

Osflo Spreading Industries
Monitoring Programme
Annual Report
2008-2009

Technical Report 2009–31

ISSN: 0114-8184 (Print)
ISSN: 1178-1467 (Online)
Document: 627265

Taranaki Regional Council
Private Bag 713
STRATFORD

April 2010

Executive summary

Osflo Spreading Industries Ltd (Osflo) operates a used chicken litter storage and distribution facility located on Hursthouse Road, Lepperton, in the Waiongana Catchment. Osflo utilises the site for the storage of their product which is used as an all purpose fertiliser. This report for the period July 2008-June 2009 describes the monitoring programme implemented by the Taranaki Regional Council to assess the Company's environmental performance during the period under review, and the results and environmental effects of the Company's activities.

The Company holds two resource consents, which include a total of 18 conditions setting out the requirements that the Company must satisfy. The Company holds one consent to allow it to discharge stormwater and treated waste water from the poultry litter storage area into land in the vicinity of the Awai Stream, and one consent to discharge emissions into the air from the use and storage of the used chicken litter at the Hursthouse Road site. This is the twelfth report on the environmental performance of the Company.

The Council's monitoring programme for the year included four inspections, which looked at the plant processes and any potential or actual discharges to the receiving watercourses and to air.

The monitoring showed that generally operations were carried out in a manner that was environmentally sound. There were no non-compliances recorded against the Company during the monitoring year, and on most occasions any matters requiring action were minor in nature and rectified immediately. By comparison with other years, the monitoring has indicated an improvement in the management of the discharge of emissions to air, in particular the emission of offensive odour from the site.

During the year, the Company demonstrated a high level of environmental performance and compliance with its resource consents.

This report includes recommendations for the 2009-2010 monitoring year.

Table of contents

	Page
1. Introduction	1
1.1 Compliance monitoring programme reports and the Resource Management Act 1991	1
1.1.1 Introduction	1
1.1.2 Structure of this report	1
1.1.3 The Resource Management Act (1991) and monitoring	1
1.1.4 Evaluation of environmental performance	2
2. Osflo Spreading Industries	3
2.1 Process description	3
2.2 Resource consents	4
2.2.1 Water discharge permit	4
2.2.2 Air discharge permit	5
2.2.3 Discharges of wastes to land	6
2.3 Monitoring programme	6
2.3.1 Introduction	6
2.3.2 Programme liaison and management	7
2.3.3 Site inspections	7
2.4 Results	7
2.4.1 Inspections	7
2.5 Register of incidents	9
3. Discussion	10
3.1 Discussion of plant performance	10
3.2 Environmental effects of exercise of consents	10
3.3 Evaluation of performance	10
3.4 Recommendations from the 2007-2008 Annual Report	11
3.5 Alterations to monitoring programmes for 2009-2010	12
3.6 Exercise of optional review of consent	12
4. Recommendations	13
Bibliography	14
Glossary of common terms and abbreviations	15
Appendix I Resource consents held by Osflo Spreading Industries	

List of tables

Table 1	Summary of performance for Consent 4333-2 To discharge stormwater and wastewater from Poultry Litter Storage Yards	10
Table 2	Summary of performance for Consent 5918-1 To discharge emissions to air from storage and distribution of Poultry Litter fertiliser	11

List of figures

Figure 1	Osflo Spreading Industries Limited site	3
----------	---	---

1. Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This report is the Annual Report for the period July 2008-June 2009 by the Taranaki Regional Council on the monitoring programme associated with resource consents held by Osflo Spreading Industries Ltd (Osflo). The Company operates a used chicken litter storage and distribution facility located on Hursthouse Road, Lepperton, in the Waiongana Catchment.

This report covers the results and findings of the monitoring programme implemented by the Council in respect of the consents held by Osflo that relate to the discharge of stormwater within the Waiongana Catchment, and the air discharge permit held by Osflo to cover emissions to air from the site.

One of the intents of the Resource Management Act (1991) is that environmental management should be integrated across all media, so that a consent holder's use of water, air, and land should be considered from a single comprehensive environmental perspective. Accordingly, the Taranaki Regional Council generally implements integrated environmental monitoring programmes and reports the results of the programmes jointly. This report discusses the environmental effects of Osflo's use of water, and air and is the thirteenth combined annual report by the Taranaki Regional Council for the Company.

1.1.2 Structure of this report

Section 1 of this report is a background section. It sets out general information about compliance monitoring under the Resource Management Act and the Council's obligations and general approach to monitoring sites through annual programmes.

Section 2 sets out the resource consents held by Osflo in the Waiongana Catchment, the nature of the monitoring programme in place for the period under review, and a description of the activities and operations conducted by Osflo, including the results of monitoring during the period under review.

Section 3 discusses the results, their interpretation, and their significance for the environment.

Section 4 presents recommendations to be implemented in the 2009-2010 monitoring year.

A bibliography is presented at the end of the report.

1.1.3 The Resource Management Act (1991) and monitoring

The Resource Management Act primarily addresses environmental 'effects' which are defined as positive or adverse, temporary or permanent, past, present or future, or cumulative. Effects may arise in relation to:

- (a) the neighbourhood or the wider community around a discharger, and may include cultural and socio-economic effects;
- (b) physical effects on the locality, including landscape, amenity and visual effects;
- (c) ecosystems, including effects on plants, animals, or habitats, whether aquatic or terrestrial;
- (d) natural and physical resources having special significance (e.g., recreational, cultural, or aesthetic);
- (e) risks to the neighbourhood or environment.

