

Guidance on the Notification of Petroleum Spills



FOREWORD

This guidance supersedes and expands on all guidance given in previous PETELs on the subject, and forms part of a series of PETELs issued as part of the PELG-PETEL series from 2012 onwards by the Petroleum Enforcement Liaison Group (PELG), a health and safety advisory committee hosted by the Energy Institute. It comprises representatives of the Retail Petroleum Industry, the Petroleum Enforcement Authorities (PEAs), UKLPG and the Environment Agency, with technical support from the Health and Safety Executive. It has the aim of facilitating appropriate and consistent enforcement by PEAs through the dissemination of advice, guidance and good practice.

The guidance is directed at those with a responsibility for the safe operation of facilities where petrol is stored and dispensed into vehicle fuel tanks, to enable them to comply with the relevant health & safety legislation. The guidance is not meant to be prescriptive and alternative methods of controlling the risks of fire and explosion may be followed where these provide an equivalent level of safety. However, if this guidance is followed, site operators will normally be able to demonstrate their compliance with the law.

INTRODUCTION

This document describes a 'significant' petrol spill on a filling station and when it is reportable. The definition 'spill' for the purpose of this document is: "An uncontrolled release of petrol¹ from a road tanker, dispenser, container or vehicle fuel tank".

The term 'significant spill' is not just based on the quantity of petrol spilled as this may be unclear. It is based on the consequences of the spill or the factor(s) contributing to it. Spills should be assessed individually. A 5 litre spill on a small filling station with no dedicated site drainage is likely to have a greater consequence than the same amount spilled on a larger site with drainage and containment.

This guide purely relates to the notification requirements surrounding a spill². Where the need for notification to the PEA is not believed necessary, the need for rapid and effective action by the site operator remains. Such incidents and resultant action are to be recorded in the site register. The site operator duties to act, in relation to spills under DSEAR³, remain unaffected.

1. THE THREE TIER REPORTING MECHANISM

If in any doubt whether to report an incident or not, it is advisable to speak with your PEA. The 3 tier reporting mechanism depends on the severity of the spill and is explained in Table 1.

TABLE 1 - SPILL SEVERITY

Tier Level	Description
RED	The site operator may require the attendance of the emergency services and / or specialist contractor to deal with the immediate situation. Notification to the PEA should occur as soon as reasonably practicable and is essential due to the circumstances of the incident and will likely require Petroleum Officer attendance at some stage.
AMBER	Notification to the PEA is required due to the circumstances of the incident. The decision as to whether the physical attendance of a Petroleum Officer is required at any stage will be made at local level, but the situation will likely be serious enough to warrant such notification as soon as is reasonably practicable. Police attendance only required for criminal act investigation.
GREEN	No requirement to inform the PEA if the situation has been suitably dealt with unless other factors deem that it is necessary to do so. Any actions taken by site operator to manage the spill should be recorded in the site register.

1.1 The decision as to whether a spill is significant and therefore reportable will depend on three factors:

- Size of the spill
- Where it has gone to
- How it occurred

1.2 In a spill scenario, if one of the factors is non-reportable but another is reportable, then the whole incident becomes reportable. An example of this is where a spill is being managed and retained on site but it is likely to produce a hazardous area off site. If the site's emergency procedure is unable to deal with the risks posed by the spill, the emergency services should be called to attend.

1. Diesel and other fuel spills together with uncontrolled petrol vapour leaks from the normal containment system are not applicable for the purposes of this document but may still require reporting to another appropriate authority or agency. 2 Internal leaks from dispensers allowing product onto the forecourt and leaks of petrol from above ground tanks or pipework are not included as they are reportable to the licensing authority as leaks. 3 Dangerous Substances and Explosive Atmospheres Regulations 2002

2. CONSIDERATION OF FACTORS

Guidance on the consideration of factors is given in Table 2.

TABLE 2 - FACTOR CONSIDERATION

Factors	Considerations	Tier
SIZE	Residual <ul style="list-style-type: none"> Part of the expected and reasonable delivery or dispensing process Negligible spills/drips 	GREEN
	Manageable <ul style="list-style-type: none"> Small / Medium spill retained on site and easily dealt with by site staff There may be a requirement to close part of the site in order to effect spill management Spill goes to site drainage/separator 	GREEN
	Unmanageable <ul style="list-style-type: none"> Large spill Will require full or partial site closure May require attendance of emergency services and/or specialist contractor(s) 	RED
WHERE	Spill retained on forecourt Spill retained by drainage and flows to separator/interceptor	GREEN
	Hazardous area from the spill is likely to extend off site	AMBER
	Spill goes off site	RED
HOW	Collision, criminal damage or during delivery	AMBER

3. SPILL EXAMPLES

To clarify, some spill examples are given in table 3. In the case of a spill, it is the competent person controlling the site's responsibility to decide what tier of spill has occurred. If there is uncertainty, or the incident is believed borderline, then advice should be sought from the PEA. The examples are not exhaustive but demonstrate general spill reporting requirements.

