

DESIGN, INSTALLATION & MANAGEMENT REQUIREMENTS FOR UNDERGROUND PETROLEUM STORAGE SYSTEMS

INFORMATION ON EPA PUBLICATION 888

Publication 892

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If you have (or plan to install) an underground storage tank, which contains petroleum products such as petrol or diesel, then this bulletin is relevant to you.

This bulletin summarises the key pollution prevention measures set out in EPA's guidelines on underground petroleum storage systems (EPA publication 888).

The guidelines need to be read by anyone who has (or plans to install) an underground petroleum storage tank. See back page for details on how to obtain a complete copy of the guidelines.

Why have the guidelines been produced?

Underground Petroleum Storage Systems (UPSS) have been known to cause serious health, safety and environmental problems when poorly managed. These guidelines have been developed to improve the practices and performance of UPSS in Victoria.

What are the guidelines about?

The new guidelines provide you with practical advice on how to design, install and manage your UPSS to protect people, property and the environment.

What are your duties under law?

Owners and operators of UPSS have a number of duties under law to protect people, property and the environment. These include duties and requirements set out in the *Dangerous Goods Act 1985*, the *Environment Protection Act 1970* and subordinate legislation. For example, under the subordinate legislation *State Environment Protection Policy (Groundwaters of Victoria)*, you are required to take all practicable measures to prevent pollution of groundwater.

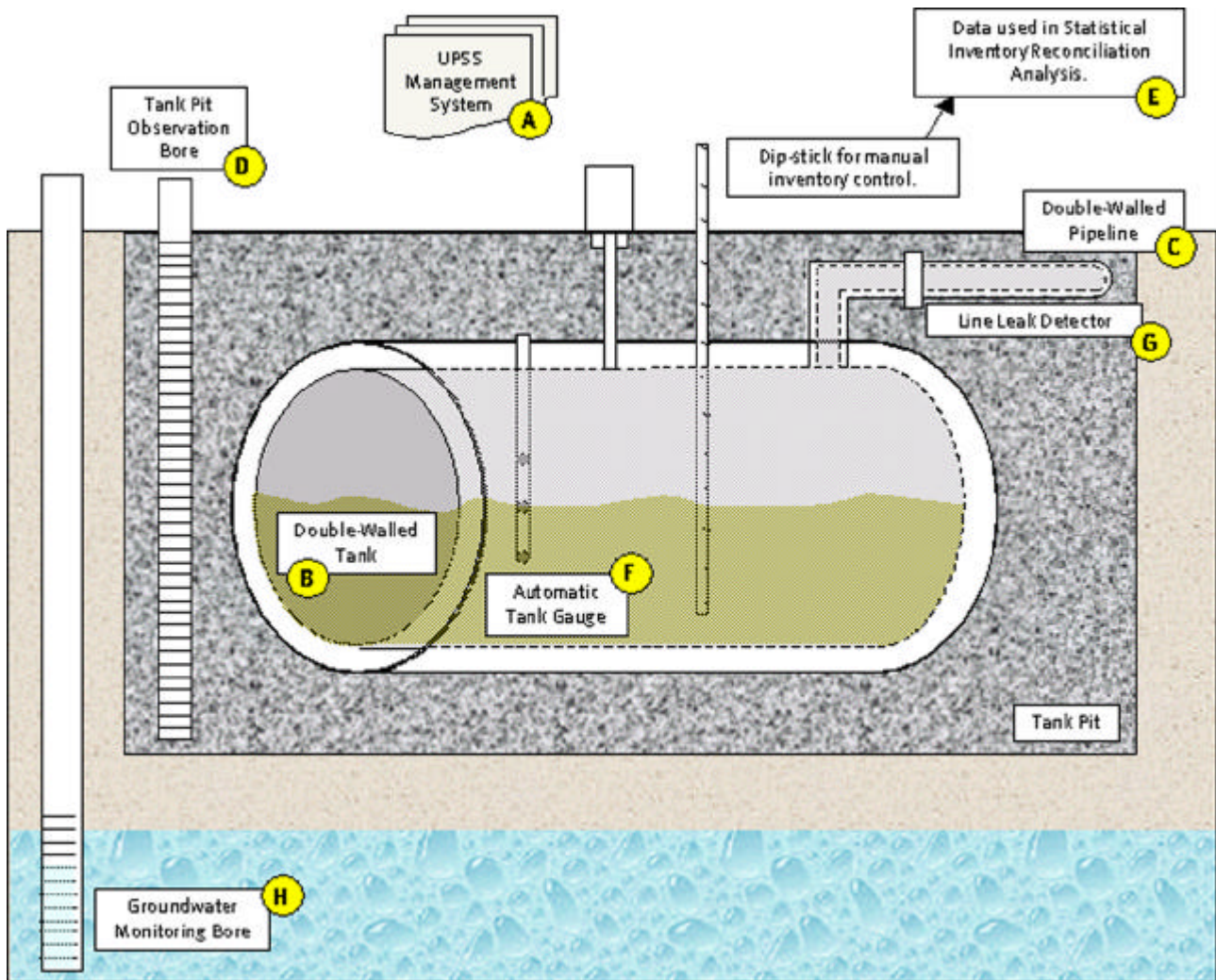
The UPSS guidelines provide the practicable measures for preventing pollution from UPSS to protect people, property and the environment.

