

IWMP (PRESCRIBED INDUSTRIAL WASTE)
CLASSIFICATION FOR CONTAMINATED SOIL

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SUMMARY

In accordance with the *industrial waste management policy (Prescribed Industrial Waste)*, EPA Victoria has classified soils contaminated with:

- total petroleum hydrocarbons;
- monocyclic aromatic hydrocarbons;
- organochlorine compounds; and
- polycyclic aromatic hydrocarbons,

as wastes for which reuse, recycling, recovery of energy and treatment opportunities will be available in the foreseeable future.

Overseas, opportunities exist for the treatment and recycling of contaminated soils, however Victoria does not currently have a licensed facility which can store and/or treat contaminated soil (that is, a soil treatment and recycling facility).

EPA will implement the classification by amending landfill licences to prohibit the acceptance of contaminated soils once one or more facilities are developed.

EPA may also act to require temporary storage of the classified soils at suitable sites prior to the establishment of a soil treatment and recycling facility.

In some instances it may be practicable and environmentally beneficial to store or treat soil on site. Any such activities must be undertaken in

accordance with the general provisions of the policy and any site specific controls established by EPA.

There are a number of general requirements for the management of contaminated soil and low level contaminated soil that must be complied with irrespective of this classification (refer to Section 9 Further Reading). To ensure the best approach is adopted for the management of contaminated soil, irrespective of the contaminants present in the soil¹, EPA will require – by notice, works approval or other statutory mechanisms – the development of environment improvement plans for sites that have more than approximately 5000m³ (in ground) of both contaminated soil and low level contaminated soil.

1. INTRODUCTION

A key objective of the statutory *industrial waste management policy (Prescribed Industrial Waste) 2000* (the policy) is to protect people and the environment from the risks posed by prescribed industrial waste. The policy provides tools to

¹ Contaminated soils are prescribed in the *Environment Protection (Prescribed Waste) Regulations 1998* as those contaminated soils that exceed the criteria in Table 3 of EPA Publication 448 – *Classification of Wastes*. Low-level contaminated soils are prescribed in these same regulations as those exceeding the criteria in Table 2 but not exceeding the criteria in Table 3 of EPA Publication 448 – *Classification of Wastes*.

improve the management of prescribed industrial waste by reinforcing the use of the waste management hierarchy.

One of the tools established under the policy is a framework for the 'classification' of prescribed industrial wastes. Under the policy, various types of prescribed industrial wastes can be classified by EPA Victoria and be directed towards preferred management options based on the practical availability of opportunities for the reuse, recycling, recovery of energy and treatment of the waste.

In addition to being managed in accordance with any classification established by EPA, contaminated soils (and other prescribed industrial wastes) must also be managed in accordance with the policy's general provisions and other statutory requirements, such as those set out in the *Environment Protection (Prescribed Waste) Regulations 1998*.

Contaminated soils make up a significant amount of the total prescribed industrial waste that is currently sent to landfills. EPA has determined that there are practicable technologies to treat and recycle certain types of contaminated soils and has therefore classified these. The classification applies only to soils contaminated with certain types of organic compounds and sets out how these soils must be managed.

This information bulletin explains the classification and its management requirements and sets out provisions for alternative forms of management for the classified contaminated soils, where an equivalent environmental outcome can be demonstrated.

2. CLASSIFICATION PROCESS AND OUTCOME

Classification of a prescribed industrial waste under the policy considers the key characteristics of the waste and availability of various management options.

Clause 11 and Schedule 1 of the policy describe how a prescribed industrial waste is classified based on the opportunities for diversion from the waste stream through reuse, recycling, recovery of energy and treatment, and on the hazard of a waste. These management options are defined based on the availability of a facility or facilities to enable diversion:

- now;
- in the foreseeable future; or
- not available in the foreseeable future.²

In October 2001, EPA released a draft classification for contaminated soils for public comment. The document explained how EPA determined the proposed classification for the various soil contaminant types. Feedback received on the draft classification has been considered and changes incorporated in the gazetted classification. An Advisory Committee established under the policy

² Currently available: the prescribed industrial waste has potential for reuse, recycling, recovery of energy or treatment and facilities necessary to realise this potential are available in Victoria or elsewhere in Australia in a location practicably accessible.

Available in the foreseeable future: the prescribed industrial waste has potential for reuse, recycling, recovery of energy or treatment, however the facilities necessary to realise this potential are not currently available in Victoria or elsewhere in Australia in a location practicably accessible.

