

EPA TASMANIA

– TECHNICAL GUIDELINE –

UNDERGROUND PETROLEUM STORAGE SYSTEMS: DECOMMISSIONING ASSESSMENT REPORT REQUIREMENTS

Introduction

This EPA guideline provides detail on the content that must be included in a Decommissioning Assessment Report, and is issued pursuant to regulation 42 of the *Environmental Management and Pollution Control (Underground Petroleum Storage Systems) Regulations 2010* (UPSS Regulations). The guideline is referred to in regulations 30(7)(d) and 31(2)(d), which relate to the decommissioning of active and abandoned storage systems respectively. In both cases soil and groundwater in the vicinity of the decommissioned underground petroleum storage system (UPSS) must be assessed for petroleum contamination and an assessment report detailing this assessment must be obtained by the Infrastructure Owner. Regulations 30(7)(d) and 31(2)(d) state that if there are any EPA guidelines in relation to the assessment report then the assessment report must be written in accordance with those guidelines.

Purpose and scope

The purpose of this guideline is to ensure that a clear and concise record of the decommissioning assessment is provided to the Infrastructure Owner. This includes requiring that the assessment report contains sufficient detail relating to the soil and groundwater samples collected from the vicinity of the UPSS to allow the risk posed by detected contamination to be determined. A conclusion (based on these results and the risk assessment) as to whether the contamination detected is likely to pose an unacceptable risk to a receptor (where this includes consideration of on- and off-site receptors and current and intended land uses and current and realistic uses of groundwater) must be stated in the report.

It should be noted that the report and its conclusions only relate to the area in the vicinity of the UPSS that has been assessed. This may not be a sufficient investigation to satisfy Planning Authority requirements where a change of use or development is proposed.

This guideline is relevant to Infrastructure Owners who are commissioning reports and to environmental site assessors completing an assessment report for a decommissioned UPSS.

Reporting

The Decommissioning Assessment Report must contain details of the work conducted under the *EPA Tasmania – Technical Guideline – Underground Petroleum Storage Systems, Decommissioning Assessment – Sampling and Risk Assessment Requirements (UPSS2)*. The use of UPSS2 is required under Regulation 30(7)(b) and 31(2)(b) of the UPSS Regulations.

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The assessment report must be completed or reviewed by professionals who are certified under the Site Contamination Practitioners Australia scheme or under interstate Contaminated Land Auditor schemes. The directory of certified practitioners is located at: <http://scpaustralia.com.au/scp-australia-directory/> and further information regarding interstate Auditor schemes is located at <http://epa.tas.gov.au/regulation/engaging-a-contaminated-land-consultant>.

The Decommissioning Assessment Report must contain the information listed in Attachment 1 and should be written in accordance with the ASC NEPM. If the report does not contain information relating to one of these requirements, this omission must be acknowledged and justified in the Decommissioning Assessment Report.

Regulations 30(7) and 31(2) require that the Infrastructure Owner must ensure that the assessment report is completed within 4 months of the decommissioning of the UPSS. Regulations 30(8) and 31(3) then require that the Infrastructure Owner notify the Director EPA, in the approved form, within 7 days of obtaining the decommissioning report. A form for decommissioned storage systems is available at <http://epa.tas.gov.au/regulation/decommissioning-storage-systems>, or by phoning (03) 6165 4594.

Further information

Contaminated Sites Unit
EPA Division
Department of Primary Industries, Parks, Water and Environment
Ph: (03) 6165 4594
Email: ContaminatedSites@environment.tas.gov.au
Web: <http://epa.tas.gov.au/regulation/>

ATTACHMENT 1

**Minimum Content Requirements for
Decommissioning Assessment Report*****Executive Summary***

- Background
- Objectives of the investigation
- Scope of works
- Summary of results and risk assessment
- Summary of conclusions and recommendations

Introduction

- Background
- Objectives of the investigation
- Scope of works

Report author details:

- Company name & ACN (or personal name and ABN), postal address, contact phone number
- The Site Contamination Practitioners Australia certification number and name or the Contaminated Land Auditors name and details of accreditation for the individual who was the author or who acted as the final report reviewer.

Site Identification Information

- Street address of the site.
- Certificate of Title (CT) of the site.
- Property Identification Number (PID) of the site.
- Map identifying the site and neighbouring properties.

Ownership Information (including: name, postal address, street address, phone number and email address) for:

- UPSS Infrastructure Owner's details.
- System Operator's details (if UPSS ceased use in the last 18 months).
- Landowner's details.

Note: these terms are defined in the UPSS Regulations.

Land Use Information

- Current land use and proposed land use (if known to be changing).
- Current land use zoning and proposed land use zoning (if known to be changing).
- Description of surrounding land uses.
- Regional geology, hydrogeology, hydrology.

UPSS Information

- Description of infrastructure that was decommissioned.
- Why the UPSS was decommissioned.
- When the UPSS ceased to be used (where known).
- Products that have been stored (at any time) in the UPSS (where known).
- Type of tank(s) including capacity.
- Age of tank(s) (where known).
- Method of decommissioning. Including:
 - whether the UPSS was removed and disposed of or decommissioned on site in accordance with Australian Standard 4976 – The removal and disposal of underground petroleum storage tanks.
 - if the UPSS was decommissioned on site, why the system could not be removed.
- Evidence of failure of the UPSS or spills, including visual signs of contamination such as discoloration or staining of soil (if any).
- Photograph(s) of UPSS pit (if tank was removed) and decommissioned infrastructure.
- Number of UPSS remaining on site including, where relevant, decommissioned, active and/or abandoned UPSS.

