

Preparation and implementation of closure and post-closure plans

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EPA 1088/16: This guideline assists licensees who are required by conditions of an environmental authorisation to develop and implement a closure and post-closure plan.

1 Introduction

Cessation of prescribed activities of environmental significance may cause harm to the environment or human health if environmental control measures are not appropriately undertaken and monitored. It may also cause difficult legacy issues for the state, the local community, the operator and owner of the premises.

The Environment Protection Authority (EPA) has prepared this guideline to describe the legislative and reporting framework associated with closure and post-closure plans. The guideline will assist licensees who are required by conditions of an environment authorisation to develop and implement a closure and post-closure plan for the cessation of activity(ies) of environmental significance carried out on the premises.

This guideline is intended to promote the protection of human health and the environment in a manner consistent with the objects defined in section 10 of the *Environment Protection Act 1993* (the EP Act) and also addresses other relevant state regulatory and policy requirements.

2 Legislative framework

In accordance with section 52A of the EP Act, the EPA may require a holder of an environmental authorisation (licensee) to prepare and implement closure and post-closure plans for the cessation of the prescribed activity(ies) through the addition of conditions on that authorisation. This may be required at any time during the licensing period. Additional conditions may also be imposed when the EPA assesses the suspension, cancellation and surrender of an environmental authorisation.

A closure and post-closure plan may also be needed when an environment protection order (EPO) is issued under section 93A of the EP Act.

3 Application of this guideline

The EPA has prepared this guideline to assist licensees who are required by conditions of an environment authorisation to develop and implement a closure and post-closure plan. This document will also help licensees to prepare and implement closure and post-closure plans to the EPA's satisfaction and obtain regulatory compliance with the EP Act where an EPO has been issued.

As there are other documents which assist closure and post closure of relevant facilities, this guideline is not intended to apply to:

- Landfill facilities, as defined by the EPA guideline [Environmental management of landfill facilities \(municipal solid waste and commercial and industrial general waste\)](#).
- Mining and resource industries which are co-regulated under the *Mining Act 1971* and *Petroleum and Geothermal Energy Act 2000*.

However, information contained in this document may also prove useful in relation to such facilities.

4 Requirements of closure and post-closure plans

The EPA considers closure as the period during which the prescribed activities of environmental significance are, or soon to be, no longer undertaken at an authorised premises. Closure requirements may include actions such as decommissioning facilities, dismantling process equipment, or removing wastes or contaminated materials for reuse or final disposal (if applicable).

Post closure is the period following completion of the prescribed activities of environmental significance until the EPA is satisfied that all objectives of closure are met. This usually will coincide with approval by the EPA of a surrender application of the environmental authorisation. Post-closure requirements may include environmental monitoring and maintenance activities to prevent potential environmental and human health harm at the premises.

The general requirements for closure and post-closure plans are listed in Table 1. Additional site-specific requirements may be outlined in the conditions of the environmental authorisation or EPO. Licensees should reflect these in closure and post-closure plans.

Table 1 Requirements of closure and post-closure plans

| Plan section | General requirements |
|------------------------|--|
| Plan identification | <ul style="list-style-type: none"> • environmental authorisation number • name, address of site and certificate title subject to closure • date of submission, version number • person responsible for the closure and post-closure plan and contact details, including subcontractors |
| Background information | <ul style="list-style-type: none"> • details of the process(es) and/or prescribed activity(ies) undertaken at the premises • details of the activities and land sections proposed to be surrendered at the licensed premises • details of plant(s), equipment, and infrastructure to be decommissioned • details of wastes produced during decommissioning (if applicable) • a brief summary of historic monitoring program, results and trends analysis • a brief summary regarding any known site environmental incidents and community engagement |
| Closure objectives | <ul style="list-style-type: none"> • potential risks of harm to the environment and human health to be avoided or minimised during and after closure in relation to the closure and post-closure activities, |

| Plan section | General requirements |
|--|---|
| Environmental standards for closure and post-closure | <ul style="list-style-type: none"> • requirements of <i>Environment Protection Act 1993</i> and its associated regulations, policies, codes of practice, standards and guidelines to comply with in relation to identified objectives and actions |
| Closure actions and timeframe | <ul style="list-style-type: none"> • actions to be undertaken in ceasing the prescribed activities and their timeframes, including <ul style="list-style-type: none"> – ceasing use of process unit(s), equipment or activity(ies) – constructing facilities, introducing new equipment and demolishing buildings and other infrastructure – decommissioning and decontaminating equipment, plant and chemical storage facilities (including underground storage tanks and services) – producing, removing and disposing of wastes and managing contaminated soil (if applicable) – monitoring and managing environmental emissions – engaging with the community |
| Post-closure actions and timeframe | <ul style="list-style-type: none"> • designing and implementing ongoing environmental monitoring program • conducting environmental maintenance activities |
| Compliance assessment | <ul style="list-style-type: none"> • the method and frequency of reporting to the EPA as required by the condition of environmental authorisation • submitting a compliance certificate if it is required by condition of authorisation |

To assist the development of closure and post-closure plans, further guidance would be to include information specifically related to the tasks needed to achieve the environmental objectives. It is noted that site specific actions may be required based on operational activity(ies). The licensee should discuss the most effective way of addressing these requirements with the EPA when drafting closure and post-closure plans.