Not available in the foreseeable future: No practicable options exist for the waste, or practicable technology is unlikely to be available in the foreseeable future.

provided assistance in the development of the final classification.

EPA landfill licence conditions will be amended to implement the classification by prohibiting acceptance of the classified soils. Such conditions will be framed to take effect when a facility is available to store and/or treat the classified soils for recycling. EPA may also amend landfill licences to prohibit disposal of the classified soil but to allow temporary storage. Suitable premises, other than landfills, may also be licensed for temporary storage of such soils.

3. CLASSIFICATION OF CERTAIN TYPES OF SOIL CONTAMINATED WITH ORGANIC COMPOUNDS

The classification is set out in the Victorian Government Gazette No. G44 (published 31 October 2002) and is summarised in Table 1 below.

There are various technologies that can treat the classified soils, thereby facilitating their safe diversion for recycling, or in some cases, recovery of energy. However, there are no facilities utilising these technologies available at this time in Victoria.

The Government is undertaking a consultation process with the community and industry on the siting of facilities that can treat a range of contaminated soils (including classified soils). The aim of the process is to assist in the establishment of soil treatment facility(s) in the near future. Therefore it is expected that opportunities for treatment and recycling will become available in the foreseeable future.

EPA will, where practicable, require reuse, recycling, recovery of energy, treatment or temporary storage to be used in preference to containment or landfill. EPA will require on-site treatment to have an equivalent environmental outcome as off-site treatment at an approved facility. Where necessary, EPA will issue notices to the generators of contaminated soils directing them to comply with the provisions of the classification.

Where there is a mixture of contaminants in the soil, with contaminants included and not included under the classification, a generator must comply with the classification or seek an alternative classification from EPA.

Under the policy, a generator is able to apply for an alternative classification where it can be demonstrated that an alternative management option achieves the best environmental outcome (see section 6 of this document).

Contaminated soils and low level contaminated soils that contain contaminants other than those listed in this classification must still be managed in accordance with the policy. Figure 1 summarises the steps to be followed in selecting the most suitable management option for contaminated soils.

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Table 1: Classification of Designated Organic Contaminated Soils

<i>Classification – Opportunities for Reuse, Recycling, Recovery of Energy and Treatment</i>	<i>Prescribed Industrial Waste – Contaminated Soil Waste Type</i>
Available in the Foreseeable Future ^(a)	Soil contaminated with: <ul style="list-style-type: none"> • Total Petroleum Hydrocarbons • Monocyclic Aromatic Hydrocarbons • Organochlorine Compounds • Polycyclic Aromatic Hydrocarbons

(a) The contaminated soil has potential for reuse, recycling, recovery of energy or treatment, and facilities necessary to realise this potential are practicable, with the exception that the facilities required are not currently available in the State of Victoria, or elsewhere in a location practicably accessible.

4. RESPONSIBILITIES FOR THE MANAGEMENT OF CONTAMINATED SOILS

The policy sets out requirements for those involved in the management of prescribed industrial wastes such as contaminated soils. The *Environment Protection Act 1970* and the *Environment Protection (Prescribed Waste) Regulations 1998* set out the requirements for the transportation of prescribed wastes and other obligations for waste generators, waste transporters and waste receivers. These apply to contaminated soils. The specific requirements are outlined below:

Waste Generator: Under the policy a waste generator is the occupier of the site at which the waste soil is generated³. A waste generator is responsible for ensuring that any contaminated soils (both contaminated soils and low level

contaminated soils) on their site are managed in accordance with the policy and any classifications made by EPA.

A waste generator is also responsible for ensuring that Part A of the transport certificate is completed correctly and that the waste is transported using an EPA permitted vehicle and taken to an EPA licensed facility.

Waste Transporter: Waste transporters must ensure that they receive all the required documentation and meet all the requirements for the transportation of the waste under the *Environment Protection (Prescribed Waste) Regulations 1998*.

Waste Receiver: Waste receivers must be aware of their responsibilities regarding the acceptance and management of contaminated soils. They must operate in accordance with licence conditions and any classifications established under the policy, which once implemented may require them not to accept classified contaminated soils (unless evidence is provided of an alternative classification approved by EPA).

³ Occupier in relation to any premises means a person who is in occupation or control of the premises whether or not that person is the owner of the premises, and in relation to premises different parts of which are occupied by different persons means the respective persons in occupation or control of each part.