In drafting and reviewing conditions on discharge permits, and in implementing monitoring programmes, the Taranaki Regional Council is recognising the comprehensive meaning of 'effects' inasmuch as is appropriate for each discharge source. Monitoring programmes are not only based on existing permit conditions, but also on the obligations of the Resource Management Act to assess the effects of the exercise of consents. In accordance with section 35 of the Resource Management Act 1991, the Council undertakes compliance monitoring for consents and rules in regional plans; and maintains an overview of performance of resource users against regional plans and consents. Compliance monitoring, including impact monitoring, also enables the Council to continuously assess its own performance in resource management as well as that of resource users particularly consent holders. It further enables the Council to continually re-evaluate its approach and that of consent holders to resource management, and, ultimately, through the refinement of methods, to move closer to achieving sustainable development of the region's resources.

1.1.4 Evaluation of environmental performance

Besides discussing the various details of the performance and extent of compliance by Osflo during the period under review, this report also assigns an overall rating. The categories used by the Council, and their interpretation, are as follows:

- a **high** level of environmental performance and compliance indicates that essentially there were no adverse environmental effects to be concerned about, and no, or trivial (such as data supplied after a deadline) non-compliance with conditions.
- a **good** level of environmental performance and compliance indicates that adverse environmental effects of activities during the year were negligible or minor at most, items of concern were resolved positively, co-operatively, and quickly, the Council did not record any verified unauthorised incidents involving significant environmental impacts and was not obliged to issue any abatement notices, there were perhaps some items noted on inspection notices for attention but these items were not urgent nor critical, and follow-up inspections showed they have been dealt with.
- **improvement desirable** indicates that the Council may have been obliged to record a verified unauthorised incident involving significant environmental impacts against the company, and/or abatement notices may have been issued; there were adverse environmental effects arising from activities and intervention by Council staff was required, and there were matters that required urgent intervention, took some time to resolve, or remained unresolved at end of the period under review.
- **poor** performance is used when there were grounds for prosecution or infringement notice

2. Osflo Spreading Industries

2.1 Process description

Osflo operates a storage and distribution facility for used poultry litter on Hursthouse Road, near Lepperton (Figure 1). The poultry waste is collected from farms around the Taranaki region, and sold as a registered fertiliser to be spread on pasture. The depot is the administration centre for collection and distribution of the used litter, with the majority of the product being taken directly from the poultry farm to the general farming customer. A total of 13 persons are employed in the operation, utilising 6 trucks.



Figure 1 Osflo Spreading Industries Limited site

Litter is stored at the depot when conditions are unsuitable for spreading on land, and to accumulate a reserve for periods of peak demand. About 25,000 tonnes per annum of litter are generated on farms within the Inglewood/Okato/Waitara area, mostly near Lepperton and Bell Block. This amount is forecast to increase owing to expansion of the poultry industry. The amount stored at the depot ranges from about 100 to 5,000 tonnes. Peak seasonal activity is in spring, for cropping, and in autumn, for dairy farming.

The Hursthouse Road depot is on an area of about one hectare in the bottom of a valley, bounded on the north and west by the Awai Stream, on the east by Hursthouse Road, and on the south by a fence and tree shelter belt. The site is surrounded by farm grazing land, with three dwellings nearby beyond the site boundary, one 100 metres to the east and two within 300 metres to the southeast. The predominant winds in the area are westerly and south-easterly.

The litter comprises poultry manure and wood shavings, though the amount of wood shavings has decreased during the monitoring year due to Taranaki Sawmills

now burning surplus sawdust and shavings. Upon storage the litter undergoes decomposition by microbial organisms, a natural process which generates gases and heat. The majority of the gas is carbon dioxide and methane, which are odourless. Some odorous gases, both organic (aldehydes, ketones, organic acids, amines and organic sulfur compounds) and inorganic (ammonia, nitrogen oxides and hydrogen sulfide), are produced. The rate of heat generation depends on the amount of moisture and oxygen available, and may lead to spontaneous combustion of the wood shavings and generation of smoke if not controlled.

The storage shed is designed so that fugitive emissions of gas from the storage of poultry wastes will not escape the building. Emissions are extracted by a fan and forced through a biofilter. Biofilters decompose odorous compounds, using microorganisms such as bacteria. The use of an extraction fan within the closed facility has the added benefit of maintaining slight negative pressure inside the building, which reduces the egress of untreated gaseous emissions. The ventilation rate is increased during loading out, when the doors are left open to allow clearer viewing by operators in the dusty conditions.

The store remains closed and inoperative for about 30% of days in the year. Filling takes place for about 50% of days in a year, and emptying for 20%.

Wastewater from washing down the trucks (with quaternary ammonia sanitiser) and yard, and stormwater from this area, is directed to a concrete settling pond which then overflows to a soakage pit situated adjacent to the Awai Stream. A screen is situated between the holding pond and the soakage pit to prevent solids from entering the soakage pit.

