



DOC15/400309

Dear Sir / Madam,

### **The mulch order 2015 and the mulch exemption 2015**

I write to advise that the NSW Environment Protection Authority (EPA) has commenced consultation on the final amendments to *the raw mulch order 2014* and *the raw mulch exemption 2014* (current order and exemption), following an extensive review process.

#### Mulch

A comprehensive review of the current order and exemption has been undertaken in response to feedback, positive and negative, received by the EPA from various stakeholders. The EPA has acknowledged concerns raised around the beneficial land application of mulch, taken stakeholder's submissions into consideration and, in response, amended the current order and exemption.

The EPA has adopted a risk-based approach to facilitate the beneficial land application of mulch. Our aim is to establish an order and exemption that are practical in their use but also protective of human health, the environment and agriculture. The proposed approach involves the processor of mulch developing a risk management protocol to assess the mulch, the impact on the intended land application site(s) and take into account proposed control measures.

A draft copy of *the mulch order 2015* and *the mulch exemption 2015* have now been released for public consultation. These documents are attached and are also available on request from the EPA by contacting [waste.exemptions@epa.nsw.gov.au](mailto:waste.exemptions@epa.nsw.gov.au). Please be aware that the EPA has extended the *Notes* section to provide you with further information, and I encourage you to review the documents in their entirety.

#### Pasteurised garden organics and compost

Changes made to the current order and exemption (such as the definitions), have also been carried through to the resource recovery orders and resource recovery exemptions that relate to pasteurised garden organics and compost. These revised documents are also attached, and will be re-issued with the revised order and exemption for mulch.

The EPA has received representations on the requirements contained in part (c) of the definition of "composting" in *the compost order 2014*, which refers to the stability and maturity of compost. The requirements in part (c) ensure that compost provided under the resource recovery order and exemption is of a reasonable standard to ensure it poses minimal risk of harm to human health and the environment. This is particularly relevant when compost contains food waste and/or manure. Unstable composts are still actively undergoing decomposition and are more likely to generate

offensive odours, may still contain viable weed seeds and may be detrimental to plant growth following application. The EPA is currently reviewing the appropriateness of part (c) and is seeking comment from interested parties. We welcome any feedback you have on this issue, however only comments with appropriate scientific justification will be considered.

Consultation

I strongly encourage you to engage with the EPA during the consultation process to ensure the draft orders and exemptions deliver the best outcomes for the environment, the community and industry stakeholders. I ask that you circulate this letter and the draft orders and exemptions to any interested stakeholders and parties within your organisation. Once issued, a transition period of three months will be granted to allow for the draft orders and exemptions to be implemented.

Please forward all written submissions to the EPA by no later than **Friday 11 December 2015** to:

*The mulch order & exemption 2015 consultation*  
[waste.exemptions@epa.nsw.gov.au](mailto:waste.exemptions@epa.nsw.gov.au)

OR mail to:

The Resource Recovery Unit  
Waste and Resource Recovery Branch  
Environment Protection Authority  
PO Box A290  
Sydney South NSW 1232

Alternatively, if you wish to discuss the proposed amendments, please email your contact details and a description of your query to [waste.exemptions@epa.nsw.gov.au](mailto:waste.exemptions@epa.nsw.gov.au) and the EPA's Waste and Resource Recovery Branch will attend to your enquiry.



12 November 2015

**HENRY MOORE**  
**Manager Waste Strategy and Innovation**  
**Waste and Resource Recovery**

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

## The mulch order 2015

### 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 mulch to which 'the mulch exemption 2015' applies. The requirements in this order apply to the supply of mulch for application to land as a soil amendment. Refer to the 'Notes' section of this order for further explanatory information on the requirements in this order.

### 1. Waste to which this order applies

- 1.1. This order applies to mulch. In this order, mulch means plant material that by virtue of the nature and source of the material poses minimal risk of the presence of physical and chemical contaminants. Mulch may include urban wood residues and sawmill and forestry residues. Such materials must be shredded and/or screened to a preferred particle size grading for particular applications.

Mulch does not include plant material from kerbside waste collections<sup>1</sup>.

### 2. Persons to whom this order applies

- 2.1. The requirements in this order apply, as relevant, to any person who supplies mulch that has been generated, processed or recovered by the person.
- 2.2. This order does not apply to the supply of mulch 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 XX Month 2015 and is valid until revoked by the EPA by notice published in the Government Gazette.

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<sup>1</sup>Where there is a significant risk of the presence of physical contaminants in plant material, such as from kerbside waste collections, this waste stream must be assessed against and comply with the conditions of 'the pasteurised garden organics order 2015'.

## 4. Revocation

- 4.1. 'The raw mulch order 2014' which commenced on 24 November 2014 is revoked from XX Month 2015.

## 5. Processor requirements

The EPA imposes the following requirements on any processor who supplies mulch.

### General conditions

- 5.1. On or before supplying mulch to a consumer, the processor must ensure that:
  - 5.1.1. the mulch does not contain asbestos, engineered wood products, preservative treated or coated wood residues, or physical contaminants, including but not limited to glass, metal, rigid plastics, flexible plastics, or polystyrene; and
  - 5.1.2. the mulch is ready for land application.
- 5.2. The processor must not supply mulch that contains any weed, diseased plant material or pest to a consumer for:
  - 5.2.1. land application in an environmentally sensitive area; or
  - 5.2.2. land application (other than in an environmentally sensitive area) unless it is approved by a suitably qualified professional.

### Risk management protocol for land application

- 5.3. On or before supplying mulch to a consumer, with the exception of mulch that is comprised only of urban wood residues and sawmill and forestry residues, the processor must have a written risk management protocol in place.
- 5.4. The risk management protocol must contain measures that ensure the land application of mulch does not cause:
  - harm to the environment at the land application site; and
  - the spread of any weed, diseased plant material or pest.
- 5.5. On or before supplying mulch to a consumer, the processor must ensure that:
  - 5.5.1. the risk management protocol is written in accordance with clauses 6.1 to 6.3; and
  - 5.5.2. all relevant measures required by the risk management protocol are implemented and complied with.
- 5.6. The risk management protocol must be reviewed every 12 months to verify it is fit for purpose and to ensure continuous improvement.

### Notification

- 5.7. On or before each transaction, the processor must provide to each consumer to whom the processor supplies mulch relevant written measures to be implemented by the consumer as required by the risk management protocol and this order.