Ceasing use of process unit(s), equipment or activity(ies)

A schedule of the process units, equipment, activity(ies) and land sections to cease operation should be prepared. In the first instance, all activity(ies) and timeframes proposed during closure and post-closure should be outlined.

Constructing facilities, introducing new equipment and demolishing buildings and other infrastructure

Any new structure and equipment introduced to the closure process should be detailed in the plans. For example, an oil separator for cleaning general parts. Demolition of any buildings, structures, pipeline, equipment, evacuations and filling of land may need to be included in the plan. Approval from the relevant authority ie the EPA or planning authorities may also be required for some closure and post-closure activities. The licensee should contact the relevant authority to determine if any approval is required prior to the commencement of construction and demolition works.

Decommissioning and decontaminating equipment, process units and chemical storage facilities

Cleaning and decontaminating decommissioned plant and equipment are likely to be included as part of the closure process. The methodology and time schedule of the decontamination should be detailed in the plans. The chemicals introduced in the process for decontamination purposes and their management should be also described in the plans.

Producing, removing and disposing of wastes and managing contaminated soil

The licensee is required to take reasonable and practicable measures to leave the site in a safe and stable condition in order to prevent or minimise adverse long-term environmental or human health impacts.

The details of wastes generated at the premises and how the wastes and waste residues are removed from the process should be detailed in the plans. The waste management hierarchy must be considered in accordance with the *Environment Protection (Waste to Resource) Policy 2010 (W2R Policy)* to minimise wastes produced during implementation of the plans.

Waste must not be disposed of at the premises. If Listed Waste is generated through closure it must be transported in accordance with the EPA WasteTracker system and disposed of in accordance with W2R Policy. This will require the engagement of a waste transport company licensed to move the waste to a facility licensed to dispose of that waste.

The preparation of a desktop assessment of operational history may prompt testing for site contamination. This work may be required of the licensee prior to the completion of closure of the premises.

Environmental site assessments undertaken at the premises may result in identification of site contamination or additional site contamination during closure and post closure. The licensee must notify the EPA according to section 83A of the EP Act in this case. These matters, together with that for a site having been identified as a contaminated site, may trigger regulatory actions under Part 10A *Special provisions and enforcement powers for site contamination* of the EP Act.

Any impacts or variation of existing management of site contamination during closure and post closure should be included in the plan. For example, onsite remediation during this period should be specified in the closure and post-closure plan. Onsite remediation of contaminated soils should be undertaken in accordance with the National *Environment Protection (Assessment of Site Contamination) Measure 1999* and relevant EPA guidelines.

Monitoring and managing environmental emissions

Environmental emissions may be generated during closure and post closure. Such emissions may be different from those generated during routine operations. For example, additional odour may adversely impact on other land users during decommissioning of wastewater process tanks or lagoons. Potential environmental impacts from these emissions must be identified and monitored.

Additional pollution control measures and monitoring programs may be required in certain circumstance to meet the closure standards and objectives. The details of these emissions, impacts, pollution control measures and monitoring program should be included in the plans according to relevant EPA guidelines. For example, further information about monitoring and testing expectations can be found in the EPA [Guidelines for regulatory monitoring and testing](#).

Community engagement

Community and stakeholder engagement must be undertaken during the closure process if it is required by conditions of an environmental authorisation or EPO. In any event, communication with neighbours and other stakeholders about closure activity is strongly recommended. Depending on the scale and duration of the closure, a community and stakeholder engagement plan may be required to be prepared. The engagement plan should identify key stakeholders during the closure process, outline timeframes for communication and correspondence types. The EPA will assist in reviewing the plan and determining whether any involvement is required.

Post-closure management

After the prescribed activity(ies) cease(s), post-closure management may be required for site-specific reasons. The post-closure management plan may include ongoing environmental monitoring, regular site inspections and environmental maintenance activities.