Stormwater with less potential to be contaminated, from other areas of the premises, soaks to ground or is directed to a grassed channel which discharges into the Awai Stream, immediately upstream of the soakage pit.

2.2 Resource consents

2.2.1 Water discharge permit

Section 15(1)(a) of the Resource Management Act stipulates that no person may discharge any contaminant into water, unless the activity is expressly allowed for by a resource consent or a rule in a regional plan, or by national regulations.

Osflo holds water discharge permit 4333-2 to cover the discharge of up to 225 litres per second of stormwater and treated wastewater from poultry litter storage yard washings into land via soakage in the vicinity of, and stormwater onto and into land in the vicinity of and into, the Awai Stream in the Waiongana Catchment. This permit was issued by the Taranaki Regional Council on 19 December 1997 as a resource consent under Section 87(e) of the Resource Management Act. It is due to expire on 1 June 2014.

The consent has four special conditions. These special conditions cover the method of disposal of wastewater and maintenance of the disposal system, and effects on the Awai Stream.

Condition 1 states that there shall be no direct discharge of wastewater.

Condition 2 requires maintenance of the soakage system to ensure efficient operation.

Condition 3 addresses the location point of the discharge, to achieve rapid mixing in the river.

Condition 4 is a review provision.

A copy of the permit is attached to this report in Appendix I.

This is the second consent granted for the water discharge. The first permit **4333-1**, was issued on 8 September 1993 for a period of five years until 1 June 1998, and also covered discharges to air from the storage facility.

2.2.2 Air discharge permit

Section 15(1)(c) of the Resource Management Act stipulates that no person may discharge any contaminant from any industrial or trade premises into air, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations.

Osflo holds air discharge permit **5918-1** for the discharge of emissions into the air from the storage and distribution of used poultry litter fertiliser. This permit was issued by the Taranaki Regional Council on 20 September 2004 as a resource consent under Section 87(e) of the Resource Management Act, and is due to expire on 1 June 2014.

Previously, the Osflo operations at their Hursthouse Road facility were considered a permitted activity under Rule 17 of the Regional Air Quality Plan for Taranaki, however it was determined that activities at the site relating to the discharge of emissions to air were no longer meeting the standards, terms and conditions of Rule 17 of the Regional Air Quality Plan, and accordingly consent was sought by the Company and granted by the Taranaki Regional Council.

The consent has fourteen special conditions which relate to the management and operation of the discharge to air in a manner which minimises adverse effects on the surrounding environment.

Condition 1 requires the adoption of the best practicable option to prevent or minimise effects.

Condition 2 requires use of the most appropriate equipment to manage processes and discharges from the site.

Condition 3 requires the treatment of air prior to discharge to environment.

Condition 4 requires notification prior to changes to onsite processes.

Condition 5 requires that odour at the site not be objectionable beyond the boundary of the site.

Condition 6 requires that exercise of consent shall not cause suspended or deposited dust beyond the boundary of the site.

Condition 7 requires that all storage and loading areas be cleaned and maintained.

Condition 8 states discharged particulates shall not exceed 125 mg/m³.

Condition 9 sets the limits for the ammonia concentration at the boundary of the site.

Condition 10 requires the door to the storage facility to be closed at all times apart from loading and unloading.

Condition 11 details the need to mitigate effects (if any) of the discharge on neighbours water supply.

Condition 12 requires the Company prepare a management plan.

Condition 13 states that the management plan may be reviewed.

Condition 14 provides for a review of the consent.

A copy of the permit is attached to this report in Appendix I.

2.2.3 Discharges of wastes to land

Sections 15(1)(b) and (d) of the Resource Management Act stipulate that no person may discharge any contaminant onto land if it may then enter water, or from any industrial or trade premises onto land under any circumstances, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations.

Osflo holds discharge permit **3923-1** to cover the placement of up to 12 tonnes per hectare of the Ministry of Agriculture and Fisheries-registered organic fertiliser onto land in the Taranaki region. This permit was issued by the Taranaki Regional Council on 10 July 1991 as a resource consent under Section 87(e) of the Resource Management Act. This consent expired on 1 June 2009 and was not replaced as under the Regional Freshwater Plan for Taranaki, the activity is now a permitted activity.

This consent is not monitored under this programme, and does not form part of this report.

2.3 Monitoring programme

2.3.1 Introduction

Section 35 of the Resource Management Act sets out an obligation for the Taranaki Regional Council to: gather information, monitor, and conduct research on the exercise of resource consents, and the effects arising, within the Taranaki region.

The Taranaki Regional Council may therefore make and record measurements of physical and chemical parameters, take samples for analysis, carry out surveys and inspections, conduct investigations, and seek information from consent holders. The monitoring programme for the Osflo site consisted of two primary components, which are discussed below.

2.3.2 Programme liaison and management

There is generally a significant investment of time and resources by the Taranaki Regional Council in ongoing liaison with resource consent holders over consent conditions and their interpretation and application, in discussion over monitoring requirements, preparation for any reviews, renewals, or new consents, advice on the Council's environmental management strategies and the content of regional plans, and consultation on associated matters.

