

Licence Management



Environment
Protection
Authority Victoria

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Guideline

These guidelines should be used in preparing your annual performance statement. There is a summary of key changes from the previous version at the end.

Introduction

These guidelines are designed to assist you (the licence-holder) to understand and manage your licence. They are the main source of information on licensing and support all environmental performance conditions. They apply to single-site, amalgamated and accredited licences.

Your licence only includes conditions relevant to your premises, so you only need to read sections related to your licence conditions.

It is up to you to understand your licence conditions and how you determine compliance with these. This document will help you understand them and their intent. It also provides a list of things to consider when complying with your licence and demonstrating compliance. For licence-holders seeking additional information, references and supporting documents are provided for each condition.

EPA Victoria (EPA) does not negotiate the environmental standards set by the licence conditions. The outcome or intent of conditions must not change. Licence conditions will, however, be reviewed regularly for their currency and to detect any emerging issues. This may lead to amendment of existing conditions or additional conditions being developed.

All EPA licences are publicly available documents.

Your EPA licence

Your licence focuses on areas where you may have a significant impact on the environment. For example, if you discharge wastewater to a nearby creek, your licence will include limits on the amount of wastes that can be discharged. If you have the potential to be noisy, your licence will include a condition that nuisance noise is not acceptable. For premises that are allowed to accept wastes for treatment or disposal, the licence includes a table listing the types of wastes that can be accepted and how they can be treated.

Conditions which are specific to the A05 *Landfills* scheduled premises ("LI_Lx") are detailed in the *Landfill Licensing Guidelines* (EPA Publication 1323).

As part of the periodic licence review program, the wording of several standard conditions has changed.

The details of which conditions have had changes is at the end of the document. In general compliance has not changed for these conditions but where required, new text has been included to assist with compliance.

Licence conditions

Conditions in your licence set environmental performance objectives and are grouped by area:

- General ('G') for broad-based and administrative requirements
- Amenity ('A') for odour, noise and dust.
- Discharge of waste to air ('DA')
- Discharge of waste to water ('DW')
- Deposit of waste to land ('DL')
- Acceptance and treatment of wastes ('WA')
- Management of wastes ('WM')
- Landfill management ('L') (these conditions are contained in EPA Publication 1323).

There are three types of conditions:

- Standard conditions (for example, 'G1') to address the standard environmental impacts associated with all licensed premises.
- Non-standard conditions (for example, 'DA1.1') to include requirements that apply to an industry sector or a subset of an industry sector.
- Specific conditions (for example, 'DA1.3.1') to include requirements that are tailored to a single site. If there is a need for a specific condition in your licence, EPA will discuss it with you prior to the issue of your licence. Guidance on specific conditions can usually be taken from the associated standard condition when needed (e.g. DA1.3.1. is a sub condition of DA1).

Your obligations as a licence holder

You have been issued a licence for your premises because EPA has identified that your activities may present a risk to the environment and has listed them in the Environment Protection (Scheduled Premises and Exemptions) Regulations 2017.

While ensuring compliance with your licence, you should also consider implementing measures that will both prevent poor environmental outcomes and improve your business efficiency.

In addition to the conditions in your licence, you are expected to comply with legislative requirements, including those in the *Environment Protection Act 1970*, relevant regulations and EPA policies (including State environment protection policies and waste management policies). If you have any concerns about these, contact EPA for assistance.

During the lifetime of your EPA licence you may need to do one or more of the following:

- Modify or expand your operations: You must not undertake any significant changes to the activities at your premises without a works approval. For example, if you want to increase your annual production rate or change



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the wastes discharged from your site, you may need to obtain an EPA works approval.

- **Transfer the licence to another business entity:** If you change your business name or sell the business, you must apply to EPA for a licence transfer to make sure that the licence is transferred to the new legal owners. This should be done within 30 days of the site changing hands.
- **Discharge of waste to the environment not covered by your licence:** Sometimes you may exceed your licence limits due to an emergency, major maintenance activities or while commissioning new works. Exceeding limits or discharging wastes not listed in your licence is illegal. Prior to any unlicensed discharge, you must apply to EPA for a '30A approval' and provide any details and reasons why it is necessary. If an emergency discharge has already happened, notify EPA immediately.
- **Have your licence amended:** If your site activities have changed, but not sufficiently to require a works approval, you may apply to EPA for a licence amendment to add or remove conditions in your licence. Your application must provide sufficient information to show licence changes are necessary and will not adversely affect the environment.
- **Surrender your licence:** If you no longer undertake the activities that are covered by the licence, you may apply to surrender your licence.

Please contact EPA as soon as possible if you need to take any of these actions and you are uncertain how to proceed.

Licence fees

An annual fee is payable for the duration of every licence. The amount of this fee depends on the type of operation and the volume and quality of any discharge to the environment. Licence amendment application fees are capped at 85 fee units.

Fees are also payable for applications to amend and transfer licences; these are based on the annual licence fee. Fees are calculated in accordance with [Environment Protection \(Fees\) Regulations 2012](#).

Landfill levy

Landfills must, in accordance with the method and frequency specified in section 50SB of the Act, calculate the amount of landfill levy payable, prepare a landfill levy statement, and submit to EPA both the statement and fee payable. Condition G7, previously reminding licence holders of these duties, has been removed from licences in the 2017 periodic review of standard conditions. The obligations for landfill licence holders around landfill levy remain, as these are set out in the Act. Please refer to *Calculating the landfill levy and recycling rebates* (EPA publication 322) for further guidance on how to comply with landfill levy requirements.

Sections in this document

The following subheadings are provided for each condition.

'To show compliance with this condition, as a minimum:'

These sections provide some basic information about what compliance with the condition means, and what you must have in place to demonstrate compliance and report it in your

annual performance statement (APS). It draws your attention to the controls that are required as a minimum.

You must first determine the level of risk posed by your operations to the environment (relevant to the condition) and then be able to show that your procedures and controls are appropriate to that level of risk. Further information on understanding your level of risk is provided in the *Licence assessment guidelines* (EPA publication 1321).

'Additional things to consider:'

These sections provide more information on the condition and other things you should consider in being able to demonstrate compliance with it. In some cases, the section also goes into more detail about the different measures that may be required for the different levels of risks.

'Monitoring:'

These sections provide information on the type and frequency of monitoring you need to do, based on your level of risk. Guidance on identifying environmental risks associated with your operations and developing a suitable monitoring plan are provided in the *Licence assessment guidelines* (EPA publication 1321).

You should regularly review and update your monitoring plans to make sure you are adequately monitoring all your activities.

A subheading on 'Community complaints' is included for those conditions that require you to manage impacts that may give rise to community complaints. Minimum requirements are set out to assist you in managing any pollution reports you may receive from your local community.

Commonly used abbreviations in this document

The following terms are frequently abbreviated within the document.

- APS — annual performance statement
- BPEM — best practice environmental management
- IWRG — Industrial Waste Resource Guidelines
- PEM — protocol for environmental management
- PIW — prescribed industrial waste
- SEPP — State environment protection policy
- SEPP (AQM) — State Environment Protection Policy (Air Quality Management)
- the Act — *Environment Protection Act 1970*

Key definitions

Waste is defined by the Act to include:

- '(a) any matter whether solid, liquid, gaseous or radioactive which is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment;
- any discarded, rejected, unwanted, surplus or abandoned matter;
- any otherwise discarded, rejected, abandoned, unwanted or surplus matter intended for—

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recycling, reprocessing, recovery or purification by a separate operation from that which produced the matter; or sale; and
any matter prescribed to be waste.'

Premises, according to the Act, include 'messuages, buildings, lands, and hereditaments of every tenure and any machinery, plant, appliance, or vehicle used in connexion with any trade carried on at any premises and includes a ship'. Your licence premises are identified by the address on the first page of your licence and represented in Schedule 1.

You are licensed to operate a scheduled activity within the premises boundary. Your premises boundary is typically established through a works approval application, or at initial licence issue if your licence was first issued prior to July 1984.

Environmental hazard is defined by the Act as 'a state of danger to human beings or the environment whether imminent or otherwise resulting from the location, storage or handling of any substance having toxic, corrosive, flammable, explosive, infectious or otherwise dangerous characteristics'.

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General conditions

G1 Waste from the premises

You must ensure that waste is not discharged, emitted or deposited beyond the boundaries of the premises except in accordance with this licence or under the Act.

This condition is a reminder that it is an offence under section 20(1) of the Act to discharge waste to the environment, including land, air, water and groundwater except in accordance with a licence issued by EPA or other approvals under the Act. It is your responsibility to ensure that all materials, including wastes that are derived from any activity on the premises or brought onto the premises for treatment, management or disposal are managed so that there are no discharges to the environment except those permitted under your licence.

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to make sure that:

- raw materials, products and wastes are kept in banded areas where appropriate fugitive emissions are minimised by the application of best practice
- wastes including visible oil, grease, scum, litter, foam or other objectionable matter are not allowed to get offsite
- good housekeeping practices are maintained at the site.

Your procedures and controls must be appropriate for the level of risk of offsite contamination. For example, sites with high levels of vehicle and material movements or activities in the open air will require much higher levels of control than sites where most activities are indoors.

Additional things to consider:

- 'Waste' includes raw material or product spills, litter blown offsite or wastes above what your licence allows you to discharge. It includes gases, liquids and solids such as oils, hydrocarbons, chemicals, food, milk, blood, dye, detergents, fertiliser, foam, grease, scum and general rubbish.
- Onsite management plans should be in place so that workers know how to minimise spills, leakages or breakdowns and what action to take during and after spills, emergencies and upsets.
- Demonstration of compliance with this condition could include keeping records of regular housekeeping and maintenance that includes inspecting and cleaning areas where wastes may collect.

Monitoring:

You should identify the potential sources of wastes present at the site and their pathways to the offsite environment. The wastes will include those generated at the site and those imported to the site for treatment or for secondary beneficial reuse. Other wastes that may require monitoring will include process off-gases, wastewater streams and fugitive emissions from storage areas, transfer lines and loading and unloading areas.

Once you have identified these sources of wastes and their potential for discharge to the offsite environment, identify those that are not specifically included in your EPA licence as a licensed waste discharge. Any unlicensed discharge of

waste to the environment is contrary to this licence condition and must be prevented.

Your monitoring program should include regular checks of controls in place to prevent unlicensed waste discharges and inspection of areas of the site where uncontained wastes might be detected before they escape from the site.

You must keep a record of monitoring results, spills or near misses and corrective action taken to help you to track containment of your wastes and, therefore, compliance with this licence condition.

References

Bunding guidelines (EPA publication 347).

G2 Licence non-compliance and notification

You must immediately notify EPA of non-compliance with any condition of this licence by calling 1300 EPA VIC (1300 372 842), sending an email to contact@epa.vic.gov.au, or using the EPA Interaction Portal.

This condition aims to ensure that EPA is aware of any potential negative environmental impacts and can respond appropriately.

To show compliance with this condition, as a minimum:

You must notify EPA at the earliest practicable moment and no later than 24 hours of being aware of:

- any discharge to air, water or land that is not covered in your licence
- an imminent threat to the environment or human health
- a situation that may affect or generate complaints from neighbours
- any other breach of your licence obligations.

To notify EPA you must call the 24-hour Pollution Hotline, 1300 EPA VIC (1300 372 842), send an email to contact@epa.vic.gov.au, or use the EPA Interaction Portal at <https://portal.epa.vic.gov.au/iri/portal> with:

- your licence number
- site details
- licence condition breached
- details of the incident and scale of issue
- name and number of a contact person onsite.

You will be required by EPA to complete an incident report describing the root cause and corrective measures taken.

Additional things to consider:

- If the incident is part of an emergency requiring police, fire response or ambulance, dial 000. The attending service will determine whether EPA emergency response is required and will notify EPA. Examples include a fire or major uncontained spill of hazardous material.
- If the incident is not an emergency, but a negative environmental impact or hazard may have occurred at the site, an EPA pollution response officer can provide advice to aid you in the pollution clean-up. EPA may also be in touch regarding any further follow-up required and measures to prevent future discharges.
- Incident reports can be completed later, for example after an EPA officer has visited the site and provided advice.
- It remains your responsibility to manage any significant detrimental environmental impact, directly or indirectly

associated with your non-compliance, and notify other parties, such as neighbouring land users and potentially affected members of the community.

- Notifications can be made to EPA about future events at the site, such as plant shutdowns, flaring incidents or night works that may result in temporary non-compliance with the licence or generate community concern.
- Under section 30A of the Environment Protection Act, EPA can approve the discharge, emission or deposit of waste from any premises into the environment; or the storage, treatment, handling or disposal of waste on or from any premises.
- Guidance for other conditions in this document should be used to determine whether the incident is considered a non-compliance.
- As required by the relevant licence condition (for example, noise, odour or fugitive dust), you must immediately report any verified complaint to EPA.

Monitoring:

Records must be kept of all non-compliances and notifications to EPA.

G3 Annual performance statement (APS)

By 30 September each year you must submit an annual performance statement to EPA for the previous financial year in accordance with the *Annual performance statement guidelines* (EPA publication 1320.3, released June 2011)

All licence-holders are required to submit an annual performance statement (APS) in accordance with Section 31D of the Act. The APS must be signed by the most senior officer of the company and will be publicly available on EPA's website.

To show compliance with this condition, as a minimum:

You must submit an APS to demonstrate your performance against each of your licence conditions by 30 September each year.

The most senior officer in the company, such as the CEO or managing director, must sign your APS.

Additional things to consider:

- An APS is a public document and must be completed on the template provided by EPA.
- You must seek approval from EPA if you require someone other than your CEO to sign your APS.
- Records supporting compliance need not be submitted to EPA. They must be kept by the licence-holder for five years (see condition G4 below).

References

Annual performance statement guidelines (EPA publication 1320).

G4 Document retention

Documents and monitoring records used for preparation of the annual performance statement must be retained for five years from the date of each statement, and be able to be immediately produced upon request by an officer of the Authority.

This condition ensures that declarations made in the APS can be verified later. EPA may audit your APS, so records used to determine compliance must be kept in a legible form, in a secure location and readily available on request.

To show compliance with this condition, as a minimum:

You must keep records relating to the past five submitted APS readily accessible to an EPA officer during a site inspection.

Where there is no site office, and documents cannot be kept on site, access to electronic records during an inspection (with notice given) is required as a minimum to demonstrate compliance with this condition.

Additional things to consider:

- Records may include monitoring data, prescribed industrial waste transport certificates (interstate and Victorian), notes of conversations, meeting minutes, observation logs, complaint records, incident registers and financial records.
- For the purposes of documenting movement of prescribed industrial waste, as stated in the Environment Protection (Industrial Waste Resource) Regulations 2009, waste transport certificates must be retained for a minimum of two years.

References

Annual performance statement guidelines (EPA publication 1320).

Waste transport certificates (EPA publication IWRG821).

Environment Protection (Industrial Waste Resource) Regulations 2009.

G5 Monitoring program

You must establish and implement a risk based monitoring program that enables you and EPA to determine compliance with each condition of this licence. The monitoring program must comply with the requirements of the monitoring guidelines (EPA publication 1321.2, released June 2011)

Licence-holders are responsible for developing, implementing and maintaining a monitoring program to assess the environmental management at the site. A risk-based monitoring program will enable you to undertake cost-effective monitoring that will effectively verify your site's environmental performance.

To show compliance with this condition, as a minimum:

You must have a documented, risk-based monitoring program in place and be able to demonstrate that it includes monitoring appropriate to the activities at your site.

You must be able to show that your monitoring program is implemented and regularly updated.

Additional things to consider:

- Before you start, have a clear understanding of how your operations can affect the surrounding environment and target your monitoring program to focus on the activities that are most likely to have an adverse impact.
- The monitoring program should consider trigger levels and contingency actions to prevent further pollution when exceeded. It can refer to existing documentation like Emergency Response Plans if necessary. More information on how to set trigger levels can be found in the *Licence assessment guidelines* (EPA publication 1321).
- Information collected as part of your monitoring program supports your APS. In line with condition G4, you must

keep all monitoring records and have them readily available.

- If a monitoring program requires yearly sampling, sampling intervals should not be greater than 12 months. Data supporting your APS should be based on results produced against an appropriate standard. For example, samples should be analysed by a laboratory competent in, or accredited for, the selected analyses. In most cases this means using National Association of Testing Authorities (NATA) approved and accredited laboratories.
- EPA will conduct random audits of your environmental performance and, during those audits, will assess the adequacy of the monitoring program. You may consider engaging a suitably qualified consultant to design and help implement an adequate monitoring program.
- If you already have a risk-based monitoring program or environmental management system in place, you should review and update it to ensure it satisfies published EPA requirements.
- A risk-based monitoring program includes a risk assessment that identifies the high-risk activities at your premises. As identified in the *Licence assessment guidelines* (EPA publication 1321), the higher risk activities will require a greater level of monitoring than lower risk ones.

References

Licence assessment guidelines (EPA publication 1321).

G5.1 Ambient air monitoring — general

You must implement a program to assess performance against the intervention level in Schedule B of the State Environment Protection Policy (Air Quality Management) for <indicator a, indicator b etc.>.

This non-standard condition is included in licences of premises that have a significant discharge to air of one or more air quality indicators. The significance is determined by the level of your discharges compared to other licensed discharges in the area and the overall contribution that your discharges make to the local air environment.

To show compliance with this condition, as a minimum:

You must have a current program in place that sets out the steps you take to gather information about your discharges of the air quality indicators so that you, EPA and the local community can use the information to understand the impact of your site on the local air environment. You must also be able to show that the program is carried out. Ideally, it would form part of your overall monitoring program.

Additional things to consider:

- Air dispersion modelling of emissions to air can be used to predict the ground-level concentrations of each pollutant, considering other sources and background concentrations. These predicted levels can be compared with the intervention levels in SEPP (AQM).
- Where predicted levels are close to the intervention levels, monitoring will need to be used to assess the actual ground-level concentrations and validate the modelling predictions.
- Where modelling predictions or actual monitoring results are above intervention levels, a risk assessment must be carried out to understand the impact. This risk assessment combines modelling and monitoring results with an assessment of population exposure and

sensitivity. EPA may use the findings of a risk assessment to determine whether a generator of emissions complies with policy.

- SEPP (AQM) clause 18 requires that generators of emissions must apply best practice to the management of their emissions.
- While monitoring for these significant discharges is usually continuous, modelling and risk assessments are typically reviewed every few years.

Monitoring:

As noted above, where modelling predicts levels that are close to the intervention levels, monitoring of the actual air concentrations will be required.

The monitoring of air emission impacts must be designed to assess the concentration of indicator chemicals (pollutants listed in this condition) at ground level (in other words, ground-level concentrations).

Such monitoring requires the use of specific instrumentation that must be selected, set up and calibrated by a suitably experienced person. The type of instrumentation and its location will be dependent on the nature of the discharges to air, the location and elevation of the discharge and the local atmospheric dispersion characteristics.

The recovery and interpretation of data obtained from the monitoring instrumentation must be conducted by a person with experience in air quality monitoring and assessment. As would be evident from the above, specialist assistance must be obtained when designing and establishing an ambient air monitoring network, conducting the monitoring, and interpreting the results.

Things to consider are:

- The monitoring must be conducted in accordance with *A guide to the sampling and analysis of air emissions and air quality* (EPA publication 440).
- You will need to set up monitoring stations at several locations around the discharge point — there should be sufficient locations (typically four) for you to be able to enable comparison with the relevant ground-level concentration limits.
- The monitoring stations should be placed in locations identified by the emissions modelling as having the most frequent high ground-level concentrations.
- The monitoring station sites must be sufficiently secure to enable operation without interference.
- The instrumentation must be sufficiently sensitive to be able to detect the relevant ground-level concentrations.
- The instrumentation must be calibrated and maintained in accordance with the manufacturer's recommendations.
- There should be at least one meteorological station to record temperature, wind speed and direction.
- The instruments must be properly maintained to ensure they are providing usable data.
- All instrumentation establishment, calibration and maintenance activities must be logged.
- Laboratories and testing facilities must be accredited by NATA for all tests conducted.
- Concentrations of the respective analytes must be reported using the units specified in SEPP (AQM).

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- All reports from sampling and analysis programs must be NATA-endorsed.
- All monitoring data and reports must be retained in a secure and accessible condition.
- The ambient air monitoring program may be modified depending on performance.

References

State Environment Protection Policy (Air Quality Management).

Licence assessment guidelines (EPA publication 1321).

G5.2 Ambient air monitoring — Latrobe Valley

You must implement a program to assess the effect of your discharge to air on the ability of the Latrobe Valley Air Quality Control Region to comply with Schedule 2 of State environment protection policy Ambient Air Quality.

Latrobe Valley is defined as an air quality control region in SEPP (AQM) because of its population, industrialisation and meteorological characteristics. This condition requires those industries that have the potential to make a significant contribution to pollution levels in the Latrobe Valley to assess the effect of their discharges.

To show compliance with this condition, as a minimum:

You must have a current program in place that sets out the steps you take to gather information about your emissions to air so that you, EPA and the local community can use the information to understand the impact of your site on the local air environment. You must also be able to show that the program is carried out. You may develop your own program or contribute to a joint program with other industries in the Latrobe Valley.