### Record keeping and reporting

- 5.8. The processor must keep a written record of the following for a period of six years:
  - the risk management protocol including all supporting documentation required to be prepared under clause 5.3;
  - the assessment of the mulch described in clause 6.3; and

- the classification and extent of any weed, diseased plant material or pest detected in the assessment.
- 5.9. The processor must provide, on request, any written records required to be kept under clause 5.8 for mulch supplied to any consumer of the mulch.
- 5.10. The processor must notify the EPA within seven days of becoming aware that it has not complied with any requirement in clause 5.1 to 5.5.

## **6. Risk management protocol<sup>2</sup> requirements**

- 6.1. The risk management protocol must include the following:
- 6.1.1. A version, date and signature of approval.
  - 6.1.2. A scope, including a description of the activity, geographic location, source of mulch and land application site.
- 6.2. The risk management protocol must include sufficient information on the following, at a minimum, to demonstrate that the processor will comply with clause 5.4:
- 6.2.1. The assessment required under clause 6.3, and when this should occur for the source of mulch and land application site.
  - 6.2.2. The interval between the assessment of the plant material prior to mulch generation, the mulch generation and the land application of the mulch.
  - 6.2.3. Risk mitigation strategies, including but not limited to hygiene procedures or training and education, implemented by the processor for the source of mulch, the method of mulch generation, and land application site.
  - 6.2.4. The scheduling of mulch generation taking into account the potential presence of plant propagules and the seasonal growth of plant material.
  - 6.2.5. The method of mulch generation and how this affects the composition of the mulch.
  - 6.2.6. The location of the source of mulch, the location of the land application site and their proximity to one another.
  - 6.2.7. The land application site and surrounding environment.
- 6.3. The risk management protocol must require an assessment according to the following requirements:
- 6.3.1. If the land application site is not in an environmentally sensitive area, an assessment of the source of mulch by visual observations must be carried out prior to mulch generation to determine the presence of any weed, diseased plant material or pest by a person that has achieved Australian Qualifications Framework Units AHCPMG201A (Treat weeds) and AHCPMG202A (Treat plant pests, diseases and disorders), or an equivalent qualification, and is a member of a relevant association; or
  - 6.3.2. If the land application site is in an environmentally sensitive area, an assessment of the source of mulch by visual observations must be carried out prior to mulch generation to determine the presence of any weed, diseased plant material or pest by a person that has achieved

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<sup>2</sup> See Notes for explanatory information on the risk management protocol.

Australian Qualifications Framework Units AHCCM501A (Diagnose plant health problems) or AHCARB503A (Diagnose tree diseases), or an equivalent qualification, and is a member of a relevant association; or

- 6.3.3. If the land application site is not in an environmentally sensitive area, and the source of mulch cannot be assessed in accordance with clause 6.3.1 or 6.3.2, as is the case with storm-generated plant material or orphan waste, an assessment of the mulch must be carried out by a suitably qualified professional (as defined) to determine the presence of any weed, diseased plant material, or pest.

## 7. Definitions

In this order:

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

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

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

**disease** means any organism of the vegetable kingdom, bacterium, fungus, viroid, virus or mycoplasma organism which causes an abnormal or unhealthy condition in plants, and includes anything declared by order under section 28B of [The Plant Diseases Act 1924](#) to be a disease.

**engineered wood products** means engineered, painted, treated or composite wood products such as particleboard, oriented strand board, plywood, laminated veneer lumber, glulam or fibreboard that are manufactured with glues, resins, water repellents, fire retardants, fungal inhibitors and/or other chemicals.

**environmentally sensitive area** means any of the following:

- (a) land to which [State Environmental Planning Policy No 14—Coastal Wetlands](#) or [State Environmental Planning Policy No 26—Littoral Rainforests](#) applies,
- (b) land within a wetland of international significance declared under the [Ramsar Convention on Wetlands](#) or within a World heritage area declared under the [World Heritage Convention](#),
- (c) land reserved as an aquatic reserve under the [Fisheries Management Act 1994](#) or as a marine park under the [Marine Parks Act 1997](#),
- (d) land within 100 metres of land to which paragraph (a), (b) or (c) applies,
- (e) land identified in any environmental planning instrument as being of high biodiversity significance,
- (f) land reserved under the [National Parks and Wildlife Act 1974](#) or land acquired under Part 11 of that Act,
- (g) land reserved or dedicated under the [Crown Lands Act 1989](#) for the preservation of flora, fauna or for other environmental protection purposes,
- (h) land identified as being critical habitat under the [Threatened Species Conservation Act 1995](#) or Part 7A of the [Fisheries Management Act 1994](#),
- (i) land dedicated or set apart under the [Forestry Act 2012](#) or the former Act as a flora reserve,
- (j) land (including subterranean lands) declared to be a wilderness area under the [Wilderness Act 1987](#) or the [National Parks and Wildlife Act 1974](#),
- (k) any additional areas listed as an environmentally sensitive area in a relevant Local Environmental Plan, and



- (l) agricultural land being land used for broad acre cropping, pasture, horticulture, growing fruit and keeping livestock.

**forestry and sawmill residues** are untreated and uncontaminated plant materials from forestry operations such as logging, silviculture and sawmilling. Forestry and sawmill residues include materials such as bark, woodchip, sawdust and wood fibre that are collected as a source separated material stream for processing.

**harm to the environment** includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution, as defined in the POEO Act.

**orphan waste** means waste which has been dumped and the person who dumped the waste (responsible party) cannot be identified.

**pest** means any organism of the animal kingdom, other than the vertebrata, which feeds upon or is injurious to plants and includes anything declared by order under section 28B of [The Plant Diseases Act 1924](#) to be a pest.

**preservative treated or coated wood residues** means wood residues that are preservative treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP) and/or coated with substances such as varnish or paint.

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

**suitably qualified professional** means a person with appropriate qualifications and relevant experience to possess expertise in:

- (a) determining the presence of any weed, plant disease or pest in any mulch,
- (b) making judgements about the suitability of the land application site, and
- (c) meeting the requirements of this order.

The suitably qualified professional may be an ecologist, or other professional, depending on the assessment required.

**urban wood residues** means untreated, unpainted, and uncontaminated urban derived timber and wood material that is collected as a separate material stream for processing. Urban wood residues include materials such as off-cuts, saw dust, wood shavings, packaging crates and pallets.

**weeds** means any of the following:

- (a) weeds declared to be noxious in Schedules 1-5 of the Noxious Weeds (Weed control) Order 2014 under the Noxious Weeds Act 1993,
- (b) weeds identified under the Australian Weeds Strategy as either Weeds of National Significance or National Environmental Alert List weeds, and
- (c) any additional weeds identified in regional pest management strategies but only within the designated area.

