

Notice

General Approval of a resource for beneficial use—Sugar Mill By-Products (Filter Mud, Filter Mud/Ash Blends and Boiler Ash from Sugar Mill Boilers)

This notice is issued by the chief executive, to advise of a decision made under sections 172 of the Waste Reduction and Recycling Act 2011 to amend a general approval of a resource for beneficial use.

This notice amends and replaces general approval referenced ENBU01236210 issued on 24 March 2015 and is a general approval of sugar mill by-products as a resource of which everyone has the benefit where they are able to meet the conditions imposed by the approval. This approval is subject to the following conditions imposed in accordance with s. 166 of the *Waste Reduction and Recycling Act 2011* (WRR Act) and remains in force until **31 December 2018** (the period of the approval).

The granting of this approval does not warrant or imply the lawfulness of the activity under all legislation, or that approvals necessary under other legislation have or will be approved. It is the responsibility of each person operating under this approval to identify and obtain all other approvals necessary for the proposed activity.

The granting of this approval also does not remove the obligation to take all reasonable and practicable measures to prevent and/or to minimise the likelihood of environmental harm being caused (the 'general environmental duty' in accordance with s. 319 of the *Environmental Protection Act 1994* (EP Act)).

Environmental harm is defined as any adverse effect, or potential adverse effect (whether temporary or permanent and of any magnitude, duration or frequency), on an environmental value, and includes environmental nuisance. Operating under this approval does not remove the obligation to comply with the notification provisions contained in the EP Act where an event causes or threatens to cause serious or material environmental harm.

Advice about this general approval

Persons wishing to use sugar mill by-products (the resource) under this general approval must comply with the approval conditions relevant to them and/or the end use for which the resource will be applied.

Failure to comply with a condition of this approval is an offence carrying a maximum penalty of 1665 penalty units for an individual, and 8325 penalty units for a corporation.

Approved by:

Chris Hill
Director, Industry and Development
Delegate of the chief executive
Waste Reduction and Recycling Act 2011
Date: 21 October 2016

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CONDITIONS OF APPROVAL

Requirement to notify

1. Any **generators** operating under this approval must notify the **chief executive** in writing using the approved form¹ within 10 business days of beginning the use of the **resource** under this general approval.

Limitations of approval

2. The approved resource is by-products (**filter mud, filter mud/boiler ash blend or boiler ash**) generated by sugar mills within Queensland, that comply with the quality characteristic limit ranges listed in Table 1 – Resource quality characteristics, that is used for at least one of the following purposes²:
 - a) **soil ameliorant** or conditioner on agricultural land
 - b) **soil ameliorant** or conditioner for the purposes of growing turf
 - c) feedstock in composting or soil conditioner manufacturing activities that produce <200t per year
 - d) additive to soil used for landscaping

Table 1 – Resource quality characteristics

| Quality characteristic | Filter mud and filter mud/boiler ash blend mixture limits | | Boiler ash limits (% as dry product) |
|------------------------|---|------------------|--------------------------------------|
| | % as dry product | % as wet product | |
| Nitrogen (N) | 1.0 – 1.7 | 0.22 – 0.37 | 0.04 – 0.15 |
| Phosphorous (P) | 1.0 – 1.9 | 0.22 – 0.41 | 0.09 – 0.41 |
| Potassium (K) | 0.16 – 0.76 | 0.03 – 0.13 | 0.50 – 1.40 |
| Sulphur (S) | 0.13 – 0.15 | 0.00 – 0.03 | 0.01 – 0.19 |
| Calcium (Ca) | 2.1 – 3.7 | 0.46 – 0.81 | 0.36 – 1.22 |
| Magnesium (Mg) | 0.39 – 0.68 | 0.09 – 0.15 | 0.24 – 0.72 |

3. In addition to condition 2, the resource must not have any properties nor contain any other contaminants at concentrations which may cause environmental harm³ when used in accordance with the conditions of this approval.

Resource quality monitoring

4. The generator must sample, measure and record the composition of the resource for at least the quality characteristics in Table 1 – Resource quality characteristics, on an annual basis as a minimum.
5. Where the composition of the resource has changed or is likely to change, more frequent monitoring must be conducted sufficient to detect and characterise the extent of any change⁴.
6. Any sampling or measuring relating to monitoring required by condition 4 must be undertaken by an **appropriately qualified person**.

¹ The approved form (ESR/2015/1638) is available on the chief executive's website at www.ehp.qld.gov.au.

² Any resource that is not used as stated in condition 2 is considered a waste and must be managed in accordance with the *Environmental Protection Act 1994* and *Waste Reduction and Recycling Act 2011*, and their subordinate legislation.

³ See section 14 of the *Environmental Protection Act 1994*.

⁴ Such additional monitoring should occur if there have been significant changes or modifications to any harvest or processing equipment which may knowingly result in variation. Additional monitoring should be undertaken until such time that results demonstrate the material is compliant with Condition 2.

7. All determinations of the quality of the resource must be carried out on appropriately representative samples, and all analysis of samples taken must be undertaken by a National Association of Testing Authorities (**NATA**) accredited laboratory or one holding an equivalent certification.