Additional things to consider:

- SEPP (AQM) clause 18 requires that generators of emissions apply best practice to the management of their emissions. Clauses 16, 21 and 28 specify EPA to require a generator of emissions to:
 - model the transport and dispersion of emissions
 - measure and report on the level of its emissions in the local air environment
 - undertake a risk assessment to gain a better understanding of the impact of emissions from its activity on the beneficial uses of the environment.
- SEPP (AAQ) sets ambient air quality objectives to protect beneficial uses including human health and the environment. These objectives are set for common air pollutants, mostly products of combustion.
- While licence-holders may choose how they conduct their assessments, the following guidance is provided:
 - Waste discharges to air are modelled to predict the ground-level concentrations of each pollutant, taking into account other sources and background concentrations. These predicted levels can then be compared with the ambient air quality objectives.
 - Where predicted levels are significant, monitoring is used to assess the actual ground-level concentrations and validate the modelling predictions.
 - Where modelling predictions or actual monitoring results are above air quality objectives, a risk assessment will be carried out to understand the impact. This risk assessment combines modelling and

monitoring results with an assessment of population exposure and sensitivity.

- EPA may use the findings of a risk assessment to determine whether a generator of emissions complies with policy. Best-practice management would also need to be demonstrated.
 - The modelling, monitoring and risk assessments can all be done as a joint project between generators of emissions in the region, provided individual site effects are assessed.
- While monitoring is usually continuous, modelling and risk assessments are typically done or reviewed every few years.

References

State Environment Protection Policy (Air Quality Management).

State Environment Protection Policy (Ambient Air Quality).

Licence assessment guidelines (EPA publication 1321).

G5.3 Ambient air monitoring for vinyl chloride

You must implement a program to assess performance against Section 2.5 of the Protocol for environmental management (Minimum control requirements for stationary sources) for vinyl chloride.

This non-standard condition is included in licences of premises that discharge vinyl chloride. Vinyl chloride is a Class 3 air quality indicator in SEPP (AQM) and may pose a significant risk to the environment.

To show compliance with this condition, as a minimum:

You must have a current program in place that sets out the steps you take to gather information about your discharge of vinyl chloride, so that you, EPA and the local community can use the information to understand the impact of your site on the local air environment. Ideally, it would form part of your overall monitoring program.

You must be able to show that the program is implemented; failure to do so will be a non-compliance with this condition.

Additional things to consider:

- The Protocol for environmental management (minimum control requirements for stationary sources) sets out requirements for industries that emit vinyl chloride. In particular, the PEM requires continuous ambient air monitoring and recording program.
- SEPP (AQM) clause 18 requires that generators of emissions of Class 3 air quality indicators reduce the emissions to the maximum extent achievable. Reducing your emissions to the maximum extent achievable means that you must go beyond industry best practice where possible and keep up to date with any improvements in vinyl chloride management.

Monitoring:

Monitoring of vinyl chloride emission impacts must be designed to assess the concentration of vinyl chloride at ground level (ground-level concentrations).

Such monitoring requires the use of specific instrumentation that must be selected, set up and calibrated by a suitably experienced person. Selection of the type of instrumentation and its placement will depend on the location and elevation

of the discharge and the local atmospheric dispersion characteristics.

The recovery and interpretation of data obtained from the monitoring instrumentation must be conducted by a person with experience in air quality monitoring and assessment. As would be evident from the above, specialist assistance must be obtained when designing and establishing an ambient air monitoring network and downloading and interpreting data from the instrumentation.

Things to consider for ambient air monitoring for vinyl chloride are:

- The monitoring must be conducted in accordance with *A guide to the sampling and analysis of air emissions and air quality* (EPA publication 440).
- You will need to set up four monitoring stations at selected locations around the discharge point — there should be sufficient locations for you to be able to reasonably demonstrate comparison with the ground-level concentration for vinyl chloride in SEPP (AQM).
- The monitoring station sites must be sufficiently secure to enable operation without interference.
- The monitoring stations should be placed in locations identified by emissions modelling as having the most frequent high ground-level concentrations.
- The instrumentation must be sufficiently sensitive to be able to detect the ground-level concentration for vinyl chloride.
- The instrumentation must be calibrated and maintained in accordance with the manufacturer's recommendations.
- There should be at least one meteorological station to record wind speed and direction.
- The instruments must be properly maintained to ensure they are providing usable data.
- All instrumentation establishment, calibration and maintenance activities must be logged.
- Laboratories and testing facilities must be accredited by NATA for all tests conducted.
- All reports from sampling and analysis programs must be NATA-endorsed.
- All monitoring data and reports must be retained in a secure and accessible condition.
- The ambient air monitoring program may be modified depending on performance.

References

State Environment Protection Policy (Air Quality Management).

Protocol for environmental management (Minimum control requirements for stationary sources).

Licence assessment guidelines (EPA publication 1321).

G5.4 Ambient air monitoring for fluoride

You must implement a program to assess annually:

- (a) Performance against the design criteria in Schedule A of the State Environment Protection Policy (Air Quality Management) for fluoride, and
- (b) Within a <x> metre radius of the premises boundary
 - (i) any visible injury to vegetation, and
 - (ii) fluoride levels in samples of forage (dry tissue,

unwashed) against an annual mean of 40 micrograms/g and a maximum of 80 micrograms/g.

This non-standard condition is included in licences of premises that discharge fluorides at a rate and height above ground level that may pose a significant risk to the environment. Fluorides can have an adverse impact on vegetation and wildlife that eats the vegetation (as 'forage') and therefore it is important to include monitoring of vegetation in any performance assessment.

To show compliance with this condition, as a minimum:

You must have a current program in place that sets out the steps you take to gather information about your discharge of fluorides, so that you, EPA and the local community can use the information to understand the impact of your site on the local environment. Ideally, it would form part of your overall monitoring program.

You must be able to show that the program is carried out; failure to do so will be a non-compliance with this condition.

Additional things to consider:

- SEPP (AQM) clause 18 requires that generators of emissions apply best practice to the management of their emissions.
- It is important to measure background levels of fluoride in vegetation in the region so that you can identify any impacts from your activities.
- The monitoring program doesn't have to be complex or expensive: taking photos of reference trees and sending them to a specialist yearly is sufficient, the specialist does not have to come to the site. Confirming that there is no forage within the buffer distance around your site is enough to demonstrate that the fluoride levels are below the limits set in the condition.
- Air dispersion modelling of emissions to air can be used to predict the ground-level concentrations of fluorides, taking into account other sources and background concentrations. These predicted levels can be compared with the design criteria in SEPP (AQM).
- Where predicted levels are close to the design criteria, monitoring of fluorides in the local air environment will be used to assess the actual ground-level concentrations and validate the modelling predictions.
- Where modelling predictions or actual monitoring results are above design criteria, a risk assessment will be carried out to understand the impact. This risk assessment combines modelling and monitoring results with an assessment of population exposure and sensitivity. EPA may use the findings of a risk assessment to determine whether a generator of emissions complies with policy.
- The risk assessment will include the results of the vegetation monitoring. The radius for vegetation monitoring is based on the buffer distance recommended for the activities at your site, or a distance estimated to cover an area where fluorides from your site may be deposited.
- Modelling and risk assessments are typically reviewed every few years.
- Further information on standards for fluorides in vegetation is available in the ANZECC guidelines National goals for fluoride in ambient air and forage. NB: the ANZECC guidelines refer to Australian standards that

have been superseded. The current standards are:
AS 3580.13.1 1993 Methods for sampling and analysis of ambient air – Determination of fluorides — Gaseous and acid-soluble particulate fluorides — Automated, double paper tape sampling and AS 3580.13.2-1991 Methods for sampling and analysis of ambient air — Determination of fluorides — Gaseous and acid-soluble particulate fluorides — Manual, double filter paper sampling.

Monitoring:

As noted above, where modelling predicts levels that are close to the design criteria, monitoring of the actual air concentrations will be required.

The monitoring of fluoride emission impacts in the air must be designed to assess the concentration of fluoride at ground level (ground level concentrations).

Such monitoring requires the use of specific instrumentation that must be selected, set up and calibrated by a suitably experienced person. The type of instrumentation and its location will be dependent on the location and elevation of the discharge and the local atmospheric dispersion characteristics.

The recovery and interpretation of data obtained from the monitoring instrumentation must be conducted by a person with experience in air quality monitoring and assessment. As would be evident from the above, specialist assistance must be obtained when designing and establishing an ambient air monitoring network and downloading and interpreting data from the instrumentation.

Things to consider for ambient air monitoring for fluoride are:

- The monitoring must be conducted in accordance with *A guide to the sampling and analysis of air emissions and air quality* (EPA publication 440).
- You will need to set up a number of monitoring stations at selected locations around the discharge point — there should be sufficient locations for you to be able to reasonably demonstrate compliance with the relevant ground level concentration.
- The monitoring station sites must be sufficiently secure to enable operation without interference.
- The monitoring stations should be placed in locations identified by emissions modelling as having the most frequent, high ground level concentrations.
- The instrumentation must be sufficiently sensitive to be able to detect the ground level concentration for fluoride.
- The instrumentation must be calibrated and maintained in accordance with the manufacturer's recommendations.
- There should be at least one meteorological station to record wind speed and direction.
- The instruments must be properly maintained to ensure they are providing usable data.
- All instrumentation establishment, calibration and maintenance activities must be logged.
- Laboratories and testing facilities must be accredited by NATA for all tests conducted.
- All reports from sampling and analysis programs must be NATA-endorsed.
- All monitoring data and reports must be retained in a secure and accessible condition.

Monitoring of fluoride emission impacts in vegetation involves both visual and analytical assessment. The visible impacts on vegetation are monitored by:

- identifying landmarks or installing markers that denote the radius of the monitoring zone from the site boundary
- inspecting healthy examples of vegetation growing near your site to obtain examples of unaffected vegetation to be used as a control — taking photographs of the vegetation will provide a useful reference
- identifying the symptoms of fluoride injury in the types of vegetation near your site — you may need assistance from a botanist to identify the symptoms and to develop a sufficiently rigorous sampling protocol
- developing a scale to record the extent of the injury to the vegetation. This might, for example, measure the extent and prevalence of necrosis or death of growing tips or leaves on the vegetation, or damage to the canopy. These injuries are usually indicated by a colour change
- monitoring the proportion of vegetation that shows injury from fluoride, the degree of damage to the individual plants and the extent of plant damage throughout the specified area around your site
- recording the absence or presence and degree and extent of fluoride impacts on vegetation using observation sheets and photographs.

When conducting analytical monitoring of fluoride levels in forage, note the following:

- Identify the types of plant that are grazed by animals (forage plants) within the nominated radius around your site boundary — you may need assistance from an ecologist.
- Take leaf samples from ten or more of the forage plants or clip grass around five centimetres above the ground, sufficient to form a compacted ball of around 10 cm diameter. The leaf samples should be taken from the growing tips of the plant or the top 15 cm of the grass, as these would be preferentially grazed parts of the plants; don't sample old or damaged foliage.
- The leaves and grass need to be dry and free of dust or dirt, and should not be rinsed.
- The analytical laboratory may specify a different sampling protocol, which should be followed in preference to the above.
- The sample should be shipped overnight to the analytical laboratory or allowed to wilt and dry before being shipped, so that it does not rot in the plastic bag.
- Complete a chain of custody form to accompany the sample — the laboratory will be able to supply you with a suitable form.
- Keep a log of the sampling and take photographs of the sampled plants.
- Retain the sampling and photographic logs and the laboratory reports in a secure and accessible location.

References

State Environment Protection Policy (Air Quality Management).

National goals for fluoride in ambient air and forage (ANZECC guidelines 1990).

Licence assessment guidelines (EPA publication 1321).

G6 Financial assurance

You must provide EPA with a financial assurance determined by the EPA, and maintain such assurance (including any part of such assurance) so that it can be claimed on, utilised or realised as and when required.

Financial assurance (FA) is a financial instrument that is required to be put in place as a condition of licences associated with the scheduled activities that must have financial assurance, as set out in the Environment Protection (Scheduled Premises and Exemptions) Regulations 2017.

To show compliance with this condition, as a minimum:

- You must have a current financial assurance in place that matches the amount and type of financial assurance approved by the Authority in writing.
OR
- If you do not yet have a financial assurance in place AND EPA has requested you to submit a financial assurance proposal to determine the amount and type of financial assurance, you must have submitted the financial assurance proposal by the date specified in correspondence from EPA.

Additional things to consider:

- If your financial assurance is a Guarantee by Deed Poll, you must also maintain a quarterly assessment by a credit ratings agency.
- If your financial assurance is a security over land, you must arrange a valuation of the secured land by the Valuer-General in consultation with EPA every two years.
- If your financial assurance includes an insurance policy you must maintain a certificate of currency for the insurance policy.
- If you are a public entity operating a landfill and are using financial provisioning as financial assurance, your financial statements must comply with the relevant accounting and financial reporting standards relating to accounting for landfill liabilities. If EPA has requested a calculation of landfill closure, rehabilitation and aftercare costs, you must submit the requested calculation. The Local Government Victoria guideline "Accounting for Landfills" sets out principles-based guidance to assist councils to comply with the accounting standard and financial reporting requirements applicable to the costs of landfilling.
- If your financial assurance is an accumulating fund you must make the required deposits as set out in the corresponding fund governance document.
- EPA is currently implementing the financial assurance publications listed below. Some duty holders that do not have a financial assurance in place will not yet have received a request by EPA to submit a financial assurance proposal to determine the amount and type of financial assurance. These duty holders must declare that they are not compliant with this condition.

References

Environment Protection (Scheduled Premises and Exemptions) Regulations 2017.

Financial Assurance for licences and works approvals (EPA publication 1594).

Types of financial assurance (EPA publication 1595).

Calculation of financial assurance for landfills, Prescribed Industrial Waste management (PIW) and container washing (EPA publication 1596).

G6.1 Financial assurance instalments

You must submit the financial assurance determined by EPA in instalments as follows: [placeholder – Instalment A, Amount Due <Insert \$ amount> by <insert DD/MM/YYYY>; Instalment B, Amount Due <Insert \$ amount> by <insert DD/MM/YYYY>; Instalment C, Amount Due <Insert \$ amount> by <insert DD/MM/YYYY>; etc.].

To show compliance with this condition, as a minimum:

You must have submitted each instalment of the approved financial assurance amount by the specified date.

For more guidance, see condition G6.

G6.2 Financial assurance additional instalments

You must provide the additional financial assurance instalment determined by EPA before depositing waste in [placeholder – cell name].

This condition is used where EPA determines that the amount of financial assurance must be increased due to the addition of a landfill cell to a licence.

To show compliance with this condition, as a minimum:

You must have submitted the required instalment of financial assurance before waste is deposited in the named landfill cell.

For more guidance, see condition G6.

G6.3 Storage agreements

You must not store more than <insert volume> of <insert waste type> without maintaining storage agreements.

To show compliance with this condition, as a minimum:

- You must have storage agreements in place that specify the owner of the waste, the registered business address of the owner of the waste, and the maximum volume of the owner's waste that will be accepted and stored for treatment by the duty holder at any one time.
- The storage agreements must specify that the waste owner accepts full responsibility for the waste in the event that the duty holder for any reason does not complete the contracted waste treatment or container washing operation.
- The ownership of waste that is stored at your premises on behalf of third parties must be clearly identifiable through labels or by being stored within a clearly designated area.

For more guidance, see condition G6.

G6.4 Financial assurance amount and type

You must submit a financial assurance of [placeholder - insert dollar amount] in a form determined by EPA by [placeholder - insert date].

This condition is used where EPA determines that the amount of financial assurance must be increased, where the financial assurance amount is calculated using information contained in the licence such as prescribed industrial waste storage limits and waste types.

To show compliance with this condition, as a minimum:

You must have submitted the required amount of financial assurance by the required date.

For more guidance, see condition G6.

Amenity conditions

A1 Odour

You must ensure that odours offensive to the senses of human beings are not discharged, emitted or released beyond the boundaries of the premises.

This condition aims to ensure that the local community is not adversely affected by odour generated by onsite activities. 'Offensiveness' is generally influenced by the type and strength of the odour, as well as how often a person is exposed to it.

To show compliance with this condition, as a minimum:

You must not have received any verified odour complaints. Verified complaints are those that can be shown to be caused by odour that comes from your site at a frequency, duration or level that is 'offensive'. If an odour complaint is verified, a non-compliance with this condition must be reported.

You must comply with the SEPP for Air Quality Management for all emissions to air. SEPP (AQM) requires that best practice is applied to the management of emissions to air, including odour. Identify your risk level for offensive odour based on your operations and maintain procedures and controls to manage the risk.

You must have procedures in place so that appropriate steps are taken by you to follow up any odour complaints you may receive. Guidance on managing odour complaints is provided below.

Additional things to consider:

- The risk of complaints being made by neighbours will depend on the types and strength of odours you discharge, the frequency of the discharge, how close your site is to sensitive receptors such as residential neighbours, and local weather conditions. Complaints are more likely to arise when the odour has unpleasant 'hedonic tones' and when odour discharges are frequent or prolonged.
- Sources of odour may include open stockpiles of wastes, discharges from chimneys, flues and vents, escape of volatiles during transfer of odorous materials and airflow through openings in buildings housing odorous activities.
- You can reduce the risk of odour complaints by enclosing any sources of odour as much as possible, managing operations to minimise generation of odour emissions or installing and maintaining odour control equipment.
- Be prepared to manage any emissions of odour that may be considered offensive from non-routine activities. For example, if you are aware that you might produce a temporary odorous discharge during maintenance activities or planned works, you should consider informing your neighbours, so that they understand what is happening. You should develop contingency and mitigation measures for such situations if they are likely to arise.
- Consider the level of risk of offensive odour from your premises:
 - Low risk — sites that do not handle or generate odorous materials in their operations, or sites with large buffer distances between any odorous onsite activities and the nearest residences. Odour monitoring may only need to be a periodic check that

there has not been a change to the scale or type of activities at the site.

- Intermediate risk — sites such as food manufacturing plants, printing plants, small chemical plants or small waste processing plants.
- High risk — sites that handle or generate potentially odorous materials, such as sewage treatment plants, large chemical plants, landfills, composters, intensive animal industries, abattoirs, rendering plants or oil refineries, particularly those with residents nearby.

Monitoring:

- You must keep a record of the odour checks done. The frequency of the checks depends on the level of risk. If an odour complaint has been made, you must conduct additional monitoring (see below).
- Monitoring should be tailored to the types of odours and the number and location of odour sources at the site. It might include a weekly or monthly walk around the site boundaries and adjacent streets, particularly downwind of operations, taking note of any odours detected. The walk should be both upwind and downwind of the site. The monitor should have a good sense of smell and be familiar with types of odours that would be caused by plant operations, but should be someone who has not become desensitised to those odours. Ideally, several people would have this role at sites with larger workforces. The odour assessment should be conducted before entering the site and at times when onsite activities have the greatest potential to generate offensive odours. If any potentially offensive odour is identified, actions must be taken to address any issues as quickly as possible.
- All observations should be recorded in a log and should include potential sources of odour at the facility, the route walked, weather conditions, any odours detected at the site boundaries and surrounding areas and the location of any detected odour. The record should also include the nature, strength and identity of the odour, and its source if identifiable. Note that, depending on a range of factors, including the elevation of the odour source and location of nearby buildings, some odours may be more apparent at ground level some distance from the emission point.
- At sites where odour control equipment is used, the equipment must be monitored regularly to determine if the efficiency target (for example, 99 per cent odour destruction) is being met. The parameters used for this check will depend on the type of equipment used; for example, operating temperature for a thermal oxidiser. In addition, the odour control equipment must also be tested regularly to ensure that there has not been a drift between the monitoring parameters used and the odour control efficiency.
- High-risk sites will usually have a critical reliance on odour control equipment or operational controls for odour management. Odour control equipment for high-risk odour sources must have a specified performance efficiency set to achieve the required rate of odour reduction. A preventative maintenance program should be in place to maintain plant operation at the specified performance efficiency and to avoid breakdowns. Odour emission modelling will have been conducted as part of the approvals process. Proxy indicator chemicals for odour emissions taken from the modelling will usually be included in the 'Discharge to air' table set in the licence or other specific conditions of the licence. Such sites would usually engage a suitably qualified odour

consultant to conduct regular monitoring of odour emissions or proxy indicators from the site. The odour monitoring report produced by the consultant should include a statement regarding compliance of odour discharges with the licence condition.

Daily odour checks of surrounding areas by an odour monitor (see above) should be conducted to provide a field check of the performance of the odour control equipment. Depending on the rate of detection of odours, you may choose to reduce the frequency of odour checks.

Community complaints:

- Every odour complaint should be logged and investigated, and resulting actions documented. You should record the name and contact details of the person making the complaint, the date and time the odour was detected, the location where the odour was detected, the weather conditions at the time, the type of the odour and how long the odour was detected. You should also record the onsite activities occurring at the time reported by the complainant. If the complainant agrees, you should visit the complainant soon after receiving the complaint to discuss the nature of the odour and to confirm details of the complaint provided at the time. The opportunity should be taken to describe the actions you will take to address the complaint and any actions planned or under way to reduce odour emissions from the site. Ideally, you could agree with the complainant for them to provide you with odour alerts if they detect an odour in the future. This can help make for a more productive relationship. During the meeting, you can try to identify the component of the odours that the complainant finds offensive. This can help you to track and manage the source.
- If you are sure that the odour did not come from your site or you do not agree with the complainant that the odour is offensive, you should ask the complainant to contact EPA.
- EPA will notify the licence-holder as soon as possible after confirming an odour complaint received about its premises.
- All verified odour complaints (linked to your operations) must be noted in your APS, as they are an indicator of licence non-compliance. As required by licence condition G2, you must immediately report the verified complaint to EPA.