## **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 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 mulch 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 scientific 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 transport, supply and land application of mulch remains subject to additional relevant legislation. 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. Also, the requirements of other legislation must be met including, but not limited to, *the Plant Diseases Act 1924*, *the Noxious Weed Act 1993* and *the Threatened Species Conservation Act 1995*.

Failure to comply with the conditions of this order constitutes an offence under clause 93 of the Waste Regulation.

### **Processor requirements**

Although the land application of mulch containing any weed, diseased plant material or pest is allowed by the order and exemption through the preparation and implementation of an appropriate risk management protocol, the EPA strongly advises that mulch that contains any of these contaminants be assessed against and comply with the conditions of 'the pasteurised garden organics order 2015'.

#### *General conditions (Refer to clause 5.1)*

Whilst this order requires that the mulch must not contain engineered wood products or physical contaminants including but not limited to glass, metal, rigid plastics, flexible plastics, or polystyrene, the EPA recognises that the mulch may contain extremely low and incidental amounts of engineered wood products and / or physical contaminants. The processor must implement procedures to prevent the presence of engineered wood products and physical contaminants in the mulch. These procedures must be formally documented and their implementation demonstrated. However, as noted in this order, the mulch must not contain any asbestos, or preservative treated or coated wood residues.

#### *Environmentally sensitive area (Refer to clause 5.2)*

This order views environmentally sensitive areas as land that has significant environmental value. Therefore it contains certain clauses that aim to protect this land from mulch that poses a higher risk of causing harm to the environment through the spread of weeds, plant diseases and pests. If the land application site is not determined on or before the supply of mulch to a consumer, it cannot be guaranteed that the land application site is not in an environmentally sensitive area. It is the



responsibility of the processor to ensure the consumer is aware of this constraint.

## **Risk management protocol**

### *Intervals (Refer to clause 6.2.2)*

The risk management protocol should take into account the appropriate period of time between each step in the supply of mulch. Considerations can include changes to plant material at the source site and composting of stockpiled mulch prior to land application.

### *Risk Management Strategies (Refer to clause 6.2.3)*

Risk mitigation strategies can be developed and implemented by the processor to minimise potential adverse impacts of the mulch on human health, the environment and agriculture. Such controls include the creation and implementation of education strategies for council residents and the development of, and adherence to, hygiene procedures.

Appropriate hygiene procedures can help to minimise the introduction and spread of weeds, diseases and pests arising through human activities. The application of appropriate hygiene protocols are recommended for any items that can process / transport mulch. This includes items such as industrial machinery, vehicles, tools, footwear, construction materials, road-building materials and water.

### *Method of mulch generation (Refer to clause 6.2.5)*

The method of mulch generation, or following on from this, the composition of mulch is an important factor that effects its impact on the environment. For example, the presence of soil can cause potential harm as it can contain soil-borne diseases.

### *Proximity (Refer to clause 6.2.6)*

Weed propagules, plant disease-causing pathogens and pests can be transported from one area to another by various non-human means including physical contact, wind-borne transfer, the independent movement of water and soil, and the movement of animals. If any weed, diseased plant material or pest is transported by human activities through the use of mulch, then the spread of the contaminant is actively enabled to areas outside its natural range. The EPA therefore encourages the land application of mulch within the proximity of its source of generation, as infestation or infection is likely to occur there, regardless of human intervention.

### *Land application site (Refer to clause 6.2.7)*

The land application site and the surrounding area should be considered in the risk management protocol by taking into account factors including, but not limited to, environmental, economic and social value (*Australian Weeds Strategy Vision*), susceptibility of the ecosystem to adverse impacts, level of human activity (human activities involving the movement of infested soil, water or plant material have led to the spread of weeds, diseases and pests affecting biodiversity), and feasibility of access controls (access can be restricted to isolate infested areas, reducing the risk of wider dispersal).

Buffer zones for the land application of mulch adjacent to environmentally sensitive areas have not been specified in this order. Adverse environmental impacts are associated with the land application of mulch such as the spreading of weeds, diseased plant material, or pests. The EPA recommends that this risk is communicated by the processor to the consumer of the mulch and that, wherever possible, a distance of at least 100m is maintained between the land upon which mulch is applied and environmentally sensitive areas.

Mulch that meets the conditions of this order should be applied to land by the consumer within 2 weeks of being received. Where there are extenuating

circumstances the mulch should be land applied within 4 weeks. The EPA considers that 6 weeks would be the absolute limit in all circumstances.

*Assessment (Refer to clause 6.3.1 and 6.3.2)*

This order requires mulch to be assessed by a person that has achieved Australian Qualifications Framework Units AHCPMG201A (Treat weeds) and AHCPMG202A (Treat plant pests, diseases and disorders), or an equivalent qualification, at a minimum. However, where possible, the EPA recommends the diagnosis and assessment of plant health be carried out by a person that has achieved Australian Qualifications Framework Units AHPCM501A (Diagnose plant health problems) or AHCARB503A (Diagnose tree diseases), or an equivalent qualification.

A list of qualifications that include the Australian Qualifications Framework Units AHCPMG201A (Treat weeds), AHCPMG202A (Treat plant pests, diseases and disorders), AHPCM501A (Diagnose plant health problems) and AHCARB503A (Diagnose tree diseases) can be found at [www.myskills.gov.au](http://www.myskills.gov.au), which is administered by the Department of Education and Training.

Please note the above units are elective in certain qualifications and must be completed to comply with the conditions of this order.



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

## The mulch exemption 2015

### 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 mulch from certain requirements under the *Protection of the Environment Operations Act 1997* (POEO Act) and the 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 mulch order 2015'.

### 1. Waste to which this exemption applies

- 1.1. This exemption applies to mulch that is, or is intended to be, applied to land as a soil amendment.
- 1.2. Mulch means plant material that by virtue of the nature and source of the material poses minimal risk of the presence of physical and chemical contaminants. Mulch may include urban wood residues and sawmill and forestry residues. Such materials must be shredded and/or screened to a preferred particle size grading for particular applications.

Mulch does not include plant material from kerbside waste collections.

### 2. Persons to whom this exemption applies

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

### 3. Duration

- 3.1. This exemption commences on XX Month 2016 and is valid until revoked by the EPA by notice published in the Government Gazette.

## 4. Premises to which this exemption applies

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

## 5. Revocation

- 5.1. 'The raw mulch exemption 2014' which commenced on 24 November 2014 is revoked from XX Month 2016.