5. ENVIRONMENT IMPROVEMENT PLANS

EPA encourages the development of environment improvement plans (EIPs) for all contaminated sites, irrespective of whether the soils are to be managed on or off-site⁴. EIPs can help generators identify practicable management options consistent with the policy.

EPA will require – by notice, works approval or other statutory mechanisms – the development of EIPs for sites that have more than approximately 5000m³ (in ground) of both contaminated soil and low level contaminated soil, irrespective of the contaminants present in the soil.

EPA approval of an EIP is already required for soil contaminated with polychlorinated biphenyls (PCB) under the Notifiable Chemicals Order for PCBs.

An EIP must include the following information:

- An assessment of opportunities for reuse, recycling, energy recovery and treatment that have been considered;
- How the soil will be managed in accordance with any classification made by EPA;
- How the soil will be managed in accordance with the waste management hierarchy and Schedule 2 of the policy. In particular whether the soil will be treated and/or retained on site or removed from the site;

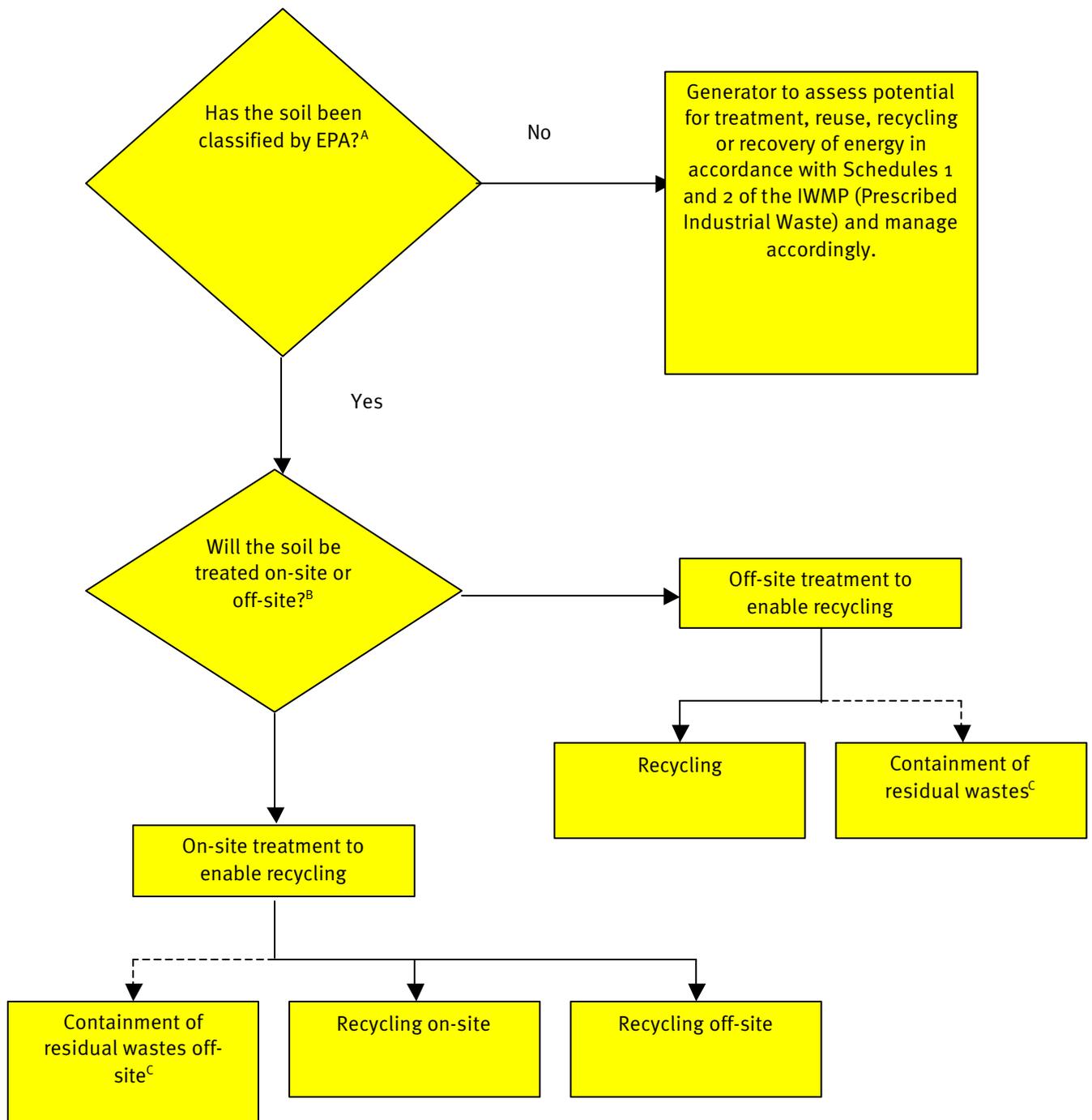
- Potential environmental impacts during the management, remediation and on-going use of the site; and
- Community consultation to be undertaken and the form of the consultation.

