

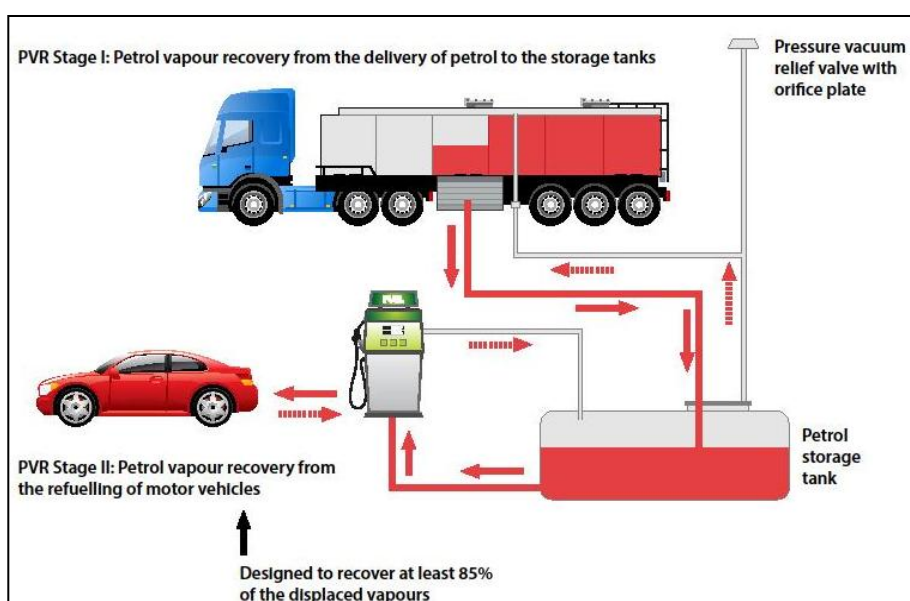
This guidance, issued 2 August 2012, is to help service station operators comply with their Pollution Prevention and Control (PPC) permits. Such service stations will already have petrol vapour recovery equipment for PVR Stage I installed and an annual petrol throughput of over 500m³ / 500 000 litres. They may also have petrol vapour recovery equipment for PVR Stage II installed.

Key Requirements

- ✓ You must fit the required petrol vapour recovery system/s and it must be fully functional.
- ✓ You must have a diagram of where your fuel storage tanks are and which type of fuel is stored in which tank.

When do you need to install PVR Stage II?

- If you increase your annual petrol throughput to over 3500m³ / 3500 000 litres.
- If you carry out a major refurbishment of an existing service station.
- Major refurbishment means a significant alteration or renewal of the station infrastructure e.g. changing tanks & pipes; but does not apply to refurbishing retail areas.
- If you open a new service station but not when you take over an established business with an existing PPC permit.



PVR Stage I System Design Requirements

- The system must minimise petrol vapour emissions when the specified number of delivery tanker compartments are discharged at the same time.
- Petrol storage tank vent pipes must be fitted with a pressure vacuum relief valve.
- The pressure vacuum relief valve must only open outwards in the event of a potentially hazardous pressurisation and open inwards to allow air to enter when fuel is being dispensed.
- As an alternative to the pressure relief valve an orifice vent device may be fitted to balance storage tank vapour pressure to atmospheric pressure.

PVR Stage II System Design Requirements

- Petrol vapours displaced by the filling of petrol into vehicle petrol tanks must be recovered to a petrol storage tank.
- This PVR system must be certified to have a hydrocarbon capture efficiency of not less than 85% from the refuelling of motor vehicles.

The purpose of this note is to provide brief guidance on the steps which operators will be required to take in order to comply with a PVR Standard Rules Permit issued by SEPA under the Pollution Prevention & Control (Scotland) Regulations 2000. Operators requiring more detailed information are referred to www.sepa.org.uk/petrolstations for links to all the relevant guidance. While every reasonable care has been taken to ensure this guidance is correct, it provides a broad overview and shall not constrain SEPA's regulatory discretion at any future point. SEPA cannot accept any responsibility for any action taken, or not taken, on the basis of this information and shall not be liable to any person for any loss or damage which may arise from the use of any of the information contained in this guidance.