## 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 mulch to land as a soil amendment at the premises:
- section 48 of the POEO Act in respect of the scheduled activities described in clauses 39 and 42 of Schedule 1 of the POEO Act;
  - Part 4 of the Waste Regulation;
  - section 88 of the POEO Act; and
  - clause 109 and 110 of the Waste Regulation
- 6.2. The exemption does not apply in circumstances where mulch is 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 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 mulch is received at the premises, the material must meet all requirements for mulch which are required on or before the supply of mulch under 'the mulch order 2015'.
- 7.2. Mulch can only be applied to land as a soil amendment in accordance with written measures supplied by the processor.
- 7.3. The consumer must ensure that they do not cause or permit the migration of leachate from the land application site.
- 7.4. The consumer must not undertake further processing of the mulch at the land application site.
- 7.5. The consumer must ensure that any application of mulch to land occurs within a reasonable period of time after its receipt.

## 8. Definitions

In this exemption:

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

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

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

**engineered wood products** means engineered, painted, treated or composite wood products such as particleboard, oriented strand board, plywood, laminated veneer lumber, glulam or fibreboard that are manufactured with glues, resins, water repellents, fire retardants, fungal inhibitors and/or other chemicals.

**environmentally sensitive area** means any of the following:

- (a) land to which [State Environmental Planning Policy No 14—Coastal Wetlands](#) or [State Environmental Planning Policy No 26—Littoral Rainforests](#) applies,
- (b) land within a wetland of international significance declared under the [Ramsar Convention on Wetlands](#) or within a World heritage area declared under the [World Heritage Convention](#),
- (c) land reserved as an aquatic reserve under the [Fisheries Management Act 1994](#) or as a marine park under the [Marine Parks Act 1997](#),
- (d) land within 100 metres of land to which paragraph (a), (b) or (c) applies,
- (e) land identified in any environmental planning instrument as being of high biodiversity significance,
- (f) land reserved under the [National Parks and Wildlife Act 1974](#) or land acquired under Part 11 of that Act,
- (g) land reserved or dedicated under the [Crown Lands Act 1989](#) for the preservation of flora, fauna or for other environmental protection purposes,
- (h) land identified as being critical habitat under the [Threatened Species Conservation Act 1995](#) or Part 7A of the [Fisheries Management Act 1994](#),
- (i) land dedicated or set apart under the [Forestry Act 2012](#) or the former Act as a flora reserve,
- (j) land (including subterranean lands) declared to be a wilderness area under the [Wilderness Act 1987](#) or the [National Parks and Wildlife Act 1974](#),
- (k) any additional areas listed as an environmentally sensitive area in a relevant Local Environmental Plan, and
- (l) agricultural land being land used for broad acre cropping, pasture, horticulture, growing fruit and keeping livestock.

**forestry and sawmill residues** are untreated and uncontaminated plant materials from forestry operations such as logging, silviculture and sawmilling. Forestry and sawmill residues include materials such as bark, woodchip, sawdust and wood fibre that are collected as a source separated material stream for processing.

**preservative treated or coated wood residues** means wood residues that are preservative treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP) and/or coated with substances such as varnish or paint.

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

**urban wood residues** means untreated, unpainted, and uncontaminated urban derived timber and wood material that is collected as a separate material stream for processing. Urban wood residues include materials such as off-cuts, saw dust, wood shavings, packaging crates and pallets.

## **Manager Waste Strategy and Innovation**

### **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](http://www.epa.nsw.gov.au)

In gazetting or otherwise issuing 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.

The consumer should assess whether or not the mulch 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 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 transport, supply and land application of mulch remains subject to additional relevant legislation. 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. Also, the requirements of other legislation must be met including, but not limited to, *the Plant Diseases Act 1924*, *the Noxious Weed Act 1993* and *the Threatened Species Conservation Act 1995*.

Failure to comply with the conditions of this exemption constitutes an offence under clause 91 of the Waste Regulation.

Whilst 'the mulch order 2015' requires that the mulch must not contain engineered wood products or physical contaminants including but not limited to glass, metal, rigid plastics, flexible plastics, or polystyrene, the EPA recognises that the mulch may contain extremely low and incidental amounts of engineered wood products and / or physical contaminants. The processor must implement procedures to prevent the presence of engineered wood products and / or physical contaminants in the mulch. These procedures must be formally documented and their implementation demonstrated. However, as noted in 'the mulch order 2015', the mulch must not contain any asbestos, or preservative treated or coated wood residues.

Mulch is typically applied to land as a soil amendment at depths of 50 – 100mm. While there are specific applications that may require a greater depth than 100mm, the EPA considers the reasonable application of mulch to be no greater than 200mm.

Adverse environmental impacts are associated with the land application of mulch such as the spreading of weeds, diseases, and pests. The EPA recommends a distance of at least 100m be maintained between the land upon which mulch is applied and environmentally sensitive areas.

Mulch that meets the conditions of this exemption should be applied to land by the consumer within 2 weeks of being received. Where there are extenuating circumstances the mulch should be land applied within 4 weeks. The EPA considers that 6 weeks would be the absolute limit in all circumstances.





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

## **The pasteurised garden organics order 2015**

### **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 pasteurised garden organics to which 'the pasteurised garden organics exemption 2015' applies. The requirements in this order apply in relation to the supply of pasteurised garden organics for application to land as a soil amendment.

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

- 1.1. This order applies to pasteurised garden organics. In this order, pasteurised garden organics means mulch and/or garden organics that have undergone the process of pasteurisation as a minimum.

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

- 2.1. The requirements in this order apply, as relevant, to any person who supplies pasteurised garden organics that has been generated, processed or recovered by the person.
- 2.2. This order does not apply to the supply of pasteurised garden organics 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 XX Month 2016 and is valid until revoked by the EPA by notice published in the Government Gazette.

### **4. Revocation**

- 4.1. 'The pasteurised garden organics order 2014' which commenced on 24 November 2014 is revoked from XX Month 2016.

### **5. Processor requirements**

The EPA imposes the following requirements on any processor who supplies pasteurised garden organics.

## General conditions

- 5.1. The processor must undertake the process of pasteurisation, as a minimum, for pasteurised garden organics supplied under this order.
- 5.2. On or before supplying pasteurised garden organics, the processor must ensure that the pasteurised garden organics:
  - 5.2.1. do not contain asbestos, engineered wood products and preservative treated or coated wood residues; and
  - 5.2.2. are ready for land application.
- 5.3. The processor must not mechanically size-reduce the pasteurised garden organics through methods such as hammer milling, crushing or grinding, as a way of managing the physical contaminant loading.

## Sampling requirements

- 5.4. On or before supplying pasteurised garden organics, the processor must:
  - 5.4.1. Prepare a written sampling plan which includes a description of sample preparation and storage procedures for the pasteurised garden organics.
  - 5.4.2. Ensure that the absolute maximum or other value of that attribute in the pasteurised garden organics does not exceed the absolute maximum listed in Column 2 of Table 1.

