

**ENVIRONMENT PROTECTION AUTHORITY**

**ACT ENVIRONMENTAL GUIDELINES FOR  
SERVICE STATION SITES  
AND  
HYDROCARBON STORAGE**

**February 2002**

## INTRODUCTION

The following guidelines are designed to achieve appropriate pollution controls for underground and above-ground hydrocarbon storage in service stations within the Australian Capital Territory.

These requirements are in addition to the Code of Practice (Code No. CP4-1998) and specifications jointly developed and endorsed by all corporate members of the Australian Institute of Petroleum.

The major environmental concerns with respect to underground and above-ground hydrocarbon storage or service stations come from;

- (a) contamination of soil and groundwater from leaks or spills,
- (b) contaminated stormwater run-off.

## GUIDELINES

### Design Process

In preparing the design for the service station the lessee should be aware that the provisions of the ACT **Environment Protection Act 1997** make it an offence to place a pollutant in a position where it may cause environmental harm. Controls are therefore required to ensure that hydrocarbon spillage or leakage into surrounding soil and groundwater is unlikely. The lessee will be required to utilise the best engineering practices in the design of storage tanks and associated works.

The engineering design will be subject to approval by the Environment Protection Authority (EPA). The lessee is required to discuss the nature of the engineering practices with the EPA and the Dangerous Goods Unit, ACT Workcover prior to submitting the design for approval.

In submitting designs for approval at least three (3) sets of drawings are required. When approved one set will be stamped and any conditions that apply will be written on the drawings. This set will be returned to the Lessee and the other two sets retained by the EPA and the ACT Dangerous Goods Unit, ACT Workcover.

## **Controls**

### *Underground Tanks*

The underground tank farm should be non-corrodible and installed using any of the following secondary containment methods:

- Line the floor and walls with a high density chemical resistant polyethylene sheet, having a thickness-of not less than 2.5mm and joined by extrusion welding process;
- Alternatively, a double walled tank should be installed.
- Fibre glass tanks may be used but only in conjunction with secondary wall containment.

### *Underground Pipework*

Pipework and associated works should be non-corrodible and require the following controls:

- Secondary containment in the form of either doubled walled piping with interstitial space or single walled, layed on a high density chemical resistant polyethylene sheet, having a thickness-of not less than 2.5mm and joined by extrusion welding process;
- Grade fuel line trench to drain to the fuel tank pit, and provide sealed invert in trench shaped to ensure the walls of the trench are lined to the above overt of the pipe.
- Backfill fuel line trench and tank pit with clean sand.
- Provide a sump to enable collection of groundwater and any leaked hydrocarbon.
- Incorporate wells for monitoring and sampling capabilities at a minimum of four locations down gradient from the pit and at two locations within the pit including a pump out well at the sump end.
- Install spill retention trays around fuel line filling points or other approved collection method.
- Install a gravity drain or pump with preset pumping levels and drain to transfer collected drainage and leakage to a coalescent plate separator.

### *Above-ground controls*

In the case of above ground hydrocarbon storage including waste oil tanks a bund wall must be provided around the tanks. This bunding must comply with Dangerous Goods Unit requirements. Spills within the bunded area must be recovered and removed and should not be discharged to stormwater or sewer.

Drainage from the bowser area under the canopy must be isolated from stormwater and directed via a secondary contained collection pit suitable for collecting total potential spill to a coalescent plate separator. This should then be discharged to sewer with the approval of ActewAGL. The collection pit should include a monitoring and pump-out well.

Wastewater from washdown and degreasing of motor vehicles, parts, plant, equipment and work areas shall also be drained through a coalescent plate separator via a collection pit as above, prior to discharging to sewer with the approval of ActewAGL.

### **Air Pollution Controls**

No open burning is permitted on site. Incinerators within the building require an authorisation under the *Environment Protection Act 1997*.

Additional information may be obtained from the Environment Protection Unit,  
Environment ACT on telephone (02) 6207 9777.

**The Australian Institute of Petroleum's guidelines and standards are also to be complied with where they are not in conflict with the ACT Guidelines.**