



Resource Recovery Exemption under Part 9, Clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014

The biosolids exemption 2025

Introduction

This exemption:

- is issued by the Environment Protection Authority (EPA) under clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation); and
- exempts a consumer of biosolids from certain requirements under the *Protection of the Environment Operations Act 1997* (POEO Act) and Waste Regulation in relation to the application of that waste to land, provided the consumer complies with the conditions of this exemption.

This exemption should be read in conjunction with 'The biosolids order 2025'.

1. Waste to which this exemption applies

- 1.1 This exemption applies to biosolids that are, or are intended to be, applied to land as a soil amendment.
- 1.2 In this exemption, biosolids means organic solids generated after sewage sludge has been treated and stabilised to meet classification criteria enabling its beneficial reuse on land as required under the Biosolids Guidelines. The term biosolids products means any products derived from, containing, or blended with biosolids in accordance with 'The biosolids order 2025'.
- 1.3 Biosolids do not include untreated or partially treated sewage sludge or any material generated from the thermal treatment of sewage sludge by burning, incineration, thermal oxidation, gasification, pyrolysis, plasma or other thermal treatment processes at temperatures exceeding 180°C (such as char).

2. Persons to whom this exemption applies

- 2.1 This exemption applies to any person who applies, or intends to apply, biosolids to land as set out in 1.1.

3. Duration

- 3.1 This exemption commences on <date of gazettal> 2025 and is valid until revoked by the EPA by notice published in the Government Gazette.

4. Revocation

- 4.1 'The biosolids exemption 2014' which commenced on 24 November 2014, is revoked from <date of gazettal> 2025.

5. Premises to which this exemption applies

- 5.1 This exemption applies to the premises at which the consumer's actual or intended application of biosolids is carried out.

6. Exemption

- 6.1 Subject to the conditions of this exemption, the EPA exempts each consumer from the following provisions of the POEO Act and the Waste Regulation in relation to the consumer's actual or intended application of biosolids to land as a soil amendment at the premises:
- 6.1.1 section 48 of the POEO Act in respect of the scheduled activities described in clauses 18A, 39 and 42 of Schedule 1 of the POEO Act;
 - 6.1.2 Part 4 of the Waste Regulation;
 - 6.1.3 section 88 of the POEO Act; and
 - 6.1.4 clause 109 and 110 of the Waste Regulation.
- 6.2 The exemption does not apply in circumstances where biosolids are received at the 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 18A 'environmentally hazardous chemicals', clause 39 'waste disposal (application to land)' or clause 40 'waste disposal (thermal treatment)' of Schedule 1 of the POEO Act.

7. Conditions of exemption

The exemption is subject to the following conditions:

- 7.1 At the time the biosolids and/or biosolids products are received at the premises, they must meet all supplier requirements set out in Section 5 of "The biosolids order 2025".
- 7.2 The biosolids and biosolids products must only be applied to land as a soil amendment in compliance with the Biosolids Guidelines and "The biosolids order 2025".
- 7.3 Prior to applying biosolids to land at a premises, a consumer must measure the following, using the applicable methodology prescribed under Schedule 3 of the Biosolids Guidelines:
 - 7.3.1 the concentration in soil of the contaminants referred to in Table 1 of this exemption; and
 - 7.3.2 the concentration in soil of the contaminants referred to in either Tables 4-5 or 4-12 (page 33) of the Biosolids Guidelines in accordance with the applicable land use at the consumer's premises.
- 7.4 A consumer must measure the concentration in soil of the contaminants in accordance with condition 7.3 either:
 - 7.4.1 within 3 months prior to the biosolids being applied to land at the premises; or
 - 7.4.2 if biosolids or any other waste has previously been applied to land at the premises within the previous 3 months, after the last application of biosolids or other waste.
- 7.5 A consumer must not apply biosolids to land at a premises if the application exceeds the maximum allowable soil contaminant concentration (MASCC) for:
 - 7.5.1 any contaminant that is specified in column 4 of Table 1 of this exemption; or
 - 7.5.2 any contaminant that is specified in either Tables 4-5 or 4-12 (page 33) of the Biosolids Guidelines in accordance with the applicable land use at the consumer's premises.