**Table 1**

<b>Column 1</b>	<b>Column 2</b>
<b>Attributes</b>	<b>Absolute maximum</b> (% 'dry weight')
1. Glass, metal and rigid plastics > 2 mm	0.5
2. Plastics – light, flexible or film > 5 mm	0.05

## Test methods

- 5.5. 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.
- 5.6. The processor must ensure that the attributes (listed in Column 1 of Table 1) in the pasteurised garden organics supplied 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.
  - 5.6.1. Test method for measuring physical contaminants 1 and 2:
    - 5.6.1.1. Australian Standard AS4454-2012 Composts, soil conditioners and mulches, “Appendix I - Method For Determination Of Moisture Content And Level Of Visible Contamination”. This test must be conducted under bright and direct light.
    - 5.6.1.2. Results must be reported as % contamination on a dry mass basis.

## Record keeping and reporting

- 5.7. 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 5.4.1;
  - all test results in relation to any pasteurised garden organics supplied; and
  - the quantity of any pasteurised garden organics supplied.
- 5.8. The processor must make information available to the consumer of the pasteurised garden organics, on request by that party, on the latest test results for pasteurised garden organics.
- 5.9. The processor must notify the EPA within seven days of becoming aware that it has not complied with any requirement in clause 5.1 to 5.6.

## 6. Definitions

In this order:

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

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

**consumer** means a person who applies, or intends to apply, pasteurised garden organics to land.

**engineered wood products** means engineered, painted, treated or composite wood products such as particleboard, oriented strand board, plywood, laminated veneer lumber, glulam or fibreboard that are manufactured with glues, resins, water repellents, fire retardants, fungal inhibitors and/or other chemicals.

**forestry and sawmill residues** are untreated and uncontaminated plant materials from forestry operations such as logging, silviculture and sawmilling. Forestry and sawmill residues include materials such as bark, woodchip, sawdust and wood fibre that are collected as a source separated material stream for processing.

**garden organics** means plant materials that by virtue of the nature and source of the material poses a risk of the presence of physical and chemical contaminants. Garden organics includes material from kerbside waste collections. Garden organics must not include material containing asbestos, engineered wood products or preservative treated or coated wood residues.

**mulch** means plant material that by virtue of the nature and source of the material poses minimal risk of the presence of physical and chemical contaminants. Mulch may include urban wood residues and sawmill and forestry residues. Such materials must be shredded and/or screened to a preferred particle size grading for particular applications. Mulch does not include plant material from kerbside waste collections. Mulch must not contain asbestos, engineered wood products, preservative treated or coated wood residues, or physical contaminants, including but not limited to glass, metal, rigid plastics, flexible plastics, or polystyrene.

**pasteurisation** means a process to significantly reduce the numbers of plant and animal pathogens and plant propagules. Pasteurisation requires that the entire mass of organic material be subjected to either of the following:

- (a) Appropriate turning of outer material to the inside of the windrow so that the whole mass is subjected to a minimum of 3 turns with the internal temperature reaching a minimum of 55°C for 3 consecutive days before each turn. Where materials with a higher risk of containing pathogens are present,

including but not limited to manure, the core temperature of the material mass should be maintained at 55°C or higher for 15 days or longer, and during this period the windrow should be turned a minimum of 5 times.

- (b) An alternative process that guarantees the same level of pathogen reduction, and the reduction of plant propagules as in (a). Any such alternative process must be clearly defined in writing and validated by a suitably qualified person prior to claiming compliance with 'the pasteurised garden organics order 2015'. A written record of the validation report must be kept for a minimum period of six years

**preservative treated or coated wood residues** means wood residues that are preservative treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP) and/or coated with substances such as varnish or paint.

**processor** means a person who processes, mixes, blends, or otherwise incorporates pasteurised garden organics 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 pasteurised garden organics that is not repeated,
- in the case where the supplier has an arrangement with the recipient for more than one supply of pasteurised garden organics the first supply of pasteurised garden organics as required under the arrangement.

**urban wood residues** means untreated, unpainted, and uncontaminated urban derived timber and wood material that is collected as a separate material stream for processing. Urban wood residues include materials such as off-cuts, saw dust, wood shavings, packaging crates and pallets.

**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 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 pasteurised garden organics 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 pasteurised garden organics 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.

The EPA considers pasteurisation the minimum treatment to significantly reduce the numbers of plant and animal pathogens and plant propagules. However the EPA recommends full composting of garden organics to achieve maximum biological transformation.

Whilst 'the pasteurised garden organics order 2015' requires that pasteurised garden organics must not contain engineered wood products, the EPA recognises that the pasteurised garden organics may contain extremely low and incidental amounts of engineered wood products. The processor must implement procedures to prevent the presence of engineered wood products in the pasteurised garden organics. These procedures must be formally documented and their implementation apparent. However, as noted in 'the pasteurised garden organics order 2015', pasteurised garden organics must not contain any asbestos, or preservative treated or coated wood residues.

Pasteurised garden organics that meet the conditions of this order should be applied to land by the consumer within 2 weeks of being received. Where there are extenuating circumstances the pasteurised garden organics should be land applied within 4 weeks. The EPA considers that 6 weeks would be the absolute limit in all circumstances.



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

## The pasteurised garden organics exemption 2015

### 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 pasteurised garden organics from certain requirements under the *Protection of the Environment Operations Act 1997* (POEO Act) and the 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 pasteurised garden organics order 2015'.

### 1. Waste to which this exemption applies

- 1.1. This exemption applies to pasteurised garden organics that are, or are intended to be, applied to land as a soil amendment.
- 1.2. Pasteurised garden organics means mulch and/or garden organics that have undergone the process of pasteurisation as a minimum.

### 2. Persons to whom this exemption applies

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

### 3. Duration

- 3.1. This exemption commences on XX Month 2016 and is valid until revoked by the EPA by notice published in the Government Gazette.



## 4. Premises to which this exemption applies

- 4.1. This exemption applies to the premises at which the consumer's actual or intended application of pasteurised garden organics is carried out.

## 5. Revocation

- 5.1. 'The pasteurised garden organics exemption 2014' which commenced on 24 November 2014 is revoked from XX Month 2016.