References

Recommended buffer distances for industrial residual air emissions (EPA publication AQ2-86).

A guide to the sampling and analysis of air emissions and air quality (EPA publication 440).

Managing emissions of volatile organic compounds (EPA publication 929).

A2 Noise

You must ensure that there are no emissions of noise and/or vibrations from the premises which are detrimental to either of the following:

- a) the environment in the area around the premises; and
- b) the wellbeing of persons and / or their property in the area around the premises.

This condition is designed to prevent the local community from being adversely affected by noise and vibration generated by activities at your premises.

According to the Environment Protection Act, noise includes vibration.

EPA considers that the environment can also be impacted by noise and vibration, for example in the case of vibrations affecting local geo-stability. Noise is likely to be 'detrimental' if it has an unreasonable impact on normal domestic and recreational activities, especially if it disturbs sleep at night. While this condition refers to emission of detrimental noise beyond the boundaries of the premises, noise impacts are usually assessed at residences as described in the SEPP for noise or the interim guidelines for control of noise from industry in country Victoria, referenced below.

To show compliance with this condition, as a minimum:

You must not have received any verified noise complaints. Verified complaints are those that can be shown to be caused by noise that comes from your site at a frequency, duration and/or level that is 'detrimental'. If a noise complaint is verified, a non-compliance with this condition must be reported.

Identify your risk level for detrimental noise (see below) and maintain plans and procedures to manage the risk.

You must have procedures in place to follow up a complaint. See below for guidance on managing noise complaints.

Additional things to consider:

- Noise that is likely to be detrimental to the wellbeing of neighbouring residents and / or their property includes:
 - banging or hammering from presses or hammers
 - intermittent noises, such as air compressors, vehicle reversing alarms or exhaust brakes on trucks
 - continuous tonal noises such as whining, buzzing or humming noises from dust extraction systems, motors or fans
 - vibrating equipment that is not properly isolated.
- Noise emission impacts are worse from elevated sources and open sites, from sources that are located close to or in direct line of sight of residences or other sensitive receptors, and at night.
- Regular noise surveys will help you assess your noise impact. The frequency of these surveys should be based on the level of risk of detrimental noise being emitted from your premises.
- Be prepared to manage any emissions of detrimental noise from non-routine activities.
- Consider the level of risk of detrimental noise from your premises:
 - low risk — sites without noisy equipment — for example, only small electric motors and pumps; equipment located within a building or fitted with purpose-built noise attenuators that meet noise emission limits, or without 24-hour operations, including night-time deliveries; sites with large buffer distances or screens between any noisy onsite activities and the nearest residences
 - intermediate risk — sites with one or more units of commonly noisy equipment that are located adjacent to or in line of sight of residences, or have the noisy

- equipment installed in an elevated position on the site
- o high risk — sites with multiple noise sources, such as oil and gas refineries, wood processors, milk processors, power stations and metal fabricators, particularly those with 24-hour operations or nearby residents.
- Noise emission controls include enclosures, mufflers, acoustic louvres, acoustic fences or locating potential noise sources furthest away from sensitive areas.

Monitoring:

- Managers of sites with a low risk of generating unreasonable noise might conduct a walk-around of the boundaries of their site and listen for potential sources of noise. The observations of the check should be recorded, and actions taken to address any potentially unreasonable noise identified and used to support the annual performance statement.
- Managers of sites with an intermediate risk of generating unreasonable noise might conduct a walk-around to identify potential sources of unreasonable noise. The monitor should be a person who is familiar with types of noise that would be caused by plant operations and has not become desensitised to that noise. Managers may need to apply routine noise controls, advised by an acoustic product supplier, to noise sources and activities. Again, the observations of the check and the noise mitigation actions taken should be recorded.
- Managers of sites with a high risk of generating unreasonable noise might consider commissioning regular noise assessments of their operations, depending on their noise emission profile and location with respect to sensitive receptors. The acoustic assessment report should include a list of noise sources and their emission levels, the routine noise control proposed and the reduction that would be achieved, a calculation of the noise design target, simple noise propagation calculations and a statement that the calculations show the noise design target would be met. The frequency of noise assessments will depend on the level of risk and any changes since the last assessment.

Community complaints:

- Every noise complaint should be logged, investigated and documented. Information recorded should include the name and contact details of the person making the complaint, the location where they heard the noise, the date(s) and time(s) they heard the noise, the type of the noise and how long it continued. You should also record the onsite noise-generating activities occurring at the time reported and the weather conditions at the time the noise was heard.
If they agree, you should visit the complainant soon after receiving the complaint to discuss the nature of the noise and to confirm details of the complaint provided at the time. If you agree that the noise was emitted from your site, you should describe the actions you will take to address the complaint and any actions planned or under way to reduce noise emissions.
- If you are sure that the noise did not come from your site or you do not agree with the complainant that the noise is unacceptable, you should ask the complainant to contact EPA.
- EPA will notify the licence-holder as soon as possible after confirming a noise complaint received about their premises.

- All verified noise complaints must be noted in your APS, as they are an indicator of licence non-compliance. As required by licence condition G2, you must immediately report the verified complaint to EPA.

References

State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) (No. N-1).
Noise from Industry in Regional Victoria guidelines (EPA publication 1411)
A guide to the measurement and analysis of noise (EPA publication IB280).
Other EPA guidance on noise, including residential noise and music noise from public premises, is available from www.epa.vic.gov.au/noise.

A3 Dust and airborne particles

You must ensure that nuisance dust and/or nuisance airborne particles are not discharged or emitted beyond the boundaries of the premises, except as permitted by this licence.

This condition aims to ensure that the local community is not adversely affected by dust generated by onsite activities. Dust refers to small particles in the air that may reduce visibility, cause respiratory problems or collect on surfaces in unacceptable quantities. Dust generally comes from fugitive sources such as unpaved roads, handling of dusty materials and operations at quarries and mines.

This condition also aims to ensure that the local community is not adversely affected by airborne particles generated by onsite activities. 'Airborne particles' includes both dust and potentially harmful particles that are likely to damage property, be difficult to remove or adversely affect human health. While the impacts may differ, any verified complaint about nuisance from particles or dust will be a non-compliance with A3. A 'nuisance' in this context is something that disrupts normal domestic or recreational activities in the neighbourhood.

To show compliance with this condition, as a minimum:

You have not received any verified dust or particle complaints. Verified complaints are those that can be shown to be about dust or particles that are discharged from your site at a frequency, duration and/or level that is a 'nuisance'. If a complaint regarding dust or particle emissions is verified, a non-compliance with this condition must be reported.

SEPP (AQM) requires that best practice is applied to the management of emissions to air, including dust and particles. You must identify your risk level for nuisance airborne particles (including dust) at your operations and maintain procedures and controls to manage the risk at the appropriate level. The risk levels for particles and dust may differ; for example, a site may be high-risk for potentially harmful particles but have a low risk of fugitive dust.

You must have procedures in place so that, if you receive a complaint, you take appropriate steps to follow it up. See below for guidance on managing dust or particle complaints.

Additional things to consider:

- Be prepared to manage any emissions of dust or particles from non-routine activities that may be considered a nuisance.

- Consider the level of risk of nuisance particles and/or dust from your premises:
 - Low risk — sites with paved roadways and few or no open areas that do not handle or store dusty materials; sites with large buffer distances or screens between onsite dust-generating activities and the nearest residences; sites that do not emit potentially harmful particles
 - Intermediate risk — sites with some open areas, deliveries or pickups of dusty materials, composters; sites with the potential to emit low levels of potentially damaging particles or aerosols
 - High risk — sites with unpaved roads, significant traffic movement, landfills, mines, quarries, cement works and/or onsite storage silos in close proximity to residential areas; sites with the potential for significant particle or aerosol emissions, such as paint manufacturers, milk processing works, and metal and glass industries.
 - Sites licensed to emit particles, PM₁₀ or PM_{2.5} from point sources must meet the discharge limits in their 'Discharge to air' table at all times. During normal operations, such particle discharges should not give rise to any airborne particles at a level sufficient to cause a nuisance.
 - Particles discharged in compliance with the discharge to air table (as permitted by condition DA1), or other air emission condition, do not trigger a non-compliance with condition A3.
 - Dust:
 - Potential sources of dust include stockpiles of soil or other fine material, unpaved areas, earthworks, open areas of unvegetated land, or bulk storage installations during handling of dry materials such as cement, sand or grain. The risk of discharge increases during high winds and dry weather and is increased by the handling of dry materials in these conditions.
 - You can reduce the risk of fugitive dust by covering stockpiles and using dust suppression techniques on exposed areas. Where water is scarce, use of recycled water or synthetic dust suppressant may be necessary.
 - The mining and extractives industry can have severe dust issues and should refer to the *Protocol for Environmental Management: Mining and extractive industries* (EPA publication 1191; PEM Mining) for more information on dust control measures and best practice. For activities that have similar processes such as concrete crushing and resource recovery, the PEM Mining can also be used to develop control strategies and monitoring.
 - Particles:
 - Particles can be generated during upset conditions or during equipment startup or shutdown.
 - Sources of potentially harmful particles can include inadequately treated discharges to air (point or diffuse source), leaks from ducted waste air streams or failure of air treatment equipment.
 - Where particles of a highly hazardous nature such as paint or caustic aerosols are removed from an exhaust stream, the air treatment equipment needs to be actively maintained to ensure effective removal of the particles from the air stream before discharge.
 - In the event of a discharge, contingency measures should be in place to mitigate any impacts.
- Monitoring:**
- At low-risk sites, you might consider conducting visual observations during dry, windy weather or during the occasional activities that might generate dust or particles. You should record the results of the observations.
 - At high-risk sites, you should consider preparing and implementing a dust and particle management plan. The plan may include regular site surveys, identifying and mitigating sources of dust or particles, management procedures to control dust-generation and the use of particle monitoring equipment, as well as visual observations.
 - Particle monitoring equipment includes dust deposition gauges that measure passive deposition of dust or particles in a funnel and bottle, high-volume samplers that draw air through dust collection filters, and continuous particle monitors that measure airborne dust concentration.
 - Some discharges of nuisance airborne particles can be detected by visual inspection of air exhaust fans, ducting and particle capture.
 - You should also look around the yard below the discharge point. If you are able to safely gain access to your roof or can see it from an elevated viewing point, you should look for signs of chronic deposition of particles on the roof.
 - If you suspect nuisance particle fallout, you can install tell-tale catch plates below suspected discharge points. These can confirm fallout in some circumstances.
 - Air treatment equipment should be regularly inspected, with the frequency of inspection reflecting the criticality of the equipment and noxiousness of the airborne particles treated by it.
 - Appropriate process measurements made on air treatment equipment can be used to demonstrate that the equipment is working adequately.
- Community complaints:**
- Every complaint should be logged and investigated, and actions documented. You should record the name and contact details of the person making the complaint, the location of the problem, the date(s) and time(s) they observed the dust or particles, and the extent of the problem. You should also record the onsite dust or particle-generating activities occurring at the time of the report and the weather conditions at the time the observation was made.
 - If they agree, you should visit the complainant soon after receiving the complaint to discuss the nature of the problem and to confirm details of the complaint provided at the time. You should take the opportunity to describe the actions you will take to address the complaint and any actions planned or under way to reduce dust and/or particle emissions from your site.
 - If you are sure that the dust or particles did not come from your site or you do not agree with the complainant that the dust or particles are in sufficient quantities to be a nuisance, you should ask the complainant to contact EPA.
 - EPA will notify the licence-holder as soon as possible after confirming a dust complaint has been received about their premises.

Licence Management

- All verified dust or particle complaints (linked to your operations) must be noted in your APS, as they are an indicator of licence non-compliance. As required by licence condition G2, you must immediately report the verified complaint to EPA.

References

Protocol for Environmental Management: Mining and extractive industries (EPA publication 1191).

Protocol for Environmental Management (Minimum control requirements for stationary sources) (EPA publication 829).

Control of arsenic in mine tailings, sand and rock (EPA publication IWRG431).

Designing, constructing and operating composting facilities (EPA publication 1588).

Discharge to air

DA1 Air – discharges

Discharge of waste to air must be in accordance with the 'Discharge to air' table.

This condition allows you to discharge to air only the waste or air quality indicators specified in your licence. The 'Discharge to air' table sets a maximum limit for each waste from each discharge point. Your licence may include a 'bubble limit' for some wastes. This is the maximum amount that is allowed to be discharged from the whole site.

To show compliance with this condition, as a minimum:

You must meet all the limits in the 'Discharge to air' table.

Your monitoring program must include sufficient sampling and analysis of emissions to show compliance with your licence.

Any waste discharged from a discharge point not listed in your 'Discharge to air' table that is above the threshold level in the Environment Protection (Scheduled Premises and Exemptions) Regulations is a non-compliance with your licence.

Additional things to consider:

- SEPP (AQM) requires that 'best practice' is applied to the management of emissions to air, with discharges of air quality indicators listed as Class 3 indicators in SEPP (AQM) to be reduced to the maximum extent achievable.
- Your licence may include a combination of individual discharge points and a bubble limit.
- The 'Discharge to air' table sets maximum emission rates. These rates are based on the sample averaging times recommended in *A guide to the sampling and analysis of air emissions and air quality* (EPA publication 440). For relatively short batch processes, such as smelting cycles or heating cycles, the averaging time is equivalent to the time taken for each 'batch'.
- Your air emissions can be affected by variations in operational parameters such as temperature, pH and feedstock. If a proposed change at the facility has the potential to affect the emission, you must notify EPA and determine whether a works approval is required.
- Temporary changes to operations, such as emissions caused during equipment maintenance and commissioning or decommissioning, may require a section 30A emergency discharge approval. Contact EPA if this might occur.
- You should always look to continuously reduce your emissions. If you are allowed to discharge 'volatile organic compounds' you should identify the most harmful components in the mixture and look for ways of reducing them.
- If you are allowed to discharge 'particles' you should determine their size, as smaller particles are more hazardous to humans and efforts should be made to reduce their emissions.

Monitoring:

You must develop and implement a monitoring plan that enables you to determine compliance with the listed discharge limits. The *Licence assessment guidelines* (EPA publication 1321) will assist you with developing your monitoring program.

Your monitoring plan will need to specify:

- the location of the discharge points to be monitored
- the location and method of access to the sampling ports for the discharge points
- the sampling frequency
- the testing required
- the required detection limit for the listed parameters.

Note that:

- the sampling must be conducted by a suitably experienced person
- the laboratories and testing facilities must be accredited by NATA for all tests conducted
- concentrations of the respective analytes must be reported using the units specified in the licence or SEPP (AQM)
- all reports from sampling and analysis programs must be NATA-endorsed
- all monitoring data and reports must be retained in a secure and accessible condition
- the air monitoring program may be modified, depending on performance.

Sampling and analysis must be conducted in accordance with *A guide to the sampling and analysis of air emissions and air quality* (EPA publication 440).

In some circumstances, when reliable information is available, you may calculate your 'bubble' discharges using mass balance techniques. These will need to be confirmed by occasional sampling and analysis of the major point-source contributors to the discharge 'bubble'.

References

State Environment Protection Policy (Air Quality Management).

Protocol for Environmental Management (Minimum control requirements for stationary sources) (EPA publication 829).

Managing emissions of volatile organic compounds (EPA publication 929).

A guide to the sampling and analysis of air emissions and air quality (EPA publication 440).

Licence assessment guidelines (EPA publication 1321).

DA1.1 Management of landfill gas

You must combust all landfill gas made available to the premises.

This non-standard condition is used for premises that burn landfill gas to generate electricity. Uncombusted gas must not be allowed to escape into the air environment.

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to ensure that appropriate action is taken if you are unable to burn the gas that is ducted to the premises.

You must maintain records to show that the procedures are followed and controls maintained.

Release of unburnt gas into the air environment is a non-compliance with this condition and must be reported to EPA.

Additional things to consider:

- SEPP (AQM) requires that best practice is applied to the management of emissions to air.
- You must meet all the limits in the 'Discharge to air' table in your licence.
- For more information on monitoring, refer to condition DA1 (Discharge of waste to air must be in accordance with the 'Discharge to air' table).

References

State Environment Protection Policy (Air Quality Management).

A guide to the sampling and analysis of air emissions and air quality (EPA publication 440).

DA1.3.x Elevated concentrations of particles

The concentration of particles discharged from discharge points <DP nos> must not exceed <xx> grams per normal cubic metre (based on <yy> minute averages at 12% CO₂) for more than <zz> hours each year (aggregate total for all discharge points).

This is a specific condition that has been developed for premises that burn brown coal and use electrostatic precipitators to reduce particle discharges. It allows concentrations of emissions to exceed the requirements in SEPP (AQM), particularly during startup and shutdown or maintenance, for a limited time each year. The condition sets a maximum allowable concentration of particles from one or more discharge points for a total number of hours per year.

To show compliance with this condition, as a minimum

You must continuously monitor your particle emissions so that you can show that the duration of excess emissions does not exceed the concentration or number of hours specified in the condition during the reporting period. The total number of hours refers to the overall sum of the hours of excess emissions from every discharge point specified in the condition.

You should discuss any specific conditions in your licence with EPA to make sure you understand your obligations.

References

State Environment Protection Policy (Air Quality Management).

A guide to the sampling and analysis of air emissions and air quality (EPA publication 440).

DA1.5 Frequency distributions of sulfur dioxide discharges

The annual frequency distribution of the mass discharge rate of sulfur dioxide from each of discharge points <xx> must not exceed

- (a) a 90th percentile mass rate of 50,000 grams per minute and
- (b) a 50th percentile mass rate of 30,000 grams per minute.

This non-standard condition is used for adjacent premises with significant discharges of sulfur dioxide. Setting a percentile limit that is significantly lower than the maximum limit ensures that the maximum is rarely reached, thus reducing the overall risk to the air environment.

To show compliance with this condition, as a minimum:

You must continuously monitor and record discharges of sulfur dioxide so that the 90th percentile and 50th percentile mass rates can be determined.

You must have procedures and controls in place to ensure that the discharges of sulfur dioxide meet the limits specified in the condition.

Failure to meet the limits in the condition must be reported to EPA as a non-compliance.

Additional things to consider:

- SEPP (AQM) clause 18 requires that best practice is applied to the management of emissions of sulfur dioxide.
- This condition allows the licence maximum limit to be set relatively high, but ensures that it doesn't apply all the time.
- The condition is included in the licences of neighbouring premises that discharge sulfur dioxide to ensure that the occasions when the discharge approaches the maximum limit are infrequent. This reduces the overall impact, as it is unlikely that adjacent premises will discharge at the maximum rate at the same time.

References

State Environment Protection Policy (Air Quality Management).

A guide to the sampling and analysis of air emissions and air quality (EPA publication 440).

DA1.6 In-tunnel carbon monoxide concentrations for road tunnels

The concentration of carbon monoxide in the tunnel must not exceed (a) a maximum of 150 ppm (b) a 15-minute average of 50 ppm and (c) a two-hour average of 25 ppm.

This non-standard condition is only used for road tunnels. The purpose of specifying in-tunnel carbon monoxide concentrations is to protect people within the tunnel regardless of how long they are there. Carbon monoxide is particularly hazardous in confined spaces and so the extra level of control is warranted.

To show compliance with this condition, as a minimum:

You must continuously monitor carbon monoxide concentrations in the tunnel to show that the specified concentrations are not exceeded.

Failure to meet the limits for the in-tunnel concentrations is a non-compliance with this condition and must be reported to EPA.

Additional things to consider:

- In-tunnel monitoring for concentrations of carbon monoxide is recorded at several points along the tunnel every 30 seconds and reported as a 15-minute rolling average.
- The World Road Association (PIARC) proposes in-tunnel limits for visibility, carbon monoxide and oxides of nitrogen.
- EPA derived the carbon monoxide limits used in the condition.

- The purpose of setting in-tunnel concentrations over exposure times is to assist the operator in appropriately ventilating the tunnel for road safety.

References

State Environment Protection Policy (Air Quality Management).

Road Tunnels: Vehicle Emissions and Air Demand for Ventilation, World Road Association (PIARC), November 2004.

A guide to the sampling and analysis of air emissions and air quality (EPA publication 440).

DA1.7.x Discharges from road tunnel portals

Discharge of waste to air is only permitted from the <tunnel name> tunnel exit portals (a) during maintenance, training or testing of the smoke extraction system at any time <use (b), (c) etc. to specify any other times>.

This is a specific condition that is used for road tunnels and is tailored to each particular tunnel, as individual tunnel usage may vary. The condition allows for extractor fans to be turned off during periods of low traffic density in the tunnel. This not only saves energy, it reduces noise impacts. The condition sets the times of low traffic density based on tunnel usage.

To show compliance with this condition, as a minimum:

You must maintain records to show that the tunnel extraction systems are operated at the appropriate times.

Additional things to consider:

- SEPP (AQM) requires that best practice is applied to the management of emissions to air.
- You must comply with the limits in the 'Discharge to air' table for the tunnel stacks at all times.
- Portal discharges are controlled by the use of extractor fans in the tunnels. Monitoring of the discharge from the portal itself is not required.

References

State Environment Protection Policy (Air Quality Management).

A guide to the sampling and analysis of air emissions and air quality (EPA publication 440).

