



# **Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014**

## **The treated grease trap waste order 2014**

### **Introduction**

This order, issued by the Environment Protection Authority (EPA) under clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation), imposes the requirements that must be met by suppliers of treated grease trap waste to which 'the treated grease trap waste exemption 2014' applies. The requirements in this order apply in relation to the supply of treated grease trap waste for application to land as a soil amendment.

### **1. Waste to which this order applies**

- 1.1. This order applies to treated grease trap waste. In this order, treated grease trap waste means grease trap waste that has undergone treatment according to the following:
- screening to remove physical contaminants;
  - leaving the grease trap waste to settle by operation of gravity for at least 4 hours, so that the floating fats and oils, the aqueous liquid waste and the settleable portions of the grease trap waste separate; and
  - the floating layer must either be removed or be incorporated into the bottom settled layer following saponification by the addition of lime.

### **2. Persons to whom this order applies**

- 2.1. The requirements in this order apply, as relevant, to any person who supplies treated grease trap waste that has been generated, processed or recovered by the person.
- 2.2. This order does not apply to the supply of treated grease trap waste to a consumer for land application at a premises for which the consumer holds a licence under the POEO Act that authorises the carrying out of the scheduled activities on the premises under clause 39 'waste disposal (application to land)' or clause 40 'waste disposal (thermal treatment)' of Schedule 1 of the POEO Act.

### **3. Duration**

- 3.1. This order commences on 24 November 2014 and is valid until revoked by the EPA by notice published in the Government Gazette.

## 4. Processor requirements

The EPA imposes the following requirements on any processor who supplies treated grease trap waste.

### Sampling requirements

- 4.1. On or before supplying treated grease trap waste, the processor must:
  - 4.1.1. Prepare a written sampling plan which includes a description of sample preparation and storage procedures for the treated grease trap waste.
  - 4.1.2. Undertake sampling and testing of the treated grease trap waste as required under clause 4.2 below.
- 4.2. The processor must undertake the following sampling:
  - 4.2.1. Routine sampling in accordance with Column 1 of Table 1 and testing each sample for the chemical and other attributes listed in Column 1 of Table 2. Each individual sample must be taken from a batch, truckload or stockpile that has not been previously sampled, or
  - 4.2.2. Where the volume of treated grease trap waste received at the premises is insufficient to satisfy the requirements of routine sampling, the processor may undertake one-off sampling of each truck of treated grease trap waste supplied under this order in accordance with Column 2 of Table 1. Each composite sample must be tested for the chemicals and other attributes listed in Column 1 of Table 2. The test results for each composite sample must be validated as compliant with the maximum average concentration or other value listed in Column 2 of Table 2 and the absolute maximum concentration or other value listed in Column 3 of Table 2 prior to the supply of treated grease trap waste.

**Table 1**

Column 1	Column 2
<b>Routine sampling frequency</b>	<b>One-off sampling frequency</b>
<ul style="list-style-type: none"><li>• 1 individual sample per day for 1 week (5 samples) to produce a composite sample. Repeat each week (i.e. equates to 4 composite samples per month), and</li><li>• 5 individual samples per month selected at random to produce a composite sample (i.e. 1 composite sample per month).</li></ul>	<ul style="list-style-type: none"><li>• 1 composite sample per truckload</li></ul>

### Chemical and other material requirements

- 4.3. The processor must not supply treated grease trap waste to any person if, in relation to any of the chemical and other attributes of the treated grease trap waste:
  - 4.3.1. The concentration or other value of that attribute of any sample collected and tested as part of the routine or one-off sampling of the treated grease trap waste exceeds the absolute maximum concentration or other value listed in Column 3 of Table 2, or

- 4.3.2. The average concentration or other value of that attribute from the routine sampling of the treated grease trap waste (based on the arithmetic mean) exceeds the maximum average concentration or other value listed in Column 2 of Table 2.
- 4.4. The absolute maximum concentration or other value of that attribute in any treated grease trap waste supplied under this order must not exceed the absolute maximum concentration or other value listed in Column 3 of Table 2.