## 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 pasteurised garden organics to land as a soil amendment at the premises:
- section 48 of the POEO Act in respect of the scheduled activities described in clauses 39 and 42 of Schedule 1 of the POEO Act;
  - Part 4 of the Waste Regulation;
  - section 88 of the POEO Act; and
  - clause 109 and 110 of the Waste Regulation
- 6.2. The exemption does not apply in circumstances where pasteurised garden organics 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 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 pasteurised garden organics are received at the premises, the material must meet all chemical and other material requirements for pasteurised garden organics which are required on or before the supply of pasteurised garden organics under 'the pasteurised garden organics order 2015'.
- 7.2. The pasteurised garden organics can only be applied to land as a soil amendment.
- 7.3. The consumer must ensure that they do not cause or permit the migration of leachate from the land application site.
- 7.4. The consumer must ensure that any application of pasteurised garden organics to land must occur within a reasonable period of time after its receipt.

## 8. Definitions

In this exemption:

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

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

**consumer** means a person who applies, or intends to apply, pasteurised garden organics to land.

**engineered wood products** means engineered, painted, treated or composite wood products such as particleboard, oriented strand board, plywood, laminated veneer lumber, glulam or fibreboard that are manufactured with glues, resins, water repellents, fire retardants, fungal inhibitors and/or other chemicals.

**forestry and sawmill residues** are untreated and uncontaminated plant materials from forestry operations such as logging, silviculture and sawmilling. Forestry and sawmill residues include materials such as bark, woodchip, sawdust and wood fibre that are collected as a source separated material stream for processing.

**garden organics** means plant materials that by virtue of the nature and source of the material poses a risk of the presence of physical and chemical contaminants. Garden organics includes material from kerbside waste collections. Garden organics must not include material containing asbestos, engineered wood products or preservative treated or coated wood residues.

**mulch** means plant material that by virtue of the nature and source of the material poses minimal risk of the presence of physical and chemical contaminants. Mulch may include urban wood residues and sawmill and forestry residues. Such materials must be shredded and/or screened to a preferred particle size grading for particular applications. Mulch does not include plant material from kerbside waste collections. Mulch must not contain asbestos, engineered wood products, preservative treated or coated wood residues, or physical contaminants, including but not limited to glass, metal, rigid plastics, flexible plastics, or polystyrene.

**pasteurisation** means a process to significantly reduce the numbers of plant and animal pathogens and plant propagules. Pasteurisation requires that the entire mass of organic material be subjected to either of the following:

- (a) Appropriate turning of outer material to the inside of the windrow so that the whole mass is subjected to a minimum of 3 turns with the internal temperature reaching a minimum of 55°C for 3 consecutive days before each turn. Where materials with a higher risk of containing pathogens are present, including but not limited to manure, the core temperature of the material mass should be maintained at 55°C or higher for 15 days or longer, and during this period the windrow should be turned a minimum of 5 times.
- (b) An alternative process that guarantees the same level of pathogen reduction, and the reduction of plant propagules as in (a). Any such alternative process must be clearly defined in writing and validated by a suitably qualified person prior to claiming compliance with 'the pasteurised garden organics order 2015'. A written record of the validation report must be kept for a minimum period of six years.

**preservative treated or coated wood residues** means wood residues that are preservative treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP) and/or coated with substances such as varnish or paint.

**processor** means a person who processes, mixes, blends, or otherwise incorporates pasteurised garden organics into a material in its final form for supply to a consumer.

**urban wood residues** means untreated, unpainted, and uncontaminated urban derived timber and wood material that is collected as a separate material stream for processing. Urban wood residues include materials such as off-cuts, saw dust, wood shavings, packaging crates and pallets.

## **Manager Waste Strategy and Innovation**

### **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](http://www.epa.nsw.gov.au)

In gazetting or otherwise issuing 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.

The consumer should assess whether or not the pasteurised garden organics 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(s).

The receipt of pasteurised garden organics remains subject to other relevant environmental regulations in the POEO Act and the 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 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 (SDS).

Whilst 'the pasteurised garden organics order 2015' requires that pasteurised garden organics must not contain engineered wood products, the EPA recognises that pasteurised garden organics may contain extremely low and incidental amounts of engineered wood products. The processor must implement procedures to prevent the presence of engineered wood products in the pasteurised garden organics. These procedures must be formally documented and their implementation demonstrated. However, as noted in 'the pasteurised garden organics order 2015', pasteurised garden organics must not contain any asbestos, or preservative treated or coated wood residues.

Failure to comply with the conditions of this exemption constitutes an offence under clause 91 of the Waste Regulation.

Pasteurised garden organics that meets the conditions of this exemption should be applied to land by the consumer within 2 weeks of being received. Where there are extenuating circumstances the pasteurised garden organics should be land applied within 4 weeks. The EPA considers that 6 weeks would be the absolute limit in all circumstances.



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

## The compost exemption 2015

### 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 compost from certain requirements under the *Protection of the Environment Operations Act 1997* (POEO Act) and the 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 compost order 2015'.

### 1. Waste to which this exemption applies

- 1.1. This exemption applies to compost that is, or is intended to be, applied to land as a soil amendment.
- 1.2. Compost is any combination of mulch, garden organics, food waste, manure and paunch that has undergone composting.

### 2. Persons to whom this exemption applies

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

### 3. Duration

- 3.1. This exemption commences on XX Month 2016 and is valid until revoked by the EPA by notice published in the Government Gazette.

### 4. Premises to which this exemption applies

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

## 5. Revocation

- 5.1. 'The compost exemption 2014' which commenced on 24 November 2014 is revoked from XX Month 2016.

## 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 compost to land as a soil amendment at the premises:
- section 48 of the POEO Act in respect of the scheduled activities described in clauses 39 and 42 of Schedule 1 of the POEO Act;
  - Part 4 of the Waste Regulation;
  - section 88 of the POEO Act; and
  - clause 109 and 110 of the Waste Regulation.
- 6.2. The exemption does not apply in circumstances where compost is 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 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 compost is received at the premises, the material must meet all chemical and other material requirements for compost which are required on or before the supply of compost under 'the compost order 2015'.
- 7.2. The compost can only be applied to land as a soil amendment.
- 7.3. The consumer must ensure that they do not cause or permit the migration of leachate from the land application site.
- 7.4. The consumer must ensure that any application of compost to land must occur within a reasonable period of time after its receipt.

## 8. Definitions

In this exemption:

**animal waste** means dead animals and animal parts and any mixture of dead animals and animal parts.

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

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

**composting** means a process of managed biological transformation:

(a) to achieve pasteurisation, and

(b) for a period of not less than a total of 6 weeks of composting and curing at an adequate moisture level (>40 % by weight), and/or until an equivalent level of biological stability can be demonstrated, and



- (c) produce a product that passes the threshold level for 3 tests, including at least one from Group A and one from Group B specified in Australian Standard AS 4454 – 2012 Composts, soil conditioners and mulches, ‘Appendix N – Table N3.2 – Biological Stability and Plant Growth Tests Compost Maturity’.

