment) e.g. closure of car wash etc.

### What to do after delivery?

- Remove the delivery note, delivery certificate and tank keys from the forecourt box

- Record and check tank ullages. Tank gauge reports taken before and after delivery, or delivery reconciliation report from tank gauge, should be retained, attached to the delivery certificate.

- If the delivered quantity of fuel is believed to be short against the documented quantities, ensure that a tank gauge calibration error or administration error is not misinterpreted as a short delivery. If delivery is still considered to be short, report the issue to the Fuels Ordering line on 08708 500 924 following the options given.

- Delivery certificates should be retained on site for a minimum of 12 months.

- Any spillage of fuel must be reported to the Customer Service Centre. If a spillage occurs, follow the emergency procedure contained in section 1 of this manual.

### DRIVER UNASSISTED DELIVERIES (DUD)

**Only individuals who have been accredited as a "Competent Person" should be involved in the**

**procedure.** (The Register of Competent persons should be displayed adjacent to the "Deliveries to a Retail Service Station" wallchart)

- **Ullage:** If site equipped with automatic level gauging system, make the system available for the driver to obtain a pre-delivery and post-delivery report.
- Where appropriate or necessary, switch off car wash, air machine and vacuum cleaner
- Check tank ullages immediately prior to delivery.

## What to do during the delivery

- On Tanker's arrival check the delivery note for;
- Correct Site Name and address
- The vehicle compartment allocation
- Complete the delivery certificate as far as tank, grade, ullage and quantity allocation, using the delivery note as appropriate.
- Competent person should hand driver completed delivery certificate along with a written record of the current tank ullages, vapour recovery keys and the keys to the tanks into which a delivery is to be made. ***NB all keys must be clearly marked as to tank to which they relate.***
- Driver will now ask to check that the phone is working and the gauge system is operative, and confirm that all emergency equipment is available.
- Should there be any vapour leaks, the Vapour Recovery Stage 1B Emergency procedure should be followed. This document should be displayed adjacent to the "Deliveries to a Retail Service Station" wallchart, together with the Register of Competent Persons

## What to do after discharge

- On completion of the delivery the driver will return keys to the vapour recovery, and tanks along with one copy of the delivery certificate.
- Record and check tank ullages before driver leaves site. Tank gauge reports taken before and after delivery, or delivery reconciliation report from tank gauge, should be retained, attached to the delivery certificate.
- The competent person should then sign the delivery note.
- **The above are requirements under the 2003 Approved Code of Conduct.**
- **A Retailer would be vulnerable under the law if an incident occurred and it was found that the guidelines had not been followed.** You can be particularly vulnerable during periods of adverse weather, when some of the procedures may be prone to shortcut.
- Delivery certificates should be retained on site for a minimum of 12 months
- Any spillage of fuel must be reported to the Customer Service Centre. If a spillage occurs, follow the emergency procedure contained in section 1 of this manual.

# VAPOUR RECOVERY - STAGE 1B- Emergency Action Plan

All service stations have now been fitted with a vapour recovery system known as Stage 1B.

Stage 1B prevents vapours being discharged into the atmosphere during a tanker delivery by routing the vapours back to the tanker where they are collected and taken back to the terminal.

This process requires a permit (Similar to your Petroleum Licence).

Part of the permit requirement is that you have an emergency action plan in place should a leak occur in the vapour recovery system during a delivery. Whilst this situation is unlikely to be dangerous, it may cause some nuisance to your neighbours, therefore please carry out the following actions.

1. Ensure the driver stops the delivery.
2. Inform Retailer Maintenance Support on **0870 850 0924** so that the correct contractor can be sent to site to fix the problem.
3. Contact the Retailer Call Centre on **0870 850 0924** to record the incident.
4. Cancel further deliveries until the leak has been fixed.
5. Inform your local Environmental Protection Officer, name and telephone number should be on the permit.
6. Record the incident in your log sheet Incidents of vapour leak or vapour lock.

If you have any questions about this procedure please contact the HSSE Manager - don't wait until you have a problem.

# VAPOUR RECOVERY - STAGE 2- Operation and Records

All service stations are now being fitted with a vapour recovery system known as Stage 2.

Stage 2 prevents vapours being discharged into the atmosphere during the filling of the vehicle fuel tank by routing the vapours back to the underground tank from where they are transferred to the tanker during a fuel delivery and taken back to the terminal.

This process requires a Permit (Similar to your Petroleum Licence).

The vapour recovery system has the benefit of automatic monitoring. Each pump has a LED display that should be checked on a daily basis.

1. In normal operation the LED is GREEN
2. In the event that insufficient vapour is being collect by the vapour recovery system the LED will change to orange, and an alert will be printed on the end of day and end of shift reports
3. Contact the Retailer Call Centre on **0800 731 5555** to report the incident and request that the contractor attend the site to resolve the issue.
4. If the fault is not fixed within 7 days the pump will automatically stop operating and no more fuel can be dispensed from that pump until a contractor has attended and fixed the problem.
5. Record the incident in your log sheet Incidents of vapour leak or vapour lock.

If you have any questions about this procedure please contact the HSSE Manager - don't wait until you have a problem.

The Retailer should ensure that at all times the following are available for inspection:-

1. A copy of the permit
2. The log book
3. Staff training records
4. Plan of the site and site pipe work
5. Copy of the compliance/ testing certificate

# VAPOUR RECOVERY – Staff Training

All staff should be trained on the operation of the vapour Recovery system and provided with refresher training once every 12 months.

Training should include the following items:-

a. Basic principles of vapour balancing related to the type of VR System.

b. The safety precautions to be followed before, during and after a delivery to ensure that the system functions correctly so there is no spillage of petrol should there be an equipment failure.

c. Their statutory obligations not to permit the delivery to commence until the vapour balance hose has been properly connected by the driver.

d. The reasons for and the correct sequence in which the vapour balance hose should be connected.

e. The signs and symptoms of vapour leaks.

f. Monitoring the delivery for vapour leaks and the reporting/recording procedure of instances of vapour lock, vapour leak, equipment failures, or unusually slow deliveries.

g. The precautions to be taken should there be a malfunction of the equipment which over-pressurises the system.

## Pollution Prevention and Control Act 1999
## Environmental Permitting (England and Wales) Regulations 2007
## VAPOUR RECOVERY TRAINING

It is a requirement of your 'Permit' that anyone who's duties include using, or supervising the use of, and maintaining the vapour recovery system must be trained in the use of the vapour recovery system and be informed of the Permit Holder's responsibilities and their individual roles and responsibilities in achieving them.

It is therefore important that anyone who is a designated 'Competent Person' for the receipt of fuel deliveries is trained in:

1. The Permit Holder's responsibilities and their individual roles and responsibilities in achieving them.
   (See site Permit Conditions)

2. The correct procedure for connection of vapour recovery hose.

3. Action required as a result of a leak in the vapour recovery system during a delivery.
   (See attached Emergency Action Plan)

Please ensure that relevant staff members have been trained in the above, been signed off as having been trained, and the sign off below filed with Competent Person Training records.

| Staff Member | Permit Responsibilities | Vapour Recovery Hose Connection | Emergency Action Plan | Trainer Signature | Trainee Signature | Date |
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