DA1.9 Elevated concentrations of discharges from road tunnels

Discharge of waste to air may exceed the maximum discharge rates in the 'Discharge to air' table and the concentrations in condition DA1.6 during an emergency to prevent danger to life or limb within the tunnels.

This non-standard condition is used for road tunnels only. Dealing with emergencies and accidents in road tunnels is generally outside the control of the tunnel operators and must take precedence over emissions management.

To show compliance with this condition, as a minimum:

If the licence limits are exceeded during an emergency that is beyond your control, you are not required to report the exceedances as a non-compliance with your licence. You may need to report the emergency to EPA for other reasons.

You must be able to show compliance with the 'Discharge to air' table and the in-tunnel carbon monoxide concentrations in your licence at all other times.

References

State Environment Protection Policy (Air Quality Management).

DA1.10.x Excess discharges to air

Example:

The discharge rate of particles from <discharge point(s)> must not exceed the limit referred to in condition DA1 except during plant start-up and shut-down for more than a total of <number of hours> hours per month.

This is a specific condition that has been developed for premises to set a maximum allowable concentration of particles from specific discharge points for a limited period each year (during startup and shutdown periods). You should discuss any specific conditions in your licence with EPA to make sure you understand your obligations.

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to ensure that the periods and levels of discharges meet those set in the condition.

You must be working towards minimising the emissions so that this condition will no longer be required.

References

State Environment Protection Policy (Air Quality Management).

A guide to the sampling and analysis of air emissions and air quality (EPA publication 440).

DA1.11 and 1.12 – Air discharges

These conditions are supplementary to condition DA1. See compliance information for condition DA1.

DA2 Smoke – visible emissions

Visible emissions to air other than steam must not be discharged from the premises, except as permitted by this licence.

This condition aims to ensure that emissions to air from your premises do not reduce visual amenity. It is also to ensure that air discharges are being appropriately controlled, as visible emissions can be an indicator of upset conditions, such as an equipment or process malfunction. Note that this condition includes smoky or coloured licensed discharges, as well as emergency releases and flares.

To show compliance with this condition, as a minimum:

SEPP (AQM) requires that best practice is applied to the management of emissions to air.

You must identify your risk level for visible emissions based on your operations and maintain procedures and controls to manage the risk.

If you operate a safety relief flare, you must also meet the requirements set out in Section 2.11 of the *Protocol for Environmental Management (Minimum control requirements for stationary sources)* (EPA publication 829), which requires all flare systems to operate smokelessly under routine plant operating conditions. Visible flames from correct use of a safety relief flare are acceptable and are not considered to be visible emissions. Smoke that is generated from flaring to prevent an emergency due to a major plant upset is not considered non-compliance, provided that the emergency is

not a result of negligence. There may be other issues at that time that require you to report the incident to EPA.

You must not have received any verified complaints about visible emissions. Verified complaints are those that can be shown to be correct observations of visible emissions from your site.

You must have procedures in place so that, if you receive a complaint, you take appropriate steps to follow it up. See below for guidance on managing complaints.

Additional things to consider:

- Visible emissions may include use of gas flares and discharge of smoke, powder, coloured compounds and other air pollutants that are not listed in your 'Discharge to air' table.
- Safety relief flares are designed to safely manage emergency releases. Compliance with this condition with respect to flares refers to smoke, not flames.
- If there is visible smoke due to non-emergency use of a flare or because the use of the flare is due to negligence, you must report this to EPA as a non-compliance.
- Be prepared to manage any emissions that may be visible from non-routine activities.
- This condition does not apply for visible emissions that result from planned maintenance works.
- This condition does not apply for dust and airborne particles when condition A3 and A3.1 is included in the licence.
- This condition allows for visible emissions from individual discharge points, provided that the mass rate discharge limits are met (for example, for particles).
- The following exemption applies: if any emissions are visible from one or more of your discharge points listed in the 'Discharge to air' table, it is not reported as a non-compliance, provided that the mass rate of emissions discharged from that discharge point is not exceeded.
- Visible emissions from non-licensed discharge points and fugitive emissions are not permitted.
- You will need to be able to demonstrate that any visible emissions from licensed discharge points comply with their limits (such as for particles).

Monitoring:

- Depending on the nature of your operations, you should inspect each of your air discharge points for visible emissions daily. Ideally, you would check the visibility of emissions when the plant is operating under full or normal operating load. If you detect some visible emissions, you should check the performance of your emission control equipment.
- A visual check should also be made of discharge points at critical operational stages, such as charging, opening or decanting from hot equipment, or marked changes in load on fuel-burning equipment.
- Visible emissions may be distinguished from steam (water vapour) emissions by:
 - the plume having a visible 'tail' after the billowy steam cloud has dissipated
 - being visible on hot days when the steam component of the discharge plume is not visible, when compared to the plume appearance on a cold morning
 - colour (including grey) present in the plume outside of the steam cloud

or

- fallout occurring under the discharge plume.
- You can make direct checks of the plume by testing for fume or other fine particle content during stack testing.
- You should monitor use of a gas flare, record the details of each flare event and report the event to EPA. This information should be given in your annual performance statement.
- You may consider using a video monitor of your plume to record visible emissions during daylight hours, either continuously or by time lapse.
- A record of your observations should be kept.

Community complaints:

- Every complaint regarding visible emissions should be logged, investigated and actions documented. You should record the name and contact details of the person making the complaint, the date(s) and time(s) observed and the extent of the problem. You should also record the onsite activities occurring at the time reported.
- If you are sure that there were no visible emissions at the time, or you do not agree with the complainant, you should ask the complainant to contact EPA.
- All verified complaints of visible emissions (linked to your operations) must be noted in your APS, as they are an indicator of licence non-compliance. As required by licence condition G2, you must immediately report the verified complaint to EPA.

References

State Environment Protection Policy (Air Quality Management).

Protocol for Environmental Management (Minimum control requirements for stationary sources) (EPA publication 829).

Discharge to water

DW1 Surface water (uncontrolled runoff)

You must ensure that surface water discharged from the premises is not contaminated with waste.

This condition is concerned about preventing waste or other materials mixing with surface water moving across your site and draining into the stormwater system or a waterway. It is your responsibility to ensure that any surface water contaminated with waste or other materials on your site is collected and treated so that only uncontaminated surface water leaves your site.

Materials that may contaminate surface water include liquid raw materials or product, stockpiles of soil or other fine material, sediment on exposed or disturbed sites, dust or fine particles settled on surfaces, or spilled materials that may be carried by water.

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to make sure that:

- materials that may contaminate stormwater or be picked up in water running across the site are kept in bunded areas
- unbunded loading and unloading bays are kept clean
- spills and leaks are promptly cleaned up
- contaminated surface water is disposed of appropriately
- if water is used to clean or hose down materials and surfaces, that it is contained onsite.

Your procedures and controls to manage surface water must be appropriate for the level of risk of surface water contamination at your site. For example, sites with high levels of vehicle movements and unbunded areas will require a much higher level of surface water controls than sites where most activities are within buildings.

Additional things to consider:

- Surface water includes stormwater and run-off water from hosing down a stockpile, vehicle washing etc.
- Surface water management controls include isolation of potential sources of contamination, good housekeeping, proper waste disposal and regular maintenance of the stormwater system.
- Surface water draining from the site must be regularly checked for oily sheens, wastes and sediment, so that it can be contained and treated if necessary.
- Tanks holding potentially polluting liquids and liquid waste containers should be bunded or located in a position so that, in the event of a spill, there is secondary containment of the liquid. This also applies to loading and unloading bays.
- Surface run-off from areas that have a high potential to cause surface water contamination, including contaminated soil, may need to be captured and managed separately. Physical controls such as erosion control (mats, mulch), sediment transport control (straw bales, filters, fences) and sediment retention (traps and basins) could be used.
- Surface water run-off from areas with a low risk of contamination from day-to-day operations, such as car parks, is considered 'uncontaminated' if you can clearly

show that these areas are isolated from your operations. You must have procedures in place to ensure that any significant spills from damaged cars or accidents are promptly cleaned up.

- Litter may be screened, sediment settled out, and oil and grease separated through triple interceptor traps or other types of oil separators.
- In some instances, aerosols or dust from licensed discharges to air may accumulate on stormwater catchment surfaces and contaminate stormwater draining from those areas.
- Engineered controls such as a first-flush system can be used to capture and isolate the initial run-off of surface water (which is usually contaminated), which, in some systems, is diverted to sewer. Provided sufficient water is captured, water after this first flush may be considered clean.
- Surface water can be captured and reused around the site. Clean and treated wastewater can sometimes be reused for process cooling, dust suppression and crop or garden watering, reducing potable water usage.
- Condition DW1 relates to uncontrolled water discharges, whereas condition DW2 relates to controlled run-off discharged at a specific discharge point.

Monitoring:

- As an initial step in the protection of surface water and to further your understanding of your site, you should conduct a detailed inspection of the site and identify areas where contamination of surface water can occur, the configuration of stormwater collection drains and the location of surface water treatment structures and discharge points.
- In some circumstances, such as at older, more complex sites, you may need to engage specialist drain surveyors to confirm the interconnection of some drains and appropriate segregation of wastewater and stormwater drains.
- Sampling of run-off from a rainfall event can provide evidence that water from the site is clean and provide evidence that sufficient stormwater is captured to ensure that run-off is clean where a first-flush system is used.
- SEPP (Waters of Victoria) and the Australian and New Zealand guidelines for fresh and marine water quality (ANZECC 2000) provide guidance on water quality to assist you in assessing your surface water if you think it may be contaminated.
- Due to the inherently poor quality of stormwater in some locations, you may assess the quality of surface water leaving your site against the background quality of local stormwater to check that you are not adding any pollutants.
- If a large volume or number of potentially contaminating materials is handled at your site, you should consider conducting a surface water risk assessment and preparing a surface water management plan to identify and mitigate risks and specify responses for exceptional discharges.
- You should conduct regular inspections of the site for appropriate containment of potential surface water contaminants present on the site.
- You should conduct regular inspections of stormwater protection structures, especially before and after heavy rainfalls. Stormwater protection devices should be serviced in advance of forecast or seasonal wet weather.

- You should conduct regular inspections of surface water prior to its discharge from the site. In some cases, you may need to check the turbidity of the stormwater (see section 4.4 of EPA publication 480).
- If you store, process or manufacture potentially contaminating liquids, water-soluble chemicals or fine particles, you should sample and analyse surface water discharges from the affected area or the site as a whole. The frequency of sampling will depend on the detection of contaminants in the stormwater samples.
- Where practicable and safe to do so, soon after heavy rain, check the discharge point for surface water from the site to assess the impact of your stormwater discharge on the receiving waters. Where a negative impact is detected, the site stormwater protection systems should be reviewed and upgraded to provide sufficient protection of the receiving waters.
- Where there is an ongoing reliance on a stormwater protection device for management of stormwater discharges, the device should be inspected weekly and prior to forecast rainfalls. A log should be kept to record the inspection results and any actions taken for maintenance of the structure.

References

Reducing stormwater pollution: A guide for industry (EPA publication 978).

State Environment Protection Policy (Waters of Victoria).

Australian and New Zealand guidelines for fresh and marine water quality (ANZECC 2000).

Urban stormwater best practice environmental management guidelines (CSIRO 2006).

Construction techniques for sediment pollution control (EPA publication 275).

Environmental guidelines for major construction sites (EPA publication 480).

Doing it right on subdivisions: Temporary environmental protection measures for subdivision construction sites (EPA publication 960).

Storing and handling liquids: Environmental protection (DECC NSW 2017).

DW2 Discharge to water

Discharge of waste to surface waters must be in accordance with the 'Discharge to water' table.

This condition allows you to discharge the wastes specified in your licence up to the limit set in the 'Discharge to water' table, at the specified discharge point.

To show compliance with this condition, as a minimum:

You must meet all the limits in the discharge to water table, or have not discharged waste to water.

Your monitoring program must include sufficient sampling and analysis of discharged wastewater to show compliance with your licence.

Additional things to consider:

- You will need to monitor your site's discharges to water to show compliance with your licence.
- Wastewater discharges should be managed in accordance with the waste hierarchy (see SEPP (Waters of Victoria)), with priority given to avoidance and reduction of the discharge and pollutants. Treated

wastewater should be reused and recycled as far as possible.

- Wastewater must be treated to achieve the discharge limits set out in the 'Discharge to water' table. Treatment methods may include filters, oil-water separators, biological treatment, dissolved-air flotation, neutralisation and precipitation. The quality of your water discharge(s) can be affected by variations in the wastewater prior to treatment. Indicators include temperature, nutrient levels, salinity, dissolved oxygen, pH and chemical contamination.
- Some discharge limits will be set relative to the background condition of the receiving environment. In these cases, you will need to monitor and assess your discharge against measured background indicators.
- EPA recommends that you understand both your wastewater discharge and the receiving aquatic ecosystem to know the nature and extent of your licence discharge. This may involve a risk assessment (see EPA publication 1287) that considers the condition of the receiving environment, its current and potential uses and any values requiring protection.
- Wastewater may only be discharged to sewer with the approval of the appropriate authorities. Contact your local water authority to find out how to obtain a trade waste permit.

Monitoring:

You must develop and implement a monitoring plan that enables you to determine compliance with the listed discharge limits. The *Licence assessment guidelines* (EPA publication 1321) will assist you with developing your monitoring program. Sampling and analysis must be conducted in accordance with *A guide to the sampling and analysis of waters, wastewaters, soils and wastes* (EPA publication IWRG701).

Your monitoring plan will need to specify:

- the location of the discharge points to be monitored
- any specific procedures for gaining access to the sampling point
- the sampling frequency
- the field testing required (such as temperature, pH, dissolved oxygen, electrical conductivity)
- laboratory testing required
- the required detection limit for the listed parameters.

Note that:

- the sampling must be conducted by a suitably experienced person
- the laboratories and testing facilities must be accredited by NATA for all tests conducted
- concentrations of the respective analytes must be reported using the units specified in the licence or SEPP (Waters of Victoria)
- all reports from sampling and analysis programs must be NATA-endorsed
- all monitoring data and reports must be retained in a secure and accessible condition
- the discharge to water monitoring program may be modified, depending on performance.

References

Guidelines for risk assessment of wastewater discharges to waterways (EPA publication 1287).

A guide to the sampling and analysis of waters, wastewaters, soils and wastes (EPA publication IWRG701).

Managing sewage discharges to inland waters (EPA publication 473).

Disinfection of treated wastewater (EPA publication 730).

State Environment Protection Policy (Waters of Victoria).

Rapid bio-assessment methodology for rivers and streams (EPA publication 604).

DW2.5 Visible floating oil

Discharge of wastewater must not contain visible floating oil.

This non-standard condition is included in licences that pose a high risk of leaks from oil or have licence limits allowing them to discharge total organic carbons to surface waters.

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to manage and monitor your discharge of wastewater to surface waters, including regular visual inspections for any oily sheen.

You must be able to demonstrate that you have complied with condition DW2 for discharges to water.

Additional things to consider:

- The frequency of the visual check will depend on the level of risk of contamination of wastewater or stormwater from oily wastes.
- Wastewater discharges should be managed in accordance with the waste hierarchy (see SEPP (Waters of Victoria)), with priority given to avoidance and reduction of the discharge and pollutants. Treated wastewater should be reused and recycled as far as possible.
- Wastewater must be treated to achieve the discharge limits set out in the 'Discharge to water' table. Treatment methods may include filters, oil-water separators, biological treatment, dissolved-air flotation, neutralisation and precipitation. The quality of your water discharge(s) can be affected by variations in the wastewater prior to treatment. Indicators include temperature, nutrient levels, salinity, dissolved oxygen, pH and chemical contamination.

Monitoring:

Monitoring of stormwater quality is usually conducted at the stormwater interceptor pit or equivalent structure installed for collection of surface run-off water prior to discharge. Ideally, the pit is of sufficient capacity to provide quiescent conditions that enable any sediment to settle and any entrained oil to rise to the surface in all but extreme stormwater flow events. If there is not a pit, monitoring must be conducted at the discharge point. Monitoring of the stormwater for visible floating oil should include:

- continuous monitoring using a reliable automatic oil film monitor fitted with an oil detection alarm
- daily visual inspection of the surface of the stormwater in each pit or at the discharge point (if there is not a pit) recorded in a field log book
- monthly sampling and analysis of stormwater for pH, dissolved oxygen, lead, suspended solids, oil & grease,

BTEX, total phenolic compounds and total organic carbon (TOC).

Also:

- The sample must be taken so that it represents the composition of the stormwater being discharged.
- The sampling must be conducted by a suitably experienced person in accordance with EPA publication IWRG701.
- The laboratories and testing facilities must be accredited by NATA for all tests conducted.
- All reports from sampling and analysis programs must be NATA-endorsed.
- All visual inspection logs, monitoring data and reports must be retained in a secure and accessible condition.
- The discharge to water monitoring program must include any requirements of EPA specific to the premises.
- The discharge to water monitoring program may be modified, depending on performance (apart from any specific monitoring requirements of EPA).

References

A guide to the sampling and analysis of waters, wastewaters, soils and wastes (EPA publication IWRG701).

State Environment Protection Policy (Waters of Victoria).

DW2.8 Wet weather wastewater discharges

Discharge of treated wastewater during wet weather conditions must be in accordance with specifications in "Discharge to Water" section of EPA Publication 1322 'Licence Management Guidelines'.

This condition allows for temporary controlled release of treated wastewater in the event of extreme wet weather (typically rainfall above the 90th percentile).

This licence condition is only applicable to municipal sewage treatment plants, storages and irrigation areas (scheduled premises category A03 in the *Environment Protection (Scheduled Premises and Exemptions) Regulations 2007*) that are managed by Water Corporations.

Previously these types of discharges were managed using an emergency approval under section 30A of the Environment Protection Act. If the release of treated wastewater meets all of the following specifications, specific EPA approval is not required.

To show compliance with this condition, as a minimum:

- a. Discharge under this condition is only permissible when an irrigation system including storage lagoon is designed to retain all wastes up to a 90th percentile wet year, as defined in EPA Publications 464.2 and 168.

NB: The basis of the licence condition is that even though a wastewater treatment system is appropriately designed, climatic conditions are such that the storages and irrigation area/s can't contain all the flows and a controlled release is required to minimise environmental impact. The current policy standard relating to system design is 'a storage lagoon system that is designed to retain all wastes up to a 90th percentile wet year'. Other methods of achieving appropriate design standards are acceptable and will be evaluated by EPA on a case to case basis.

- b. Discharge is only permitted during or following rainfall as described below:
 - i. Cumulative rainfall events exceed the 90th percentile value across the preceding twelve month period, determined by comparing the actual rainfall for the period with the historic 90th percentile data.
 - ii. Cumulative rainfall through the traditional non-irrigation period (April/May to Nov/Dec) exceeds the historic 90th percentile data.
 - iii. A single extreme rainfall event (e.g.: 1 in 25+ years) or multiple large rainfall events (e.g.: 1 in 5+ years), particularly during the irrigation period (Nov/Dec to Apr/May) which is of sufficient size and regularity to significantly disrupt the irrigation program.
- c. The discharge must be treated wastewater of at least Class C standard at all times (See EPA Publication 464.2).
- d. The discharge must have a minimum dilution ratio of 1:5 to final receiving waters.
- e. EPA must be informed via 1300 EPA VIC or 1300 372 842 prior to the discharge commencing or, if prior notification is not possible, as soon as discharge has commenced.
- f. The cumulative number of days of discharge must be 120 days or less, over the APS reporting period. Any permanent or ongoing wastewater discharge must be in accordance with the licence conditions.

Additional things to consider:

- You must notify and/or seek permission from other authorities, property owners and stakeholders that might be affected by the discharge.
- The discharge must cease immediately due to non-compliance with any of the conditions above, or if directed by an EPA Authorised Officer.
- The EPA must be informed immediately of non-compliance with any of the conditions above.
- This licence condition is only applicable to wet weather wastewater discharges. It cannot be used as a measure to manage additional flows to the treatment plants as result of additional connections to the sewerage system or the addition of significant commercial or industrial sources of wastewater.

Monitoring:

- You must collect samples from upstream and downstream of the discharge point and the wastewater being discharged. These samples must be analysed for the parameters specified in your licence or the parameters which define Class C wastewater (for solely discharge to land licence) and the water quality objectives listed in the State Environment Protection Policy (Waters of Victoria) that are relevant to the receiving waters.
- Sampling must be at a frequency that adequately characterises the wastewater discharge and receiving waters.
- You must retain records containing the following:
 - a. Location of final discharge point, including design criteria of the storage lagoon from which the wastewater is discharged i.e. evidence of meeting 90th percentile design criteria,
 - b. Duration of discharge (days),

- c. Discharge quality, flow rate and dilution ratio throughout discharge period,
 - d. Receiving water monitoring results,
 - e. Data on rainfall over the period i.e. evidence of 90th percentile rainfall (ref. 2.8.b.ii).
- In your Annual Performance Statement (APS) you must state whether the discharge was compliant to the above specifications.

IMPORTANT NOTE:

If a discharge does not meet the requirements described above, then you need to report a breach of licence.

EPA will assess the notification of non-compliance and determine what, if any, appropriate action may be taken, in line with its Compliance and Enforcement Policy. Full consideration will be given to all the measures taken to avoid non-compliance and minimise harm to the environment.

Applications for a section 30A Emergency Approval will only be considered in line with the *Section 30A Approvals Application Guideline* (EPA Publication 1590), for a genuine, unforeseeable and unexpected emergency.

