

Appendix 1 Principal Industrial Odour Sources

The following is a summary of the principal industrial odour sources in the Wellington Region, the Council's involvement at those sites, and the positive outcomes achieved.

Asphalt Surfaces New Zealand Limited

This asphalt manufacturing plant (formerly MKL Asphalt Surfaces Limited) is located in Kinleith Grove, an industrial zone on the boundary of Porirua. Although subject to a resource consent for discharges to atmosphere, this plant has been a historical source of odour nuisance to residents in northwestern Tawa. Odour complaints tend to occur during a northerly wind, particularly at times of elevated asphalt production in response to demand from road laying activities.

Wellington Regional Council previously issued infringement notices for three confirmed incidents, and commissioned an independent investigation into sources of odour from the plant. In November 2001, an Enforcement Order was obtained, requiring the installation of a carbon filter on the main stack. The carbon filter has led to a significant decrease in odour emissions via the main stack, and although fugitive emissions are still occurring, there has been a significant reduction in odour emissions and the number of complaints received. Wellington Regional Council has issued residents in the area with odour diaries, and has also initiated a pro-active monitoring programme.

Carey's Gully Complex

The Carey's Gully Complex is located at the end of Landfill Road, Happy Valley, and comprises several potential sources of odour nuisance, all of which are subject to resource consents for their discharges to air. These are:

- Wellington City Council - Southern Landfill (landfill face)
- Anglian Water International Ltd - sewage dewatering plant (biofilters, centrate)
- Living Earth Ltd - biosolid and green waste composting plant (biofilters, compost piles)
- Novagas - methane flare facility (extinguished gas flares)

Odour complaints attributed to the Carey's Gully Complex have been received from a wide area, including Happy Valley, Island Bay, Owhiro Bay, Kingston, Mornington, Vogelstown, Kowhai Park and Brooklyn under either a southerly, northerly or calm conditions. Odour complaints are particularly likely when there is a temperature inversion, which reduces odour dissipation. However, the principal difficulty with this site has been identifying the alleged source of nuisance, given the proximity of several potential sources and the travel time between the complainant's location and the alleged source.

The following summarises several initiatives at the Carey's Gully Complex to reduce odour nuisance.

Anglian Water International (AWI) Dewatering Plant – AWI operates a dewatering plant and centrate treatment facility. Recently AWI replaced the centrate line from the dewatering

plant to the black boxes, which eliminated fugitive odour emissions from man holes. They have also replaced the black box lids and reconfigured the outlet siphons on the centrate line to the black box, to reduce aeration. AWI also commissioned an independent site audit that identified housekeeping measures to minimise odours escaping the dewatering plant.

Wellington City Council (WCC) Southern Landfill - Wellington Regional Council reviewed the consent to try and reduce the odour nuisance from the landfill face. The review resulted in WCC upgrading and improving their operations and maintenance procedures. WCC instituted a number of changes including a smaller operating face, immediate cover for malodorous waste (e.g. waste from Taylor Preston), daily cover for the operating face, increased mixing of refuse and cover material during the day, and installation of deoderisers around the site perimeter and on the compacter. These improvements have led to a significant reduction in complaints from Carey's Gully Complex attributed to the Southern Landfill.

Living Earth Limited (LEL) – LEL operate a composting plant that utilises sewage sludge from the AWI dewatering plant, certain waste from Taylor Preston and green waste. Consents for the project were issued in 1997.

The biofilter that treats the air from the main plant continues to operate effectively. Recently LEL replaced roller doors on the main plant building as they were starting to corrode and impact on their pressure system. Problems had been experienced when receiving waste from Taylor Preston in terms of spillage and odour discharge. LEL has now ensured all waste delivered is fully covered and enclosed.

All four operators met with Wellington Regional Council officers in October 2001 to discuss odour management issues. In addition to this, WCC, LEL and AWI jointly commissioned an odour survey, the results of which are due to be published.

