



Your reference: APP-20171612
24 November 2017

The General Manager
Environment Southland
Private Bag 90116
INVERCARGILL

Attention: Ms A King

Dear Alex

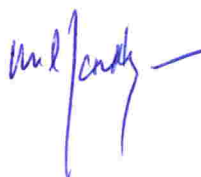
RE: Application for Discharge to Air - Kerr Inverurie Trust

Attached is a Part B form for Discharge Contaminants to Air for this composting operation. The farm owner has had a small volume of the material on the farm and when mixed the heap has looked like a heap of sawdust with the skin material in it and very inert. Standing beside it there was a smell of the sawdust and I can understand that with the composting process some ammonia may be given off if the carbon to nitrogen ration is widely out of ratio. The material will be turned to allow the process to remain aerobic with water irrigation from the storage pond to keep the material damp which aids decomposition and will stop any dust. The material will be regularly turned by a back blade, grader, excavator or loader.

The application fee has been paid and additional payment was made with the last re-submission.

Please contact me if you have any questions.

Yours faithfully
Civil Tech Ltd



Murray Gardyne
Director

Application to Discharge Contaminants to Air (PART B)



environment
SOUTHLAND
Te Taiao Tonga

This application is made under Section 88 of the Resource Management Act 1991

A complete Part A form needs to be provided with this Part B form. The purpose of this Part B form is to provide applicants with guidance on information that is required under the Resource Management Act 1991. These forms are to act as a guide only and Environment Southland reserves the right to request additional information.

To: Environment Southland
Private Bag 90116
Invercargill 9840

1 What is this application for

- | | |
|-------------------------------------|-------------------------------------------------------------------------|
| <input type="checkbox"/> | Combustion process |
| <input type="checkbox"/> | Quarries/gravel extraction |
| <input type="checkbox"/> | Wood/pulp/fibreboard processing industries |
| <input type="checkbox"/> | Chemical manufacturing blending processes/electroplating |
| <input type="checkbox"/> | Abrasive blasting |
| <input type="checkbox"/> | Wool scourers and tanneries |
| <input type="checkbox"/> | Concrete manufacturing plants |
| <input type="checkbox"/> | Foundries |
| <input type="checkbox"/> | Rendering/processing of carcasses |
| <input type="checkbox"/> | Asphalt production |
| <input type="checkbox"/> | Wastewater treatment plant |
| <input checked="" type="checkbox"/> | Other. Please describe: <u>PRODUCTION OF COMPOST FROM RAW MATERIALS</u> |

2 What duration of resource consent is sought? 10 years

3 Please describe the following elements of the proposed discharge of contaminants to air:

- the process (identify all process stages during which contaminants are released into the air);
- the type and amount of raw materials used in the activity (including type and quality of fuel used);
- the product made from the activity;
- the equipment used in the process;
- the contaminants discharged to the atmosphere;
- concentration of contaminants in the discharge (ppm);
- number of discharge points;

- (h) location of each discharge point;
- (i) height of each discharge point (chimney/vent);
- (j) the discharge chimney/vent fitting, including the diameter of the fitting and any associated treatment infrastructure, such as bag houses; and
- (k) the velocity of discharge.

- The process is mixing untreated wood or straw with cow face skin that has been pressed to take off gelatine. This goes through a composting process.
- A 50/50 mix of materials. This will be altered to ensure the correct carbon/nitrogen ratio
- The product is a compost
- material is place on a base & turned by tractor or loader.
- No direct discharge
- The compost is on a 100m x 30m pad.
- See main application for location of area.
- Compost kept to 3m. No chimneys.
- Any discharge of particles would be from dust but heaps are kept deep by irrigation from run-off pond which also stores stormwater.

4 What is the proposed frequency and seasonality of the discharge (e.g. usual duration of the discharge and days and hours of operation)? Please describe any variations, where appropriate.

The operation is 24 hours every day of the year

5 Has there been any discharge monitoring carried out in relation to this proposal, or do you have access to any background monitoring? If yes, please describe and attach results as appropriate.

There has been 2 heaps of this material at two sites. material only visually observed.

6 Has any meteorological data relevant to the site been obtained? If yes, please describe.

Rainfall considered for storage pond sizing. prevailing wind from South.

7 The following table provides additional specific information requirements for industry groups. Please include information on separate paper if required.

Combustion processes	<ul style="list-style-type: none"> - Describe combustion processes and details of boiler or heat unit. - Heat release rate (kilowatts, megawatts). - Condition of boiler or heat unit, chimney and details of last service.
Quarries	<ul style="list-style-type: none"> - Describe quarrying process. - Type of rock being mined. - Open cast extraction capacity (tonnes/hour). - Size reduction and screening capacity (tonnes/hour). - Storage capacity (tonnes/hour). - Quarry management plan.
Wood processing industries	<ul style="list-style-type: none"> - Particulate emission test (to determine dust concentration and mass emission levels discharged from the stack, measured over three runs, with all wood sanding equipment working at same time).
Abrasive blasting	<ul style="list-style-type: none"> - Describe details of blasting chamber, blasting media used.

