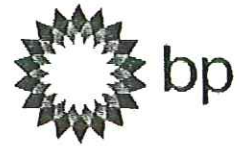


# BP Petrol Vapour Recovery Stage II (PVR II) Operating Record



## Checking Equipment Reporting Faults

You must check pumps daily to ensure safety and cleanliness. This is completed as part of your 'Store Check'. On a daily basis, the pumps are to be checked for:

- Damage to panels
- Damage to Nozzles and couplings
- Damage and wear to Hoses

Any damage found should be reported through *e-maintenance*. If the damage affects the safety of the pump it should be taken out of action pending repair by an approved maintainer.

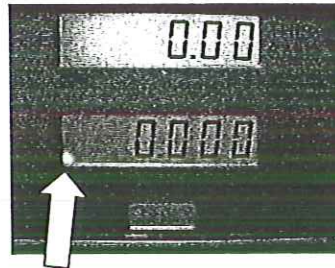
Stage2 monitoring adds an additional check to this daily routine. If a red light is visible at the lower corner of the volume display window it must be reported as a Stage2 VR fault for that particular pump through *e-maintenance* and the incidence logged in the form below and retained as part of the Petroleum Register in section 6. Your PO or any other regulator representing the Environment Agency may ask to see these records.

Periodically check that the light is working by observing transaction completion. The light will flash once as the nozzle is replaced. If it doesn't report as a fault through *E-Maintenance*.

## Automatic Monitoring

The correct functioning of the Stage 2 VR system in the dispenser is automatically monitored by the pump computer. Repeated fault codes generated by the vacuum pump and the proportional valve control systems of the dispenser are converted by the dispenser computer to a visual signal in the form of a continuous red LED located on the dispenser dial face.

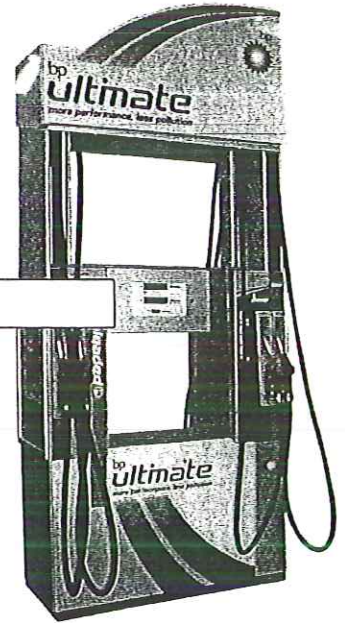
Fault LED's will be easily identified during routine periodic checks of the dispensers by site staff who will record the fault and log a maintenance call.



The illuminated LED can only be cancelled by an engineer intervention.

Functioning of the LED is confirmed in the end of every sale when the nozzle is replaced the LED will blink once.

## BP Petrol Pump



## Stage 2 Vapour Recovery Fault Record Form

Pump No.	Date Fault noted	initial	E-Maintenance Job Ref.

Make a copy of the rear of this form as a continuation

**Further information:** *contact your Retail Territory Manager or*

Maintenance Centre Help Desk: 0800 nnn nnn  
 BP help desk : 01927 85 xxxx  
 Store Support team 01927 85 nnnn

Issued by: BP – Global Alliance  
 January 2008  
 PVR II Site Ops Record v0

**GlobalAlliance**





## Certificate No. 85-2.127



The Certification Body for Fuel-Vapor Recovery Systems of TÜV Süddeutschland, Tank Systems Competence Center, Westendstr. 199, D-80686 Munich, hereby certifies testing of the following fuel-vapor recovery system in line with the code of practice:

"System testing for active fuel-vapor recovery systems and their monitoring systems in Germany (Code of Practice I)" of June 17, 2002 :

- Nozzle: **ELAFLEX ZVA 200 GR**
- Hose: **ELAFLEX Conti Slimline 21/8 Coax**
- Control valve: **Bürkert, 6022 / 2832,**  
with electronic control: Bürkert
- Vapor recovery pump: **ASF Thomas, Type 8014-5.0**

The following general requirements must be observed in installation:

- maximum volumetric fuel-flow rate: **38 l/min**
- maximum counter pressure in fuel-vapor recovery line: **150 mbar**
- coefficient of correction for system adjustment with air: **1,09**

The required minimum efficiency ratio of 85% was demonstrated.