Composting does not include drying or dehydration processes.

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

**corrosive** means a substance having properties that may damage or destroy living organisms and components of the soil, including soil organic matter. Commonly this includes strong acids and strong bases, or weak acids and weak bases occurring in concentrated form.

**drying or dehydration processes** are those that use externally supplied energy to heat and ventilate food wastes (or any other compostable waste) in order to rapidly dry the waste material over a short time period (typically 24 to 48 hours), either with or without the addition of an inoculum. This is distinct from those processes of managed biological transformation that use heat generated by the aerobic microorganisms that are responsible for decomposition under moist conditions during pasteurisation and composting, and traditional forced aeration composting methods such as aerated static pile composting.

**engineered wood products** means engineered, painted, treated or composite wood products such as particleboard, oriented strand board, plywood, laminated veneer lumber, glulam or fibreboard that are manufactured with glues, resins, water repellents, fire retardants, fungal inhibitors and/or other chemicals.

**food waste** means waste from the manufacture, preparation, sale or consumption of food but does not include grease trap waste or animal waste, and must not be corrosive.

**forestry and sawmill residues** are untreated and uncontaminated plant materials from forestry operations such as logging, silviculture and sawmilling. Forestry and sawmill residues include materials such as bark, woodchip, sawdust and wood fibre that are collected as a source separated material stream for processing.

**garden organics** means plant materials that by virtue of the nature and source of the material poses a risk of the presence of physical and chemical contaminants. Garden organics includes material from kerbside waste collections. Garden organics must not include material containing asbestos, engineered wood products or preservative treated or coated wood residues.

**manure** means faecal matter generated by any animal other than humans and includes any mixture of animal faecal matter and biodegradable animal bedding such as straw or sawdust.

**mulch** means plant material that by virtue of the nature and source of the material poses minimal risk of the presence of physical and chemical contaminants. Mulch may include urban wood residues and sawmill and forestry residues. Such materials must be shredded and/or screened to a preferred particle size grading for particular applications. Mulch does not include plant material from kerbside waste collections. Mulch must not contain asbestos, engineered wood products, preservative treated or coated wood residues, or physical contaminants, including but not limited to glass, metal, rigid plastics, flexible plastics, or polystyrene.

**pasteurisation** means a process to significantly reduce the numbers of plant and animal pathogens and plant propagules. Pasteurisation requires that the entire mass of organic material be subjected to either of the following:



- (a) Appropriate turning of outer material to the inside of the windrow so that the whole mass is subjected to a minimum of 3 turns with the internal temperature reaching a minimum of 55°C for 3 consecutive days before each turn. Where materials with a higher risk of containing pathogens are present, including but not limited to manure and food waste, the core temperature of the material mass should be maintained at 55°C or higher for 15 days or longer, and during this period the windrow should be turned a minimum of 5 times.
- (b) An alternative process that guarantees the same level of pathogen reduction, and the reduction of plant propagules as in (a). Any such alternative process must be clearly defined in writing and validated by a suitably qualified person prior to claiming compliance with 'the compost order 2015'. A written record of the validation report must be kept for a minimum period of six years.

**paunch** means the undigested food contained in the stomach of ruminant animals. This is generally considered to include partially digested grass, hay and other feed products such as grain.

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

**preservative treated or coated wood residues** means wood residues that are preservative treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP) and/or coated with substances such as varnish or paint.

**urban wood residues** means untreated, unpainted, and uncontaminated urban derived timber and wood material that is collected as a separate material stream for processing. Urban wood residues include materials such as off-cuts, saw dust, wood shavings, packaging crates and pallets.

**Manager Waste Strategy and Innovation**  
**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](http://www.epa.nsw.gov.au)

In gazetting or otherwise issuing 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.

The consumer should assess whether or not the compost 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(s).

The receipt of compost remains subject to other relevant environmental regulations in the POEO Act and the 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 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 (SDS).

Whilst the 'the compost order 2015' requires that compost must not contain engineered wood products, the EPA recognises that compost may contain extremely low and incidental amounts of engineered wood products. The processor must implement procedures to prevent the presence of engineered wood products in the compost. These procedures must be formally documented and their implementation demonstrated. However, as noted in 'the compost order 2015', compost must not contain any asbestos, or preservative treated or coated wood residues.

Failure to comply with the conditions of this exemption constitutes an offence under clause 91 of the Waste Regulation.



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

## **The compost order 2015**

### **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 compost to which 'the compost exemption 2015' applies. The requirements in this order apply in relation to the supply of compost for application to land as a soil amendment.

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

- 1.1. This order applies to compost. In this order, compost means any combination of mulch, garden organics, food waste, manure and paunch that has undergone composting.

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

- 2.1. The requirements in this order apply, as relevant, to any person who supplies compost that has been generated, processed or recovered by the person.
- 2.2. This order does not apply to the supply of compost 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 XX Month 2016 and is valid until revoked by the EPA by notice published in the Government Gazette.

### **4. Revocation**

- 4.1. 'The compost order 2014' which commenced on 24 November 2014 is revoked from XX Month 2016.

### **5. Processor requirements**

The EPA imposes the following requirements on any processor who supplies compost.

#### **General conditions**

- 5.1. The processor must undertake the process of composting, as a minimum, for compost supplied under this order.

- 5.2. On or before supplying compost, the processor must ensure that the compost:
- 5.2.1. does not contain asbestos, engineered wood products and preservative treated or coated wood residues; and
  - 5.2.2. is ready for land application.
- 5.3. The processor must not mechanically size-reduce the compost through methods such as hammer milling, crushing or grinding, as a way of managing the physical contaminant loading.

### Sampling requirements

- 5.4. On or before supplying compost, the processor must:
- 5.4.1. Prepare a written sampling plan which includes a description of sample preparation and storage procedures for the compost.
  - 5.4.2. Ensure that the absolute maximum or other value of that attribute in the compost must not exceed the absolute maximum listed in Column 2 of Table 1.