	Actions for All Petrol Station Operators	Tick Box
Operation	Do not unload petrol unless a PVR system for vapour displaced from the storage tanks is in place and properly functioning, unless your annual through put of petrol is less than 500m ³ / 500 000 litres.	
	Take all reasonable & practicable steps to prevent uncontrolled leaks of petrol vapour from vents, pipes, connectors and manholes from occurring.	
	Display a notice nearby the vapour return connection points reminding operators to connect the vapour return line before off-loading petrol; and identifying the maximum number of tanker compartments that may be unloaded at the same time.	
	The fittings for delivery and vapour return pipes must be different to prevent miss-connection.	
Deliveries – this area is normally actioned by the tanker driver	Prior to delivery of petrol only, connect the vapour return hose before any delivery hose. Connect the vapour return hose at the road tanker end first and then at the storage tank end. This ensures petrol vapour displaced from the petrol storage tanks is returned to the road tanker.	
	Do not exceed the designated number of tanker compartments that can be simultaneously discharged.	
	The tanker driver must remain near the tanker and keep a constant watch on hoses and connections during unloading.	
	All road tanker compartment vent and discharge valves must be closed on completion of the delivery.	
	On completion of unloading, discharge and disconnect the delivery hose before disconnecting the vapour hose. Disconnect the delivery hose at the tanker end first. Disconnect the vapour hose at the storage tank end first.	
	All connection points must be securely sealed after delivery to reduce vapour leaks between deliveries.	
Dip Testing	If dip testing storage tanks or tanker compartments before or after delivery, the dip openings must be securely sealed prior to the delivery taking place and once it's completed.	
	Tanker compartment dip testing must not be performed whilst the vapour hose is connected, except in the case of split compartment deliveries although these should be kept to a minimum.	
Upkeep & Repairs	Ensure effective preventative maintenance by following a schedule of maintenance and having spares & consumables available without delay.	
	Test vent and vapour return lines in accordance with the maintenance schedule.	
	Check pressure vacuum relief valves or other similar devices on the petrol storage tank vents for correct functioning, seating and corrosion at least once every 3 years.	
Records & Training	Maintain a log book to record details of: installation, maintenance and repairs of all PVR systems; examination & testing; petrol inventory, deliveries & throughputs; training given to staff; instances of vapour lock; and any suspected and actual vapour or petrol leaks / spillages & action subsequently taken.	
	Provide sufficient training and practical instruction for service station staff to enable them to use (or supervise the use of) and maintain the petrol vapour collection controls where required; and also in the actions to be taken in the event of a petrol vapour leak e.g. undue petrol odour; chattering pressure vacuum relief valve.	
When To Contact SEPA	If a leak or spillage should occur, you must contact SEPA where there is the potential to affect the local community; and report what has happened, the duration of the event, clean up actions and preventive measures	
Additional Actions For Operators of PVR Stage II		
Operation	Do not allow the refuelling of vehicle petrol tanks unless a vehicle refuelling PVR system certified as having a vapour capture efficiency of not less than 85% is in place and is fully functioning.	
	Display in clear view on the site, a sign informing consumers that a Stage II PVR system is in use.	
Upkeep & Repairs	Test the vehicle refuelling PVR system for: <ul style="list-style-type: none"> • Vapour containment integrity at least once every three years and after any repairs to the system. • Effectiveness of the PVR system at least once every year, or every three years where an automatic monitoring system is in place. 	
	If the vehicle refuelling PVR system has an automatic monitoring system, it must: <ul style="list-style-type: none"> • Automatically detect and indicate faults. A fault is where the V/P ratio averaged over the duration of filling has fallen below 85% or has exceeded 115% for ten consecutive filling operations. Only applies to filling operations of at least 20 seconds duration & where the rate of petrol dispensed reaches at least 25 litres/min. • Automatically cut off the flow of fuel if the fault is not rectified within 1 week. 	
	Undertake and record a weekly check of the vehicle refuelling PVR system including: <ul style="list-style-type: none"> • Functionality test of the vapour recovery system using appropriate equipment; • Inspection for torn, flattened or kinked hoses & damaged seals on vapour return lines 	
	Notify SEPA if the results from any monitoring or testing of the vehicle refuelling PVR system identifies any faults or leaks if these are likely to have an effect on the local community. Also notify SEPA of the corrective measures to be taken and the timescales over which they will be implemented.	
When To Contact SEPA	Notify SEPA if the results from any monitoring or testing of the vehicle refuelling PVR system identifies any faults or leaks if these are likely to have an effect on the local community. Also notify SEPA of the corrective measures to be taken and the timescales over which they will be implemented.	

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