- 7.6 Where a MASCC applies, before receiving biosolids at the premises, the consumer must provide evidence to the supplier that demonstrates the contaminant concentrations in soil at the premises to which the consumer intends to apply the biosolids do not exceed the MASCC. The evidence must include a summary table of the contaminant testing data, any calculations, and laboratory reports of analytical results from soil sampled at the application site after the previous application of biosolids or any other waste at that location.
- 7.7 Except as expressly provided in conditions 7.8 to 7.10 of this exemption, a consumer must not apply biosolids to land at a premises if the absolute maximum concentration for a contaminant in the biosolids exceeds the value listed in column 3 of Table 1 of "The biosolids order 2025".
- 7.8 A consumer must calculate the contaminant limited biosolids application rate (CLBAR) in accordance with Part 4.2 of Schedule 4 of the Biosolids Guidelines before applying biosolids to land at the premises if any of the following apply:
- 7.8.1 the concentration of any contaminant referred to in Table 1 of "The biosolids order 2025" that is present in the biosolids is above the threshold in column 3 of Table 1 of "The biosolids order 2025"; or
- 7.8.2 the concentration of any contaminant in soil referred to in Table 1 of this exemption at the premises is greater than the laboratory limit of reporting in condition 9.2 of this exemption.
- 7.8.3 For the avoidance of doubt a consumer must still calculate the CLBAR for contaminants referenced in Table 3-1 as required in the Biosolids Guidelines.
- 7.9 If the CLBAR calculated under condition 7.8 of this exemption is greater than 15 dry t/ha, a consumer may apply biosolids to land under this exemption.
- 7.10 If the CLBAR calculated under condition 7.8 of this exemption is less than 15 dry t/ha, a consumer must not apply biosolids to land unless:
- 7.10.1 they have engaged an expert to assess the proposed land application of the biosolids;
- 7.10.2 they have provided the expert with all data required to be kept under this exemption and any other relevant data held; and
- 7.10.3 the expert has prepared an expert report that certifies in writing that the proposed application would be beneficial as a soil amendment at the premises.

Table 1

Column 1	Column 2	Column 3	Column 4
Contaminants [#]	Absolute maximum concentration Contaminant grades A & B (µg/kg 'dry weight')	Absolute maximum concentration Contaminant grade C (µg/kg 'dry weight')	Maximum allowable soil contaminant concentration (MASCC) (µg/kg 'dry weight')
1. PFOS+PFHxS	0.55	15	0.55
2. PFOA	1.5	40	1.5
3. HHCB* (Galaxolide)	NA [^]	NA	NA
4. Triclosan*	NA	NA	NA

[#]Soil testing for PBDEs may apply in the future. Indicative thresholds are provided in the notes to the exemption.

*A MASCC for HHCB (Galaxolide) and Triclosan may apply in the future. Indicative thresholds are provided in the notes to the exemption.

^NA means not applicable

- 7.11 For biosolids meeting contaminant thresholds in column 3 of Table 1 of “The biosolids order 2025”, a consumer must not apply the biosolids above a maximum application rate of 50 dry t/ha.

8. Record keeping and reporting

- 8.1 The consumer must keep a written record of the following information for a period of six years:
- 8.1.1 the locations of all soil samples collected for testing, all test results in relation to the soil at the premises including laboratory reports, and calculations of the CLBAR and NLBAR;
 - 8.1.2 the quantity of any biosolids received at the premises and the date it was received;
 - 8.1.3 the name and address of the supplier who supplied the biosolids;
 - 8.1.4 the quantity of biosolids land applied in each identified area of land at the premises and the date it was applied; and
 - 8.1.5 any expert report(s) provided under condition 7.10 of this exemption including the name and address of the expert engaged. This includes any expert reports that specified the proposed application would not be beneficial as a soil amendment.
- 8.2 If a consumer has applied biosolids to land to which a MASCC applies, a consumer must report the following information to the EPA within 6 months of the date of application via email at EnvSolCLR.Requests@epa.nsw.gov.au. For the avoidance of doubt, information covering more than one application within that 6-month period may be provided in a single report to the EPA:
- 8.2.1 all soil test results for the contaminants listed in Table 1 of this exemption for testing conducted in the preceding six month period. Test results must be provided in an excel worksheet with records required to be kept under 8.1 in this exemption for the same six month period.
 - 8.2.2 the obligation in 8.2 continues for the duration of this exemption.
- 8.3 The consumer must make any records required to be kept under this exemption available to authorised officers of the EPA on request.

9. Test methods

- 9.1 The consumer must ensure that any testing of samples required by this exemption is undertaken by analytical laboratories accredited by the National Association of Testing Authorities (NATA), or equivalent, to carry out the relevant test method.
- 9.2 The consumer must ensure that the contaminants (listed in column 1 of Table 1 of this exemption) in the soil at the premises are tested in accordance with the test methods specified below. Where an equivalent analytical method is used the detection limit must be equal to or less than the detection limit for the method given below:
- 9.2.1 Test method for contaminants 1-2 listed in column 1 of Table 1 of this exemption:
 - (a) Samples must be prepared and analysed using USEPA method 1633A Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS, or an equivalent analytical

method.

- (b) All measured PFAS must be reported as µg/kg dry weight and must include as a minimum all perfluoroalkyl carboxylic acids, perfluoroalkyl sulfonic acids and fluorotelemer sulfonic acids listed in Table 1 of USEPA method 1633A.
- (c) The limit of reporting (LOR) for PFOS, PFHxS and PFOA must not be greater than 0.1 µg/kg and for other individual PFAS compounds must be between 0.1-0.5 µg/kg.