2.3.3 Site inspections

The Osflo site was visited four times during the monitoring period. With regard to consents for the discharge of stormwater, the main points of interest were plant processes with potential or actual discharges to receiving watercourses, including contaminated stormwater and process wastewaters. Air inspections focused on plant processes with associated actual and potential emission sources and characteristics, including potential odour, dust, noxious or offensive emissions. Sources of data being collected by the consent holder were identified and accessed, so that performance in respect of operation, internal monitoring, and supervision could be reviewed by the Council. The neighbourhood was surveyed for environmental effects.

2.4 Results

2.4.1 Inspections

Officers of the Taranaki Regional Council carried out four routine inspections of the Osflo storage facility at Hursthouse Road during the 2008-2009 monitoring period, and on all occasions the site was noted as being generally tidy.

29 September 2008

A routine air and water inspection was carried out with an Osflo employee. The Inspecting Officer was on site between 1140am and 1230pm. It started to rain during the inspection and there was a light south easterly wind. The Inspecting Officer carried out an odour survey along Hursthouse Road, after the inspection and no odour was detected to north or south. The store was about 20% full at the time of the inspection, the product was in demand as the maize season was starting. The truck wash settling ponds were cleaned out by contractor about 2 months prior to the inspection. The odour control system was working at the time of the inspection, the fan was going and the biofilter was functioning to a satisfactory level during the inspection. There was a hole in the wall of the store by the door that required fixing. The lime and bark "compost" was still being stored outside store at the time of the inspection, the Inspecting Officer noted there was little odour from this store. The diesel and hazardous chemical stores were maintained to a satisfactory standard at the time of the inspection. The Company was considering installing a weather

station to monitor wind speed and direction, rainfall and humidity. The site was generally tidy and maintained to a satisfactory standard.

23 December 2008

A routine air and water inspection was carried out with an Osflo employee. The Inspecting Officer was on site between 1140am and 1230pm. It was a bright, mostly overcast day with high cloud and a very light north westerly wind.

The Inspecting Officer carried out an odour survey along Hursthouse Road, before and after the inspection. The Inspecting Officer noted a "characteristic" litter odour, with varying intensity, as far as the furthest neighbor's house, 350m away. The Osflo employee advised that the wind direction had been northerly for the previous few days, towards the neighbour's house and that a neighbour had been in touch with him about noticeable odour during that period. The Osflo employee advised the Inspecting Officer the store would be closed over the statutory holidays.

The store was about 30% full at the time of the inspection, and had been busy for the time of year over the last 2 weeks, following a period of rain. The doors had been open frequently for loading and unloading. The truck wash settling ponds were last cleaned out by contractor about 3 months prior and were due to be cleaned. The employee informed the Inspecting Officer that the Company was considering digging another settling pit, as well as shifting the fuel bowser to make an access way to a new storage area for peat and other materials.

The odour control system was working at the time of the inspection with a citrus smell noticeable at the door, the fan was operating and the biofilter was functioning to a satisfactory standard at the time of the inspection. The hole in the wall of the store by door had been fixed. The pile of peat outside "factory" store, diesel, and hazardous chemical stores were all maintained to a satisfactory standard.

Neighbouring property, opposite Osflo road entrance, is for sale. NPDC has agreed that a comment about Osflo's activity be placed on the relevant LIM report, stating non-residential activities take place on Osflo property that may have some impact on the living environment, and that TRC should be contacted for further information. A copy of the e-mail outlining this addition to the LIM report was given to Osflo at the time of the inspection. The site was generally tidy and maintained to a satisfactory standard.

24 April 2009

A routine air and water inspection was carried out with two Osflo employees. The Inspecting Officer was on site between 1:55pm and 2:35pm. It was overcast, with a light north east wind, approximately 50°T, 5 knots at 350m south of the depot on Hursthouse Road. The Inspecting Officer carried out an odour survey along Hursthouse Road, after the inspection and no odour was detected to north or south. The store was about 10% full at the time of the inspection. The truckwash settling ponds were maintained to a satisfactory standard at the time of the inspection. There were additional settling ponds constructed in January 2009. The odour control system was working at the time of the inspection, the fan was operating and the biofilter was functioning to a satisfactory standard at the time of the inspection. The mixing area was empty and a small amount of oil was present on the yard to control any dust. A new neighbour opposite was moving in on the day the inspection was conducted. The site was generally tidy and maintained to a satisfactory standard.

30 June 2009

A routine air and water inspection was carried out with an Osflo employee. The Inspecting Officer was on site between 1110am and 1150am. It was a fine overcast day with a strong gusting south easterly wind.