Supporting documents

Attachment 1 - Compliance Pathways to Discharge Wastewater to Land or Water

Attachment 2 - Complying with LI_DW2.8 Specifications

DW2.x – Water discharge

Conditions DW2.08, DW2.09, DW2.10, DW2.11, DW2.12, DW2.13, DW2.14, DW2.15, DW2.16, DW2.17, DW2.18 are supplementary to condition DW2, addressing specific discharge issues. See compliance information for condition DW2.

DW3 Mixing zone

The mixing zone extends <for 'x' spatial description from licensed discharge point 'y'>.

This condition allows your treated wastewater to impact on beneficial uses of the receiving water within a defined area. This would otherwise be an unlicensed discharge and illegal. This condition allows for the dilution of wastewater discharged and reduction of residual impacts within the 'mixing zone'. Mixing zones must be managed in accordance with the provisions set out in SEPP (Waters of Victoria).

To show compliance with this condition, as a minimum:

You must demonstrate that the environmental quality objectives for the indicators in your 'Discharge to water' table are met outside the mixing zone. This may be done by monitoring or modelling, depending on the level of risk to the receiving waters.

You must understand the beneficial uses of the waters surrounding your mixing zone. Negative impacts to these beneficial uses are considered a non-compliance with this condition.

Additional things to consider:

- While your discharge to water is a key factor impacting on the mixing zone, compliance with DW2 does not necessarily result in compliance with DW3. You must take steps to ensure you are compliant with DW3.

- The mixing zone must not result in harm to humans, unacceptable impacts on plants and animals, a loss of aesthetic enjoyment or an objectionable odour.
- In order to manage compliance with this condition, you must develop an understanding of how your discharge will interact with the environment and how the receiving waters will be impacted. Factors that influence the mixing of your discharge include physical (currents, depth profiles), chemical (background concentrations) and biological attributes.
- Mixing zones must be kept to the smallest area possible, with the size and impact of the mixing zone decreasing over time. Efforts must be made to continually improve the wastewater discharge and reduce the area of the mixing zone until it is not required.
- Within the mixing zone, there must not be harm to humans, unacceptable impacts on plants and animals, a loss of aesthetic enjoyment or an odour.

Monitoring:

A monitoring program for a mixing zone must be based on a risk assessment conducted for the mixing zone (see EPA publications 1287, 1344 and 1321). An important outcome from the assessment of a mixing zone is development of a plan for how the discharge will be managed to reduce the extent and impact of the mixing zone continuously over time.

The indicators used in estimating, monitoring and assessing a mixing zone need to be clearly linked to the potential risks and beneficial uses and values they represent. For example, assessment of phosphorus concentrations in inland waters needs to address the potential concentrations that may cause excessive algal or plant growth, which may reduce dissolved oxygen to levels that adversely impact the biota (EPA publication 1344).

A conceptual model will need to be prepared for the risk assessment. Mixing-zone modelling should also be conducted to determine the rate of dilution and the resultant range of concentrations, to assist with predicting the nature and extent of potential impacts. The modelling would include discharge characteristics, discharge velocity, river flows, tidal flows and mixing energy under average and low-flow conditions. The results of the modelling should be periodically verified by monitoring.

As described by Hart et al., the monitoring program should:

- identify clear objectives for the monitoring program before it starts
- use quantitative methods to monitor the key assets or values
- specify the methods to be used to analyse the monitoring data
- determine the rules for action if and when the monitoring results identify significant adverse effects (or trends).

Based on the results of the risk assessment, monitoring of the mixing zone will need to specify the:

- general physicochemical indicators
- specific pollutant indicators, including bioaccumulative pollutants
- biological health indicators
- upstream sampling locations
- near-field condition sampling locations

- conditions at the downstream limit of the mixing zone sampling locations
- sampling locations
- monitoring frequency.

References

Guidelines for risk assessment of wastewater discharges to waterways (EPA publication 1287).

Guidelines for the monitoring and assessment of coastal point source discharges (EPA publication 677).

State Environment Protection Policy (Waters of Victoria).

Point source discharges to streams: Protocol for in-stream monitoring and assessment (EPA publication 596).

Guidelines for the determination and assessment of mixing zones (EPA publication 1344).

DW4 Mixing zone signage

You must install and maintain signage in the vicinity of the mixing zone showing the (a) extent of the mixing zone, (b) your name, (c) EPA licence number and (d) discharge point number.

This condition provides for the awareness of the community that some beneficial uses of the water within an area (for example swimming or primary contact recreation) are not protected.

To show compliance with this condition, as a minimum:

You must install and maintain appropriate signage.

Additional things to consider:

- Signs must be placed so that the public or third parties accessing affected areas are aware that a mixing zone exists. This may require placing signs near the waterway and/or at key access points.
- Signs must be placed in any area where there may be sensitive receptors that may have contact with the stream. For example: boat ramps, camping areas, recreational areas, reserves or parks, walking tracks, fishing spots.
- The posted signs should be visible. This means ensuring they are not obscured by plants or built structures, maintaining them so they do not fade and locating them where people are present, such as onshore for an offshore discharge.
- Signage must be placed in a visible area, facing away from the stream. If the stream is accessible from both sides, signage must be placed on both banks.
- If water craft (powered or unpowered) access is likely then signage needs to be visible from the water as well as from the bank
- If the mixing zone extends more than 1 km, then additional signage should be placed for every extra kilometre
- You may choose to include other information on the sign such as your company's contact number, what you are doing to reduce your discharge and where to go for more information.

Discharge to land

DL1 Land and groundwater contamination

You must not contaminate land or groundwater.

For landfill sites, this condition is replaced by DL1.2 and DL1.3. This condition aims to ensure that the storage and use of materials and wastes at your site do not have a negative impact on the beneficial uses of the land or groundwater.

This condition is consistent with it being an offence under section 39(1) of the Act to pollute groundwater.

Beneficial uses of land include maintenance of ecosystems, human health, suitability for buildings and structures, aesthetics and the production of food, flora and fibre. Beneficial uses of groundwater include potable water, potable mineral water, maintenance of ecosystems, agriculture, parks and gardens (irrigation), stock watering, industrial water, primary contact recreation (swimming, bathing) and buildings and structures.

To show compliance with this condition, as a minimum, you must address two items:

1. There is no contamination of land or groundwater from your activities during the 12-month reporting period.
2. There is no marked change to existing contamination ('change' includes spread, increased concentration outside of natural variability or discovery of new contaminant/s).

You can demonstrate compliance with item 1 by correct storage of materials, including adequate bunding and storage facilities, procedures and controls to detect leaks due to infrastructure failure, and procedures to manage spills and upsets similar to those for complying with condition DW1. Maintenance and monitoring of groundwater bores may be required in some cases.

Compliance with item 2 requires that an assessment be made of potential impact if there are no historical monitoring data for a site. All facilities must determine whether there is any land or groundwater contamination on their site from past or current activities, whether from present operations or from a previous occupier of the premises. This assessment should be conducted by a suitably qualified person.

If contamination is found during the assessment or is known to be a pre-existing site condition, you must have sufficient monitoring locations to detect marked changes in concentration or spread of the contamination within and beyond the boundaries of your premises. You must also have conducted works associated with maintaining the condition of the site, as well as any remediation works associated with restoring the beneficial use. Any detected offsite migration or impact which could result in offsite migration of contamination must be promptly reported to EPA.

Note: Existing contamination and its management will still need to be acknowledged in the annual performance statement. If there has not been a spread or marked increase in extent or concentration, it is not reported as a non-compliance.

Additional things to consider:

- Potentially contaminating liquids should be stored in a bunded area or located in a position so that, in the event

of a spill, there is secondary containment of the liquid (see EPA publication 347).

- Potentially contaminating materials should be stored on an impermeable surface, such as concrete, to ensure that they do not escape to the land or groundwater.
- Management procedures for containment of spills and leaks with prompt follow-up, using documented corrective actions, assist in complying with this condition. Site inspection and equipment maintenance records, and soil and groundwater analytical results will also help.
- Subject to Clause 16 of SEPP (Prevention and Management of Contamination of Land) (*Application of chemicals or waste to land*), the condition of all land must be maintained as close as practicable to background levels. SEPP (Groundwaters of Victoria) defines contamination of groundwater as 'a change in water quality that produces noticeable or measurable change in its characteristic'
- Determination of contamination and pollution of land and groundwater is made with reference to the background level and potential beneficial use. Tables 1 and 2 in SEPP (Prevention and Management of Contamination of Land) and Table 2 in SEPP (Groundwaters of Victoria) identify the beneficial uses that must be protected and the indicators and objectives for their protection.
- Contamination of land can result in contamination of groundwater. To understand the potential for groundwater contamination, you should consider employing a suitably qualified professional to assess the subsurface environment and risk of groundwater interaction. If investigations reveal that your site is the source of any current or historical land or groundwater contamination that will have an impact on beneficial uses associated with the site, you must notify EPA immediately.
- EPA will expect suitable monitoring and rehabilitation work to be undertaken to demonstrate effective management of any contamination. You will need to act to ensure further contamination is avoided and to prevent offsite migration of existing contamination.
- If evaporation or wastewater treatment lagoons are used, they must be appropriately constructed and maintained, as described in section 6 of the *Code of practice for small wastewater treatment plants* (EPA publication 500).

Monitoring:

- Monitoring of the land and groundwater needs to be conducted as part of a documented inspection and monitoring program that has been tailored to the nature and quantity of materials present at the site. EPA publications 668 and 669 should be used for guidance.
- Inspections should include checking the integrity of secondary containment structures such as bunds and storage containers and the permeability of surfaces they are located on.
- The level of scrutiny needs to match the risk to the environment presented by the type and quantity of material being handled or stored. For example, higher risk equipment such as above-ground bulk hydrocarbon storage systems should be subject to a high level of scrutiny. This would involve regular external inspections, supplemented by internal inspections once the tanks have been emptied and cleaned.
- At sites with limited potential for contamination due to, for example, small quantities of a low-toxicity chemical being handled, visual checks of spills or other indicators, such

as staining or other changes in appearance of the ground, may be sufficient to determine compliance with the licence condition.

- Inspections of land should assess the condition of the soil, its texture, colour, and any staining or odour. Another indicator can be the condition of vegetation — whether it is stressed or dying, or unduly prolific (indicating a chronic spillage of nutrients). Where any issues are noted, the soil should be analysed and removed or treated as appropriate.
- Physicochemical assessment of land condition would include sampling and analysis of soil for suitable chemical indicators. These could include the metals or chemicals handled at the site as a direct indicator of contamination or, for example, soil pH as a proxy indicator of contamination by acids or alkalis. The results should be compared to the background or historical concentrations of the respective chemicals or indicators.
- Groundwater monitoring may be necessary at facilities where there is ongoing disposal of waste to land, underground tanks or infrastructure, or a potential for chronic or extensive contamination of soil from site activities.
- Due to the more specialist nature of assessment of groundwater quality and the costs involved with groundwater monitoring, the need to conduct groundwater monitoring should be determined by a risk assessment based on EPA publications 1321 and 668, ideally in consultation with a suitably experienced hydrogeologist.
- Monitoring approaches to assessing land and groundwater contamination can be found in EPA publications IWRG701, 668 and 669.

References

State Environment Protection Policy (Prevention and Management of Contamination of Land).

State Environment Protection Policy (Groundwaters of Victoria).

Guidelines on the design, installation and management requirements for underground petroleum storage systems (UPSSs) (EPA publication 888).

Bunding guidelines (EPA publication 347).

Hydrogeological assessment (groundwater quality) guidelines (EPA publication 668).

Groundwater sampling guidelines (EPA publication 669).

A guide to the sampling and analysis of waters, wastewaters, soils and wastes (EPA publication IWRG701).

Code of practice for small wastewater treatment plants (EPA publication 500).

Licence assessment guidelines (EPA publication 1321).

DL1.2 Land contamination (landfill sector specific)

You must ensure that the activities carried on at the premises do not do either of the following, outside the boundary of any landfill cells:

- a) cause detriment to any beneficial use which may be made of the land on the premises; and
- b) pollute land on the premises contrary to section 45 of the *Environment Protection Act 1970*.

This condition aims to ensure that operations at the site, including the storage and use of any non-waste materials at

your site do not have a negative impact on the beneficial uses of the land.

This condition is consistent with it being an offence under Section 45 of the Act to pollute land.

Beneficial uses of land protected by SEPP (Prevention and Management of Contamination of Land) (PMCL) include maintenance of ecosystems, human health, suitability for buildings and structures, aesthetics and the production of food, flora and fibre.

To show compliance with this condition, as a minimum, you must address two items:

- There is no pollution of the land that is within the premises (excluding the landfill cell areas) as a result of any activity undertaken at the premises.
- There is no marked change to existing contamination of land ('change' includes spread, increased concentration outside of natural variability or discovery of new contaminant/s).

You can demonstrate compliance by:

- correct storage of materials, including adequate bunding and storage facilities, procedures and controls to detect leaks due to infrastructure failure, and procedures to manage spills and upsets similar to those for complying with condition DW1 (Stormwater discharged from the premises must not be contaminated with waste)
- undertaking soil sampling programs and assessment or any areas observed to be potentially contaminated (e.g. around diesel fuel dispensers)
- remediation soil contaminated by fuel or waste contaminated water either voluntarily or in response to a recommendation of an environmental audit report.

If contamination is found during the assessment or is known to be a pre-existing site condition, you must have sufficient monitoring points to detect marked changes in concentration or spread of the premises. You must also have conducted works associated with maintaining the condition of the site, as well as any remediation works associated with restoring the beneficial use. Any detected offsite migration or impact which could result in offsite migration of contamination impacting land must be promptly reported to EPA.

Note: Existing contamination and its management will still need to be acknowledged in the annual performance statement. If there has not been a spread or marked increase in extent or concentration, it is not reported as a non-compliance.

Additional things to consider:

- Potentially contaminating liquids should be stored in a bunded area or located in a position so that, in the event of a spill, there is secondary containment of the liquid (see EPA publication 347).
- Potentially contaminating materials should be stored on an impermeable surface, such as concrete, to ensure that they do not escape to the land or groundwater.
- Management procedures for containment of spills and leaks with prompt follow-up, using documented corrective actions, assist in complying with this condition. Site inspection and equipment maintenance records, and soil and groundwater analytical results will also help.
- Determination of contamination is made with reference to the background quality and potential beneficial use of the land and groundwater. Tables 1 and 2 in SEPP

(Prevention and Management of Contamination of Land) identify the beneficial uses that must be protected and the standards for their protection.

- Contamination of land can result in contamination of groundwater. To understand the potential for land or groundwater contamination, you should consider employing a suitably qualified professional to assess the subsurface environment and risk of groundwater interaction. If investigations reveal that your site is the source of any current or historical land or groundwater contamination that will have an impact on beneficial uses associated with the site, you must notify EPA immediately.
- EPA will expect suitable monitoring and rehabilitation work to be undertaken to demonstrate effective management of any contamination. You will need to take action to ensure further contamination is avoided and to prevent offsite migration of existing contamination.
- For operators of landfills, waste may only be deposited in cells of approved design and construction. Land outside the cells must not be contaminated. While leachate may escape from an approved liner, seepage is only acceptable at a rate specified by the landfill designer and accepted by the environmental auditor.
- If evaporation or wastewater treatment lagoons are used, they must be appropriately constructed and maintained, as described in section 6 of the *Code of practice for small wastewater treatment plants* (EPA publication 500).

Monitoring:

- Monitoring/sampling of the land needs to be conducted as part of a documented inspection and monitoring program that has been tailored to the nature and quantity of materials present at the site.
- Inspections should include checking the integrity of secondary containment structures such as bunds and storage containers and the permeability of surfaces they are located on.
- The level of scrutiny needs to match the risk to the environment presented by the type and quantity of material being handled or stored. For example, higher risk equipment such as above-ground bulk petroleum fuel and lubricant storage systems should be subject to a high level of scrutiny. This would involve regular external inspections, supplemented by internal inspections once the tanks have been emptied and cleaned.
- At sites with limited potential for contamination due to, for example, small quantities of a low-toxicity chemical being handled, visual checks of spills or other indicators, such as staining or other changes in appearance of the ground, may be sufficient to determine compliance with the licence condition.
- Inspections of land should assess the condition of the soil, its texture, colour, and any staining or odour. Another indicator can be the condition of vegetation — whether it is stressed or dying, or unduly prolific (indicating a chronic spillage of nutrients). Where any issues are noted, the soil should be analysed and removed or treated as appropriate.
- Physicochemical assessment of land condition would include sampling and analysis of soil for suitable chemical indicators. These could include the metals or chemicals handled at the site as a direct indicator of contamination or, for example, soil pH as a proxy indicator of contamination by acids or alkalis. The results should be

compared to the background or historical concentrations of the respective chemicals or indicators.

- Monitoring approaches to assessing land contamination can be found in EPA publication IWRG701.

References

State Environment Protection Policy (Prevention and Management of Contamination of Land).

Licence assessment guidelines (EPA publication 1321).

Landfill Licensing Guidelines (EPA Publication 1323).

DL1.3 Groundwater (landfill sector specific)

You must ensure that the activities carried on at the premises do not do either of the following:

a) cause detriment to any beneficial use which may be made of groundwater both within and beyond the boundary of the premises.

b) pollute groundwater both within and beyond the boundary of the premises contrary to section 39 of the *Environment Protection Act 1970*.

This condition aims to ensure that operations at the site, including the storage and use of any non-waste materials at your site do not have a negative impact on the beneficial uses of groundwater.

This condition is consistent with it being an offence under Section 39 of the Act to pollute groundwater.

This condition is used in combination with leachate management and containment conditions so that any leachate migrating out of a landfill cell does not detrimentally affect the quality or preclude the beneficial uses of groundwater either beneath the landfill cell, between the landfill cell and the site boundary or beyond the boundary of the site. An exception is the designation by EPA of an Attenuation Zone outside the cell and not beyond the site boundary in accordance with clause 17 of SEPP (Groundwaters of Victoria).

Beneficial uses of groundwater protected under SEPP (Groundwaters of Victoria) include potable water, potable mineral water, agriculture, parks and gardens (irrigation), stock watering, industrial water, primary contact recreation (swimming, bathing) and buildings and structures.

To show compliance with this condition, as a minimum, you must address three items:

1. There is no pollution of groundwater at and beyond the boundaries of the premises as a result of any activity at the site including any leakage of leachate from the cell.
2. Any polluted groundwater on the licensed premises does not preclude a relevant beneficial use of groundwater (a relevant BU is one where groundwater is currently extracted from bores for that use or is likely to in the foreseeable future).
3. There is no marked change to existing contamination ('change' includes spread, increased concentration outside of natural variability or discovery of new contaminant/s) on-site or off-site whereby a relevant beneficial use is not precluded.

You can demonstrate compliance by:

- correct storage of materials, including adequate bunding and storage facilities, procedures and controls to detect leaks due to infrastructure failure, and procedures to manage spills and upsets similar to those for complying with condition DW1.
- maintenance and monitoring of groundwater bores, regular groundwater monitoring in accordance with the auditor verified monitoring plan
- A hydrogeological assessment in accordance with EPA Groundwater Assessment Guidelines (Publication 668).
- Regular monitoring of groundwater and review of results by an appropriately qualified person.

All facilities must determine whether there is any groundwater contamination on their site from past or current activities, including from the landfill cells and activities associated with landfilling (storage of fuels and leachate for example).

This groundwater contaminant assessment should be conducted in accordance with Publication 668 by a suitably qualified person.

If contamination is found during the assessment or is known to be a pre-existing site condition, you must have sufficient monitoring points to detect marked changes in concentration or spread of the contamination within and beyond the boundaries of your premises. You must also have conducted works associated with maintaining the condition of the site, as well as any remediation works associated with restoring the beneficial use. Any detected migration or impact that results in pollution of groundwater offsite must be promptly reported to EPA.

Additional things to consider:

- For operators of landfills, while leachate may escape from an approved liner, seepage is only acceptable at a rate specified by the landfill designer and accepted by the environmental auditor.

References

Hydrogeological assessment (groundwater quality) guidelines (EPA publication 668).

Groundwater sampling guidelines (EPA publication 669).

SEPP (Groundwaters of Victoria)

Licence assessment guidelines (EPA publication 1321).

Landfill Licensing Guidelines (EPA Publication 1323).

DL2 Wastewater to land

You must ensure that the discharge of wastewater does not change the condition of land so as to make that land or any part of that land harmful or potentially harmful to human beings or the environment.

This condition applies to premises where EPA has permitted application of wastewater to land. It is designed to ensure the application of wastewater does not have an adverse impact on the land.

Any reduction of the beneficial uses of the land, including ecosystem and human health, suitability for buildings and structures, aesthetics, and the production of food, flora and

fibre is covered by this condition. More information on land quality indicators and objectives can be found in Table 2 of SEPP (Prevention and Management of Contamination of Land).

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to make sure that:

- you understand the ongoing capacity of your land to accept the discharge
- the quantity of wastewater discharged to land is appropriate for the area of land being irrigated
- the quality of the wastewater used for irrigation will not cause a build-up of contaminants over time that will be detrimental
- you are able to discontinue the discharge at any time if it becomes necessary due to any adverse circumstances.

Your procedures and controls to manage the wastewater discharge must be appropriate for the level of risk at your site. For example, sites with more intense irrigation will require a much higher level of monitoring than sites where irrigation is minimal.

