

**REGIONAL DIRECTION AND DELIVERY  
COMMITTEE MEETING  
27 June 2018**

**AGENDA ITEM 13.1 REGULATORY  
COMPLIANCE UPDATE: JUNE 2018**

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**REPLACEMENT OF APPENDIX 1 – MOUNT  
INDUSTRIAL AIR UPDATE**

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# Air discharges at the Port of Tauranga and Mount Maunganui industrial area - an update

## Executive summary

Discharges affecting air quality from activities on the Port of Tauranga (the Port) and around the Mount Maunganui industrial areas include nuisance dust, sulphur dioxide, hydrogen sulphide, other industrial gases and Methyl Bromide venting associated with log fumigations from the Port.

This report provides an update on current air quality issues and the actions taken by Regulatory Compliance staff, the Port of Tauranga and other business operators in the industrial area to mitigate contaminant impacts from air discharges.

A brief summary of the actions taken by Council in relation to management of the consented Methyl Bromide discharges is given, as well as an update on the increased air quality monitoring which is due to be operational in the latter part of 2018.

This report is an update on activities undertaken in the period of April and May, 2018.

# Recommendations

## 1 Introduction

Air quality and the discharge of contaminants as a result of Port and business activity in the Mount industrial area, continue to raise the scrutiny of community interest groups, residents, business operators and commuters travelling regularly through the area.

## 2 Operations at the Port

Several Council teams, including Regulatory Compliance, Consents, Science and Data Services, have staff focussed on working with local businesses, to ensure contaminant impacts are controlled and the conditions of resource consents are adhered to.

Our staff maintains weekly contact with Port staff and require a monthly update of activities taken to limit the environmental burden of on-Port activities. This report outlines the key air discharge contaminants and the measures taken to limit their impact on the surrounding environment and community.

### Dust mitigation

#### (a) Misting trials

The Port has undertaken a series of trials of a system that uses a high pressure low volume pump to charge a mist line fixed to the top hoppers used to unload bulk cargo from ships. The system consists of a water pipeline of 37 individual misting units spaced evenly around the lip of the hopper perimeter.

Trials have worked well with positive results shown in regard to the suppression of fugitive dust derived from unloading operations. The Port will fit out two hoppers with this misting system, and the parts have been ordered. Live continuous operations and further testing will prove the success, or otherwise of the system, and the need for further hoppers to be modified.

Misting cannons which spray a fine mist in the area surrounding the dust source were considered but these require many adjustments to deal with wind shifts. This constrains operations and the cannons are remote from the source of dust so were ruled out in favour of hopper misters.

#### (b) Crane grab

The operation of the crane grab has more impact on the amount of dust generated than any other factor. The Port is working on initiatives to provide proximity indicators for the grabs when over the hopper, to limit the free fall of material and therefore the potential to create dust.



(c) The Port has identified that, through better communication from the log marshalls, a more coordinated plough and sweep operation would reduce the time before material is cleaned away. The less time solids spend on the ground, the less risk there is for solids to find the way into the stormwater or end up as dust. The Port is investigating hiring a log yard supervisor to better manage cleaning operations. This role would work closely with the Port Environmental Manager and the log handlers to set appropriate performance standards, co-ordinate what areas are the priority for cleaning, monitor response timeframes and ultimately make recommendation, whether additional equipment/resources are required.

(d) Meeting with stevedores

Council staff recently held a well-attended information session meeting for all stevedore and marshalling companies operating on the Port of Tauranga. Under Plan Change 13 – Air Quality, air discharges resulting from activity undertaken on Port land will require air discharge consent.

Port of Tauranga Limited has voiced their reluctance to hold an over-arching consent covering all emitting activities undertaken on their land, claiming it is the companies undertaking the activity that should be consented.

The meeting was called to inform stevedores and marshalls of the change in Council approach due to a revision of air plan rules and that they, as performers of key activities causing air discharges, may be required to hold consents in the future.

A robust discussion followed the presentation, one of the results being that we were made aware of several other interest groups needing to be consulted before any decisions are made, on how air discharge consents will be held and managed for activities on Port of Tauranga land.