The Inspecting Officer carried out an odour survey along Hursthouse Road, before and after the inspection. The Inspecting Officer noted an intermittent noticeable litter smell to the south and nothing was detected to the north (conducted approximately 350m away). The neighbours opposite visited Osflo about six weeks prior to the inspection following odour episode (the Company was loading out while there was a south westerly wind) and shown around site. The store was about 30% full (1,000 t) at the time of the inspection. The truck wash settling ponds were maintained to a satisfactory standard at the time of the inspection. The two new ponds were soaking adequately, the second pond was only partially full. The Company did not have overflow path planned at the time of the inspection, but had erected a fence. A stormwater drain to Awai Stream on south west side of the store had been cleaned out. A concrete dam had been installed to contain spillage (in dry weather). The odour control system was working at the time of the inspection, the fan was operating, and the biofilter had recently been forked over. It was functioning to a satisfactory standard at the time of the inspection. The store walls were in good condition, however there was a hole in roof skylight that required repair at the time of the inspection. The bunding of the diesel store was adequate and a McFall tanker arrived during the inspection. The Company needed to ensure that doorway to the hazardous chemical store that holds the sanitising agents is leak proof. The adjuncts (lime, chelated cobalt, selenium, etc) "factory" store was in adequate condition, however the concrete plug in storm drain needed to be resealed. The Inspecting Officer noted that Hastings Road store had not been used this season, the product had been in higher demand so less storage has been needed. The Hastings Road store does not have the facility to mix in adjuncts. The site was generally tidy and maintained to a satisfactory standard.

2.5 Register of incidents

The Taranaki Regional Council operates and maintains a register of all complaints or reported and discovered excursions from acceptable limits and practices, including non-compliance with consents, which may damage the environment. The register ('unauthorised incident register') includes events where the company concerned has itself notified the Council. The register contains details of any investigation and corrective action taken.

Incidents may be alleged to be associated with a particular site. If there is an issue of legal liability, the Council must be able to prove by investigation that the identified company is indeed the source of the incident. (or that the allegation cannot be proven).

In the 2008-2009 year, there were no incidents recorded by the Council that were associated with the Hursthouse Road depot operated by Osflo Spreading Industries Ltd.

3. Discussion

3.1 Discussion of plant performance

Inspections of the Osflo site during the 2008-2009 monitoring period found that the site was generally well managed.

In September 2004 a resource consent with appropriate conditions for the discharge of emissions to air from the site was issued by the Taranaki Regional Council, which has resulted in much better management of odour from the site, resulting in no complaints received during the 2008-2009 monitoring period.

With regard to the water discharges, in general, the washwater and stormwater treatment and disposal systems were found to be operated and maintained in a satisfactory manner in the 2008-2009 monitoring period.

3.2 Environmental effects of exercise of consents

No adverse effects on the surrounding environment or the Awai Stream from the discharge of stormwater at the Osflo site have been recorded during the 2008-2009 monitoring year. This is consistent with monitoring carried out in previous years, including sampling of the Awai Stream which occurred in 1994, 1995 and 1996 which confirmed that the stormwater management system at the Osflo site is effectively managing the discharge of stormwater from the site without adverse environmental effect. No samples were collected in the period under review.

In terms of environmental effects from the discharge of emissions to air, dust has not been found to be a concern outside the boundary of the site. In terms of the amenity of the surrounding environment no offensive or objectionable odours were detected beyond the boundary of the site during inspections and there were no complaints in relation to odours from the site. This is an improvement on the past few years where there have been a number of complaints regarding odour generated from the site.

3.3 Evaluation of performance

A tabular summary of the Company's compliance record for the year under review is set out in Tables 1 and 2.

Table 1 Summary of performance for Consent 4333-2 To discharge stormwater and wastewater from Poultry Litter Storage Yards

Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. No direct discharge into the stream	Inspections of treatment system and discharge point	Yes
2. Maintenance of soakage system	Inspections of treatment system and discharge point	Yes
3. Discharge mixing zone requirements	Inspections of discharge point	Yes
4. Optional review provision re environmental effects	Scheduled for consideration June 2008 – Not exercised	Yes
Overall assessment of consent compliance and environmental perofemnts in respect of the consent		High

Table 2 Summary of performance for Consent 5918-1 To discharge emissions to air from storage and distribution of Poultry Litter fertiliser

Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Best practicable option	Site Inspections	Yes
2. Minimise emissions through use of most appropriate equipment, including operation and maintenance	Inspections of equipment	Yes
3. Odour to be treated prior to discharge	Site inspections showed odour being treated and treatment system working.	Yes
4. Notification of any change in processes	Site inspections showed no changes to processes	Yes
5. Effects of Odour	Site inspections found odour on occasions but was not offensive or objectionable	Yes
6. Effects of Dust	Site inspections	Yes
7. All areas to be maintained and cleaned	Site inspections	Yes
8. Limits on particulate matter	Site inspections	Yes
9. Limits on ammonia levels	Site inspections	Yes
10. Door of storage area to be closed at all times except during loading	Site inspections	Yes
11. Adverse effects on neighbours roof water supply system	Inspections and records of complaints	Yes
12. Prepare management plan	Management plan submitted to Council	Yes
13. Review of management plan	No review sought by Council	N/A
14. Review of consent	Scheduled for consideration June 2008 – Not exercised	N/A
Overall assessment of consent compliance and environmental performances in respect of the consent		High

During the year, Osflo demonstrated a high level of environmental performance and compliance with the resource consents. Throughout the year under review there were no unauthorised incidents recorded by the Council that were associated with the Hursthouse Road depot operated by Osflo Spreading Industries. Although the inspections carried out identified a number of minor items of concern these were rectified immediately.

3.4 Recommendations from the 2007-2008 Annual Report

In the 2007-2008 monitoring report it was recommended:

THAT monitoring of air emissions from Osflo Spreading Industries Ltd in the 2008-2009 year continue at the same level as in 2007-2008.