Additional things to consider:

- This condition applies both within and outside the premises boundary.
- Adverse impacts might be caused by contaminants in the wastewater, such as nutrients, heavy metals, organic matter, pathogens or toxic compounds. Some contaminants can build up in the soil, having an increasing impact on land over time.
- Application of some wastewaters to land in excess of the assimilative capacity of the land can cause harmful physical impacts to the environment such as waterlogging, smothering, creation of polluted run-off or contamination of groundwater.
- Discharge of wastewater to land must be conducted in a manner that protects the beneficial uses of soil, groundwater and surface waters. It must also avoid soil contamination or structural change that reduces productivity and must not generate offensive odours.

Water is a valuable resource and the reuse of treated wastewater is encouraged to the maximum sustainable extent. Any water discharged to land as a beneficial reuse that complies with EPA publication 464 may be eligible for exemption from licensing and works approval.

Monitoring:

- The monitoring program should reflect the scale of the irrigation works, the quality of the wastewater, the distance from sensitive receptors (such as neighbouring properties and waterways) and past monitoring results. You should also monitor the quality of the wastewater being used for irrigation.
- The times and volume of each irrigation run and weather conditions at the time should be recorded.
- A visual and odour assessment may be used as a straightforward check of whether the land has been adversely affected. Indicators of adverse impacts might also include waterlogging, blackening of the soil, foul odour, death of vegetation or overgrowth of vegetation at or downslope of the wastewater disposal areas. You

should also monitor the condition of any overflow catchment structures.

- The chemical composition of the soil can be confirmed by analysing the soil for salinity, sodicity, nutrients, heavy metals and pH, plus other chemical indicators specific to the wastewater. The analytical results can then be compared to the known background quality of the receiving environment, land quality objectives in SEPP (Prevention and Management of Contamination of Land) and past monitoring results.
- Where there is a significant risk to groundwater, groundwater monitoring bores should be installed and the groundwater monitored at least every four months for the first 12 months of the scheme's operation, then every six months (wet/dry season) after. This may be modified later, based on the results or trends obtained (see publication 464).
- If there is a reliance on disposal of wastewater to land to meet operational requirements, or there will be ongoing disposal to land, you should engage a suitably experienced agronomist to conduct a land capacity assessment. Such an assessment should identify the limits for rate of wastewater application, taking into account the soil type and condition, terrain, land-use (cropping or grazing) activities, typical chemical composition of the wastewater, and local climate (water balance). Any recommendations for monitoring should be included in the monitoring program.
- Where winter storage structures are used, monitoring should include checking the available hydraulic capacity to ensure that wastewater can be accommodated, avoiding the need to apply wastewater to saturated soil during or following wet weather.
- Water storage dams should be checked for structural integrity by a suitably experienced consultant. The inspections should reflect the size of the dam and capacity of the reservoir (refer to the Department of Primary Industries for information on water storage).
- If irrigation of wastewater to land involves restriction of public access to the irrigated land, monitoring needs to include observance of the required quarantine periods following wastewater application.
- More detailed descriptions of monitoring requirements for wastewater reuse and irrigation, including Class A water reuse schemes, are provided in EPA publications 464 and 168.
- Where there is a possibility of pollution of surface waters from surface or subsurface run-off, the quality of water in drainage lines leading from the application area to waterways and the water quality of the receiving waters should be assessed to check for any impact.
- You should keep records of all monitoring results, complaints and associated rectification actions.

References

Guidelines for Environmental Management: Use of reclaimed water (EPA publication 464).

Guidelines for wastewater irrigation (EPA publication 168).

Industrial wastewater reuse (EPA publication IWRG632).

State Environment Protection Policy (Prevention and Management of Contamination of Land).

A guide to the sampling and analysis of waters, wastewaters, soils and wastes (EPA publication IWRG701).

DL3 Organic wastes to land

You must ensure that deposit of animal or vegetable organic wastes does not change the condition of land so as to make that land or any part of that land harmful or potentially harmful to human beings or the environment. This condition applies to premises where EPA has permitted application of organic wastes to the land. It is designed to ensure the application of organic wastes does not cause adverse impacts on the land.

Any reduction of the beneficial uses of the land, including ecosystem and human health, suitability for buildings and structures, aesthetics, and the production of food, flora and fibre is covered by this condition. More information on land quality indicators and objectives can be found in Table 2 of SEPP (Prevention and Management of Contamination of Land).

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to make sure that:

- you understand the ongoing capacity of your land to assimilate the waste deposited
- the quantity of waste discharged to land is appropriate for the area of land receiving the waste
- the waste only consists of animal and vegetable organic wastes from commercial or industrial sources
- you are able to stop depositing the waste to land at any time if it becomes necessary.

Your procedures and controls to manage the waste deposits must be appropriate for the level of risk of at your site. For example, sites with more intense deposition of wastes will require a much higher level of monitoring than sites where waste deposition is minimal.

Additional things to consider:

- This condition applies both within and outside the premises boundary.
- The deposition of organic wastes to land needs to be conducted in a manner that protects the beneficial uses of soil, groundwater and surface waters. It must also avoid soil contamination or structural change that reduces productivity and must not generate offensive odours.
- Adverse effects may be caused by high concentrations of nutrients or other contaminants, which can build up and damage the soil health. There is also an increasing risk of nutrients being carried in surface water run-off.
- Wastes with a high fat or protein content might cause problems with odour, damage to soil structure and resistance to biodegradation.

The applied organic wastes might also attract vermin and insect pests.

Monitoring:

- The monitoring program should reflect the frequency of application, the use of the land (cropping or grazing), the soil type, moisture content, the type of organic waste being applied, the distance from sensitive receptors (such as neighbouring properties and waterways), the potential for surface run-off to carry nutrients to a waterway, and past monitoring results.
- Compliance may be confirmed by analysing the soil for nutrients and comparing the results to the background

quality of the receiving environment, the land quality objectives in SEPP (Prevention and Management of Contamination of Land) and past monitoring results.

- The soil structure, odour and appearance should be regularly monitored to ensure the assimilative capacity of the soil is not being exceeded.
- Where the wastes are derived from a single source and have a consistent composition, the nutrient balance may need to be assessed to identify any deficiencies in the balance of nitrogen, phosphorus and carbon that might limit biodegradation of the applied organic waste.
- A visual assessment should be used to check whether the land has been adversely affected. Visual indicators might include the soil structure, its colour, the presence of areas of boggy or odorous ground, areas where the waste is not being assimilated into the soil, denuded areas with no plant growth or the presence of dead or stunted vegetation. Care must be taken when relying on these indicators, as they might not be apparent until there has been gross degradation of the land.
- If there is ongoing deposit of organic wastes to land, you should engage a suitably experienced agronomist to conduct a land capacity assessment. Such an assessment should identify the limits for rate of waste application, taking into account the soil type and condition, terrain, land-use (cropping or grazing) activities, typical chemical composition of the wastewater, and local climate (water balance). Any recommendations for monitoring should be included in the monitoring program.
- Where there is a significant risk to groundwater, groundwater monitoring bores should be installed and the groundwater monitored at least every four months for the first 12 months of the scheme's operation, then every six months (wet/dry season) after. This may be modified later based on the results/trends obtained (see publication 464).
- Where there is a possibility of pollution of surface waters from surface or subsurface run-off, the quality of water in drainage lines leading from the application area to waterways and the water quality of the receiving waters should be assessed to check for any impact.
- You should keep records of all monitoring results, complaints and associated rectification actions.

References

State Environment Protection Policy (Prevention and Management of Contamination of Land).

A guide to the sampling and analysis of waters, wastewaters, soils and wastes (EPA publication IWRG701).

Guidelines for Environmental Management: Use of reclaimed water (EPA publication 464).

DL3.1 Deposit of onsite generated wastes to land

Deposit of wastes generated at the premises must be in accordance with Schedule 2.

This condition applies to premises where EPA has permitted deposit of wastes generated onsite to their own onsite landfill. Both the generation of waste and the landfill must be within the boundary of the premises.

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to manage the landfill such that there are no adverse impacts on your

land or any discharges of wastes from the landfill beyond the boundaries of your premises.

You must monitor and record all landfilled wastes to show that you have only deposited the wastes specified in the 'Waste' table in Schedule 2 of the licence.

References

State Environment Protection Policy (Prevention and Management of Contamination of Land).

A guide to the sampling and analysis of waters, wastewaters, soils and wastes (EPA publication IWRG701).

DL4 Biosolids to land

You must ensure that deposit of biosolids does not change the condition of land so as to make that land or any part of that land harmful or potentially harmful to human beings or the environment.

This condition applies to premises where EPA has permitted application of biosolids to the land. Biosolids, commonly known as treated or stabilised sewage sludge, are the product of biological treatment of sewage.

This condition is designed to ensure the application of biosolids does not have an adverse impact on the land.

Any reduction of the beneficial uses of the land, including ecosystem and human health, suitability for buildings and structures, aesthetics and the production of food, flora and fibre is covered by this condition. More information on land quality indicators and objectives can be found in Table 2 of SEPP (Prevention and Management of Contamination of Land).

As biosolids contain pathogens, it is important that they be managed to minimise direct human exposure or indirect exposure from contaminated run-off to waterways.

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to make sure that:

- you understand the ongoing capacity of your land to accept biosolids
- the quantity of biosolids deposited to land is appropriate for the area of land receiving the waste
- the waste only consists of biosolids and sewage sludge from sewage treatment plants
- you are able to stop depositing the biosolids at any time if it becomes necessary.

Your procedures and controls to manage the biosolids must be appropriate for the level of risk of at your site. For example, sites with large quantities of biosolids will require a much higher level of monitoring than sites where waste is minimal.

Additional things to consider:

- This condition applies both within and outside the premises boundary.
- The deposition of biosolids to land must be conducted in a manner that protects the beneficial uses of soil, groundwater and surface waters. It must also avoid soil contamination or structural change that reduces productivity and must not generate offensive odours.

Adverse effects may be caused by the accumulation of contaminants and nutrients in the soil, which can reduce the productivity of the soil and lead to nutrients being present in

surface water run-off or leaching to groundwater. Biosolids may also attract vermin and insect pests.

Monitoring:

- EPA requirements for management of biosolids land application are described in publication 943. Note that the monitoring requirements of publication 943 take precedence over guidance provided below.
- Responsibilities for monitoring depend on the grade of biosolids. End-users of unrestricted-grade biosolids do not have any specific monitoring requirements other than being able to demonstrate that the application of biosolids is not degrading the land. In these circumstances, monitoring of the land would be similar to that described for Condition DL3.
- Monitoring requirements for end-users of restricted-grade biosolids are considerably greater and need to provide assurance that the site and scheme is managed in accordance with publication 943, including adherence to an environmental improvement plan, assessment of site suitability for biosolids application and recording of application details.
- Compliance may be confirmed by analysing the soil for nutrients and contaminants and comparing the results to the background quality of the receiving environment, the land quality objectives in SEPP (Prevention and Management of Contamination of Land) and past monitoring results.
- A visual assessment might also be used to check whether the land has been adversely affected. Visual indicators might include the soil structure, its colour, the presence of areas of boggy or odorous ground or land where biosolids are not being assimilated into the soil, denuded areas with no plant growth or the presence of dead or stunted vegetation. Care must be taken when relying on these indicators, as they might not be apparent until there has been gross degradation of the land.
- If there is ongoing deposition of biosolids to land, you should engage a suitably experienced agronomist to conduct a land capacity assessment. Such an assessment should identify the limits for rate of biosolids application, taking into account the soil type and condition, terrain, land-use (cropping or grazing) activities, typical chemical composition of the wastewater, and local climate (water balance). Any recommendations for monitoring should be included in the monitoring program.
- Where there is a possibility of pollution of surface waters from surface or subsurface run-off, the quality of water in drainage lines leading from the application area to waterways and the water quality of the receiving waters must be assessed to check for impacts from nutrients and pathogens.
- Where there is a significant risk to groundwater, groundwater monitoring bores should be installed and the groundwater monitored at least every four months for the first 12 months of the scheme's operation, then every six months (wet/dry season) after. This may be modified later based on the results/trends obtained (see publication 464).
- You should keep records of all monitoring results, complaints and associated rectification actions.

References

Guidelines for Environmental Management: Biosolids land application (EPA publication 943).

State Environment Protection Policy (Prevention and Management of Contamination of Land).

A guide to the sampling and analysis of waters, wastewaters, soils and wastes (EPA publication IWRG701).

Guidelines for Environmental Management: Use of reclaimed water (EPA publication 464).

Waste acceptance

WA1 Waste acceptance

You must ensure all of the following:

- a) Only waste of a type shown in Schedule 2 of this licence is accepted at the premises; and
- b) If it is identified that any waste has been received at the premises that is of a type not shown in Schedule 2 in contravention of paragraph a) above, such waste must be placed in a designated and sign-posted temporary storage area and sent for disposal to a site licensed by EPA to receive such waste within 21 days of the date it was received.

This condition allows your premises to accept certain prescribed industrial wastes that would otherwise not be acceptable under section 20(1) of the Act.

A full list of prescribed industrial wastes and information on their classification can be found in EPA publication IWRG822. Only scheduled categories A01, A02, A05, A07, A08, G05 and I02 are licensed to accept waste.

To show compliance with this condition, as a minimum:

All incoming wastes must be identified according to EPA publication IWRG822. Wastes that cannot be accepted in accordance with your licence must be refused or returned to the sender. You must have procedures and controls in place to ensure that you have followed an appropriate receipt process.

Note that wastes 'received' at your premises are not deemed to have been 'accepted' by you until they have met your waste acceptance quality control procedures. This might, for example, involve holding the received wastes in an appropriately bunded quarantine area until you have satisfied yourself by testing or other means that they can be accepted in accordance with your licence.

A licence holder who knowingly 'receives' waste of a type not specified in Schedule 2 of its licence, is in contravention of condition WA1. EPA expects the waste receipt process to include:

- timely identification of all wastes temporarily located in a clearly defined 'waste receipt and quarantine area'
- removal of the wastes you cannot accept to a site licensed by EPA or to the waste generator within 21 days of the date it was received
- If it is not possible to remove the waste within 21 days, then you should notify EPA and outline a process and timeframe for the waste removal by calling the 24-hour Pollution Hotline, 1300 EPA VIC (1300 372 842).

Additional things to consider:

- Any person who deposits wastes at a site not licensed to accept those wastes is committing an offence under the Act.
- You can request your regular clients and new clients to complete and return a quality control checklist and written acknowledgement of your licence conditions.
- Waste transport certificates are required for all waste received. For more information on these refer to EPA publication IWRG821. You can also call the 24-hours contact number 1300 EPA VIC (1300 372 842).

Monitoring:

The monitoring of wastes received at the premises will need to reflect the form of the waste (solid or liquid), the method of containment (tanker, bulk or individual packaging) and other characteristic of the wastes (oil, oil/water mixture).

Depending on the nature of the waste, you may need to do the following:

- Check that the appearance and quantity of the waste being delivered is consistent with its label and the details on the accompanying waste transport certificate.
- Depending on the types of waste you accept, you may require a certificate of analysis to accompany the waste.
- Identify the provenance of the waste. (Is it a known source? Have you assessed the reliability of the source? Does the waste transporter know which wastes you are licensed to accept? Is it from a source that might cause the waste to contain materials you cannot accept? Is it from a source you have not received waste from before?)
- If you are not certain of the source or condition of the waste, you must hold it separately in a quarantine area and conduct appropriate testing to determine whether you can accept it — as noted above, it must be dealt with in a timely manner.
- At acceptance, you should complete a quality control checklist on which you record the checks you have made as part of accepting the waste.
- You should sample and analyse initial consignments of waste from each new client.
- You should conduct random testing of waste from all sources to confirm that the waste is correctly identified and in compliance with this condition.

Also:

- Sampling must be conducted under laboratory instruction.
- Laboratories and testing facilities used must be accredited by NATA for all tests conducted
- All laboratory analysis reports must be NATA-endorsed.
- Monitoring must be intensified if you consider there is an increased risk of wastes being contaminated with materials you are not licensed to accept.
- All monitoring data and reports must be retained in a secure and accessible condition.

References

Waste codes (EPA publication IWRG822).

Waste categorisation (EPA publication IWRG600).

Soil hazard categorisation and management (EPA publication IWRG621).

Asbestos transport and disposal (EPA publication IWRG611).

Solid industrial waste hazard categorisation and management (EPA publication IWRG631).

Best practice guidelines for landfills receiving Category C prescribed industrial waste (EPA publication 1208).

Waste transport certificates (EPA publication IWRG821).

PCB management (EPA publication IWRG643).

Clinical and related waste — operational guidance (EPA publication IWRG612).

Used containers (EPA publication IWRG644).

Grease trap waste (EPA publication IWRG421).

WA1.1 Prohibited wastes — unless otherwise allowed

You must not accept hexachlorobenzene, polychlorinated biphenyls (PCBs), organochlorine pesticides and germicides and other chlorinated hydrocarbons, unless otherwise specified in Schedule 2 of this licence.

This condition is applied to waste treatment premises that prepare containers (waste codes N100, N110, N120 and/or bulk transport containers) for reuse in addition to accepting other PIW. The condition prohibits the acceptance of containers with residues of wastes that are listed in 'Schedule X' published by the Department of the Environment, Water, Heritage and the Arts, unless the waste code for that waste is listed in Schedule 2 of the licence. Wastes are listed in Schedule X because they are hazardous and regarded as intractable, or difficult to safely dispose of, without special technologies and facilities.

To show compliance with this condition, as a minimum:

Wastes that cannot be accepted must be refused or returned to the sender. Refer to the guidelines for condition WA1 (Only wastes listed in Schedule 2 may be accepted at the premises) for guidance on the waste receipt process.

Note that wastes 'received' at your premises are not deemed to have been 'accepted' by you until they have met your waste acceptance quality control procedures. This might, for example, involve holding the received wastes in a quarantine area until you have satisfied yourself by testing or other means that they can be accepted in accordance with your licence.

Additional things to consider:

- EPA recognises the risks of receiving unidentified chemicals in containers residues and expects the licence-holder to manage these risks.
- All reasonable efforts must be taken during the waste receipt process to prevent wastes that are not listed in Schedule 2 of your licence being accepted at your premises.

Monitoring:

The monitoring of wastes received at the premises will need to reflect the method of containment (tanker, bulk or individual containers) and other characteristic of the wastes (oil, oil/water mixture, other). Depending on the nature of the waste, you may need to do the following:

- Check that the appearance and quantity of residual waste in containers being delivered is consistent with its label and details on the accompanying waste transport certificate.
- Depending on the types of waste in the container, you may require a certificate of analysis to accompany the waste.
- Identify the provenance of the waste. (Is it a known source? Have you assessed the reliability of the source? Does the waste transporter know which wastes you are licensed to accept? Is it from a source that might cause the waste to contain materials that you cannot accept? Is it from a source you have not received waste from before?)
- If you are not certain of the source or condition of the waste, you must hold it separately in a quarantine area and conduct appropriate testing to determine whether you

can accept it — as noted above, it must be dealt with in a timely manner.

- You should develop a quality control checklist to be completed on acceptance of each consignment of waste.
- You should sample and analyse initial consignments of waste from each new client to test for the Schedule X compounds.
- You should conduct random testing of waste from all sources to confirm that the waste is correctly identified and in compliance with this condition.

Also:

- Sampling must be conducted under laboratory instruction.
- Laboratories and testing facilities used must be accredited by NATA for all tests conducted.
- All laboratory analysis reports must be NATA-endorsed.
- Monitoring must be intensified where you consider there is an increased risk of wastes being contaminated with materials you are not licensed to accept.
- All monitoring data and reports must be retained in a secure and accessible condition.

References

Waste codes (EPA publication IWRG822).

Department of the Environment, Water, Heritage and the Arts (Schedule X).

WA1.4 Prohibited wastes including SEPP (AQM) Class 3 indicators

You must not accept:

- a) hexachlorobenzene
- b) polychlorinated biphenyls (PCBs)
- c) organochlorine pesticides
- d) germicides
- e) acrylonitrile
- f) benzene
- g) 1,3-butadiene
- h) 1,2-dichloroethane (ethylene dichloride)
- i) ethylene dioxide
- j) diphenylmethane diisocyanate (MDI)
- k) propylene oxide
- l) toluene-2,4-diisocyanate or toluene-2,6-diisocyanate (TDI)
- m) trichloroethane, or
- n) other chlorinated hydrocarbons.

This condition is applied to waste treatment premises that only accept containers (waste codes N100, N110, N120 and/or bulk transport containers) and are unable to handle any potentially hazardous volatile materials.

The condition prohibits the acceptance of containers with residues of wastes that are listed in Schedule X (published by the Department of the Environment, Water, Heritage and the Arts) and volatile Class 3 air quality indicators listed in SEPP (AQM). Wastes are listed in Schedule X because they are hazardous and regarded as intractable, or difficult to safely dispose of, without special technologies and facilities.

To show compliance with this condition, as a minimum:

Wastes that cannot be accepted must be refused or returned to the sender. Refer to the guidelines for condition WA1 (Only wastes listed in Schedule 2 may be accepted at the premises, for guidance on the waste receipt process).