**Table 2**

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
<b>Chemicals and other attributes</b>	<b>Maximum average concentration for routine testing</b> (mg/kg 'dry weight' unless otherwise specified)	<b>Absolute maximum concentration</b> (mg/kg 'dry weight' unless otherwise specified)
1. Mercury	0.5	1
2. Cadmium	0.5	1
3. Lead	50	100
4. Arsenic	10	20
5. Chromium (total)	50	100
6. Copper	150	250
7. Nickel	30	60
8. Selenium	2.5	5
9. Zinc	200	350
10. Boron	30	60
11. Electrical Conductivity <sup>1</sup>	NA	NA
12. pH <sup>1</sup>	NA	NA
13. Oil and grease <sup>1</sup>	NA	NA
14. Nitrogen (total) <sup>1</sup>	NA	NA
15. Moisture content <sup>1</sup>	NA	NA

1. Note that while limits are not included for electrical conductivity, pH, oil and grease, nitrogen, and moisture content, these must be tested in each sample and records kept of results.

### **Test methods**

- 4.5. The processor must ensure that any testing of samples required by this order is undertaken by analytical laboratories accredited by the National Association of Testing Authorities (NATA), or equivalent.
- 4.6. The processor must ensure that the chemicals and other attributes (listed in Column 1 of Table 2) in the treated grease trap waste it supplies are tested in accordance with the test methods specified below or other equivalent analytical methods. Where an equivalent analytical method is used the detection limit must be equal to or less than that nominated for the given method below.
- 4.6.1. Test method for measuring the mercury concentration:

- 4.6.1.1. Analysis using USEPA SW-846 Method 7471B Mercury in solid or semisolid waste (manual cold vapour technique), or an equivalent analytical method with a detection limit < 20% of the stated maximum average concentration in Table 1, Column 2 (i.e. < 0.1 mg/kg dry weight).
- 4.6.1.2. Report as mg/kg dry weight.
- 4.6.2. Test methods for measuring chemicals 2 - 9:
  - 4.6.2.1. Sample preparation by digesting using USEPA SW-846 Method 3051A Microwave assisted acid digestion of sediments, sludges, soils, and oils.
  - 4.6.2.2. Analysis using USEPA SW-846 Method 6010C Inductively coupled plasma - atomic emission spectrometry, or an equivalent analytical method with a detection limit < 10% of stated maximum concentration in Table 1, Column 2 (i.e. 1 mg/kg dry weight for lead).
  - 4.6.2.3. Report as mg/kg dry weight.
- 4.6.3. Test method for measuring the boron concentration:
  - 4.6.3.1. Water soluble boron using a calcium chloride extractable method. Rayment, G.E. and Higginson, F.R. 1992. Method 12C1 or 12C2. In Australian laboratory handbook of soil and water chemical methods, Inkata Press, Australia (or an equivalent analytical method with a detection limit for hot water soluble boron or calcium chloride extractable boron < 10% of stated total concentration).
  - 4.6.3.2. Report as mg/kg dry weight
- 4.6.4. Test methods for measuring the electrical conductivity and pH:
  - 4.6.4.1. Sample preparation by mixing 1 part treated grease trap waste with 5 parts distilled water.
  - 4.6.4.2. Analysis using Method 103 (pH) and 104 (Electrical Conductivity) in Schedule B (3): Guideline on Laboratory Analysis of Potentially Contaminated Soils, National Environment Protection (Assessment of Site Contamination) Measure 1999 (or an equivalent analytical method).
  - 4.6.4.3. Report electrical conductivity in deciSiemens per metre (dS/m).
- 4.6.5. Test method for measuring the oil and grease content:
  - 4.6.5.1. USEPA SW-846 Method 9071B n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples (or an equivalent analytical method). Note that the Soxhlet extraction may need to be repeated for samples containing large quantities of oil and grease.
  - 4.6.5.2. Report oil and grease in mg/kg dry weight.
- 4.6.6. Test method for measuring nitrogen:
  - 4.6.6.1. Total nitrogen – semimicro Kjeldahl. Rayment, G.E. and Higginson, F.R. 1992. Method 7A1 or 7A2. In Australian laboratory handbook of soil and water chemical methods, Inkata Press, Australia (or an equivalent analytical method).
  - 4.6.6.2. Report nitrogen in % dry weight.