THAT monitoring of stormwater discharges from Osflo Spreading Industries Ltd in the 2008-2009 year continue at the same level as in 2007-2008. These recommendations were fully implemented during the 2008-2009 monitoring period.

3.5 Alterations to monitoring programmes for 2009-2010

In designing and implementing the monitoring programmes for air/water discharges in the region, the Taranaki Regional Council has taken into account the extent of information made available by previous authorities, its relevance under the Resource Management Act, the obligations of the Act in terms of monitoring emissions/discharges and effects, and subsequently reporting to the regional community, the scope of assessments required at the time of renewal of permits, and the need to maintain a sound understanding of industrial processes within Taranaki emitting to the atmosphere/discharging to the environment.

In the case of Osflo Spreading Industries Ltd, the programme for 2008-2009 was unchanged from that for 2007-2008. Similarly it is proposed that for 2009-2010, the monitoring programme remain the same as the 2008-2009 year. A recommendation to this effect is attached to this report.

3.6 Exercise of optional review of consent

Neither consent associated with the Osflo used chicken litter store provide for review in June 2010.

4. Recommendations

It is recommended:

1. THAT monitoring of air emissions from Osflo Spreading Industries Ltd in the 2009-2010 year continue at the same level as in 2008-2009.
2. THAT monitoring of stormwater discharges from Osflo Spreading Industries Ltd in the 2009-2010 year continue at the same level as in 2008-2009.

Bibliography

- Taranaki Regional Council (2008): "Osflo Spreading Industries Monitoring Programme Report 2007-2008". Technical Report 2008-38.
- Taranaki Regional Council (2007): "Osflo Spreading Industries Monitoring Programme Report 2006-2007". Technical Report 2007-103.
- Taranaki Regional Council (2006): "Osflo Spreading Industries Monitoring Programme Report 2005-2006". Technical Report 2006-90.
- Taranaki Regional Council (2005): "Osflo Spreading Industries Monitoring Programme Report 2004-2005". Technical Report 2005-112.
- Taranaki Regional Council (2004): "Osflo Spreading Industries Monitoring Programme Report 2003-2004". Technical Report 2004-92.
- Taranaki Regional Council (2003): "Osflo Spreading Industries Monitoring Programme Report 2001-2003". Technical Report 2003-30.
- Taranaki Regional Council (2002b): "Osflo Spreading Industries Limited. Analysis of Odour Diaries 2002-2003. July 2003.
- Taranaki Regional Council (2001): "Osflo Spreading Industries Monitoring Programme Annual Report 2000-2001". Technical Report 2001-69.
- Taranaki Regional Council (2000): "Osflo Spreading Industries Resource Consent Monitoring Programme Annual Report 1999-2000". Technical Report 2000-21.
- Taranaki Regional Council (1999): "Osflo Spreading Industries Resource Consent Monitoring Programme Annual Report 1998-99". Technical Report 99-34.
- Taranaki Regional Council (1998): "Osflo Spreading Industries Resource Consent Monitoring Programme Annual Report 1997-98". Technical Report 98-30.
- Taranaki Regional Council (1997a): "Regional Air Quality Plan for Taranaki".
- Taranaki Regional Council (1997b): "Osflo Spreading Industries Resource Consent Monitoring Programme Annual Report 1996-97". Technical Report 97-19.
- Taranaki Regional Council (1996): "Osflo Spreading Industries Resource Consent Monitoring Programme Annual Report 1995-96". Technical Report 96-61.
- Taranaki Regional Council (1995): "Osflo Spreading Industries Resource Consent Monitoring Programme Annual Report 1994-95". Technical Report 95-60.

Glossary of common terms and abbreviations

The following abbreviations and terms are used within this report:

Al*	aluminium
As*	arsenic
Biomonitoring	assessing the health of the environment using aquatic organisms
BOD	biochemical oxygen demand. A measure of the presence of degradable organic matter, taking into account the biological conversion of ammonia to nitrate
BODF	biochemical oxygen demand of a filtered sample
bund	a wall around a tank to contain its contents in the case of a leak
CBOD	carbonaceous biochemical oxygen demand. A measure of the presence of degradable organic matter, excluding the biological conversion of ammonia to nitrate
cfu	colony forming units. A measure of the concentration of bacteria usually expressed as per 100 millilitre sample
COD	chemical oxygen demand. A measure of the oxygen required to oxidise all matter in a sample by chemical reaction.
Condy	Conductivity, an indication of the level of dissolved salts in a sample, usually measured at 20°C and expressed in mS/m
Cu*	copper
DO	dissolved oxygen
DRP	dissolved reactive phosphorus
<i>E.coli</i>	<i>Escherichia coli</i> , an indicator of the possible presence of faecal material and pathological micro-organisms. Usually expressed as colony forming units per 100 millilitre sample
Ent	Enterococci, an indicator of the possible presence of faecal material and pathological micro-organisms. Usually expressed as colony forming units per 100 millilitre of sample
F	Fluoride
FC	Faecal coliforms, an indicator of the possible presence of faecal material and pathological micro-organisms. Usually expressed as colony forming units per 100 millilitre sample
fresh	elevated flow in a stream, such as after heavy rainfall
g/m ³	grammes per cubic metre, and equivalent to milligrammes per litre (mg/L). In water, this is also equivalent to parts per million (ppm), but the same does not apply to gaseous mixtures
l/s	litres per second
MCI	macroinvertebrate community index; a numerical indication of the state of biological life in a stream that takes into account the sensitivity of the taxa present to organic pollution in stony habitats
mS/m	millisiemens per metre
mixing zone	the zone below a discharge point where the discharge is not fully mixed with the receiving environment. For a stream, conventionally taken as a length equivalent to 7 times the width of the stream at the discharge point.
NH ₄	ammonium, normally expressed in terms of the mass of nitrogen (N)

