

Vapour containment – pressure

Automatic pressure monitoring of tank vapour containment is not required, but, if installed, there is no need for the three-yearly vapour containment tests and yearly orifice and pressure vacuum (PV) valve inspections that are otherwise required.

Vapour system recovery performance

Automatic monitoring of vapour system recovery is required if petrol throughput is more than 7 ML per year. If automatic monitoring is used, the full performance test is required every three years instead of every six months.

Testing

Testing of the systems is required before commissioning and after significant work. Periodic testing is also required to ensure that systems continue to function correctly.

Vapour containment

- test vapour containment every three years and inspect the PV valve and orifice yearly, or
- have automatic pressure monitoring.

Vapour system recovery performance

- test V/L every 6 months and conduct weekly inspections, or
- have automatic monitoring and test V/L every three years.

Record keeping and reporting

The service station owner needs to keep a log book to store the approval certificates, results of tests and name of the tester, and name, address and contact details of the owner, and other details in the Standards.

Reporting to the Environment Protection Authority (EPA) is only required when new vapour recovery systems are commissioned and if significant problems occur.

Further information

Further information about the Vapour Recovery Regulation can be found on the EPA website www.environment.nsw.gov.au/air/petrolvapour.htm.

The site provides answers to some common questions, and copies of the Regulation, Standards and Recommended Practices may be downloaded. Reporting forms are also available on the website.

EPA information

Phone 131 555 for the cost of a local call within NSW (mobiles excluded) or (02) 9995 5555.

Email: vapour.recovery@environment.nsw.gov.au

Vapour Recovery Regulation NSW



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The Regulation

On hot summer days, ozone forms from a reaction between nitrogen oxides and volatile organic compounds. The white haze that develops, photochemical smog, causes significant health problems for some people.

In 2009 the NSW Government introduced a Regulation to capture petrol emissions to prevent them forming smog.

The Regulation was developed in consultation with industry and provides time for service stations to comply.

For some service stations, upgrades to equipment will be required only when the service station forecourt is refurbished.

More information can be found at www.environment.nsw.gov.au/air/petrolvapour.htm.

The Standards

The *Standards and Best Practice Guidelines for Vapour Recovery at Petrol Service Stations* (the Standards) contain technical requirements for equipment, monitoring and testing.

Recommended Practices

Recommended Practices for the Installation and Testing of Vapour Recovery Systems at Service Stations (Recommended Practices) has been developed in partnership with the Petroleum Industry Contractors Association. It provides guidance to suppliers, contractors and managers on design, installation, operation and maintenance of vapour recovery equipment at service stations.

It will assist with consistency of approach and understanding of, and the requirements for, vapour recovery.

Types of vapour recovery

VR1: Deliveries

When the underground storage tank is filled, vapours are returned to the tanker via a separate vapour hose.

VR2: Vehicle fuelling

When a vehicle is refuelled, vapours are collected at the nozzle and returned to the underground storage tank.

The Regulation expands the area where VR1 is required and introduces requirements for VR2.

VR1 equipment

- Vapour return lines.
- Vapour tight couplings on the vapour line that close automatically when disconnected.
- Liquid tight couplings on liquid transfer hoses.
- Incompatible liquid and vapour couplings.
- Submerged fill pipe ending below any suction outlet
- A pressure vacuum valve and 10 mm orifice (in parallel) in the tank vent.
- Spill containment enclosures for storage tank fill connection points.
- Secure seals on pipes and dip hatch openings.
- Overfill protection devices (float vent valves).
- Overfill prevention devices for new petrol service stations.

Service stations that already have VR1 equipment are required to upgrade some equipment to meet the new requirements.

VR2 equipment

- A certified vapour recovery system with petrol vapour capture efficiency of more than 85% vapour recovered to liquid dispensed by volume.

Timing

The date for compliance with the Regulation depends on the annual petrol throughput of the service station and its location.

For a new service station or modifications to an existing one, equipment requirements are:

Region	Throughput	Required
Sydney Illawarra Lower Hunter Central Coast	More than 0.5 ML per year	VR1
Sydney Newcastle Wollongong Central Coast	More than 0.5 ML per year	VR2

Existing service stations will need to fit equipment by the following dates:

Region	Throughput	Required	Date
Sydney Illawarra Lower Hunter Central Coast	More than 0.5 ML per year	VR1	1 January 2014
Sydney Newcastle Wollongong Central Coast	More than 12 ML per year	VR2	1 January 2014
Sydney	More than 3.5 ML per year		1 January 2017

Monitoring

Overseas experience shows that regular testing and monitoring is needed to ensure vapour recovery systems continue to function well.