

Environment Information Sheet 9

Underground Storage Systems

All Underground Storage Systems must have a documented Environment Protection Plan

Why worry about underground storage systems?

Underground Storage Systems (USS) are a common and significant source of soil and ground water contamination due to leakage. Such contamination represents a potential risk to human health, the environment and it may impact on the acceptability of the site or nearby sites for their current or proposed uses.

Background

The NSW Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008 focuses on preventative actions to minimise the risk of soil and groundwater contamination. The legislation requires operators of Underground Storage Systems to develop management systems that reduce the risk of environmental harm through monitoring. If a leak is detected operators are required to investigate the cause of the leak and extent of the impact.

Sydney Metro Airports' has adopted the requirements of the NSW regulation for *new and existing* USS at its airports. For the purpose of this policy *new USS* are those given development approval by Sydney Metro Airports post 1 June 2008.

What the law says

The NSW Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008 (the Regulation) requires;

- New USS to be designed and installed by an appropriately qualified person and equipped with pollution control equipment. Groundwater monitoring wells must be installed, an Environment Protection Plan is required and the tanks must be integrity tested before operation commences.
- Modifications to existing USS to be designed and installed by an appropriately qualified person and equipped with pollution control equipment. Groundwater monitoring wells must be installed, an Environment Protection Plan is required and the tanks must be integrity tested before operation commences. In addition a site validation report is required if a tank is removed or replaced during the modification.
- Existing USS must have groundwater monitoring wells installed and an Environment Protection Plan in place.

What this means at Sydney Metro Airports

The NSW Department of Climate Change has prepared Guidelines for Implementing the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008. Operators of USS should refer to this document as well as the Regulations for more detailed information on what they are required to do to operate an USS at a Sydney Metro Airport.

The following is a summary of the key requirements for operation of an USS at a Sydney Metro Airport.

New Underground Storage Systems (USS)

Operators of *new USS* must ensure they;

1. Are designed and installed by an appropriately qualified person;
2. Include mandatory pollution control equipment, namely;
 - a. Non-corrodible tanks and piping;
 - b. Secondary containment of tanks and piping;
 - c. Overfill protection devices.
3. Have groundwater monitoring well(s) and test them every six months; (see below for further detail)
4. Have an Environment Protection Plan;
5. Pass an equipment integrity test before commissioning;
6. Have cathodic protection where the tanks and piping are steel; and
7. Earth all tanks.

Sydney Metro Airports also requires that *new USS* include the following features, *unless an appropriately qualified person can demonstrate these requirements are unwarranted*;

1. Tank pit observation wells
2. Fill points that meet industry best practice
3. Dispenser sumps that meet industry best practice
4. Used oil removal points that meet industry best practice



Existing Underground Storage Systems

Operators of existing USS must ensure they;

1. Have an Environment Protection Plan that includes
 - a. Loss monitoring procedures
 - b. Incident management procedures

- c. Systems Maintenance requirements
- d. Loss detection and investigation procedures
2. Have ground water monitoring well(s) and test them every six months (see below for further details)

Modification of Underground Storage Systems

Operators must meet all the requirements for a new USS if they propose significant modifications to USS (i.e. Modifications to 50% or more of the system).

Removal, replacing and decommissioning Underground Storage Systems

If an USS is to be removed, replaced or decommissioned the operator must ensure;

- A site validation report prepared by an appropriately qualified person is required whenever a tank is removed, replaced or decommissioned.
- Decommissioned tanks that are no longer required are removed.
- Where removal isn't practical because extraction poses a risk to other structures the disused USS is emptied and the tank is filled with an inert solid material such as a concrete slurry, sand or foam.
- Tanks to be temporarily decommissioned and used again within two years area filled with water and a corrosion inhibitor or made safe by other approved means.

Groundwater monitoring wells

Operators must ensure groundwater monitoring wells are installed on USS located in environmentally sensitive areas. At Sydney Metro Airports this means that groundwater monitoring wells must be installed if USS are located in the following areas;

- Within 500m of the Georges River and the Nepean River. At Bankstown Airport this includes premises and developments in the south-west sector of the airport, along Tower Road and in the north western sector of the airport. At Camden Airport this includes premises and developments within the majority of the airfield including those in the eastern portion of the airport;
- Within 1000m from a licensed domestic bore; and
- Within 100m of drains that connect to the Georges River at Bankstown airport and the Nepean River at Camden Airport, or areas designated Environment Protection Zones and Environmentally Significant Areas at both airports, unless an appropriately qualified person can demonstrate this requirement is unwarranted.

Development Application

A Development Application is required for the following activities:

- Installation of a new Underground Storage System
- Modification of an existing Underground Storage System
- Removal, replacement or decommissioning of an Underground Storage System
- Installation of a groundwater monitoring well.

Environment Protection Plans

Operators of Underground Storage Systems must implement an Environment Protection Plan that incorporates the following information;

- specific information about the storage system, including identifying the 'person responsible' for the system;
- a loss monitoring procedure;
- a loss detection and investigation procedure;
- an incident management procedure;
- details about system maintenance;
- the current 'as built' drawings for the system;
- a plan for the storage site (showing the location of the storage system, buildings and associated infrastructure, fences and gates, groundwater monitoring wells, unsealed ground surfaces);
- a copy of each list of industry standards that have been followed in the design, installation and operation of the USS; and
- a copy of all specifications used in the design, installation and operation of the USS.

The Environment Protection Plan must be updated as required and a copy of the most up to date plan must be provided to the Airport Facilities Manager.

Loss Monitoring, Loss Detection and Investigation and Incident Management Procedures

Loss monitoring is designed to detect any losses from tanks and piping before they pollute the soil, groundwater or surface water. The plan must indicate how loss monitoring will be undertaken and how loss detection and investigation will be conducted if loss monitoring indicates a discrepancy that suggests a loss of product may be happening. The plan must also identify how an incident will be managed in the event a leak is identified.

It is recommended that an appropriately qualified person be consulted to assist the development of these procedures.

The loss monitoring procedure must be certified, by appropriately qualified third party, to meet the requirements specified in the Regulation.

The Airport Environment Manager **must** be notified if a leak is identified.

System Maintenance

Maintenance must be in accordance with manufacturer's specifications and must be documented in the Environment Protection Plan.

Record Keeping

The following records must be kept for the period specified in the Regulation;

- Validation Reports;
- Equipment Integrity testing;
- Monitoring date;
- Monitoring assessment report;
- Documents detailing the action taken as a consequence of a loss detection investigation;
- Incident notification reports;
- Maintenance records;
- Environment Protection Plans.

Exemptions

Exemptions from some of the requirements above may be granted subject to discussion with the Airport Environment Manager.

Further information

For further information on the law in relation to the operation of Underground Storage systems refer to the;

1. **NSW Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008** (www.austlii.edu.au)
2. For further guidance on how to meet the requirements of Regulations refer to the **DECC Guidelines for Implementing the POEO (Underground Petroleum Storage Systems) Regulation 2008** (www.environment.nsw.gov.au)

DISCLAIMER

The information provided in this sheet is of a general nature and may or may not apply or be appropriate to your particular circumstances. It is not legal advice nor is it a substitute for obtaining legal or other professional advice from a qualified person. It is the responsibility of every tenant and occupier of land on the Airport to comply with the Airports Act, all airport related Regulations, and all other laws relating to occupying land at the Airport and the conduct of a business on that land. To understand your obligations you should make your own inquiries and consult a professional or other qualified advisor regarding your particular circumstances and situation.