

Environment and Heritage Expertise

Technical Guideline

TG 0875.43 – Hazardous substances

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**Government of
South Australia**

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Significant/major changes incorporated in this edition

Not applicable - this is the first edition of the Technical Guideline.


Document controls

Version history

Version	Date	Author	Comments
1.0	28 August 2025	Various	Issued for Use

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Approvers

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Reviewers

Name	Role	Version	Review Date
Environment and Heritage Expertise Team	Team review of guidelines.	1.0	28-08-2025

1 Introduction

This guideline relates to the assessment and management of hazardous substances which may be encountered during a project's planning, construction, operations or maintenance activities.

It forms part of the TG 0875 Environment and Heritage Technical Guidelines and is designed to provide insight into regulatory obligations associated dewatering, dredging and earthworks drainage, as well as suggested approaches to manage risk.

Note the guideline is not exhaustive, and additional requirements may be necessary based on project- or site-specific activities, geographical location, or approval conditions.

1.1 Environment and Heritage Technical Guidelines Suite

The SAWG-ENV-0875 Environment and Heritage Technical Guidelines suite includes:

- TG 0875.00: General requirements
- TG 0875.11: Aboriginal heritage and Native Title
- TG 0875.12: Non-Aboriginal heritage
- TG 0875.21: Vegetation
- TG 0875.22: Fauna
- TG 0875.23: Weed hygiene
- TG 0875.24: Phytophthora
- TG 0875.31: Surface water
- TG 0875.32: Groundwater
- TG 0875.33: Recycled water
- TG 0875.34: Sediment, erosion and stormwater
- TG 0875.35: Dewatering, dredging and earthworks drainage
- TG 0875.41: Site contamination
- TG 0875.42: Acid sulfate soils
- **TG 0875.43: Hazardous substances (this guideline)**
- TG 0875.51: Dust
- TG 0875.52: Odour
- TG 0875.53: Noise and vibration
- TG 0875.61: Spoil management
- TG 0875.62: Recycling
- TG 0875.63: Waste management

This guideline must be read in conjunction with TG 0875.00: General requirements

1.2 General requirements

TG 0875.00: General requirements apply to all aspects of the work:

1. Purpose
2. Application
3. Scope
4. Statutory obligations
5. Strategic alignment
6. Terms and abbreviations

2 Hazardous substances

2.1 Overview

MANAGEMENT	
Commitment	Safe handling, storage, transportation and disposal of hazardous substances ensures the protection of the community and environment. State-based legislation regulates the safe control and management of hazardous material.
Strategic objective	<ul style="list-style-type: none"> Environment Corporate Strategy: <ul style="list-style-type: none"> Completion of preliminary assessments to determine the risk of encountering acid sulfate soils. Asset Management Corporate Strategy: <ul style="list-style-type: none"> An integrated approach enables the sustainability outcomes our customers, community and owner expect.
Key Performance Indicator	<ul style="list-style-type: none"> KPI 1: Incident response protocols included in management plans, including timeframes for reporting. KPI 2: No environmental incidents or harm occurring from hazardous substances. KPI 3: Compliance with legal and regulatory requirements on storage, handling, and use of hazmat/dangerous goods.
Legislation	<ul style="list-style-type: none"> Environment Protection Act (Waste to Resources) Policy 2010 (SA) Environment Protection Act 1993 (SA) Dangerous Substances Act 1979 (SA) Dangerous Substances (General) Regulations 2017 (SA) Work Health and Safety Regulations 2012 (SA)
Regulatory approvals	<ul style="list-style-type: none"> None applicable
Statutory obligations	<ul style="list-style-type: none"> <i>Environment Protection Act 1993 (SA)</i>, Section 25: A person must not undertake an activity that pollutes, or might pollute, the environment unless the person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm.
Reference material	<ul style="list-style-type: none"> SafeWork SA: Code of Practice: <ul style="list-style-type: none"> How to manage and control asbestos in the workplace How to safely remove asbestos Managing risks of hazardous chemicals in the workplace Preparation of safety data sheets for hazardous chemicals Labelling hazardous chemicals EPA (SA): Guidelines – Liquid storage, Bunding and spill management Which Bin SA
Related guidelines	<ul style="list-style-type: none"> TG 0875.42: Acid sulfate soils TG 0875.41: Site contamination TG 0875.63: Waste management