The fuel-vapor recovery system is in line with the state of the art as defined in the 21. BImSchV<sup>1</sup> (Regulation governing the limitation of hydrocarbon emissions during motor-vehicle refueling) of October 7, 1992, last amended on May 6, 2002.

Munich, October 23, 2002



Officially Authorized Expert

*Peter Szalata*  
Peter Szalata

CERTIFICAT

CERTIFICADO

ERTIFIKAT

認証証書

CERTIFICATE

ZERTIFIKAT

<sup>1</sup> Air Pollution Control Regulation

BP LAPP PART B PERMIT  
ATTACHMENT 6B



Industrie Service

Certificate No. 85 A/L-2.1

The TÜV SÜD Test Body for Vapor Recovery Systems,  
Westendstr. 199, D-80686 Munich, certifies having conducted tests according to the following code:  
"Measurement and test methods for the assessment of vapour recovery systems  
on filling stations- VDI 4205"  
on the following vapor recovery system:

Fuel-hose nozzle:	ELAFLEX ZVA 200 GRV 3
Hose:	ELAFLEX Conti Slimline 21/8 Coax
A / L regulator valve <sup>1</sup> :	ASCO, Model JV13285902.24/DC, Type EMXX with Control board: „Tokheim SAS“ Typ ECVR - OL
Vapor valve <sup>2</sup> :	Not required –if internal in fuel-hose nozzle
Vapor recovery pump:	Dürr, MEX 0831-11

Test results:

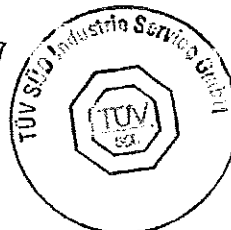
A/L 99,4 % at volumetric fuel-flow rate 40 l/min

Average<sup>3</sup> efficiency 95,4 %

The following general conditions must be observed during installation:

Maximum volumetric fuel-flow rate: 40 l/min  
Maximum counter pressure in recovery line: 50 mbar  
Correction coefficient for system settings with air: 1,10

Germany  
Munich, 20.08.2007



The officially authorized expert

*Peter Szalata*

Peter Szalata

<sup>1</sup> regulates air to liquid ratio

<sup>2</sup> opens the vapour path during liquid flow

<sup>3</sup> According to VDI 4205 in normal position and 45° position using VW Polo as reference car under realistic fuelling conditions.

