

Management of UPSS in New South Wales

Guidelines in NSW have been developed to assist with the management of Underground Petroleum Storage Systems (UPSS) to prevent and minimise the risk of contaminating soil, groundwater and surface waters. Under the regulations this means that most sites which contain UPSS must already have in place loss detection & investigation procedures and an environment protection plan. Some sites will also require groundwater monitoring wells to be installed before June 2011. Non-compliance with the regulations can lead to excessive clean-up costs and penalty fees. However, there are four classes of exemptions under the regulations.



What is a UPSS?

A UPSS comprises one or more buried tanks that are typically used for the storage of product or used/waste oil. UPSS are typically located at service stations, industrial and manufacturing facilities, automotive and mechanical workshops, dry cleaners and transport depots. However, UPSS used for back-up generators and heating are also found in large commercial buildings and shopping centres, schools and, on occasion, residential properties.

Legislation

The *Protection of the Environment Operations Act 1997* is the primary legislation in NSW that regulates pollution. The Act maintains that "it is an offence to pollute land and water, including groundwater" and "it is an offence... to wilfully or negligently cause any substance to leak, spill or otherwise escape in such a way that it harms, or is likely to harm, the environment and human health".

The *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation* was released in 2008 under the Act. The NSW DECCW developed the *Guidelines for Implementing the Protection of the Environment Operations (POEO) (Underground Petroleum Storage Systems) Regulations in 2008* to support the implementation of the Regulation and aims to promote the adoption of best practice environmental management, in regards to UPSS operation. The objectives of the Regulations are to minimise the environmental risks and potential harm from leaking UPSS, enhance early leak detection techniques and improve operational management systems.

Environmental Protection Plan

The Guidelines specify the requirement for an Environmental Protection Plan (EPP) for all persons responsible for a UPSS. An EPP must be maintained on site and should include the following:

- Loss monitoring procedure;
- Incident management procedure;
- Maintenance for the system;
- Current 'as-built' drawings of the system;
- A list of relevant industry standards;
- Copies of the UPSS specifications; and
- Contact and site details.

Loss Monitoring Methods

Loss monitoring methods are required on sites with UPSS to measure potential discrepancies between the amount of product that should be in a system and the amount of product that is actually in a system. The following methods can be adopted in regards to loss monitoring:

- SIRA – Statistical Inventory Reconciliation Analysis
- Tank gauging by either automatic or manual dipping
- Interstitial monitoring
- Loss monitoring for piping
- Equipment integrity tests; and
- Loss monitoring for waste oil UPSS



Leak Notification

The person responsible for a UPSS must notify DECCW if:

- A UPSS has leaked;
- Separate phase hydrocarbon is identified on surface water or groundwater at the site; or
- There is evidence of off-site migration of hydrocarbons or potential off-site migration of hydrocarbons.

A UPSS regulation leak notification form must be filled out and sent to the appropriate regulatory authority within 30 days of identifying the leak/impact. The above are in addition to the notification requirements under the Contaminated Land Management Act.

Environmentally Sensitive Zones

Certain requirements exist for sites with environmentally sensitive zones. Environmentally sensitive zones are derived based on the distance to a nearest surface water body, national parks, groundwater recharge zones and areas where groundwater is planned to be used for water supply. A map of the environmentally sensitive zones in NSW are provided on the DECCW website:

<http://www.environment.nsw.gov.au/clm/listUPSSexemptionmaps.htm>

Installation and Testing of Groundwater Monitoring Wells

Sites containing new or old UPSS will be required to have groundwater monitoring wells installed and tested biannually. At least three wells will be required, in order to 'triangulate' the area. A suitably qualified person must be engaged to position, construct and sample the well. The NSW Office of Water (NOW) must be contacted prior to installing any groundwater monitoring wells.

Important Dates

The person responsible for the UPSS must have groundwater monitoring wells installed by 1 June 2011, with procedures in place to test them every six months. An exemption may be sort for these works, however this is also required by 1 June 2011.



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Exemptions

Exemptions from certain requirements of the POEO (UPSS) Regulations 2008 may be obtained from DECCW in some instances.

The exemptions may be sought for:

- Certain types of UPSS (i.e. waste oil, genset or tanks associated solely with back-up power generators);
- Sites outside of environmentally sensitive zones; and
- Sites with alternative measures in place to provide equivalent environmental benefits.

The above may include exemptions from developing an EPP or installing and testing groundwater monitoring wells.

All applications for exemption must be submitted in writing to DECCW. Selected exemptions attract a fee.



Compliance

DECCW conduct random and targeted auditing of sites with UPSS to ensure the requirements are being met. 'Clean-up notices' and 'prevention notices' can also be issued for sites where it is suspected that a pollution incident has occurred, where an activity has been carried out that is unsatisfactory.

Relevant legislation/material

Protection of the Environment Operations Act 1997:

<http://www.legislation.nsw.gov.au/viewtop/inforce/act+156+1997+ch.1-sec.1+0+N>

Guidelines for Implementing the Protection of the Environment Operations (UPSS) Regulations 2008:

<http://www.environment.nsw.gov.au/resources/clm/09653upssguidelines.pdf>

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