Written Procedure

8. From commencement of reuse of the resource to which this approval relates, a written procedure must be developed and maintained by the generator. The written procedure must contain the following:
 - a. Identification of risks of potential environmental harm from the use of the resource during routine operations and emergencies;
 - b. Control measures that minimise the identified risks of potential for environmental harm (e.g. application frequency, rate, method, placement etc.);
 - c. Monitoring of contaminant releases associated with the use of the resource under this approval;
 - d. Staff training in relation to the conditions and requirements of this approval;
 - e. Record keeping requirements;
 - f. **Users Method Statement**;
 - g. **SDS**;
 - h. A copy of the BUA Notice.
9. The generator must make the written procedure developed in accordance with condition 8 available to any person to whom they provide the resource (i.e., a **supplier** or a **user**).
10. A supplier of the resource must make the written procedure developed in accordance with condition 8 available to any users to whom they provide the resource.

Records

11. Generators and suppliers must keep the following records when the resource is distributed:
 - a. origin of the resource;
 - b. quantity of the resource;
 - c. quality characteristics of the resource (at least for parameters listed in Table 1 Resource quality characteristics);
 - d. date of dispatch of the resource;
 - e. date of delivery of the resource;
 - f. name of the **transporter** of the resource; and
 - g. destination of the resource (including the name and address of the user or the supplier).
12. All **records** required by the conditions of this approval must be kept for a period of not less than five (5) years and provided to the chief executive upon request.

Transportation of the resource

13. Should a delivery of the resource be rejected at site/destination, it must be immediately returned to the generator or supplier, or taken to a facility that can lawfully receive the material.
14. The resource must be handled and transferred in a manner that prevents any release during transport.
15. Any residual resource adhering to the vehicle body after loading must be cleaned off and returned to the load or storage or disposed of to an appropriate treatment or disposal system.

Storage of the resource

16. Any storage of the resource must be in a quantity that meets the current operational demand.
17. The resource must be stored in a way that prevents or minimises contact with stormwater or runoff.
18. Stormwater or runoff that has come in contact with the resource must be managed to prevent any adverse impacts on the **environmental values** of the receiving environment.
19. The resource must not be stored within 350m of waters (except for ground waters, secure irrigation and confined storm-water systems) unless:
 - a. the resource is in a solid form; and
 - b. the stockpile size does not exceed 1000m³.
20. Any pond used for the storage of the resource must be constructed, installed and maintained so as to :
 - a. minimise the likelihood of any release of resource through bed or banks of the pond to any waters;
 - b. maintain a freeboard of not less than 0.5 meters, except in an **emergency**; and
 - c. ensure the stability of the ponds' construction.
21. Any resource that is stored must be used as soon as reasonably practicable.

Land application of the resource

22. The resource must only be applied to the land where:
 - a. the application is conducted at an agronomic loading rate and in a way determined by an **appropriately qualified person** or as recommended by industry guidelines and/or best management practices considering the resource composition, crop and soil characteristics; and
 - b. the resource will not be released to **waters**.
23. The **relevant person** must maintain the following records for all applications of the resource to land as an ameliorant or soil conditioner as follows:
 - a. details of the land on which application occurs (e.g. GPS locations of the farms and blocks);
 - b. date of application of the resource;
 - c. actual application rate (expressed as the quantity e.g. wet tonnes per hectare per application) for each application); and
 - d. application method.

DEFINITIONS

Words and phrases used throughout this approval are defined below. Where a definition for a term used in this approval is sought and the term is not defined within this permit the definitions provided in the relevant legislation shall be used.

"appropriately qualified person" means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.

"chief executive" means the Department of Environment and Heritage Protection or its successor.

"boiler ash" means a by-product produced by sugar mill boilers as fuel is burnt to power the manufacturing process. Varying amounts of soil and other residues are separated out as boiler ash.

"emergency" means a situation where either human health or safety is threatened, or serious or material environmental harm has been or is likely to be caused; and urgent action is necessary to protect the health or safety of persons, or prevent or minimise the harm, or rehabilitate or restore the environment because of the harm.

"environmental value" as defined in Chapter 1 of the *Environmental Protection Act 1994*.

"filter mud" means the residual mud and fibre filtered from the raw juice steam after lime addition and juice clarification in rotary vacuum filters. It is comprised mainly of water, fibre, mud solids (from soil) and natural impurities in the sugar cane. Filter mud % cane is approximately 7.0%.

"generator(s)" means a person who generates the resource to be used.

"NATA" is the National Association of Testing Authorities.

"records" include breach notifications, written procedures, analysis results, monitoring reports and monitoring programs required under a condition of this approval.

"relevant person" means the generator, transporter, supplier and user of the resource who is in control of the material at the time.

"resource" means filter mud, filter mud/ash blend or boiler ash (resources) sourced from sugar mill owner members of the Australian Sugar Milling Council (Entities).

"SDS" means a form containing data regarding the properties of a particular substance which provides workers and users information on handling or working with that substance in a safe manner; and includes information such as physical data toxicity, environmental characteristics, health effects, first aid, reactivity; and storage, disposal, protective equipment and spill handling procedures.

"soil ameliorant" means a substance added to soil to improve the growing conditions for plant roots.

"supplier(s)" means a person who is receiving the resource from the generator and providing it to the user.

"transporter(s)" means a person who is transporting the resource.

"user(s)" means a person who has entered into a written agreement with a generator or supplier to use the resource in accordance with the conditions of this approval.

"users method statement" means a method statement for the loading, transport and storage of the resource to its users.

"waters" includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, artificial watercourse, bed and bank of any watercourse, dams that are not fit for purpose, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof.

- END OF CONDITIONS -