**Table 1**

<b>Column 1</b>	<b>Column 2</b>
<b>Attributes</b>	<b>Absolute maximum</b> (% 'dry weight' unless otherwise specified)
1. Glass, metal and rigid plastics > 2 mm	0.5
2. Plastics – light, flexible or film > 5 mm	0.05
3. Salmonella spp	absent in 50 g
4. Escherichia Coli (E. Coli)	<100 MPN/g*
5. Faecal coliforms	<1000 MPN/g*

\*MPN = most probable number

### Test methods

- 5.5. 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.
- 5.6. The processor must ensure that the attributes (listed in Column 1 of Table 1) in the compost supplied 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:
- 5.6.1. Test method for measuring physical contaminants 1 and 2:
    - 5.6.1.1. Australian Standard AS4454-2012 Composts, soil conditioners and mulches, “Appendix I - Method For Determination Of Moisture Content And Level Of Visible Contamination”. This test must be conducted under bright and direct light.
    - 5.6.1.2. Results must be reported as % contamination on a dry mass basis.
  - 5.6.2. Test method for the detection of Salmonella:

- 5.6.2.1. For analysis - Australian Standard AS5013.10-2009 Food microbiology - Microbiology of food and animal feeding stuffs - Horizontal method for the detection of Salmonella spp., or an equivalent analytical method.
- 5.6.2.2. Report as absent or present.
- 5.6.3. Test method for the detection of E. Coli:
  - 5.6.3.1. Australian Standard AS5013.15-2006 Food microbiology - Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of presumptive Escherichia coli - Most probable number technique, or an equivalent analytical method.
  - 5.6.3.2. Report as most probable number (MPN) /g.
- 5.6.4. Test method for the detection of Faecal Coliforms:
  - 5.6.4.1. Australian Standard AS 5013.3-2009 Food microbiology - Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of coliforms - Most probable number technique, or an equivalent analytical method.
  - 5.6.4.2. Report as most probable number (MPN) /g.

### **Record keeping and reporting**

- 5.7. 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 5.4.1; and
  - all test results in relation to any compost supplied.
- 5.8. The processor must make information available to the consumer of the compost, on request by that party, on the latest test results for compost.
- 5.9. The processor must notify the EPA within seven days of becoming aware that it has not complied with any requirement in clause 5.1 to 5.6.

## **6. Definitions**

In this order:

**animal waste** means dead animals and animal parts and any mixture of dead animals and animal parts.

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

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

**composting** means a process of managed biological transformation:

- (a) to achieve pasteurisation, and
- (b) for a period of not less than a total of 6 weeks of composting and curing at an adequate moisture level (>40 % by weight), and/or until an equivalent level of biological stability can be demonstrated, and;
- (c) produce a product that passes the threshold level for 3 tests, including at least one from Group A and one from Group B specified in Australian Standard AS 4454 – 2012 Composts, soil conditioners and mulches,

“Appendix N – Table N3.2 – Biological Stability and Plant Growth Tests Compost Maturity”.

Composting does not include drying or dehydration processes.

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

**corrosive** means a substance having properties that may damage or destroy living organisms and components of the soil, including soil organic matter. Commonly this includes strong acids and strong bases, or weak acids and weak bases occurring in concentrated form.

**drying or dehydration processes** are those that use externally supplied energy to heat and ventilate food wastes (or any other compostable waste) in order to rapidly dry the waste material over a short time period (typically 24 to 48 hours), either with or without the addition of an inoculum. This is distinct from those processes of managed biological transformation that use heat generated by the aerobic microorganisms that are responsible for decomposition under moist conditions during pasteurisation and composting, and traditional forced aeration composting methods such as aerated static pile composting.

**engineered wood products** means engineered, painted, treated or composite wood products such as particleboard, oriented strand board, plywood, laminated veneer lumber, glulam or fibreboard that are manufactured with glues, resins, water repellents, fire retardants, fungal inhibitors and/or other chemicals.

**food waste** means waste from the manufacture, preparation, sale or consumption of food but does not include grease trap waste or animal waste, and must not be corrosive.

**forestry and sawmill residues** are untreated and uncontaminated plant materials from forestry operations such as logging, silviculture and sawmilling. Forestry and sawmill residues include materials such as bark, woodchip, sawdust and wood fibre that are collected as a source separated material stream for processing.

**garden organics** means plant materials that by virtue of the nature and source of the material poses a risk of the presence of physical and chemical contaminants. Garden organics includes material from kerbside waste collections. Garden organics must not include material containing asbestos, engineered wood products or preservative treated or coated wood residues.

**manure** means faecal matter generated by any animal other than humans and includes any mixture of animal faecal matter and biodegradable animal bedding such as straw or sawdust.

**mulch** means plant material that by virtue of the nature and source of the material poses minimal risk of the presence of physical and chemical contaminants. Mulch may include urban wood residues and sawmill and forestry residues. Such materials must be shredded and/or screened to a preferred particle size grading for particular applications. Mulch does not include plant material from kerbside waste collections. Mulch must not contain asbestos, engineered wood products, preservative treated or coated wood residues, or physical contaminants, including but not limited to glass, metal, rigid plastics, flexible plastics, or polystyrene.

**pasteurisation** means a process to significantly reduce the numbers of plant and animal pathogens and plant propagules. Pasteurisation requires that the entire mass of organic material be subjected to either of the following:

- (a) Appropriate turning of outer material to the inside of the windrow so that the whole mass is subjected to a minimum of 3 turns with the internal temperature reaching a minimum of 55°C for 3 consecutive days before each turn. Where materials with a higher risk of containing pathogens are



present, including but not limited to manure and food waste, the core temperature of the material mass should be maintained at 55°C or higher for 15 days or longer, and during this period the windrow should be turned a minimum of 5 times.

- (b) An alternative process that guarantees the same level of pathogen reduction, and the reduction of plant propagules as in (a). Any such alternative process must be clearly defined in writing and validated by a suitably qualified person prior to claiming compliance with this order. A written record of the validation report must be kept for a minimum period of six years.

**paunch** means the undigested food contained in the stomach of ruminant animals. This is generally considered to include partially digested grass, hay and other feed products such as grain.

**preservative treated or coated wood residues** means wood residues that are preservative treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP) and/or coated with substances such as varnish or paint.

**processor** means a person who processes, mixes, blends, or otherwise incorporates compost 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 compost that is not repeated,
- in the case where the supplier has an arrangement with the recipient for more than one supply of compost the first supply of compost as required under the arrangement.

**urban wood residues** means untreated, unpainted, and uncontaminated urban derived timber and wood material that is collected as a separate material stream for processing. Urban wood residues include materials such as off-cuts, saw dust, wood shavings, packaging crates and pallets.

**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 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 compost 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 compost 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.

Whilst this order requires that compost must not contain engineered wood products, the EPA recognises that the compost may contain extremely low and incidental amounts of engineered wood products. The processor must implement procedures to prevent the presence of engineered wood products in the compost. These procedures must be formally documented and their implementation demonstrated. However, as noted in this order, compost must not contain any asbestos, or preservative treated or coated wood residues.

Failure to comply with the conditions of this order constitutes an offence under clause 93 of the Waste Regulation.