5 Closure and post-closure plan process

Preparation of a closure and post-closure plan

Any plans required by condition of an environmental authorisation or the EPA will need to be prepared to the authority's satisfaction. To that end, it is important for the licensee or recipient of the EPO to communicate with the EPA in a timely manner to ensure the plan is compliant with conditions of an environmental authorisation or requirement of an EPO. A contractor or consultant can be employed to develop the closure and post-closure plan. This may be advisable where the licensee does not have appropriate expertise. The responsibility for ensuring that the plan meets the EPA's requirements remains with the licensee.

EPA's assessment and approval

Once a closure and post-closure plan has been provided, the EPA will:

- assess whether the proposed plan would achieve the closure and post-closure objective(s),
- assess the plans, being mindful of the guidelines to ensure that the closure process would achieve relevant environmental outcomes, and
- determine whether the plan is to the EPA's satisfaction, approve the proposed document or request amendments be made.

It is important for the licensee to communicate with the EPA during the preparation of the plan to ensure that the plan will be to its satisfaction.

Implementing the approved closure and post-closure plan and reporting

Once the closure plan is accepted by the EPA, its implementation should occur. If this is required by conditions of an environmental authorisation or EPO, the licensee must implement the plan to achieve compliance. Progress reports should be submitted to the EPA at the intervals specified in the approved plan. In addition, the EPA expects the receipt of the notification when serious or material environmental harm caused or threatened and site contamination of underground water as per sections 83 and 83A of the EP Act.

Review and amending

The licensee should conduct regular reviews of the closure and post-closure plan during the implementation phase. If the licensee is of the view that the plan needs updating, the EPA is to be contacted to discuss whether a revised plan should be submitted to the EPA for approval.

The EPA may require the licensee to amend the closure and post-closure plan when:

- significant flaws are noted, or
- a risk assessment or review determines that further actions are required to help manage the environmental or human health risks, or
- there are major changes to the licensed activity(ies) (operational, process(es) or infrastructure) or environmental management practices.

Completion of the closure and post-closure process

Once compliance with the plan is achieved, a closeout report or certificate of compliance may be required to be submitted to the EPA for final assessment.

If all objectives of the closure and post-closure plan are met at the end of the specified time period, the EPA will notify the licensee in writing that the post-closure plan is no longer required.

6 Glossary

Closure: A period during which the prescribed activities of environmental significance are soon to be or will no longer be undertaken at an authorised premises.

Environmental authorisation: A licence, exemption or works approval as defined under section 3(1) of the EP Act.

Listed Waste: Wastes listed in Part B of Schedule 1 of the EP Act.

Licensee: the term is used throughout this guideline as a licence is the most common authorisation. Where used, it should be understood to mean the person responsible under environmental authorisation or EPO of the EP Act.

Post closure: the period following the completion of the closure until the EPA is satisfied that all objectives of closure are met.

Prescribed activities of environmental significance: As prescribed in Schedule 1 – Part A Prescribed activities of environmental significance of the EP Act.

7 Legislation and reference publication

Links were current at time of legislation and publication.

Environment Protection Act 1993 and its associated regulations and policies, www.legislation.sa.gov.au

Environmental management of landfill facilities (municipal solid waste and commercial and industrial general waste), www.epa.sa.gov.au/files/4771343_guide_landfill.pdf

Guidelines for regulatory monitoring and testing – monitoring plan requirements dated 2013, www.epa.sa.gov.au/files/4771367_guide_mpr.pdf

Guidelines for waste transport certificate, www.epa.sa.gov.au/files/4771381_guide_wastetransport.pdf

Communication and engagement framework 2013–15, www.epa.sa.gov.au/files/4771663_comm_framework.pdf

AS 2008, AS4976–2008: Removal and disposal of underground petroleum storage tanks, Standards Australia, Sydney, www.standards.org.au

Environmental management of on-site remediation, www.epa.sa.gov.au/files/4771274_guide_remediation.pdf

Guidelines for the assessment and remediation of site contamination, www.epa.sa.gov.au/files/4771799_sc_groundwater_assessment.pdf

National Environment Protection (Assessment of Site Contamination) Measure 1999, www.comlaw.gov.au/Details/F2013C00288

Disclaimer

This publication is a guide only and does not necessarily provide adequate information in relation to every situation. This publication seeks to explain your possible obligations in a helpful and accessible way. In doing so, however, some detail may not be captured. It is important, therefore, that you seek information from the EPA itself regarding your possible obligations and, where appropriate, that you seek your own legal advice.

Further information

Legislation

[Online legislation](#) is freely available. Copies of legislation are available for purchase from:

Service SA Government Legislation Outlet
Adelaide Service SA Centre
108 North Terrace
Adelaide SA 5000

Telephone: 13 23 24
Facsimile: (08) 8204 1909
Website: <shop.service.sa.gov.au>
Email: <ServiceSAcustomerservice@sa.gov.au>

General information

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