## Stormwater

Port staff carried out proactive monitoring to ascertain stormwater pond discharge quality during a series of rain events. The monitoring was undertaken to better characterise the levels of suspended solids and heavy metals discharging into the harbour from the pond discharge point, and look at future treatment options that may be added. In-house water quality sampling undertaken by the Port, has so far met the total suspended solids Permitted Activity and Resource Consent limit of 150 g/m<sup>3</sup>.

## 3 Methyl Bromide

Methyl Bromide continues to receive considerable attention from staff, the media and the general public. Much of the concern is about the potential for Port workers and the public to be exposed to harmful levels of gas, and on progress towards recapture of Methyl Bromide.

- Our investigation into the 8 March 2018 Port worker exposure incident, and broader compliance matters, is ongoing, however, we expect completion of this by mid June 2018.
- Staff met with Genera at their request on Wednesday, 30 May to discuss short and medium term compliance with the air discharge consent. There are a number of outstanding compliance issues to be resolved which will be discussed at future meetings.
- Stakeholders in Methyl Bromide Reduction (STIMBR) have applied to the Environmental Protection Authority (EPA) to demonstrate grounds for the reassessment of Methyl Bromide. This has since been approved, leaving the way open for an application to seek a deferral of the EPA date required, for using recapture technology on 100% of fumigations (currently October 2020), and possibly a wider reassessment of the controls.

The EPA has received an application for the fumigant Ethanedinitrile (EDN), which could be used as an alternative to Methyl Bromide in many situations. It has yet to receive market or EPA approval.

- We are aware that there has been increased interest and investment in debarking technology in the logging industry. We can confirm that Kāingaroa Timberlands spoke to the Tauranga Moana Fumigation Action Group (TMFAG) about this recently at their Annual General Meeting (AGM).
- Staff are attempting to facilitate a recapture trial using (Nordiko) technology that utilises activated carbon to capture the Methyl Bromide gas. The supplier (Nordiko) believes this system may have potential for commercial scale recapture.
- On-line news portal, Stuff.co.nz, published an extensive three part article focusing on the use of Methyl Bromide at the Port of Tauranga.
- The article correctly identified the Port of Tauranga as the location of the highest users of Methyl Bromide in the country. It presented concerns held by some members of the public and Port workers that people may be exposed to harmful levels of gas.
- The article described the basis for the four abatement notices, and one formal warning, issued to Genera in the last two years, including for fumigating too close to the Port boundary, not notifying of ship fumigation, inadequate signage and not meeting their recapture requirements. While Genera criticised Council for 'trivial policing' rather than focussing on the 'big picture', staff make no apology and consider that these 'trivial' matters are key aspects of ensuring that the public and staff are kept safe.

## 4 Aerodrome Road

The building located at 101 Aerodrome Road is leased to several different businesses, with the separate units or stores holding bulk stock foods prior to being on sold to farmers. The products are varied and include palm kernel, maize, tapioca, dried distilled grains and cotton seed.

Bay of Plenty Regional Council (BOPRC) compliance has received 35 service requests relating to nuisance dust since 2010, in relation to the site. The majority of these requests originate in the vicinity of De Havilland Way.

Despite an extensive response from our officers, we have been unable to confirm that an objectionable or offensive discharge has occurred on any occasion. In 2014, and again in 2015 to assist with this situation, BOPRC made the decision to carry out air/dust monitoring. This was contracted to an independent third party using a dust monitoring trailer over an extended time period. No breaches of our Regional Plan limits were detected during that time.

### Recent issues

In February this year, Toi Te Ora became aware of a case of allergic bronchitis secondary to exposure to an adverse substance; this was assumed (by them) to be palm kernel dust. This exposure was suspected to have occurred in the vicinity of 101 Aerodrome Road.

Toi Te Ora contracted Emissions Impossible Limited to investigate the issue on their behalf and we have recently received a final copy of the report.

To confirm a breach of Rule 17 of the Air Plan we have to prove beyond reasonable doubt, that an objectionable, offensive and/or harmful concentration of particulate matter has discharged beyond the subject property or into water. Our opinion is that the findings in the report do not meet the burden of proof required to substantiate a breach of our rules. We are putting every effort into assisting with this issue although meeting expectation is proving challenging.



Bay of Plenty Regional Council Regulatory Compliance met with Toi Te Ora and Work Safe on 29 May to discuss the issue and also the complainants on 6 June.