NH ₃	unionised ammonia, normally expressed in terms of the mass of nitrogen (N)
NO ₃	nitrate, normally expressed in terms of the mass of nitrogen (N)
NTU	Nephelometric Turbidity Unit, a measure of the turbidity of water
O&G	oil and grease, defined as anything that will dissolve into a particular organic solvent (e.g. hexane). May include both animal material (fats) and mineral matter (hydrocarbons)
Pb*	lead
pH	a numerical system for measuring acidity in solutions, with 7 as neutral. Numbers lower than 7 are increasingly acidic and higher than 7 are increasingly alkaline. The scale is logarithmic i.e. a change of 1 represents a ten-fold change in strength. For example, a pH of 4 is ten times more acidic than a pH of 5.
Physicochemical	measurement of both physical properties(e.g. temperature, clarity, density) and chemical determinants (e.g. metals and nutrients) to characterise the state of an environment
PM ₁₀	relatively fine airborne particles (less than 10 micrometre diameter
resource consent	refer Section 87 of the RMA. Resource consents include land use consents (refer Sections 9 and 13 of the RMA), coastal permits (Sections 12, 14 and 15), water permits (Section 14) and discharge permits (Section 15)
RMA	Resource Management Act 1991 and subsequent amendments
SS	suspended solids,
Temp	temperature, measured in °C (degrees Celsius)
Turb	turbidity, expressed in NTU
UIR	Unauthorised Incident Register entry- an event recorded by the Council on the basis that it had potential or actual environmental consequences that may represent a breach of a consent or provision in a Regional Plan
Zn*	zinc

*an abbreviation for a metal or other analyte may be followed by the letters 'As', to denote the amount of metal recoverable in acidic conditions. This is taken as indicating the total amount of metal that might be solubilised under extreme environmental conditions. The abbreviation may alternatively be followed by the letter 'D', denoting the amount of the metal present in dissolved form rather than in particulate or solid form.

For further information on analytical methods, contact the Council's laboratory

Appendix I

Resource consents held by Osflo Spreading Industries

TRK974333



PRIVATE BAG 713
47 CLOTON ROAD
STRATFORD
NEW ZEALAND
PHONE 0-6-765 7127
FAX 0-6-765 5097

DISCHARGE PERMIT

**Pursuant to the RESOURCE MANAGEMENT ACT 1991
a resource consent is hereby granted by the
Taranaki Regional Council**

Name of Consent Holder: OSFLO SPREADING INDUSTRIES LIMITED
PO BOX 761 NEW PLYMOUTH

Renewal Granted Date: 19 December 1997

CONDITIONS OF CONSENT

Consent Granted: TO DISCHARGE UP TO 225 LITRES/SECOND OF STORMWATER AND TREATED WASTEWATER FROM POULTRY LITTER STORAGE YARD WASHINGS INTO LAND VIA SOAKAGE IN THE VICINITY OF, AND STORMWATER ONTO AND INTO LAND IN THE VICINITY OF AND INTO, THE AWAI STREAM IN THE WAIONGANA CATCHMENT AT OR ABOUT GR: Q19:122-356

Expiry Date: 1 June 2014

Review Date[s]: June 2002 and June 2008

Site Location: HURSTHOUSE ROAD TARURUTANGI NEW PLYMOUTH

Legal Description: LOT 1 DP4905 LOT 1 DP8670 BLK VII PARITUTU SD

Catchment: WAIONGANA 394.000

Tributary: AWAI 394.011

For General, Standard and Special Conditions pertaining to this consent please see reverse side of this document.

TRK974333

General conditions

- a) That on receipt of a requirement from the General Manager, Taranaki Regional Council (hereinafter the General Manager), the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) That unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) That the consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i) the administration, monitoring and supervision of this consent; and
 - ii) charges authorised by regulations.

Special conditions

- 1. THAT the consent holder shall ensure that there is no direct discharge of wastewater into the stream.
- 2. THAT the consent holder shall maintain the soakage system to ensure its efficient operation at all times.
- 3. THAT allowing for a mixing zone of 10 metres in the groundwater, the discharge shall not give rise to any of the following effects in the Awai Stream:
 - i) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - ii) any conspicuous change in the colour or visual clarity;
 - iii) any emission of objectionable odour;
 - iv) the rendering of fresh water unsuitable for consumption by farm animals;
 - v) any significant adverse effects on aquatic life, habitats, or ecology.
- 4. THAT the Taranaki Regional Council may review any or all of the conditions of this consent by giving notice of review during the month of June 2002 and/or June 2008, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects of the discharge on the environment arising from the exercise of this consent, which were not foreseen at the time the application was considered and which it was not appropriate to deal with at that time.