- 4.6.7. Test method for measuring the moisture content:
- 4.6.7.1. USEPA SW-846 Method 9001 Determination of water in waste materials by quantitative calcium hydride reaction (or an equivalent analytical method).
  - 4.6.7.2. Report moisture content in % w/w.

## Notification

- 4.7. On or before each transaction, the processor must provide the following to each person to whom the processor supplies the treated grease trap waste:
- a written statement of compliance certifying that all the requirements set out in this order have been met;
  - a copy of the treated grease trap waste exemption, or a link to the EPA website where the treated grease trap waste exemption can be found; and
  - a copy of the treated grease trap waste order, or a link to the EPA website where the treated grease trap waste order can be found.

## Record keeping and reporting

- 4.8. The processor must keep a written record of the following for a period of six years:
- the sampling plan required to be prepared under clause 4.1.1;
  - all routine and/or one-off sampling results in relation to the treated grease trap waste supplied;
  - the quantity of the treated grease trap waste supplied; and
  - the name and address of each person to whom the processor supplied the treated grease trap waste.
- 4.9. The processor must provide, on request, the most recent sampling (whether routine or one-off or both) results for treated grease trap waste supplied to any consumer of the treated grease trap waste.
- 4.10. The processor must notify the EPA within seven days of becoming aware that it has not complied with any requirement in clause 4.1 to 4.6.

## 5. Definitions

In this order:

**application or apply to land** means applying to land by:

- spraying, spreading or depositing on the land; or
- ploughing, injecting or mixing into the land; or
- filling, raising, reclaiming or contouring the land.

**composite sample** means a sample that combines five discrete sub-samples of equal size into a single sample for the purpose of analysis.

**consumer** means a person who applies, or intends to apply, treated grease trap waste to land.

**grease trap waste** means any grease, oils, solids, water or other matter resulting only from the preparation or manufacturing of food that is collected in a grease trap in the usual course of the operation of the grease trap. This definition includes dissolved air flotation (DAF) units used to treat grease trap waste, but does not include grease trap waste collected from grease traps in hospitals and shopping centres other than those solely from the preparation of food.

**processor** means a person who processes, mixes, blends, or otherwise incorporates treated grease trap waste into a material in its final form for supply to a consumer.

**transaction** means:

- in the case of a one-off supply, the supply of a batch, truckload or stockpile of treated grease trap waste that is not repeated.
- in the case where the supplier has an arrangement with the recipient for more than one supply of treated grease trap waste the first supply of treated grease trap waste as required under the arrangement.

**Manager Waste Strategy and Innovation  
Environment Protection Authority  
(by delegation)**

## Notes

The EPA may amend or revoke this order at any time. It is the responsibility of each of the generator and processor to ensure it complies with all relevant requirements of the most current order. The current version of this order will be available on [www.epa.nsw.gov.au](http://www.epa.nsw.gov.au)

In gazetting or otherwise issuing this order, the EPA is not in any way endorsing the supply or use of this substance or guaranteeing that the substance will confer benefit.

The conditions set out in this order are designed to minimise the risk of potential harm to the environment, human health or agriculture, although neither this order nor the accompanying exemption guarantee that the environment, human health or agriculture will not be harmed.

Any person or entity which supplies treated grease trap waste should assess whether the material is fit for the purpose the material is proposed to be used for, and whether this use may cause harm. The supplier may need to seek expert engineering or technical advice.

Regardless of any exemption or order provided by the EPA, the person who causes or permits the application of the substance to land must ensure that the action is lawful and consistent with any other legislative requirements including, if applicable, any development consent(s) for managing operations on the site(s).

The supply of treated grease trap waste remains subject to other relevant environmental regulations in the POEO Act and Waste Regulation. For example, a person who pollutes land (s. 142A) or water (s. 120), or causes air pollution through the emission of odours (s. 126), or does not meet the special requirements for asbestos waste (Part 7 of the Waste Regulation), regardless of this order, is guilty of an offence and subject to prosecution.

This order does not alter the requirements of any other relevant legislation that must be met in supplying this material, including for example, the need to prepare a Safety Data Sheet. Failure to comply with the conditions of this order constitutes an offence under clause 93 of the Waste Regulation.