Sample Information

- If the sampling regime undertaken varied from the minimum standards listed in *EPA Tasmania Technical Guideline – UPSS Decommissioning Assessment – Sampling and Risk Assessment Requirements (2014)*, (UPSS2) the variations (and any alternatives used) must be adequately explained and justified. For example, if no samples were collected from under the fill point because the fill point was above the tank and removed as part of the decommissioning works, this must be stated.
- Details of other references used with regard to sampling rationale and the methodology followed (including references to Australian Standards, the *National Environment Protection (Assessment of Site Contamination) Measure, 1999* as amended 2013 (ASC NEPM) or other relevant documents where appropriate).
- Soil and (where relevant) groundwater sampling methodology, including a list of selected analytes, assessment criteria, sampling plan and justification, sample technique (e.g. hand auger, mechanical drilling, push tube sampling), where samples were taken (e.g. distance into pit walls etc.), field observations and measurements (such as PID, site specific hydrogeology, dissolved oxygen, pH, electrical conductivity, temperature).
- Depth at which water was intersected (if relevant) and whether water is likely to be perched. Whether sheen or free product visible.

- If water was not intersected this must be stated, along with the maximum depth of boreholes or excavation work.
- A summary plan showing sample locations with identification numbers, sample depth, highlighted results that exceed the assessment criteria and a summary box of the relevant assessment criteria.
- Additional site plan/s (which may be included in the appendices) showing:
 - Onsite buildings, hardstand areas and areas of exposed soil
 - The extent of soil and/or groundwater contamination exceeding selected assessment criteria.
 - The former locations of the UPSS (including tanks, fill points, lines and bowsers) and the extent of excavations (where applicable). If fill points were above the tanks this must be shown.
 - Any underground storage system infrastructure remaining on the site.
 - Location of any preferential pathways (such as underground services) that could act as conduits for contamination.
 - All site plans must have north arrow and a scale.
- Groundwater bore logs – including construction details, well screening, stratigraphy intersected, groundwater levels, well development, and an explanation of method used to prevent contamination of underlying aquifers from shallower contaminated material (if any).
- Soil bore logs (if UPSS decommissioned *in situ*).
- Details relating to NATA laboratory used.
- Tabulated sample results with sample depths, soil type, and relevant assessment criteria (e.g. investigation/screening levels from the ASC NEPM). All results exceeding the selected assessment criteria must be highlighted.
- Field and laboratory QA/QC protocols.

Disposal of Contaminated Material

- Details in relation to the disposal of liquids to the sewerage system or to other off-site locations, including approvals granted and contaminant concentrations.
- Details of all soil removed from the site including sampling results, approvals granted and the disposal location/s. Information relating to disposal of contaminated soil is provided in Information Bulletin 105, available from www.epa.tas.gov.au, using the search function.

Risk Assessment

- A conceptual site model which must include consideration of source, pathway and receptor.
- A list of potential sources which must include primary and secondary sources.
- A list of all potential receptors which must consider on- and off-site receptors and current and intended land uses and current and realistic uses of groundwater.
- A note of all potential transport mechanisms / preferential pathways.
- A summary of the most feasible or likely scenarios where the source-pathway-receptor linkage is complete.

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- Locality map showing location of potential receptors (including uses of neighbouring properties, location of off-site buildings, location of environmental receptors).
- Details relating to groundwater depth, usage and locations of bores/pumps in the vicinity.
- Determination of level of risk to likely receptors.
- If a source-pathway-receptor link is likely, but further investigations are needed to determine the risk level, this must be stated along with details of the further investigations that are needed.
- If relevant, management measures that are necessary to lower the risk to an acceptable level.
- If relevant, whether remediation is necessary to lower the risk to an acceptable level.

Other Information

- Any additional relevant information such as copies of integrity tests, loss monitoring results, known leaks/spills or presence of obvious contamination indicators (odours, impacted vegetation etc.).
- Validation of any “clean fill” used on the site.
- Any variations from the requirements listed in UPSS2 which are not addressed above, must be fully explained and justified along with reasons for using any alternative approaches.
- Justifications as to why the report varies from the requirements in this guideline (if necessary).
- Any assumptions made and limitations of the assessment.

Conclusions

Statements as to:

- Whether contamination is likely to pose an unacceptable risk to a receptor.
 - If yes then the affected receptor/s identified must be stated.
 - If unknown, then details of proposed further investigations to determine the risk must be stated. Note that the further works must be undertaken and a revised Decommissioned UPSS Form must be submitted within 4 months of the original Decommissioned UPSS Form being submitted.
- whether management measures are necessary to lower the risk to the receptor/s to an acceptable level along with details of these management measures.
- whether remediation is necessary to lower the risk to the receptor/s.

Appendices

- Site plans (as referred to above).
- Copy of NATA approved laboratory results sheets.
- Chain-of-custody documents for all soil, vapour, groundwater and surface water samples and laboratory receipt notices.
- Disposal dockets and receipts issued when contaminated soil/water and UPSS infrastructure was removed from the site.