Signed at Stratford on 19 December 1997

For and on behalf of
TARANAKI REGIONAL COUNCIL



GENERAL MANAGER



**Discharge Permit
Pursuant to the Resource Management Act 1991
a resource consent is hereby granted by the
Taranaki Regional Council**

CHIEF EXECUTIVE
PRIVATE BAG 713
47 CLOTEN ROAD
STRATFORD
NEW ZEALAND
PHONE 06-765 7127
FAX 06-765 5097

Please quote our file number
on all correspondence

Name of
Consent Holder: Osflo Spreading Industries Limited
P O Box 761
NEW PLYMOUTH

Consent Granted
Date: 20 September 2004

Conditions of Consent

Consent Granted: To discharge emissions into the air from the storage and
distribution of used poultry litter fertiliser at or about GR:
Q19:121-355

Expiry Date: 1 June 2014

Review Date(s): June 2006, June 2008

Site Location: 70 Hursthouse Road, Tarurutangi

Legal Description: Lot 1 DP 4905 Lot 1 DP 8670 Secs 151 159 Pt Sec 12
Tarurutangi Dist Blk VII Paritutu SD

Catchment: Waiongana

Tributary: Mangaoraka
Awai

*For General, Standard and Special conditions
pertaining to this consent please see reverse side of this document*

General conditions

- a) On receipt of a requirement from the Chief Executive, Taranaki Regional Council the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) Unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) The consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i) the administration, monitoring and supervision of this consent; and
 - ii) charges authorised by regulations.

Special conditions

1. At all times the consent holder shall adopt the best practicable option [as defined in section 2 of the Resource Management Act 1991] to prevent or minimise any actual or likely adverse effect on the environment associated with the discharge of contaminants into the air from the site.
2. The consent holder shall minimise the emissions and impacts of air contaminants discharged from the site by the selection of the most appropriate process equipment, process control equipment, and emission control equipment, the methods of control, supervision and operation, the proper and effective operation, supervision, maintenance and control of all equipment and processes, on the site.
3. All potentially odorous material shall be contained to prevent the escape of odour directly to air, and any emissions from the material shall first be treated by the best practicable option before being discharged to air, to the satisfaction of the Chief Executive, Taranaki Regional Council.
4. The consent holder shall advise the Chief Executive, Taranaki Regional Council, prior to making any change in the processes undertaken at the site, which could alter the nature of the discharge.
5. The discharges authorised by this consent shall not give rise to any odour that, in the opinion of at least one enforcement officer of the Taranaki Regional Council, is offensive or objectionable at or beyond the boundary of the site.
6. The discharges authorised by this consent shall not give rise to suspended or deposited dust at or beyond the boundary of the site that, in the opinion of at least one enforcement officer of the Taranaki Regional Council, is offensive or objectionable.
7. All access, loading/unloading and storage areas, and equipment shall be maintained and cleaned to the satisfaction of the Chief Executive, Taranaki Regional Council, to ensure that emissions of odour are minimised.
8. The discharge of particulate matter from any duct, vent or other emission source shall not exceed 125 milligrams of particulate matter per cubic metre of air corrected to 0 degrees Celsius, 101.3 kPa [kilopascals], on a dry gas basis.

Consent 5918-1

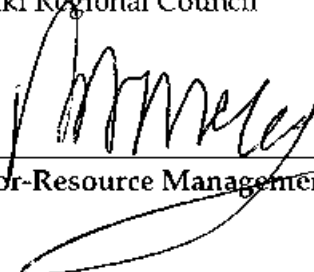
9. The concentration of ammonia in air at the boundary of the site shall not exceed 500 micrograms of ammonia per cubic metre of air corrected to 0 degrees Celsius and 101.3 kPa [kilopascals].
10. The door of the storage facility where stockpiling of poultry wastes is to be carried out shall remain closed at all times except during the loading and unloading of vehicles.
11. Should there be any adverse effect on the roof water supply system of the occupant of the property at legal description Lot 1 DP 11858 Blk VII Paritutu SD, from operations carried out by the consent holder, then the consent holder shall mitigate this effect to the satisfaction of the Chief Executive, Taranaki Regional Council, or shall provide a suitable alternative water supply to the occupant of the property.
12. The consent holder shall prepare a management plan for the activity no later than three months after the granting of this consent. The plan shall demonstrate the ability to comply with consent conditions and shall address the following matters:
 - a) minimising use of the storage facility;
 - b) operation and maintenance procedures;
 - c) prevention of off-site odour emissions;
 - d) staff training;
 - e) records of product storage and transfer; and
 - f) contingency procedures.

The consent holder shall subsequently adhere to and comply with the procedures, requirements, obligations and all other matters specified in the management plan, except by the specific agreement of the Chief Executive, Taranaki Regional Council. In case of any contradiction between the management plan and the conditions of this consent, the conditions of this consent shall prevail.

13. The management plan described in special condition 12 of this consent shall be reviewed upon three months' notice by either the consent holder or the Chief Executive, Taranaki Regional Council.
14. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2006 and/or June 2008, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Signed at Stratford on 20 September 2004

For and on behalf of
Taranaki Regional Council



Director-Resource Management