An immediate action plan has been designed to address concerns which will include further proactive on site monitoring by compliance staff and the installation of air monitoring equipment to measure PM10 dust levels.

## 5 Monitoring

Bay of Plenty Regional Council continues to maintain the three existing air quality monitoring stations in the Mount Maunganui industrial area, and plan to add six additional monitoring stations ready for trial installation in late August 2018. Watercare Services Limited won the tender to maintain and monitor data collected by each station. Sites are currently being prepared for the installation once all the imported components have landed in New Zealand. The new stations will monitor an expanded number of air contaminants, such as Methyl Bromide and PM10, which currently have no permanent monitoring focussed on them.



Figure 1:  Approximate locations of new air quality monitoring stations.  
 Locations of existing air quality monitoring stations.

The Totara Street monitoring site still regularly detects levels of Total Suspended Particulate (TSP), which exceed the Ministry for the Environment Good Practice Guide suggested trigger level of  $200 \mu\text{g}/\text{m}^3$ , for high sensitivity locations, as demonstrated in Figure 2. Meteorological data indicates log stacks on the Port are the major contributors to this dust fraction, blowing across the Mount on west and south-westerly winds.

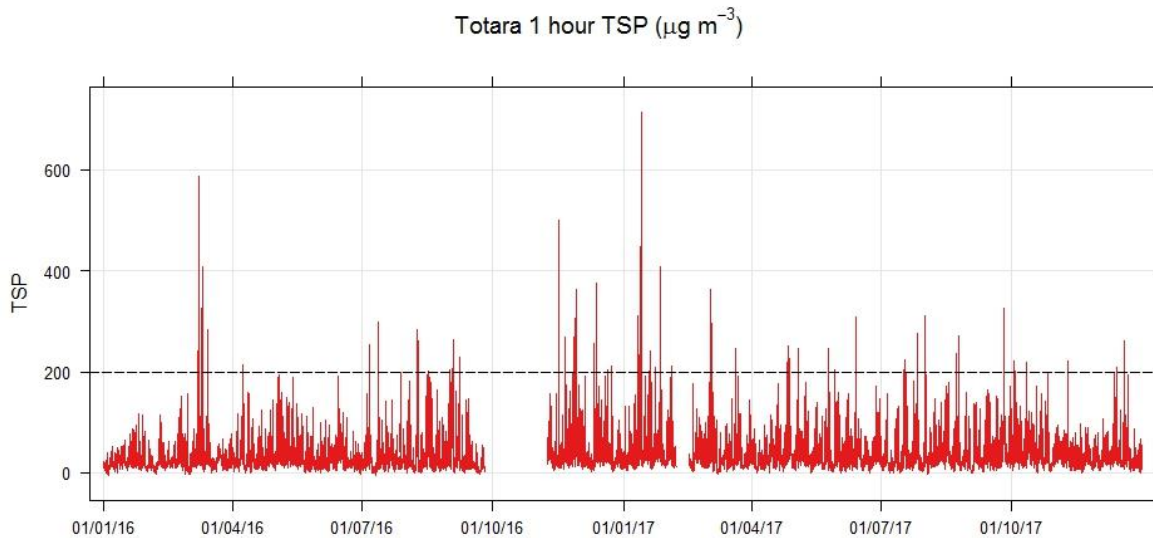


Figure 2: TSP one hour levels detected at Totara Street monitoring site over a two year period, 2016-2018.

### Whareroa Marae

Exceedances of the National Environmental Standard for sulphur dioxide ( $\text{SO}_2$ ) and the National Guideline for hydrogen sulphide ( $\text{H}_2\text{S}$ ), were detected at the Whareroa Marae monitoring station in 2016. An investigation into likely sources pointed to discharges from Balance Agri-nutrients Limited. Ballance invested in major capital works to upgrade their processes in mid-2017 and there have been no further recorded gas exceedances, and complaints from the Whareroa and Taiaho Place communities have reduced considerably since these works were undertaken.

Toi Te Ora have worked with the Whareroa Marae community to assess the health impacts of living in close proximity to surrounding industrial discharges and have separately reported on their findings previously.

The Council intends to continue maintaining the air quality monitoring station located next to the Kohanga Reo at the Whareroa Marae and sharing the data findings with the community residents.