TABLE 3 - SPILL EXAMPLES

Spill Type	Factors which may be involved	Tier
Unmanageable spill across forecourt but retained on site	<ul style="list-style-type: none"> Site likely to be fully closed as a result Vehicles stranded etc. Emergency services called or in attendance 	RED
Manageable spill retained on site but due to size or circumstances may throw hazard zone off site	<ul style="list-style-type: none"> Spill following the filling of containers Vehicle fuel tank failure during dispensing 	AMBER
Manageable spill, hazard zone likely to be retained on site	<ul style="list-style-type: none"> Drips from the nozzle onto the forecourt following use by customers to fill vehicles or containers (or due to nozzle fault) Negligible / residual spill from tanker around fill point following delivery Spills from the filling of a container with contents on forecourt – partial site closure – i.e. one dispensing lane 	GREEN
Spill goes off site with potential to reach ignition sources or create environmental pollution	<ul style="list-style-type: none"> Into road Onto other property Into surface water drainage Into water courses, rivers etc. 	RED
Spill retained on site but reaches permeable surface	<ul style="list-style-type: none"> Spill flows to Tar Mac, soft ground or similar 	AMBER
Tanker Spill - over and above residual draining of hose type spills	<ul style="list-style-type: none"> Captured by site drainage Not captured by drainage but remaining on site 	AMBER
Spills due to criminal act or vehicle collision	<ul style="list-style-type: none"> Weeps / spills from hoses due to vandalism with spill contained on forecourt Hose detached whilst connected to vehicle creating small spill on the forecourt before break couplings operate. Dispenser knocked over Police in attendance for incident investigation 	AMBER

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4. HAZARDOUS AREAS

To assess whether the hazardous area from a petrol spill may go off site or extend to a location where the vapour could be ignited, operators/competent persons in charge will need to determine the extent of the pool of petrol using the following guide:

- A spill of a length less than 5 metres will produce a hazardous area of around 3 metres from the edge of the spill.
- A spill of a length of 5 to 10 metres will produce a hazardous area of 7.5 metres from the edge of the spill.
- A spill of length of 10 metres or greater will produce a hazardous area of 15 metres from the edge of the spill.

If a hazardous area goes off site then this can increase the risk of fire and explosion if an ignition source were introduced and is to be reported.

5. ENVIRONMENTAL ISSUES

Where there is potential for harm to the environment, (i.e. all incidents falling within the amber and red categories), the operator or competent person in charge of the site should also contact the Environment Agency on the 24 hour incident hotline number 0800 80 70 60. Environment Agency attendance will be based on their assessment of the nature and severity of the incident under their

own Incident Classification System, however, even where there is no attendance; information can be given regarding the potential impact on nearby sensitive locations as well as advice on spillage cleanup and disposal of waste.

It is important that the Environment Agency is informed of any spillage that has the potential to impact or actually has impacted upon the wider environment as advice can be given on the best way to respond.

For further information please contact the Energy Institute at www.energyinst.org/pelg

For the purposes of this document, IP 15 Direct Example Approach conditions are presumed to apply.

Dealing with oil spills in Eastern Europe

The brief for Progressive Technical Services was to supply the technology to assist in the clean-up of historical oil spills around redundant oil wells in a working Eastern European oilfield.

An initial week long site visit resulted in Progressive submitting a proposal, and they were awarded an initial three month trial period. In November the equipment arrived to start a six week mobilisation period. The equipment was load tested and proved to be working within the design parameters.

In the New Year the project went live, with the equipment receiving its first load of crude oil. This was loaded onto lorries and dump trucks and delivered into a holding tank, then deposited onto a heated screen to filter out bushes and rocks. The melted material was then diluted and mixed within a homogenising tank to a pumpable consistency. It was further heated to approximately seventy degrees and pumped



over to a vibrating shaker to further filter out stones and small items of vegetation. From there it was pumped over to a two phase centrifuge to separate the liquids and solids. The centrate was collected in a centrate tank where it was sampled for oil quality, water and solids contents; then pumped into six hundred tonne holding tanks where the oil and water separated over 48 hours.

Further sampling took place before the oil was removed and taken to a central treatment facility for blending. With positive results from the outset, the company was awarded a further three month extension.

Two three-man teams spent a four week rotation to maintain continuity. Good results and progress resulted in a six months extension.

After a year of hard work, the team had endured temperatures hitting forty-five degrees centigrade, and a prolonged wet winter resulting in the site flooding. They had removed almost 6,500 cubic metres of material from the oil field and processed 5,200 cubic metres of material. The Progressive teams worked a total of over 20,000 man hours without any lost time or reportable injuries.

Impressive work – Ed!

www.progressivetechnicalservices.co.uk