2.2 Planning and design

MITIGATION MEASURES	STAKEHOLDERS
As part of the Preliminary Assessment, identify materials and substances that may be required for the operation or maintenance of the infrastructure or asset, their potential hazards and impacts on surrounding land use.	Environmental Officer Project Manager Design Manager
Prior to undertaking work that may result in exposure to hazardous substances, ensure the work method and rescue response plan are documented and authorised, e.g., a Job Hazard Analysis, or Work Instruction.	Project Manager Design Manager
Ensure that a register of Hazardous Substances, and dangerous goods permits are maintained including, Safety Data Sheets (SDS). A SDS must be prepared in line with the Code of Practice .	Project Manager Design Manager
Potential options to minimise impacts from hazardous material on surrounding land use must be identified to inform options selection and decision making.	Environmental Officer Design Manager Project Manager
Ensure appropriate segregation, warning signs, and labels to storing areas and containers that contain hazardous substances is applied For guidance on labelling hazardous chemicals refer to the Code of Practice .	Project Manager Design Manager
Design hazardous material storage to prevent leaks, spills and fires, including appropriate containment and ventilation, as well as allowing for effective response to spills or leaks in line with Australian Standards and SafeWork Australia requirements.	Design Manager Project Manager Environmental Officer

2.3 Construction

MITIGATION MEASURES	STAKEHOLDERS
An overview of the presence and management of all hazardous materials, including incident response protocols, must be included as part of inductions and pre-start requirements.	Contractor
Any hazardous substances discovered during construction must be reported to the Project Manager and Environmental Impact Officer as soon as possible for appropriate management.	Contractor Environmental Officer
<p>Lead</p> <ul style="list-style-type: none"> Where project activities are occurring in older structures, a risk assessment regarding the potential presence of lead in paint, pipes and fitting must be completed <p>If lead is likely to be present, appropriate mitigation and control measures must be implemented, and documented in all management plans</p>	Contractor

MITIGATION MEASURES	STAKEHOLDERS
<p>Asbestos</p> <ul style="list-style-type: none"> • Implement stop work procedures if asbestos (or suspected asbestos) is encountered onsite • Ensure those handling, transporting and disposing of materials containing asbestos are appropriately authorised and licensed to do so • Ensure asbestos waste is taken to a site that is lawfully able to receive it <p>Ensure all activities related to asbestos management comply with SafeWorkSA's Codes of Practice</p>	Contractor
<p>Chemicals</p> <ul style="list-style-type: none"> • Store chemicals in dedicated, well-ventilated storage areas • Clearly label all containers and ensure lids fasten securely • Ensure current Safety Data Sheets are available and accessible to all staff • Implement systems to ensure incompatible materials are not stored or handled together • Avoid storing chemicals near drainage lines, waterways, or sensitive receivers such as vegetation and animal habitat • Ensure all chemicals are handled with secondary containment systems in place e.g., bunding and are not placed on bare ground <p>Ensure all activities related to chemicals comply with SafeWorkSA's Code of Practice</p>	Contractor
Establish and maintain a designed refuelling area and minimise the quantities of oils and fuels onsite.	Contractor
Ensure that all required chemical and fuel spill kits remain within 10 metres of the chemical handling areas or refuelling area respectively.	Contractor
Ensure that training is provided to all relevant personnel in the safe use of hazardous substances handling and incident response protocols, including the use of spill kits.	Contractor
Ensure management plans include appropriate detail on the type and location of all control measures to be implemented to manage hazardous materials, including incident response protocols.	Contractor

MITIGATION MEASURES	STAKEHOLDERS
<p>Ensure any hazardous substances identified as waste, including substances that are out of date, which could be harmful to human or environmental health is disposed of in the correct manner by appropriately qualified personnel:</p> <ul style="list-style-type: none"> • Hazardous waste substances must be segregated according to the waste type • Appropriate packaging fit for transport and secured from any waste escaping must be used • Packages must be clearly labelled and must include a Safety Data Sheet that details disposal requirements • Disposal is transported by, and disposed to, appropriately licensed service providers and facilities approved to manage the waste <p>Waste tracking records are to be retained, where available, and provided to SA Water upon request</p>	Contractor

2.4 Monitoring requirements

DESCRIPTION	METRIC	FREQUENCY	ACCOUNTABILITY
Plant and equipment inspections for hazardous substances such as fuel and hydraulic fluid	Visual	Weekly	Contractor
Audits of chemical storage area compliance	Visual	Monthly	Contractor