ZERTIFIKAT • CERTIFICATE • CERTIFICADO • CERTIFIKAT • CERTIFICATE • CERTIFICADO • CERTIFIKAT

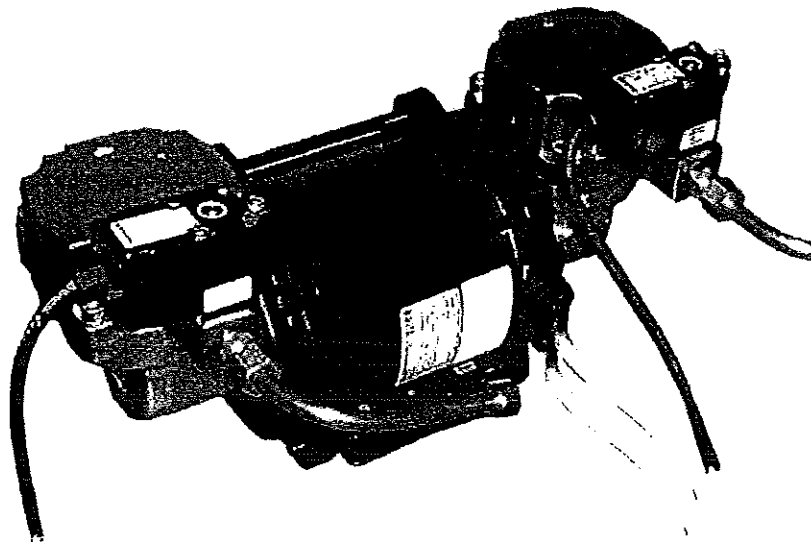
**DRESSER**

Wayne

# Vapour recovery

Bürkert Vapour recovery  
and Wayne iGEM

## Test and Calibration



For internal use only

**Endast internt bruk**

**Только для внутреннего пользования**

© Copyright

MMe 2003-01-09 V2

461307



**Product Liability**

For the supplier's product liability to be valid, no alterations, additions or the like may be made to the equipment without the supplier's express permission.

Use only genuine parts

**Produktansvar**

För att en leverantörs produktansvar skall gälla får ändringar, kompletteringar och liknande ej göras i utrustningen utan leverantörens godkännande.

Originalreservdelar skall alltid användas.

**Produkthaftung**

Damit die Produkthaftung des Lieferanten ihre Gültigkeit behält, dürfen ohne ausdrückliche Genehmigung des Lieferanten keine Änderungen, Ergänzungen o. Ä. an der Ausrüstung vorgenommen werden. Verwenden Sie nur Originalteile.

**Ответственность поставщика**

Для сохранения ответственности нельзя вводить в оборудование изменения, дополнения и т.п. без разрешения поставщика. Пользуйтесь только оригинальными запасными частями, выпущенным изготовителем бензоколонки.

**Caution**

To prevent damage that might result in electric shock or fire, disconnect the main power prior to any work.

**Varning**

Gör pumpen/enheten strömlös innan Du gör ingrepp i den. I annat fall föreligger risk för skada.

**Vorsicht**

Um Beschädigungen zu vermeiden, die zu einem elektrischen Schlag oder Feuer führen können, unterbrechen Sie vor jeder Arbeit die Stromzufuhr.

**Осторожно**

Во избежание поражения электрическим током или пожара отключайте напряжение питания перед началом любых работ.

**Warning**

Never run a leaking pump! Be careful with the environment and mind the skidding risk; take care of leaking fuel immediately.

**Varning**

Använd aldrig en läckande pump. Tänk på miljön och halkrisken, sanera utläckt drivmedel snarast.

**Warnung**

Lassen Sie nie eine undichte Zapfsäule laufen! Seien Sie umweltbewusst und denken Sie an die Rutschgefahr; beseitigen Sie austretenden Kraftstoff umgehend.

**Предупреждение**

Не пользуйтесь бензоколонкой при наличии утечки! Охраняйте окружающую среду, помните об опасности скольжения: в случае утечки топлива примите меры немедленно

The contents of this publication may not be copied either wholly or in part without the consent of Dresser Wayne AB.

Dresser Wayne AB reserves the right to change specifications contained in the text and illustrations without notice.

Innehåller i denna publikation får ej helt eller delvis kopieras utan medgivande från Dresser Wayne AB.

Dresser Wayne AB förbehåller sig rätten att utan särskilt meddelande ändra specifikationer givna i text och bild.

Der Inhalt dieses Handbuchs darf ohne die Erlaubnis von Dresser Wayne weder ganz noch teilweise kopiert werden.

Dresser Wayne behält sich das Recht vor, textliche oder bildliche Inhalte ohne besondere Mitteilung zu ändern.

Не разрешается копировать полностью или частично содержание настоящей публикации без разрешения фирмы Dresser Wayne AB.

Dresser Wayne AB оставляет за собой право вносить изменения в спецификации, содержащиеся в тексте и иллюстрациях, без предварительного уведомления.

# 1 Test of vapour recovery

The following instructions must be used when verifying the vapour recovery system on pumps equipped with iGEM.