9.2.2 Test method for HHCB (Galaxolide) and triclosan (contaminants 3-4 listed in column 1 of Table 1 of this exemption):

- (a) Samples must be prepared and analysed using USEPA method 1694: Pharmaceuticals and Personal Care Products in Water, Soil, Sediment, and Biosolids by HPLC/MS/MS, or an equivalent analytical method.
- (b) The LOR for triclosan must not be greater than 0.05 µg/kg and for Galaxolide not greater than 100 µg/kg.
- (c) All triclosan and Galaxolide must be reported as µg/kg dry weight.

10 Definitions

In this exemption:

application to land or **applied to land** 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.

authorised officer has the same meaning as in the POEO Act.

Biosolids Guidelines has the same meaning as in the POEO Act

Br1-9 means the sum of individual polybrominated diphenyl ethers (PBDEs) with between 1 and 9 bromine atoms.

Br10 means the fully brominated polybrominated diphenyl ether (PBDE).

CLBAR means the contaminant limited biosolids application rate as defined in the Biosolids Guidelines.

consumer means a person who applies, or intends to apply, biosolids to land.

expert means a professional with relevant tertiary qualifications and proven experience in soil science or agronomy. The expert must not be the supplier or the consumer and must not be affiliated with or employed by the supplier or the consumer. The expert's role is to deliver independent, objective, and evidence-based analysis, advice, or determinations in accordance with this exemption. The expert must hold current accreditation from the Soil Science Australia (SSA) Certified Professional Soil Scientist scheme or an equivalent accreditation for agronomists.

expert report means a report that documents whether the proposed application of biosolids to the application site, at the application rate proposed, will confer a benefit. More specifically, whether the major nutrient concentrations and speciation in the biosolids, or the organic carbon concentration, will provide a demonstrable benefit to the soil or plant growth at the site.

The report must include the following:

- the relevant qualifications, accreditation and experience of the expert;
- a summary of the information and data provided to the expert to enable their assessment;

- data analysis and calculations the expert has made;
- any reference material relied upon;
- the steps undertaken and rationale developed to reach their conclusion.

generator means a person who generates biosolids at a sewage treatment plant, and then supplies, or intends to supply it, to a consumer or processor.

HHCB means 4,6,6,7,8,8-hexamethyl-1,3,4,6,7,8-hexahydrocyclopenta[g]isochromene; Galaxolide.

LOR means the limit of reporting.

MASCC means the maximum allowable soil contaminant concentration as defined in the Biosolids Guidelines.

NLBAR means the nitrogen limited biosolids application rate as defined in the Biosolids Guidelines

PBDEs means polybrominated diphenyl ethers

PFAS means per- and polyfluoroalkyl substances as defined in the PFAS NEMP 3.0.

PFAS NEMP 3.0 means HEPA 2025, PFAS National Environmental Management Plan Version 3.0, Heads of EPA Australia and New Zealand 2025. CC by 4.0.

PFHxS means perfluorohexane sulfonate and its salts.

PFOA means perfluorooctanoic acid and its salts.

PFOS means perfluorooctane sulfonate and its salts.

premises has the same meaning as in the POEO Act.

processor means a person who processes, mixes, blends, or otherwise incorporates biosolids into a material in its final form, and then supplies, or intends to supply it, to a consumer.

sewage treatment plant means any facility that operates a sewage treatment system, including but not limited to sewage treatment works, wastewater treatment plants, wastewater treatment works, and water reclamation plants.

soil amendment means any material that is incorporated into soil or applied on the soil surface to enhance plant growth or improve soil physical, chemical or biological properties or processes.

supplier includes a generator, or processor, of biosolids.

Director Technical – Chemicals, Land and Radiation
Environment Protection Authority
 (by delegation)

Notes

The EPA may amend or revoke this exemption at any time. It is the responsibility of the consumer to ensure they comply with all relevant requirements of the most current exemption. The current version of this exemption will be available on www.epa.nsw.gov.au

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

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

Indicative limits that may be applied to Galaxolide, triclosan and PBDEs in the future

Column 1	Column 2	Column 3	Column 4
Contaminants	Absolute maximum concentration Contaminant grades A & B (µg/kg 'dry weight')	Absolute maximum concentration Contaminant grade C (µg/kg 'dry weight')	Maximum allowable soil contaminant concentration (MASCC) (µg/kg 'dry weight')
HHCB (Galaxolide)	750	20,000	750
Triclosan	65	1,700	65
Br1-Br9	5.1	140	5.1
Br10	9,200	1,300,000	48,000

The consumer should assess whether or not the biosolids is fit for the purpose the material is proposed to be used for, and whether this use will cause harm. The consumer may need to seek expert engineering or technical advice.

Regardless of any exemption 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.

The receipt of biosolids 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. 129) or does not meet the special requirements for asbestos waste (s 144AAB), regardless of having an exemption, is guilty of an offence and subject to prosecution.

This exemption does not alter the requirements of any other relevant legislation that must be met in utilising this material, including for example, the need to prepare a Safety Data Sheet.

You no longer receive the benefit of this exemption if you fail to comply with any condition of this exemption. Failure to make or keep records in accordance with this exemption constitutes an offence under section 268B of the POEO Act. It is also an offence under section 286C of the POEO Act to fail to give another person information or records where required under this exemption.