An EPA appointed environmental auditor will be required to verify that the EIP addresses the points above and demonstrates compliance with the policy, prior to submission to EPA for approval. Refer to Publication 739 *Guidelines for the preparation of Environment Improvement Plans* for further guidance on the preparation of EIPs.

⁴ Generators of prescribed industrial waste are encouraged to undertake the voluntary development of environment improvement plans as described in Clause 15 (2) of the policy.

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Figure 1 – Contaminated Soils Management Flow Chart



A. Refer to classifications as published in the Government Gazette.

B. On-site treatment must have an equivalent environmental outcome as off-site treatment.

C. Refers to residual wastes produced from the treatment process.

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6. ALTERNATIVE CLASSIFICATION

It may not always be practicable to comply with a classification. For example, the physical nature of the contaminated soil may prevent its successful treatment and recycling. The policy (Clause 11 (5)) allows a waste generator to apply to EPA for an alternative classification. EPA may allow an alternative classification if it can be demonstrated that this will achieve the best environmental outcome and be consistent with the intent and principles of the policy. An alternative classification would only apply to a waste for an individual generator.

Applications for an alternative classification must include:

- the proposed management of the waste;
- a justification of the need for an alternative classification; and
- information on the environmental outcomes associated with the alternative classification, demonstrating best environmental outcome for that management option.

Prescribed industrial waste generators are expected to bear the cost of any review they conduct as part of the application for an alternative classification.

EPA landfill licences will be amended as needed to allow for alternative classifications.

7. ON-SITE AND OFF-SITE MANAGEMENT

The policy and classification applies to contaminated soils irrespective of whether the soils are to be managed on or off-site. Where contaminated soil is to be treated on-site, the net environmental benefit must be equal to or higher than that available through off-site treatment.

In some instances opportunities to store or treat soil on site may be practicable now, and should be undertaken in accordance with the general provisions of the policy. EPA may require on-site storage or treatment by notice, works approval or other statutory mechanisms.

8. WHERE TO FROM HERE?

Upon development of storage or treatment facilities, EPA will enforce the classification by amending landfill licences to prohibit the acceptance of contaminated soils. EPA may also amend landfill licenses to prohibit the disposal of the classified soil but to allow temporary storage. Suitable premises, other than landfills, may also be licensed for temporary storage of such soils.

EPA will require— by notice, works approval or other statutory mechanisms – the development of EIPs for sites that have more than approximately 500m³ (in ground) of both contaminated soil and low level contaminated soil, irrespective of the contaminants present in the soil.

An EPA appointed environmental auditor will be required to verify that the EIP addresses the points above and demonstrates compliance with the policy, prior to submission to EPA for approval.

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Occupiers of sites with approximately 5000m³ or more of contaminated soil (in ground) should contact EPA for guidance on preparing EIPs, or refer to Publication 739 *Guidelines for the preparation of Environment Improvement Plans* for further guidance.

For further information on the process for the siting of soil treatment facilities see www.mpv.vic.gov.au

9. FURTHER READING

Government Gazette No. G44 (published 31 October 2002) Prescribed Industrial Waste Classification

Industrial waste management policy (Prescribed Industrial Waste) 2000

EPA Publication 866 *IWMP (PIW) Implementation of Policy - Overview*

EPA Publication 448 *Classification of Wastes*

EPA Publication 626 *Management of Waste Contaminated Soil and Low Level Contaminated Soil*

EPA Publication 739 *Guidelines for the Preparation of Environment Improvement Plans*

FUTHER INFORMATION

If you wish to obtain further information on this topic, please visit the EPA website at www.epa.vic.gov.au or contact the IWMP-PIW Implementation Team at:

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