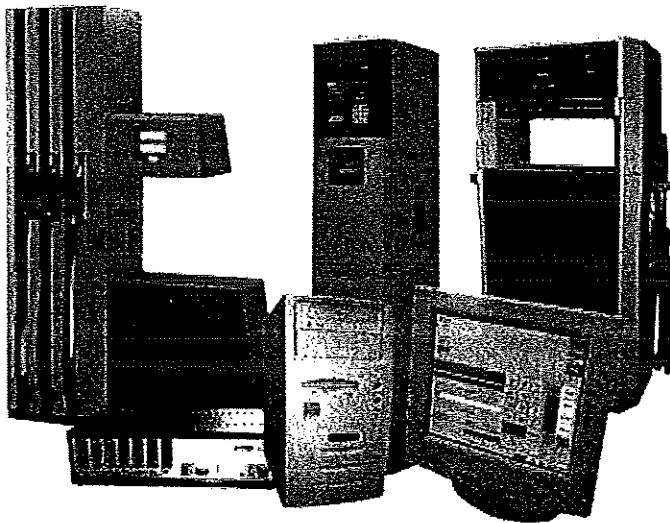
## Test

1. Enter function F34.03 (side A) or F34.04 (side B)
2. Lift the nozzle you want to test. You can read the simulated flow on the display. (default 25 litres/minute)
3. Mount the Elaflex FLOTTESTER (Wayne Malmö number 452442) on the nozzle.
4. Hold the nozzle in vertical position as described in figure.
5. Set flow, using remote control (up or down), to 20 litres/minute.
6. Wait until flow displayed on Elaflex FLOTTESTER is stable then verify that flow is **>20.7** and **<22.9 litres/minute**
7. Set flow, using remote control (up or down), to 38 litres/minute.
8. Wait until flow displayed on Elaflex FLOTTESTER is stable then verify that flow is **>39.3** and **<43.4 litres/minute**
9. Dismount the Elaflex FLOTTESTER.



If values are out of range, calibrate the vapour recovery system.





## 2 Manual adjustment of Bürkert Vapour recovery with Wayne iGEM pumps:

1. Enter function F26.01, and set parameter to 1.
2. Enter function F40 using the remote control.
3. Sub function F40.01: Lift nozzle (Nozzle no. and side is indicated on sales display). Then press ENTER
4. Mount Elaflex FLOTESTER in nozzle to be calibrated.
5. Place nozzle in vertical position as described in picture.
5. Sub function F40.02: Proper VAP motor is started to be heated. A counter is decrementing from 60 to 0. By pressing NEXT on remote control, user can skip heating if motor is already warm.
6. Sub function F40.03: A fuel flow of 10 litres/min is simulated. Enter flow indicated on flowmeter as decilitres/min (e g 120 for 12 litres/min) using the remote control. Press “#” then enter digits and press ENTER.
7. Sub function 40.04: A fuel flow of 35 litres/min is simulated. Enter flow indicated on flow meter as decilitres/min (e g 360 for 36 litres/min) using the remote control. Press “#” then enter digits and press ENTER.
8. Display is now indicating “cALlbr, donE” which mean that calibration is finished for that nozzle.
9. Return nozzle and exit F40.



Steps 1 to 9 are repeated for each nozzle.

When finished, exit maintenance mode and save changes, F00=3.



## 4 Market & Service

### Sweden

Dresser Wayne AB

Box 30049

SE-200 61 Malmö

Tel + 46 40-36 05 00

Fax + 46 40-15 03 81

[www.wayne.se](http://www.wayne.se)

E-mail: [info@wayne.se](mailto:info@wayne.se)

Felanmälan Sverige:  
(Help desk)

Tel: 0771-420430

E-mail: [service@wayne.se](mailto:service@wayne.se)

### UK

Dresser Wayne, DI UK Ltd

Butlerfield Industrial Estate,

Bonnyrigg, Midlothian,

Scotland. EH19 3JQ

Tel. +44 (0)1875 402141

Fax +44 (0)1875 400010

[www.wayneuk.com](http://www.wayneuk.com)