What are the benefits?

The guidelines will help improve the management of your UPSS to prevent loss of income from fuel leaks, and to protect the health of your family, staff, neighbours, customers and local environment. Measures in this guideline will also help you to avoid potentially significant clean-up costs associated with pollution from poorly maintained systems, which can often be several hundred thousand dollars or more.

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WHAT ARE POLLUTION PREVENTION & DETECTION MEASURES?



Description

- A** **UPSS Management System** is a system developed by the UPSS owner/operator which clearly defines requirements, procedures and responsibilities for management of the UPSS. Should be documented, and a copy kept on-site. See section 2 of guidelines.
- B** **C** **Double-walled Tank & Piping** (also called 'secondary containment') ensures that any potential leak through the inner wall is prevented from immediate release to the environment by the outer wall. See section 3 of guidelines.
- D** **Tank Pit Monitoring Bore** may detect petroleum fuel that has leaked or spilled into the tank pit. See table 1 and section 4.1 of guidelines.

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E **Statistical Inventory Reconciliation Analysis (SIRA)** is where the inventory, delivery and dispensing data for a UPSS (provided by the operator) is statistically analysed by a SIRA service provider using a sophisticated computer program to determine whether the UPSS is leaking. See section 4 of guidelines.

F **G** **Automatic Tank Gauging plus Line Leak Detection** may be used as an alternative to SIRA for leak detection from a UPSS. The tank gauge and line leak detector are permanently installed within the system to monitor the volume of product and indicate whether the UPSS is leaking. See section 4 of the guidelines.

H **Groundwater Monitoring Bore** is installed to monitor the quality of groundwater beneath the site (can detect fuel product floating on top of the groundwater). Groundwater monitoring bores (usually three or more) are required for UPSS located in sensitive environments (for example where a creek runs nearby, or where groundwater is, or may be, used on neighbouring properties). See section 4 and appendix 4 of the guidelines.

WHAT DO THE GUIDELINES MEAN FOR YOUR UPSS?

If you have an existing UPSS, you need

- A** UPSS Management System
- +
- E** or (**F** + **G**) Leak Detection by February 2004
- +
- H** Groundwater Monitoring Bores at 'Sensitive Sites' by February 2005

If you install a new UPSS after February 2003, you will need

- A** UPSS Management System
- +
- B** Double-Walled Tank
- +
- C** Double-Walled Piping
- +
- D** Tank Pit Observation Bore
- +
- E** or (**F** + **G**) Leak Detection
- +
- H** Groundwater Monitoring Bores at 'Sensitive Sites'

You need to arrange a review of your UPSS to see whether it is considered to be a 'sensitive site'.

This will help determine whether you need to install groundwater monitoring bores.

Refer to Appendix 4 of the guidelines.

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FURTHER INFORMATION

This information bulletin should be read in conjunction with EPA Publication 888, *Guidelines on the Design, Installation and Management Requirements for Underground Petroleum Storage Systems*.

Copies of the guidelines (EPA publication 888) are available for free download from the EPA website at www.epa.vic.gov.au, or hard copies available from EPA Victoria.

For more information on the design, installation or management of UPSS, contact EPA's Land and Groundwater Unit.

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The guidelines were developed by EPA Victoria with the assistance of a Technical Working Group representing UPSS stakeholders. Members of the working group and their contact details are:

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- Australian Institute of Petroleum– Ph (02) 6275 1200, www.aip.com.au
- Victorian Automobile Chamber of Commerce – Ph (03) 9829 1111, www.vacc.asn.au
- Australian Petroleum Agents & Distributors Association – Ph (03) 9473 6464, www.apada.com.au
- Petroleum Industry Contractors Association – Ph (03) 9803 1380, www.pica.net.au