

# Hazardous waste storage and processing

Guidance for the liquid waste industry

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## Introduction

The Environment Protection Authority (EPA) regulates the handling, storage, and processing of hazardous chemicals and waste under the [Protection of the Environment Operations Act \(POEO Act\) 1997](#). Appropriate management of liquid wastes will reduce the risk of harm to the environment and human health.

This guidance addresses some of the issues you may come across in the liquid waste industry. If you are operating above the thresholds for the storage or processing of waste outlined in [Schedule 1 of the POEO Act 1997](#), you must hold an Environment Protection Licence and must comply with the conditions of that licence.

Some of the areas of concern for management of liquid waste transfer and processing facilities are:

1. Accepting and classifying waste
2. Segregating waste
3. Storing and processing waste
4. Addressing environmental concerns
5. Managing the site

# 1 Accepting and classifying waste

- Waste must be classified in accordance with the [EPA Waste Classification Guidelines](#) with the appropriate waste code given to reflect the composition of the waste.
- The receiving facility must set criteria on the type of waste that it accepts and, for scheduled activities, in accordance with licence conditions.
- The onus is on the generator of the waste to classify the waste. However, receiving and processing facilities have a responsibility to ensure the waste has been properly classified to ensure the waste can lawfully be stored and/or processed at their facilities.
- Waste must not be incorrectly classified and or given codes to reduce the cost of storage and or disposal - e.g. changing M100 (wastes containing PCBs or similar) to J120 (oily water) or coal seam gas liquid waste as 'groundwater' when there are other contaminants. The misclassification of waste is an offence under the POEO Act and heavy fines may be imposed.
- Samples taken for identification and classification must be representative of the load. Procedures should be in place to ensure statistically valid samples are taken, e.g. to account for any settling or separation during transport.



**Waste Classification Guidelines**

## 2 Segregating waste

- Waste generators and receiving facilities must ensure that waste classified as dangerous goods is [segregated in accordance with the Australian Dangerous Goods Code](#).
- Storage/processing facilities need to ensure the different types of waste they accept are able to be stored and processed without incompatible wastes being mixed together.
- Appropriate segregation of incompatible waste must be maintained throughout the site during storage and processing activities.
- Storage/processing facilities should have standard operating procedures in place that ensure the waste on site is being treated appropriately.



**Good practice - all flammables stored together**



**Bad practice - Class 8 Corrosive Acid stored next to Class 6 Toxic Cyanide**

### 3 Storing and processing waste

- Tanks and drums of liquid waste must be correctly stored with adequate secondary containment. Refer to the following standards and Act for guidance:
  - Australian Standard AS 1940-2004 (draft AS 1940-2017): The Storage and Handling of Flammable and Combustible Liquids
  - Australian Standard AS 4452-1997: The Storage and Handling of Toxic Substances
  - Dangerous Goods Act 2008.
  - For a more detailed list of relevant standards please refer to the guide [Storing and handling Liquids: Participants Manual, page 14.](#)
- Storage/ processing facilities must ensure that there are spill containment protocols and measures in place as well as procedures to minimise risk of incidents from manual handling.
  - Fixed piping should be installed, where possible, to reduce the risk of disconnecting and connecting flexible hoses to the wrong point.
  - Flexible hoses must be correctly maintained and operated. This includes flushing out the lines on a regular basis to avoid compatibility issues from build-up of substances within the hoses and checking for any leaks.
  - If the facility knowingly receives incompatible wastes, dedicated hoses for each substance should be used to avoid compatibility issues.
  - Loading and unloading areas must have an impervious surface and have a rollover bund to contain spills/leaks that drain to a blind sump. Where possible, loading and unloading areas should be roofed with an overhang to keep out rain water
  - All containers and vehicles must be checked for leaks before leaving the contained area.
  - A suite of resources has been developed by the EPA to assist facilities in training and educating staff in the proper storage and handling of liquid substances. The [Storing and Handling Liquids: Environmental Protection kit](#) is available on the EPA website.



Good practice – storage of chemicals

## 4 Addressing environmental concerns

- Odour is not permitted beyond the boundary of the premises.
- Waste premises must implement management practices for the processing and storage of odourous substances, such as having appropriate procedures and equipment to contain, collect and treat odours. Waste must be stored within a designated area that has suitable controls, such as bunding to prevent pollution of waters occurring from spills or leaks from the containers stored.
- Only clean water can enter the stormwater system. Staff should be able to clearly identify which drains on the site go straight to stormwater.



**Good practice - liquid waste decanting area - rollover bund and roofed with blind sump**

## 5 Managing the site

- All waste storage/processing facilities need to ensure that staff are trained for their role on site and are competent in their day to day responsibilities.
- All waste facilities need to demonstrate that wastes are stored and treated appropriately.
- Waste must not be stockpiled on site or discharged to the sewer without appropriate treatment and consent from the relevant sewage authority.
- Containers must be clearly and correctly labelled, well maintained and constructed from material that is compatible with the liquid waste being stored in accordance with the Australian Dangerous Goods Code.
- Wastes either transported to the site for treatment or off site for disposal that are classified as trackable waste must be tracked in accordance with [Part 4 of the POEO \(Waste\) Regulation 2014](#).
- Regular inspections and preventative maintenance of plant and equipment are important for reducing the risk of incidents occurring on site. A maintenance schedule should be documented for all plant and equipment. Keeping accurate records of your inspections and maintenance works is an important part of demonstrating good site management.
- Licensees are required to have a pollution incident response management plan (PIRMP) for each of their licensed activities according to the requirements set out in [Part 5.7A of the POEO Act](#). The EPA have prepared [guidelines on the preparation of a pollution incident response management plan to assist licensees](#).



Good practice – showing DG labelling.