E-mail: [Sales@bonx-wayne.com](mailto:Sales@bonx-wayne.com)

### Germany

Wayne Germany

Dresser Europe GmbH

Grimsehlstr. 44

37574 Einbeck

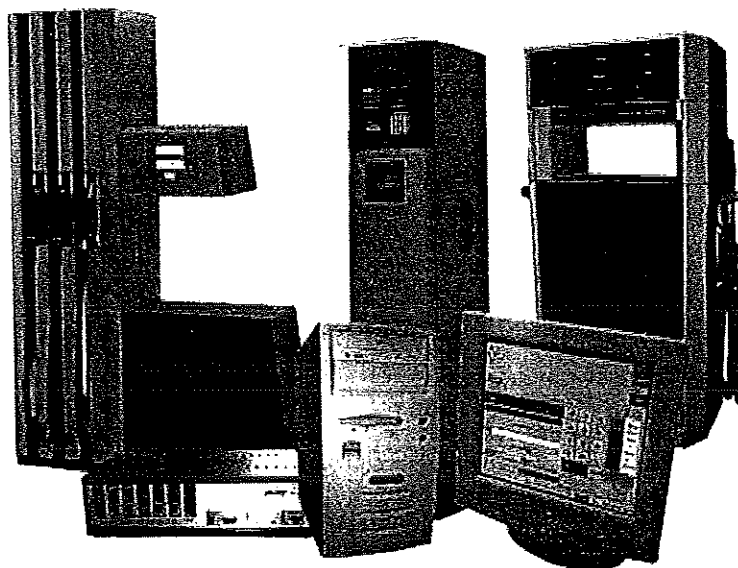
Tel. +49 (0) 5561 / 794 -0

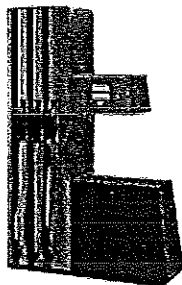
Fax +49 (0) 5561 / 794 -187

[www.wayne-europe.com](http://www.wayne-europe.com)

E-Mail: [info@wayne-europe.com](mailto:info@wayne-europe.com)

To find more informations, contact your  
local Wayne representative.  
You can also visit our web-sites  
[www.wayne.se](http://www.wayne.se)  
[www.wayne-europe.com](http://www.wayne-europe.com)  
[www.wayneuk.com](http://www.wayneuk.com)



**DRESSER****Wayne**

## More than a century of experience Über 100 Jahre Erfahrung Mer än 100 års erfarenhet Более, чем столетний опыт работы



Wayne Dresser develops, manufactures and markets complete operative systems for fuel handling at service stations. Everything from development and design to efficient production and assembly of components is pursued under one roof.

Wayne Dresser entwickelt, produziert und vermarktet komplette funktionierende Systeme für die Abgabe von Kraftstoffen an Tankstellen. Von der Entwicklung über das Design bis zur Herstellung und Installation liefern wir alles aus einer Hand.

Wayne Dresser utvecklar, tillverkar och marknadsför kompletta operativa system för drivmedelshandling på servicestationer. Under ett och samma tak ryms allt från utveckling och konstruktion till rationell tillverkning och sammansättning av komponenter.

Wayne Dresser разработывает, производит и продает совершенные оперативные системы для обработки топлива на заправочных станциях. Все начиная от разработок и конструкций до эффективного производства и сборки компонентов происходит в пределах одного предприятия.

### The operations of Wayne Dresser comprise four interacting parts:

- Equipment such as petrol pumps, payment terminals, point-of-sale terminals and service station operative systems.
- Software for recording and for internal communication at the station, as well as between the station and the oil company, banks and credit institutes.
- Project design with overall responsibility to the customer.
- Field service, technical support and supply of spare parts.