	- Particulate emission tests (to determine dust concentration and mass emission levels discharged from the vent, measured over three runs).
Wool scourers and tanneries	- Describe paint and solvents used (provide MSDS where available). - Paint and solvent usage rates.
Concrete manufacturing plants	- Give details of raw material capacity (tonnes/hour).
Rendering process	- Describe the high/low temperature and drying of the rendering process. - Describe combustion process (if applicable, i.e., type of combustion process, fuel used, fuel combustion rate, concentration).

Existing Environment

8 Are any of the following features found within the existing environment of your proposed discharge to air? If so, describe these features in the space below. Please also describe any additional features of the surrounding environment where your proposed discharge will take place (for example existing vegetation, man-made features, wildlife, water features and topographical features).

	Yes	No
(a) Residential and/or community areas? <i>The nearest house is 1800m</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Production land (e.g. crops, dairy farming)? <i>Barley & oats for sale</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Recreational activities carried out (e.g., sports grounds, parks etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Sources of similar or other discharges to air?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Areas of particular aesthetic, scientific value (e.g. scenic views)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Areas of significance to iwi?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) Commercial activities (e.g. office blocks)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please also include a map or site plan (and photographs if necessary) showing the site boundary, the location of roads and property boundaries, wetlands and other wildlife habitats, buildings and residential properties, location of processes and discharge points, and the location of any sensitive sites (e.g. historic places, sites of importance to iwi etc.) in proximity to your site.

Assessment of Effects

- 9 Please describe any possible odour, dust, smoke or haze that may result from your proposed discharge to air.

my assessment is that there is no odour at 160m in a rural setting.

- 10 Please describe any possible long term or short term effects the discharge may have on the quality of the receiving air, persons living or working in the area and local biota (plant and animal life).

nil

- 11 If hazardous substances and installations are involved, describe any risks to the environment which are likely to arise from their storage and/or use.

None

- 12 Pursuant to Schedule 4 of the Resource Management Act, 1991, there are a number of matters that must be addressed by an assessment of environmental effects. Please discuss what effects the proposed activity will have on the following:

- (a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects

see letter from e3 scientific - 25 September 2017.

- (b) any physical effect on the locality, including any landscape and visual effects

See PART B Discharge Perm. #

- (c) any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity

see PART B Discharge Perm. #

- (d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations

see Part B Discharge Perm. #

- (e) any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants

None

- (f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations

See letter from e3scientific - 25 September 2011

13 Please include a description of the monitoring or mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help avoid, reduce, remedy or mitigate the actual or potential effects on environmental features and values. For example, if relevant, please include the following:

- (a) a description of the monitoring system to be used for checking and recording the discharge and its effects. Please include how and when the monitoring will occur, and by whom;
- (b) contingency planning – describe how the equipment controlling the discharge will be operated and maintained to prevent equipment failure, and what measures will be implemented to ensure that the effects of the malfunction are remedied; and
- (c) a description of pollution control equipment or any other mitigation measures.

- The composting process will be viewed weekly or more often when dry so as to keep compost moist.

- any leachate will flow to the storage pond

- Soil testing yearly on discharge areas will be undertaken.

- 14 Please justify the scale of discharge and the term of consent sought with regard to any effects on the environment.

The 10 year term will allow time to assess the product but the first test will be the initial material stored in Southland as a trial.

- 15 Please include a description of any possible alternative locations or methods for undertaking the activity and why these alternatives have not been selected.

This is expensive farming area where the process will not be noticed or affect any neighbours which will allow monitoring it. Other sites are required in the future for this process.

- 16 Please include evidence of any consultation undertaken for this application. This may include (but not be limited to) consultation with adjoining landowners, other consent holders in the immediate area, iwi (e.g. Te Rūnanga O Ngāi Tahu, Te Ao Marama Inc), government departments/ministries (e.g. DOC), territorial authorities and recreational associations.

Please note that in accordance with Schedule 4 of the RMA, you may also be required to provide an assessment of whether or not the proposed activity is contrary to any of the relevant provisions of the following documents.

- (a) National Environmental Standards for Air Quality, 2004 (amended 2011)
- (b) Regional Policy Statement for Southland, 1997 (and any proposed/ subsequent versions)
- (c) Regional Air Quality Plan for Southland, 1999 (and any proposed/ subsequent versions)

Staff are able to advise whether this is required, as it is dependant on the location, scale and complexity of your proposal. We invite you to come in for a pre-application meeting with Environment Southland consents staff to discuss this.

END OF FORM