Monitoring:

The monitoring of wastes received at the premises will need to reflect the method of containment (tanker, bulk or individual containers) and other characteristic of the wastes (oil, oil/water mixture, other). Depending on the nature of the waste, you may need to do the following:

- Check that the appearance and quantity of waste being delivered is consistent with its label and details on the accompanying waste transport certificate.
- Depending on the types of waste in the container, you may require a certificate of analysis to accompany the waste.
- Identify the provenance of the waste. (Is it a known source? Have you assessed the reliability of the source? Does the waste transporter know which wastes you are licensed to accept? Is it from a source that might cause the waste to contain materials that you cannot accept? Is it from a source you have not received waste from before?)
- If you are not certain of the source or condition of the waste, you must hold it separately in a quarantine area and conduct appropriate testing to determine if you can accept it — as noted above, it must be dealt with in a timely manner.
- You should develop a quality control checklist to be completed on acceptance of each consignment of waste.
- You should sample and analyse initial consignments of waste from each new client to test for the compounds listed in this licence condition.
- You should conduct random testing of waste from all sources to confirm that the waste is correctly identified and in compliance with this condition.

Also:

- Sampling must be conducted under laboratory instruction.
- Laboratories and testing facilities used must be accredited by NATA for all tests conducted.
- All laboratory analysis reports must be NATA-endorsed.
- Monitoring must be intensified where you consider there is an increased risk of wastes being contaminated with materials you are not licensed to accept.
- All monitoring data and reports must be retained in a secure and accessible condition.

References

Waste codes (EPA publication IWRG822).

State Environment Protection Policy (Air Quality Management).

Department of the Environment, Water, Heritage and the Arts (Schedule X).

WA2 Waste treatment

Wastes accepted at the premises may only be treated or disposed of in accordance with Schedule 2.

This condition allows your premises to treat or dispose of prescribed industrial wastes according to the specified methods. Other methods are not permitted to be used.

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to show that the wastes have been correctly treated and disposed of.

Additional things to consider:

- To ensure compliance can be demonstrated with this condition, treatment and disposal procedures should be documented and well understood by employees.
- Compliance with this condition may be confirmed by random auditing of the waste treatment and disposal processes.

Monitoring:

Monitoring of waste treatment to demonstrate compliance with this licence condition must be tailored to the types of waste treated at the premises and the methods used to treat those wastes. The monitoring program should allow you to be able to track each consignment of waste from acceptance to the feed point for the licensed treatment process.

To meet this requirement you should:

- develop a table of waste types that can be accepted at the premises, cross-referenced to the licensed treatment method(s) for each of those wastes
- prepare a tracking sheet (either paper or electronic) for each waste type accepted. The tracking sheet should include fields for recording the time and date of acceptance, the vessel or area it was initially held in and each subsequent storage location and the licensed treatment method. The tracking sheet should allow for consolidation of similar wastes from different sources prior to treatment, with the batch number or date of consolidation and vessel used recorded. The final entry in the tracking sheet should be the point at which the waste is transferred to the respective, licensed treatment process. Each waste treatment process should have a defined feed-in point, which should be documented on the tracking sheet or other accessible record and be justifiable to EPA
- ensure each consignment of waste is recorded and identifiable in the tracking sheet or system to the point of treatment — you may continue to use the waste tracking system in place at the licensed premises provided it enables you to provide documentary evidence of compliance with this licence condition
- retain all tracking sheets or electronic records retained in a secure and accessible condition.

References

Soil hazard categorisation and management (EPA publication IWRG621).

Solid industrial waste hazard categorisation and management (EPA publication IWRG631).

Acid sulfate soils and rocks (EPA publication 655).

WA2.1 Microbial inactivation in clinical waste

The treatment process for all clinical waste must reduce the bacterial activity of that waste by at least 99.99%.

This condition applies to any treatment of clinical wastes that does not include incineration. The bacterial activity of the waste must be reduced in accordance with this condition, prior to any disposal to landfill. A reduction of at least 99.99 per cent is equivalent to a microbial inactivation efficacy (\log_{10} kill ratio of at least four).

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to ensure that the treatment process can maintain the required bacteriological reduction required.

Failure to maintain the required bacteriological reduction must be reported to EPA as a non-compliance with this condition.

Additional things to consider:

- To ensure compliance can be demonstrated with this condition, treatment and disposal procedures should be documented and well understood by employees.
- Compliance with this condition may be confirmed by random auditing of the waste treatment and disposal processes.
- Refer to the guidelines for condition WA2 (Wastes accepted at the premises may only be treated or disposed of in accordance with Schedule 2).
- You must have contingency plans in place to be able to respond to any failure of the treatment process. If 99.99 per cent reduction is not achieved this is a non-compliance with the condition and must be reported to EPA and recorded in your APS.

Monitoring:

A method to reliably test the degree of microbial inactivation by the clinical waste treatment process should be prepared and documented by a suitably qualified microbiologist in consultation with the licence-holder. The method should use *Bacillus stearothermophilus* or *Bacillus subtilis* spores as the indicator. The method may be based on that described in the Technical Assistance Manual: State Regulatory Oversight of Medical Waste Treatment Technologies — Appendix C (April 1994), published by the Rhode Island (US) Department of Environmental Management and available from the International Society of Analytical Assessment of Treatment Technologies website.

A set of reliable, calibrated surrogate microbial inactivation indicators using operational controls should be identified and documented to provide assurance that at least 99.99 per cent microbial inactivation is achieved in all waste treated.

The testing should be conducted at a frequency that enables reliable validation of the surrogate indicators. The testing must be conducted by a microbiologist with suitable experience in testing microbial inactivation for the type of clinical waste treatment used at the site.

Documentation should clearly specify the testing methods to be used and be sufficient to be able to demonstrate to an independent person that the level of microbial inactivation is being achieved for all waste treated, either by direct measurement or by the selected surrogate indicators.

The testing should ideally be conducted by a laboratory suitably accredited by NATA for all tests conducted; however, this is not an absolute requirement if one is not available. In such a case, the procedure used and all quality assurance and quality control measures applied should be clearly documented by the testing body and included in the reports.

All monitoring data and reports must be retained in a secure and accessible condition.

References

Clinical and related wastes — operational guidance (EPA publication IWRG612).

Waste codes (EPA publication IWRG822).

Technical Assistance Manual: State Regulatory Oversight of Medical Waste Treatment Technologies — Appendix C. Rhode Island (US) Department of Environmental Management, April 1994.

WA2.4 Disinfection of clinical waste

You must operate the plant at a maximum feed rate of <x> tonnes per hour, with a disinfectant contact time of at least 15 minutes and temperature of at least 15 degrees C, and with at least 500 ppm free available chlorine in the effluent after treatment.

This condition sets best-practice requirements for the treatment of clinical wastes by disinfection with chlorine. The waste feed rate for your premises is determined during the works approval stage.

To show compliance with this condition, as a minimum:

You must monitor and record the feed rate, temperature and contact time of the operations, so that you can show that the condition requirements are met.

You must be able to show that you have used sufficient chlorine to achieve the level in the effluent required by the condition.

Failure to meet any of the limits in the condition is a non-compliance and must be reported to EPA.

Additional things to consider:

- To ensure compliance can be demonstrated with this condition, treatment and disposal procedures should be documented and well understood by employees.
- Compliance with this condition may be confirmed by random auditing of the waste treatment and disposal processes.
- Refer to the guidelines for condition WA2 (Wastes accepted at the premises may only be treated or disposed of in accordance with Schedule 2).
- You must have contingency plans in place to be able to respond to any failure of the treatment process.

Monitoring:

This licence condition requires specific operating parameters to be met during disinfection of clinical waste. Your monitoring program must provide you with continuous process performance data that enable you to properly control the equipment and to provide a permanent, secure and accessible record of operating parameters that enables you to demonstrate licence compliance.

The main elements to be monitored include:

- feed rate of clinical waste loaded into the disinfection plant
- the disinfection contact time
- disinfectant contact time
- residual free available chlorine concentration
- the integrity and any triggered activation of the interlock preventing loading of waste during any out-of-specification operating conditions
- instrumentation calibration records
- testing of the audible, visual alarm system and activation of associated interlocks
- continuous plant performance data

- all alarm and interlock activations.

References

Clinical and related wastes – operational guidance (EPA publication IWRG612).

Waste codes (EPA publication IWRG822).

PCB management (EPA publication IWRG643).

Used containers (EPA publication IWRG644).

Asbestos transport and disposal (EPA publication IWRG611).

Waste management

WM1 Maximum storage capacity

You must not store more than <x units> of waste on the premises at any time.

This condition specifies the maximum amount of waste that you may store. For A01 premises this condition refers to prescribed industrial waste, whereas for A02 and H05 premises this refers to industrial waste only. Storage of large quantities of waste typically represents a substantial hazard to the environment. This issue is taken into account when determining the amount of financial assurance you are required to have, which is calculated according to the amount and type of waste stored at your premises.

To show compliance with this condition, as a minimum:

You must have a tracking system in place to monitor waste coming into and out of your site.

The tracking system must include readily available records for all waste at your site.

Additional things to consider:

- According to the Act, waste includes:
 - (a) any matter whether solid, liquid, gaseous or radio-active which is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment;
 - (b) any discarded, rejected, unwanted, surplus or abandoned matter;
 - (c) any otherwise discarded, rejected, abandoned, unwanted or surplus matter intended for—
 - (i) recycling, reprocessing, recovery or purification by a separate operation from that which produced the matter; or
 - (ii) sale; and
 - (d) any matter prescribed to be waste;
- You should be able to determine the amount of waste on your site at any time. EPA will undertake targeted and random inspections or audits to ensure waste limits are being complied with.
- To ensure all waste is accounted for, waste storage areas should be clearly signed and communicated to employees.
- It makes good business sense to minimise the amount of waste stored in order to minimise the costs involved in financial assurance.

Monitoring:

The monitoring of type and quantity of prescribed industrial waste (A01 premises) or industrial waste (A02 and H05 premises) is effectively an inventory control process. The monitoring system may be a type of proprietary stock control system, a purpose-designed tracking program or spreadsheet or a searchable component of an existing inventory management system.

Whichever system is employed, the waste tracking system must:

- contain fields to allow the entry of the quantity and category of waste
- keep a record of each entry of waste addition or removal that includes the date and time of entry

- automatically tally and permanently record the net quantity of waste stored onsite when each entry is made
- provide a readily accessible indication of the quantity of waste stored onsite at any time
- trigger an alert when the licence limit is being approached and trigger an alarm when an attempt is made to enter a quantity of waste that would lead to the licensed limit being breached
- permanently record each alarm
- have input access restricted to nominated personnel
- be secure from tampering
- be backed up at least daily.

The records must be held in a secure location and be accessible.

WM1.2 Maximum storage capacity — composting

You must not store more than <x> cubic metres of composting material on the premises at any time.

This condition specifies the maximum amount of composting material that you may store. Storage of large quantities of waste typically represents a substantial hazard to the environment. 'Store' means total amount on site, including waste that is being stored and processed. 'Composting material' means all stages of the process, including green waste accepted at the site, green waste being processed in a windrow and finished product, excluding soil.

To show compliance with this condition, as a minimum:

You must record the volumes of waste received and sent off site. Refer to the guidelines for condition WM1 (You must not store more than <x> waste on the premises at any time).

Exceeding the maximum storage capacity at any time is a non-compliance with this condition and must be reported to EPA.

Additional things to consider:

- To ensure the amount of waste stored remains within your limit, a tracking system should be in place to monitor composting material coming into and out of your site.
- You should be able to determine the amount of composting material on your site at any time. EPA will undertake targeted and random inspections or audits to ensure limits are being complied with.

References

Designing, constructing and operating composting facilities (EPA publication 1588).

WM1.4 Maximum deposit of wastes

You must not deposit more than <x> tonnes of waste on the premises per year.

This condition specifies the maximum amount of waste you may deposit on your land. Deposit of wastes in excess of the capacity of the land to accept represents a substantial hazard to the environment. The capacity is determined at the works approval stage.

To show compliance with this condition, as a minimum:

You must record the volumes of waste deposited to land. Refer to the guidelines for condition DL3 (Deposit of animal

and vegetable organic wastes to land must not adversely affect the land).

Failure to meet the deposit limit at any time is a non-compliance with this condition and must be reported to EPA.

Additional things to consider:

- To ensure the amount of waste stored remains within your limit, a tracking system should be in place to monitor waste coming into your site.
- EPA will undertake targeted and random inspections or audits to ensure waste limits are being complied with.

WM1.5 Maximum storage capacity — waste tyres

You must not have more than <x EPU or tonnes> of waste tyres on the premises at any time.

This condition specifies the maximum amount of waste tyres that are permitted to be stored on your site. Storage of large quantities of waste tyres typically represents a substantial hazard to the environment and a fire risk. The total amount of tyres includes those that are being stored, held in preparation for processing, and those that have been compacted or undergone baling, but does not include tyres that have been shredded into pieces less than 250mm in any dimension. The maximum capacity allowed will be determined at the works approval stage.

To show compliance with this condition, as a minimum:

You must record the volumes of waste tyres received and sent off site. Refer to the guidelines for condition WM1 (You must not store more than <x> waste on the premises at any time).

Exceeding the maximum storage capacity at any time is a non-compliance with this condition and must be reported to EPA.

Additional things to consider:

- To ensure the amount of waste tyres remains within your limit, a tracking system should be in place to monitor material coming into and out of your site.
- You should be able to determine the amount of material on your site at any time. EPA will undertake targeted and random inspections or audits to ensure limits are being complied with.

References

Fire Services Guideline – Open Air Storage of New or Used Tyres (2014)

Fire Services Guideline – Indoor Storage of New or Used Tyres (2014)

WM1.6 Maximum storage capacity — outdoor tyre pile size

The maximum size of any pile of tyres stored outdoors must not exceed 20m long, by 6m wide, by 3m high.

This condition specifies the maximum dimensions of any single pile of tyres held at sites storing tyres outdoors. Storing waste tyres in excessive pile sizes creates significant difficulties in extinguishing a fire and can represent a substantial hazard to other assets and the environment.

To show compliance with this condition, as a minimum:

- You must have clearly defined areas for the unloading and storage of waste tyres.

- You must also have a method for ensuring the piles do not exceed the maximum dimensions.

Additional things to consider:

To ensure the size of individual piles remains within the limit, a plan for dealing with additional volumes should be defined.

References

Fire Services Guideline – Open Air Storage of New or Used Tyres (2014)

WM1.7 Maximum storage capacity — indoor tyre pile size

All waste tyres must be contained within the building at all times.

This condition applies to sites that store tyres within a confined building and specifies the need to maintain this at all times.

To show compliance with this condition, as a minimum:

You must have a clearly defined process for managing material coming in and out of the site and any unforeseen additional volumes.

References

Fire Services Guideline – Indoor Storage of New or Used Tyres (2014)

WM2 Container labelling

Each container holding prescribed industrial waste at the premises must be labelled so that the contents and the waste producer can be identified.

Labelling of all prescribed industrial wastes held at your premises enables them to be immediately identifiable by your employees, EPA and any other party, such as emergency services. With sound knowledge of the types of wastes onsite and where they're located, personnel attending a spill or other type of accident should be in a strong position to evaluate risks and respond quickly and safely.

To show compliance with this condition, as a minimum:

All PIW held at your site must be correctly labelled.

You must have records to demonstrate to EPA (or any personnel in the case of an emergency) that you have a good understanding of the content and producer of each tank.

Additional things to consider:

- Portable drums and other containers must be individually labelled. Where a consignment of waste comprises multiple packages (for example, individually-packaged wastes stacked on a pallet), the pallet or vessel in which the packaged wastes are held may be labelled as a whole. If the consignment of waste is then broken down for redistribution within the premises (other than for direct treatment), the individual packages must then be labelled.
- Sites that have permanent, fixed storage tanks used to receive and hold waste materials from a range of different producers do not need to relabel the tanks upon each addition.
- Licensed sites managing clinical wastes can continue to use the standard colour-coded labelling system adopted by this industry.

- The Australian Dangerous Goods Code may be a useful reference. It provides information on labelling, including assigning names, codes and the proper location of markings or labels.

References

Australian Dangerous Goods Code, 7th Edition.

Clinical and related wastes — operational guidance (EPA publication IWRG612).

WM3 Litter

You must ensure that litter originating from the premises is not present beyond the boundaries of the premises.

This condition requires you to prevent any 'solid or liquid waste refuse, debris or rubbish' from migrating from your site. Litter may include metal, glass, plastic, paper, wood, soil and rocks. Deposition may include materials blown by wind and materials tracked offsite or dropped or spilled by trucks, as well as those knowingly dumped offsite. The litter referred to in the condition is any litter that comes from your site.

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to make sure that:

- you prevent the generation of litter that might escape from your premises
- materials that might contribute to litter from your site are contained
- regular, documented inspections are made of areas inside and outside your site that hold materials that might contribute to litter
- litter control devices are maintained and installed in areas where litter might be an issue
- you have not received verified complaints regarding litter that has escaped from your site.

Additional things to consider:

- Litter can be protected from blowing offsite by covering any stockpiled materials and using fences to catch any loose debris.
- If your site is largely bare dirt and gravel, you should consider installing wheel washes and grates to ensure trucks do not track dirt and gravel onto surrounding roads.
- On high-wind days when litter is difficult to control, you may need to modify your site activities or stop handling materials that might generate litter.

Monitoring:

- Check the site for materials that might be carried offsite by wind and secure them.
- Check internal and perimeter fencing for trapped windblown materials.
- Check outside the site boundary for any deposited materials that might have originated from your site.
- Check for tracking of materials onto surrounding roads by vehicles leaving your site.
- Check drains for materials that might be carried from the site and deposited outside the site.
- Check your stormwater litter traps or screens for trapped materials.

- The monitoring frequency should reflect the potential for materials to be carried from your site and be deposited as litter.
- During windy conditions or heavy rainfall events, you should conduct additional litter inspections of your site, areas outside your site boundaries and roads and drains.
- You should keep records of all inspection results, complaints and associated rectification actions.
- In some instances, your site or surrounding land may be affected by litter from other sources. You should try to determine the source of the litter or otherwise gather information to demonstrate that it is not from your site. Such littering should be reported to EPA.
- Every litter complaint should be logged, investigated and actions documented. You should record the name and contact details of the person making the complaint, the location, date and time the litter was detected and the type of the litter. You should determine, where possible, whether the litter is from your site or is from another site.

References

Litter in your community (EPA publication 835).

Reporting litterers (EPA publication 834).

Siting, design, operation and rehabilitation of landfills (EPA publication 788).

WM4 Fire

You must ensure that waste does not burn at the premises.

This condition states that fires are not allowed to occur at licensed premises except under licensed processes. Operators of premises should ensure the risk of self-combustion is appropriately managed and mitigated.

Fires are not only hazardous to the safety of employees and neighbours, but they may also produce odour and smoke and release dangerous chemicals to the air and soil.

To show compliance with this condition, as a minimum:

You must have procedures and controls in place to manage the risk of fire at your premises.

If the fire was deliberately lit in the firefighter training area for training purposes, it does not need to be reported as a non-compliance with this condition.

Additional things to consider:

- To manage this risk, you may implement a fire management plan in conjunction with your local fire authority that identifies measures to reduce the risk. Your management plan should also include mitigation measures, such as a ready water source, and reporting incidents to emergency services or EPA.
- Certain materials such as tyres and compost piles pose a significant fire risk and must be actively managed to prevent combustion.
- It is an offence to burn or set fire to industrial waste. Burning of any waste can only occur if your licence allows for this method of treatment.

Criminal acts that are proven to be beyond your ability to prevent are not included in this condition.

References

Siting, design, operation and rehabilitation of landfills (EPA publication 788).

Fire Services Guideline – Open Air Storage of New or Used Tyres (2014)

Fire Services Guideline – Indoor Storage of New or Used Tyres (2014)

Designing, constructing and operating composting facilities (EPA publication 1588).

WM4.1 Fire – Firefighting equipment

You must maintain onsite firefighting equipment and access to water supplies that are capable of controlling and extinguishing a <type> fire at the premises.

This condition states that firefighting equipment for use by staff, and sufficient quantities of water to extinguish an onsite fire, must be available at all times onsite. The necessary equipment and water supplies should be informed by a site fire risk assessment that identifies all fire hazards and the resources and equipment necessary to manage the identified scenarios.

To show compliance with this condition, as a minimum:

You must be able to provide a site fire risk assessment that has been performed in consultation with the relevant fire authority and appropriately qualified experts. For A09 Waste Tyre Storage, the site fire risk assessment and associated resources and equipment should also be informed by the recommendations of the Victorian Fire Services guidelines for the storage of tyres.

References

Fire Services Guideline – Open Air Storage of New or Used Tyres (2014)

Fire Services Guideline – Indoor Storage of New or Used Tyres (2014)

WM4.2 Fire – Emergency Services Access

You must maintain clear access for emergency and fire services vehicles, and fire protection equipment (including fire hydrants and fire hoses) or related signage.

This condition requires the site to be maintained in a manner to allow fire trucks to gain access and operate safely on the site.

To show compliance with this condition, as a minimum:

You must minimise barriers and maintain suitable separation distances to materials held on site, site boundaries, fire hydrants, water supplies, hoses and firefighting equipment. For A09 Waste Tyre Storage, the minimum separation distances should be informed by the recommendations of the Victorian Fire Services guidelines for the storage of tyres.

References

Fire Services Guideline – Open Air Storage of New or Used Tyres (2014)

Fire Services Guideline – Indoor Storage of New or Used Tyres (2014)

WM4.3 Fire – Minimise fire potential

You must implement a management plan to prevent fire and minimise potential ignition and fuel sources.