Wayne Dresser makes it easier for the motorist to fill up and make his motoring purchases, while effectively meeting the needs of the service station owner for operating supervision and for conforming to the demands of the authorities on measuring accuracy, minimising pollution and ensuring safety.

### Die Niederlassungen von Wayne Dresser umfassen vier ineinander greifende Bereiche:

- Ausrüstungen wie Zapfsäulen, Zahlterminals, Kassenterminals und Tankstellensysteme
- Software für Registrierung und Kommunikation auf der Tankstelle u. zwischen Station und Mineralölfirma sowie Banken und Kreditinstituten.
- Projektgestaltung mit umfassender Verantwortlichkeit dem Kunden gegenüber.
- Service, technische Unterstützung und Lieferung von Ersatzteilen.

Wayne Dresser erleichtert dem Fahrer die Betankung und damit verbundene Einkäufe, unterstützt gleichzeitig den Stationär bei der übersichtlichen Führung seines Betriebes unter Berücksichtigung der behördlichen Vorschriften hinsichtlich Messgenauigkeit, Umwelt- und Sicherheitsauflagen.

### Verksamheten omfattar fyra samverkande delar:

- Utrustning som bensinpumpar, betalterminaler, butiksterminaler och stationsdatorer.
- Programvara för registrering och kommunikation internt på stationen samt mellan stationen och oljebolaget, banker och kreditinstitut.
- Projektering med totalansvar gentemot uppdragsgivaren.
- Service på fältet, teknisk support och reservdelsförsörjning.

Wayne Dresser gör det lättare för bilisten att tanka och handla. Samtidigt tillgodoses stationsägarens krav på en effektiv driftskontroll och myndighetskraven på mät noggrannhet, miljövänlighet och driftsäkerhet.

### Действия Wayne Dresser включают четыре взаимосвязанных направления:

- Оборудование, например, топливораздаточные колонки, платежные терминалы, терминалы точек продажи и системы управления АЗС.
- Программное обеспечение для регистрации и для внутренней связи на АЗС, а также между АЗС и нефтяной компанией, банками и институтами кредитов.
- Проектирование с полной ответственностью к клиенту.
- Обслуживание на местах, техническая поддержка и поставка запасных частей.

Wayne Dresser упрощает процесс заправки и приобретения покупок при эффективном согласовании потребностей владельца АЗС для оперативного управления и для соблюдения требований государственных и метрологических служб, а также уменьшения загрязнения окружающей среды и обеспечения безопасности.

Dresser Wayne AB, Box 30049  
SE-200 61 Malmö, Sweden

Tel. +46 40 36 05 00, Fax +46 40 15 03 81  
info@wayne.se, www.wayne.se

Dresser Wayne, DI UK Ltd.  
Butterfield Industrial Estate,

Bonnyrigg, Midlothian, Scotland. EH19 3JQ  
Tel. +44 (0)1875 402141, Fax +44 (0)1875 400010  
sales@bonx-wayne.com, www.wayneuk.com

Wayne Germany, Dresser Europe GmbH  
Grimselstr. 44, 37574 Einbeck

Tel. +49 (0) 5561 / 794-0, Fax +49 (0) 5561 / 794-187  
info@wayne-europe.com, www.wayne-europe.com





**Local Authority "Compliance Effort Assessment" PPC regs**

1. Compliance Assessment	Possible Score	Score	BP Compliance Note
a. Incident leading to justified complaint but no breach of permit	0		
b. incident leading to justified complaint	5 per incident		
c. Breach of Authorisation not leading to formal Action	10 per incident		
d. Incident leading to formal Caution, enforcement notice or prosecution	15 per incident		
e. Incident leading to prohibition notice	20 per incident		
<b>Total</b>			Should have no breaches of the permit

