

FORECOURT DESIGN AND STORMWATER MANAGEMENT

The principal reason for having appropriate forecourt design and stormwater management at an underground petroleum storage system (UPSS) site is to prevent run-off discharging into stormwater drains and polluting natural watercourses, soil and neighbouring properties. Where petroleum hydrocarbon discharges are significant, there is also a risk of vapours building up in parts of the stormwater system, resulting in health and explosion risks.

As part of Council's role in carrying out its planning functions, Council should ensure that development applications that include UPSSs include forecourt design and stormwater management systems in accordance with the following:

- [*Managing Run-off from Service Station Forecourts \(Practice Note\)*](#).¹⁸ This document provides guidance on preventing potentially polluted run-off escaping from service station forecourts
- *Australian Standard AS 1940-2017: The Storage and Handling of Flammable and Combustible Liquids*
- *Australian Standard AS 4897-2008: The Design, Installation and Operation of Underground Petroleum Storage Systems*
- *ACAPMA Best Practice Guidelines: Management of Hydrocarbons in Stormwater at Retail Fuel Outlets (2017)*.¹⁹

PLANNING AND ASSESSMENT ROLE

Review the consent conditions for development applications and modifications to understand the history of the site and the existence of historical and current approvals.

When reviewing documentation associated with the development application, Council should:

- assess development applications for new and 'significantly modified' UPSSs on a case-by-case basis, commensurate with the potential risk of harm to the environment
- determine if the proposed forecourt run-off management option is the best option to prevent harm to the environment from occurring
- apply any necessary controls as part of consent conditions (for example, treatment, maintenance and monitoring requirements)
- validate whether the submitted design plan of the service station complies with all legal obligations and requirements and meets environmental standards and conditions.

ENVIRONMENTAL COMPLIANCE AND INSPECTION ROLE

When reviewing documentation associated with the UPSS inspection program, Council should be aware of the matters identified in Table 10.

Table 10: Checklist for UPSS forecourt design and stormwater management

Principles of forecourt design	What exactly? (Requirements/guidance of the UPSS Regulation or the NSW EPA fact sheet and Australian Standards, where available)	Included (Y/N)	Adequate (Yes/No)	Comments and remedy (why 'no'? how is compliance reached?)
Forecourt surface	<ul style="list-style-type: none"> • Does the forecourt have a clean, sealed and hardstand concrete surface? 			

¹⁸<https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/contaminated-land/19p1681-practice-note-managing-run-off-from-service-station-forecourts.pdf>

¹⁹<https://acapmag.com.au/wp-content/uploads/2017/07/Draft-Stormwater-Management-Guideline-Consultative-Draft-13-July-2017.pdf>

FORECOURT DESIGN AND STORMWATER MANAGEMENT

Table 10 (Cont.): Checklist for UPSS forecourt design and stormwater management

Principles of forecourt design	What exactly? (Requirements/guidance of the <i>UPSS Regulation</i> or the <i>NSW EPA fact sheet</i> and <i>Australian Standards</i> , where available)	Included (Y/N)	Adequate (Yes/No)	Comments and remedy (why 'no'? how is compliance reached?)
Bundling or partitioning	<ul style="list-style-type: none"> Does the forecourt have a physical divider (preferably using forecourt gradient or rollover bunding) between zones presenting a higher risk of contamination to those presenting a lower risk of contamination? Does the forecourt have a covered and bunded storage area for hazardous chemicals separated from fuel dispensers and trafficable areas? Does the forecourt have bunding that encloses the storage tank fill connection points and/or spill containment enclosures? Does this bunded area have appropriate capacity to contain the largest compartment of any tanker delivering to the service station and drain to the high-risk contamination zone disposal system? 			
Canopy	<ul style="list-style-type: none"> Does the forecourt have a canopy that extends to the maximum reach of fuel dispensing nozzles and have a 10-degree from-vertical overhang reducing rainwater entering high-risk contamination zones? Is the rainwater falling onto the canopy collected for re-use (if possible) or directed away from the forecourt area? 			
Storage area	<ul style="list-style-type: none"> Is there a designated storage area for waste bins? Is there a collection pit (including monitoring alarm and pump-out well) for any contaminated run-off or spills occurring within the hazardous chemical storage area? 			

FORECOURT DESIGN AND STORMWATER MANAGEMENT

Table 10 (Cont.): Checklist for UPSS forecourt design and stormwater management

Principles of forecourt design	What exactly? (Requirements/guidance of the <i>UPSS Regulation</i> or the NSW EPA fact sheet and Australian Standards, where available)	Included (Y/N)	Adequate (Yes/No)	Comments and remedy (why 'no'? how is compliance reached?)
Spill kits, fire extinguishers and first aid kits	<ul style="list-style-type: none"> • Are the spill kits accessible and visible? • Are the fire extinguishers accessible and visible? • Are first aid kits accessible and visible? • Are the locations of spill kits, fire extinguishers and first aid kits recorded on the site plan and available on request? • Is all equipment within tag expiry dates? 			
Stormwater drains and wastewater management	<ul style="list-style-type: none"> • Are the stormwater drains collecting forecourt run-off from low contamination risk areas appropriately managed? • Are the drainage pits collecting forecourt run-off from high contamination risk areas appropriately managed? <p>Please refer to Section 4 of the Managing Run-Off from Service Station Forecourts practice note for more information.²⁰</p>			
Water-sensitive urban design	<ul style="list-style-type: none"> • Is a water-sensitive urban design installation suitable for either a new or upgraded UPSS site? 			

Note: *UPSS Regulation = Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019*; UPSS = underground petroleum storage system.

²⁰ <https://www.epa.nsw.gov.au/publications/contaminatedland/managing-run-off-from-service-station-forecourts>