This condition requires the development and implementation of a procedure to minimise the potential for a fire to start by reducing the possible onsite sources of ignition and additional fuel loads that may accumulate.

To show compliance with this condition, as a minimum:

You must show that you have documented procedures to control possible ignition sources, which should consider

- Hot work permits for all cutting, welding, grinding activities
- Regular inspection and testing of electrical equipment, vehicles and machinery
- Maintain the site clear of fuels or minimise the accumulation of fuels around the site
- Restriction of smoking to designated areas
- No storage of easily flammable or combustible materials, hazardous materials or other easily ignitable material within 30m of each other
- Maintain separation distances to buildings and boundaries as outlined in the relevant Fire Services guidelines.

References

Fire Services Guideline – Open Air Storage of New or Used Tyres (2014)

Fire Services Guideline – Indoor Storage of New or Used Tyres (2014)

WM4.4 Fire water management

You must maintain bund walls or catchment pits sufficient to contain surface run-off from the site during firefighting activities.

This condition requires all surface water management systems to be regularly monitored and adequately maintained, i.e. to ensure that in the event of a fire, contaminated fire water and liquid by-products of combustion can be captured on site or safely disposed to sewer. The design and capacity of the fire water management system will be confirmed during the works approval. For A09 Waste Tyre Storage, this should be informed by the recommendations of the Victorian Fire Services guidelines for the storage of tyres.

To show compliance with this condition, as a minimum:

You must have a regular inspection and monitoring regime to test the integrity of the system. Refer to the guidelines for condition DW1 Stormwater (Stormwater discharged from the premises must not be contaminated with waste).

References

Fire Services Guideline – Open Air Storage of New or Used Tyres (2014)

Fire Services Guideline – Indoor Storage of New or Used Tyres (2014)

WM4.5 Tyre storage

You must not store waste tyres indoors on the premises at any time.

This condition is for waste tyre storage operators which only store tyres outdoors, and do not have approval to store waste tyres indoors. This condition ensures that tyres are not accepted and stockpiled created in inappropriate unsafe indoors areas.

To show compliance with this condition, as a minimum:

No whole waste tyres must be stored inside any buildings.

Fire Services Guideline – Open Air Storage of New or Used Tyres (2014)

Fire Services Guideline – Indoor Storage of New or Used Tyres (2014)

WM5 PCBs

The polychlorinated biphenyl (PCB) content of waste oil must be assessed to ensure that it may be accepted at the premises.

This condition requires you to qualitatively assess waste oil that may contain PCBs to check that you can accept it. You can only accept oils containing PCBs if they are listed in Schedule 2 of your licence. (See condition WA1.)

Waste types involving PCBs are:

- M100 — PCBs (PCBs >50 mg/kg)
- M110 — waste substances and articles containing or contaminated with PCBs (PCBs >50 mg/kg)
- M120 — solvents, oils and materials contaminated with PCBs (PCBs >2 mg/kg and <50 mg/kg).

PCBs are particularly hazardous chemicals that are persistent in the environment and subject to a notifiable chemicals order and national management plan. More information on the requirements under this plan can be found in EPA publication IWRG643.

To show compliance with this condition, as a minimum:

You must have a documented procedure in place for assessing waste for PCBs during the receipt process. Refer to condition WA1 (Only wastes listed in Schedule 2 may be accepted at the premises for guidance on the receipt process).

Operators accepting waste oil must receive training in the waste receipt and acceptance process and demonstrate an understanding of that process. Frequent refresher training may be required. Frequent internal audits should also be made to check the quality and consistency of waste acceptance practices and record keeping.

You must be able to demonstrate that the procedure is followed for the PCB waste types M100, M110 & M120 or waste oil types J100-J160.

Additional things to consider:

- If, upon your qualitative assessment, you've determined that any waste oil arriving at your site is likely to contain PCBs, it must be tested by an independent, NATA-accredited laboratory to determine whether it can actually be accepted at the premises.
- The risk or likelihood of PCBs in waste oil should be assessed on receipt (see below), and the oil tested if the delivery is likely to contain PCBs. Wastes that cannot be accepted must be returned to the consigner and EPA notified.
- All deliveries of goods containing PCBs should be made using a suitably permitted vehicle and accompanied by a completed waste transport certificate or interstate transport authorisation consignment number.

Monitoring:

Waste oil (waste codes J100 to J160) received at the premises must be assessed as being suitable for acceptance prior to being incorporated into the waste treatment stream and mixed with other waste oils. This would usually involve

completing a waste oil acceptance checklist that requires assessment of the original source of the oil, the potential for it to have been contaminated by PCBs, or to have been mixed with oils from unknown sources.

If, for example, the waste oil is known to have come direct from a motor vehicle servicing workshop, there is a very low likelihood of it being contaminated with PCBs and it may be accepted without further assessment. If, on the other hand, it has come from a transformer servicing workshop, it must be regarded as containing PCBs until confirmed as being PCB-free, usually through analysis of a sample of the oil or from a certificate of analysis sent with the oil.

Additionally:

- You should maintain an up to date record of all consignments of waste oil accepted that includes:
 - the date and time of receipt
 - the source of the waste oil
 - the consigner of the waste oil
 - the waste oil transporter
 - the waste transport certificate (WTC) number
 - the quantity of oil received
 - the container the oil was transported in (bulk tanker, drums or in equipment such as a transformer)
 - comments regarding any discrepancies between details in the WTC and the waste received
 - notation of inclusion of a certificate of analysis or other reliable document
 - the concentration of PCBs reported in the certificate of analysis or other document
 - details if the waste has been quarantined for further assessment
 - a tick-box risk analysis table that is based on a set of risk identifiers (such as source of oil, known history of consigner, new consigner, involvement of electrical equipment, reliability of the analytical documentation) that allows a simple identification of the risk of PCB contamination
 - independent analysis of the oil if identified as being of an unacceptable risk
 - notation of acceptance of the consignment, taking into account the results of the risk analysis
 - fate of the consigned oil (non-acceptance with outcome, onsite treatment, on-forwarding etc.).
- Laboratories and testing facilities must be accredited by NATA for all tests conducted.
- All reports from sampling and analysis must be NATA-endorsed.
- Completed assessment checklists and laboratory reports must be stored in a secure, accessible location.

References

Polychlorinated biphenyls (PCB) management (EPA publication IWRG643).

Polychlorinated biphenyls management plan (ANZECC, 2003).

Waste codes (EPA publication IWRG822).

WM6 PCBs

Before dispatching waste oil from the premises, it must first be assessed to ensure that the polychlorinated biphenyls (PCB) content may be accepted by the recipient.

This condition requires you to check that any oil you send offsite does not contain PCBs, or that the receiving party is licensed to accept it. As a supplier, you have a responsibility to ensure waste is appropriately managed throughout its lifespan. If the receiver is not licensed to accept the content of PCBs, you will have committed an offence.

The following waste types listed in Schedule 2 of the receiver's licence allows them to receive PCB-contaminated waste:

- M100 — PCBs (PCBs >50 mg/kg);
- M110 — waste substances and articles containing or contaminated with PCBs (PCBs >50 mg/kg); and
- M120 — solvents, oils and materials contaminated with PCBs (PCBs >2 mg/kg and <50 mg/kg).

PCBs are particularly hazardous chemicals that are persistent in the environment and thus subject to a notifiable chemicals order and a national management plan. More information on the requirements under this plan can be found in EPA publication IWRG643.

To show compliance with this condition, as a minimum:

You must have a procedure in place to ensure that oil containing PCBs is despatched to a receiver that can accept that oil.

You must be able to demonstrate that the procedure is followed for oils generated from the PCB waste types M100, M110 & M120 or waste oil types J100-J160.

Additional things to consider:

- The risk or likelihood of PCBs in waste oil should be assessed before you dispatch it. You should also know the receiver's licensed PCB acceptance limit, to ensure they can accept your waste. If the shipment contains a significant content of PCBs, chemical testing should be performed to ensure the concentration is under the receiver's limit.
- Laboratories and testing facilities used must be accredited by NATA for all tests conducted.
- All reports from sampling and analysis must be NATA-endorsed.
- All shipments of goods containing PCBs should be made using a suitably permitted vehicle and accompanied by a waste transport certificate, approved consignment consent or interstate transport authorisation consignment number.

Monitoring:

Your waste oil dispatch procedure should specify a requirement for:

- completion of an assessment checklist for each lot of oil to be dispatched
- assessment of the oil for its potential to be contaminated with PCBs using a set of criteria listed in the checklist
- analysis of any potentially PCB-contaminated oil
- use of laboratories and testing facilities that are accredited by NATA for all tests conducted.

- all reports from sampling and analysis to be NATA-endorsed
- the certificate of analysis to accompany each shipment of PCB-contaminated oil
- checking that the recipient of the PCB-contaminated oil is licensed to accept that waste (uncontaminated oil must also be shipped to a suitably licensed receiver)
- completion of a waste transport certificate to accompany the shipment.

Completed assessment checklists and copies of laboratory reports must be stored in a secure, accessible location.

References

Polychlorinated biphenyls (PCB) management (EPA publication IWRG643).

Polychlorinated biphenyls management plan (ANZECC, 2003).

WM7 Bunding

All unloading, loading, processing, storage and general handling of contaminated water, prescribed industrial waste, oils and chemicals must be conducted in a bunded area in accordance with the *Bunding Guidelines* (EPA publication 347.1, released October 2015).

This condition requires you to conduct all management of dangerous materials in a bunded area.

To show compliance with this condition, as a minimum:

- Have a designated area to carry out these activities.
- Inspect regularly and maintain your bunded area appropriately (no cracks).

Additional things to consider

- Spills and contaminated water must be captured, contained, and disposed of properly.
- If the whole site is bunded, a designated area is not necessary, but you still need to demonstrate appropriate management of stormwater.

References

Bunding Guidelines (EPA publication 347.1).

WM9.1 Site security

You must maintain an effective method of security which prevents unauthorised access.

This condition requires the perimeter of the site to be surrounded by a firmly anchored fence or other effective method of security which prevents unauthorised access and is constructed to discourage entry.

References

Fire Services Guideline – Open Air Storage of New or Used Tyres (2014)

Landfills

Information relating to the standard conditions for landfills is available in Appendix 1 of the *Landfill licensing guidelines* (EPA publication 1323).

Changes made to 1322.7 licence management guidelines

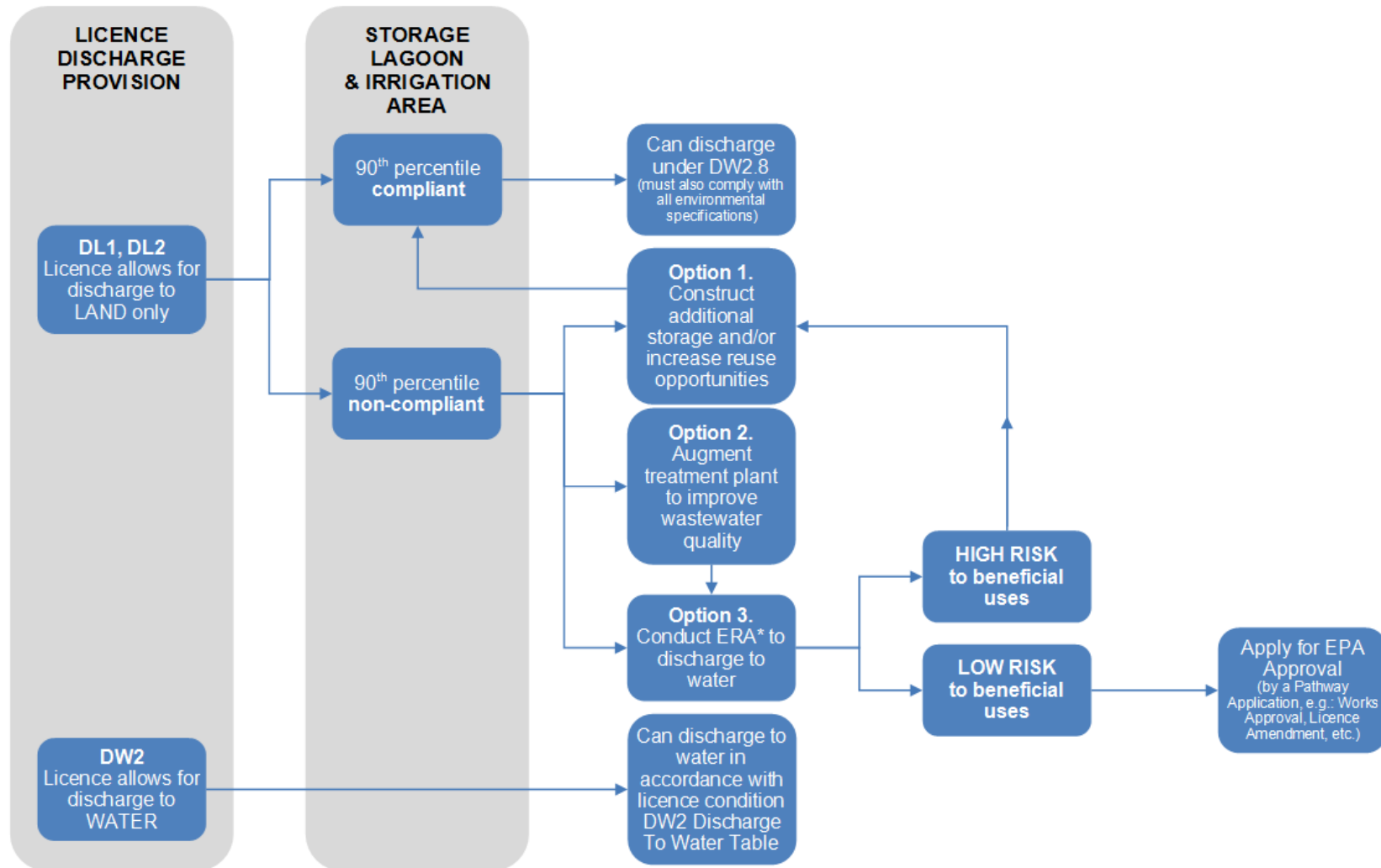
A summary of the changes made to the previous release of this publication, 1322.7, is provided below:

Section	Changes
Introduction	Removed outdated text, added landfill levy information, and definition of EPA boundary.
G1, G2, G4, G5, G6, A1, A2, DW1, DW4, DL2, DL3, DL4, WA1, WM3	Changes to condition wording and guidance as part of the standard condition review.
G3	Administrative change to condition wording as part of standard conditions review.
G3.x, DW3.1, WM1.1	Guidance removed as the conditions are not in use anymore.
G5.4, DW2, WM1, WM4	Changes to guidance as part of sectorial review 2017.
G6.1, G6.2, G6.4, G6.5, G6.6, DA1.11, DA1.12, DW2.x, WM3.1, WM4.5, WM7	New guidance included to complete 1322.
G7 and G7.1	Conditions and guidance removed as part of the standard condition review.
A3 and A4	Conditions merged into A3 and changes to guidance as part of standard condition review.
DA2 and DA2.1	Conditions merged into DA2 and changes to guidance as part of standard condition review.
DW2.8	Changes to guidance in consultation with the Water Industry Reference Group.
DW2.1.x, DW3.1.x, DL1.1.x, WA1.2.x, WA1.5.x, WA2.2.x,	Guidance removed as the conditions are site specific.
DL1, DL1.2, DL1.3	Changed back to original wording and changes to guidance as part of the standard condition review. The landfill condition has been split into conditions DL1.2 and DL1.3 as it covers the same environmental issue as DL1. Guidance has been included for conditions DL1.2 and DL1.3.
WM9 and WM9.1	WM9 has been renumbered WM9.1 as it is a non-standard condition.

Licence Management

Attachment 1 – Compliance Pathways to Discharge Wastewater to Land or Water

Compliance Pathways to Discharge Wastewater to Land or Water



* = Ecological Risk Assessment

Attachment 2 – How to Comply with DW2.8 Specifications

Specification	Evidence	Metric	Additional Details
2.8.a Discharge under this condition is only permissible when an irrigation system including storage lagoon is designed to retain all wastes up to a 90th percentile wet year, as defined in EPA Publications 464.2 and 168, or in accordance with an alternative design standard acceptable to EPA.	<ul style="list-style-type: none"> You must retain records containing the following: <ol style="list-style-type: none"> Evidence of irrigation system, including storage lagoons, meeting 90th percentile design criteria. 	<ul style="list-style-type: none"> <input type="checkbox"/> Size of irrigation and storage lagoon systems <input type="checkbox"/> Comparison with 90th percentile value 	<p>EPA acknowledges that some areas of Victoria have more capacity for wastewater irrigation and reuse than others. If Water Corporations do decide to implement reuse/irrigation as the effluent management strategy for a given location, this licence condition provides an alternative option for effluent management which can be employed in the event of the more extreme wet weather periods.</p> <p>Water Corporations are not necessarily required to reuse all treated wastewater. Water Corporations can investigate and implement alternative treated effluent disposal options such as ongoing off-site discharge, dual pipe reuse schemes, environmental flows or partial off-site discharges</p>
2.8.b Discharge is only permitted during or following rainfall as described below: <ol style="list-style-type: none"> Cumulative rainfall events which exceed the 90th percentile rainfall across the preceding twelve-month period, determined by comparing the actual rainfall for that period with the historic 90th percentile data; OR Cumulative rainfall through the traditional non-irrigation period (e.g.: April to Nov) that exceeds the historic 90th percentile data; OR A single extreme rainfall event (e.g. 1 in 25+ year return period) or multiple large rainfall events (e.g. 1 in 5+ year return period), particularly during the traditional irrigation period (e.g. Sept to May) which is of sufficient size and regularity to significantly disrupt the irrigation program. 	<ul style="list-style-type: none"> You must retain records containing: <ol style="list-style-type: none"> Data on rainfall over the period i.e. evidence of 90th percentile rainfall criteria and/or other evidence of significant disruption to the irrigation program. 	<ul style="list-style-type: none"> <input type="checkbox"/> Measured rainfall over discharge period <input type="checkbox"/> Proportion of 90th percentile value 	<p>DW2.8 is intended to be invoked only during or after periods of extreme rainfall. The 90th percentile definition (as described in the 'Specification' column) is a useful and flexible method of defining extreme rainfall outcomes.</p> <p>Publication 1322 describes various methods that are operationally acceptable to EPA, although they are not necessarily how BOM calculates the 90th percentile threshold.</p>

Licence Management

Specification	Evidence	Metric	Additional Details
2.8.c	The discharge must be treated wastewater of at least Class C standard at all times (See EPA Publication 464.2).	<ul style="list-style-type: none"> • Consistent with licence condition LI_G5, you should collect samples of the wastewater being discharged and the receiving waterway upstream and downstream of the discharge point. These samples must be analysed for the parameters which define Class C wastewater and the water quality objectives listed in the State Environment Protection Policy (Waters of Victoria) that are relevant to the receiving waters. 	<ul style="list-style-type: none"> <input type="checkbox"/> Location of discharge point <input type="checkbox"/> Location of final receiving waters <input type="checkbox"/> Wastewater discharge quality at discharge point <p>An Ecological Risk Assessment (ERA) may be a useful tool to assess the risks of a discharge on receiving waters and what parameters are critical to monitor the health of the waterway.</p>
2.8.d	The discharge must have a minimum dilution ratio of 1:5 to <u>final</u> receiving waters.	<ul style="list-style-type: none"> • You must retain records containing the following: <ol style="list-style-type: none"> a. Location of final discharge point; b. Location of final receiving waters; c. Volume of discharge/s; d. Discharge quality, flow rate and estimates of dilution ratio throughout discharge period; e. Receiving water monitoring results. 	<ul style="list-style-type: none"> <input type="checkbox"/> Discharge flow rate <input type="checkbox"/> Receiving waters flow rate <input type="checkbox"/> Receiving waters quality analysis results: <ul style="list-style-type: none"> <input type="checkbox"/> Upstream of discharge point <input type="checkbox"/> Downstream of discharge point <p>Ensuring a good dilution is critical. As long as significant dilution can be provided, then likelihood of environmental impact is low. EPA acknowledges that some waterways may cope with a lesser dilution ratio without environmental harm, however, this is difficult to apply statewide</p>
2.8.e	EPA must be informed as soon as possible prior to the discharge commencing or, if prior notification is not possible, as soon as discharge has commenced. Notification can be made via tel. on 1300 EPA VIC (1300 372 842) or via the EPA Interaction Portal at https://portal.epa.vic.gov.au/irj/portal .	<p>Similar to general licence condition LI_G2.</p>	<p>Was EPA informed:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Date <input type="checkbox"/> Time <input type="checkbox"/> Name of reporting person <input type="checkbox"/> EPA IR number <p>The notification should specify the commencement date of the discharge (expected or actual). It is recommended that EPA Regional Units are also directly informed.</p> <p>Any discharge which fails to meet the DW2.8 criteria should be reported as a licence non-compliance (as required by licence condition G2).</p>
2.8.f	The cumulative number of days of discharge within the APS reporting period must not exceed 120 days. Any permanent or ongoing wastewater discharge to surface waters may only occur under licence condition DW2.	<ul style="list-style-type: none"> • You must retain records containing: <ol style="list-style-type: none"> a. Duration of discharge (days) 	<ul style="list-style-type: none"> <input type="checkbox"/> Dates of discharge/s (over the reporting period) <p>Water Corporations can apply for on-going licensed discharge if longer than 120 days required. Licensed discharge can be for part of the year.</p>