2. Assessment of Monitoring , Maintenance and Records	Possible Score Y / N / na	Score	BP Compliance Note
a. All monitoring undertaken to the degree required in the permit	0 – 10 - 0		<b>Yes</b> – no specific requirement in permit to record actual emissions details. Equipment downtime which will result in unplanned release is identifiable in maintenance systems <b>N/A</b> as no monitoring
b. Process operation modified where any problems indicated by monitoring	0 – 5 - 0		<b>Yes</b> – Checks on site VR2 equipment included in Daily and Weekly site check lists for site staff. Major maintenance and operational checks procedures as provided to regulator in permit application <b>Yes</b> - Mtce record kept centrally and available on site through e- maintenance on line system
c. Documented and adhered to Maintenance programme, in line with permit – Provide written mtce programme for pollution control to regulator	0 – 5 - 0		<b>Yes</b> – to allow for permit for Stage 2 VR to be in place 1-Jan 2010
d. Documented records as required in permit available on site – log book at premises incorporating details of Mtce, examination and testing, inventory checking, installation and repair work carried out	0 – 5 - 0		
e. all relevant documents forwarded to the authority by the date required	-5 / 10 / 0		
<b>Total</b>			

BP LAPPC Part B Permit Application - Attachment 8

3. Assessment of Management and training responsibility	Possible Score Y / N / na	Score	BP Compliance Note
a. Documented procedures in place for implementing all aspects of the permit -- are procedures in place to ensure proper management, supervision and training for process operations, proper use of equipment, and effective preventative maintenance on all plant and equipment concerned with emissions to air	0 - 5 - 0		Yes -- permit documentation, staff advice, system description, check records Note for Stage 2 will be in place as required 1 -- Jan 2010
b. Specific responsibilities assigned to individual members of staff for these procedures -- are staff trained to be aware of their responsibilities under the permit	0 - 5 - 0		Yes -- Management of the site and equipment on the site related to Stage 1b and Stage2 vapour recovery forms part of the general Responsibilities of staff related to the storage and sale of petrol and is incorporated in the overall competent person training they are required to complete. Specific additional reference material is provided in relation to Stage 2 pvr in the form of an information sheet ( copy provided with permit application) Repeat tasks are identified in daily / weekly check list
c. Completion of individual responsibilities checked and recorded by the company -- Does the operator maintain and make available a statement of training requirements for each operational post	0 - 5 - 0		Yes -- Daily / Weekly Site check list records retained
d. documented training records for all staff with air pollution control responsibilities -- Does the operator keep and make available a record of the training received by each person whose actions may have an impact on the environment	0 - 5 - 0		Yes - forms part of the general training records as noted above
e. trained staff on site throughout periods where potentially air polluting activities take place -- Is there a competent trained person who remains near the tanker during unloading	0 - 5 - 0		Yes -- truck driver responsible for delivery under ACoP L133
f. is an appropriate environmental management system in place	-5 - 0 - 0		N/A
Total			




Senior Licensing Co-ordinator

Stuart Wright



BP OIL UK LIMITED  
Witan Gate House  
500/600 Witan Gate  
Central Milton Keynes  
MK9 1ES

September 2009

Switchboard: 01908 853000

To the relevant Statutory Authority  
And to whom it may concern

Direct Dial: 01908 853835  
stuart.wright@uk.bp.com  
www.bp.com

Ref: **BP LAPPC Part B Permit Application – Attachment 9**

Dear Sir/Madam

**BP OIL UK LIMITED (“BP”) – LAPPC PART B APPLICATION FORMS - SIGNING  
AUTHORITY**

BP is a substantial company with well established management structures and processes operating over three hundred filling stations and having hundreds of employees in its own right and thousands by way of subsidiaries working at the filling stations and elsewhere. BP’s management processes are such that on being appointed to a position, a BP employee will have full authority to sign contracts and licence applications on behalf of BP in the area of his or her responsibilities. Thus as “Licensing Co-ordinator” Jan Martin-Read has BP’s authority to sign Environmental Permitting Part B application forms.

Yours faithfully

Stuart Wright  
Senior Licensing Co-ordinator