Despite these initiatives, the number of complaints received increased 49% when compared to the previous year. As activities at the complex have not changed significantly in this time, the increase may be attributed to a less tolerant attitude amongst complainants. Wellington Regional Council is currently planning pro-active monitoring of odour around the Carey's Gully Complex, and is working with LEL with respect to its consent for compost piles situated outside the plant.

Taylor Preston Ltd

Taylor Preston is a meat processing plant located in Ngauranga Gorge. A total of 166 odour complaints were attributed to this site over the 2001 to 2002 period, representing 19% of all odour complaints received within the Wellington area, and an increase of 47 % compared to the previous period. Complaints mainly occur during warm, still conditions, as air rises up the valley toward the suburbs above Taylor Preston, namely Rangoon Heights, Broadmeadows, Khandallah and Johnsonville.

Investigations confirmed offensive odours beyond the boundary on three separate occasions, and an infringement notice was served September 2001, for one of these breaches. Wellington Regional Council, in consultation with Taylor Preston, commissioned an independent review of odour sources and the control techniques at the site. The review identified a number of potential options that would result in improvements to the plant. Taylor Preston has selected and commissioned one of these recommendations.

Nuplex Environmental Limited

Nuplex Environmental Limited is a liquid and hazardous waste treatment plant located in Port Road, an industrial area of Seaview, and holds a discharge to air permit. Past odour problems from the Nuplex site have been attributed to its waste remediation operations, notably outdoor storage, mixing and transportation of organic waste materials. All storage of odorous material is now conducted indoors, which is hoped will significantly reduce odour emissions from the site. The company is currently working to address fugitive emissions.

Nuplex Medismart Limited

Nuplex Medismart Limited (formerly Medical Waste Wellington Ltd) is a medical waste treatment company located in Port Road, an industrial area of Seaview. The company uses an autoclave process to treat waste, which does not require a resource consent for discharges to atmosphere. This is a significant improvement on the company's previous operations at Shelley Bay, where wastes were incinerated. Initial operations at the Seaview site gave rise to odour complaints from a neighbouring property. Investigation revealed that odours were arising due to insufficient efflux velocity from the autoclave stack and fugitive emissions. The company has undertaken works to address these issues, including commissioning a consultant, controlling fugitive emissions, and operating overnight to avoid complaints until stack modifications could be completed.

Hutt Valley WasteWater Treatment Plant

The Hutt Valley Water Service (HVWS) operates the Hutt Valley Wastewater Treatment Plant at Waterman Street, Seaview, which serves Wainuiomata and Hutt Region. Previously, a biofilter treated malodorous air from the milliscreen plant. Consents were granted in 1997 for the construction of a new treatment facility, which began its commissioning period in September 2001. There were some initial teething problems with the air treatment system, although the consent allowed a two month commissioning period where the standard 'no noxious, dangerous, offensive or objectionable beyond the boundary' condition did not apply. However, as complaints regarding odour continued beyond the two month period, HVWS commissioned a site audit to identify possible sources. The recommendations of the audit were adopted and no complaints have been received over the last four months. HVWS kept neighbours informed of progress at the plant throughout the commissioning phase.

New Zealand Fish Products Limited

New Zealand Fish Products Limited (NZFPL) operates a fish processing plant in an industrial area on Gracefield Road, Seaview. The site has a resource consent for discharges to air, although its operations have given rise to frequent odour complaints attributed to fugitive emissions during loading operations, wastewater transfers (to tanker) and fish waste storage outdoors. Wellington Regional Council obtained a formal commitment from the site to improve management practices and staff training, which has led to improved odour control measures and a significant reduction in the number of odour complaints from this site. NZFPL has funded significant odour control measures at the site, including an evaporator to eliminate wastewater, building a negative pressure processing room inside the existing building, and installing additional extractor fans. An infringement notice was served in June 2002, for an offensive odour beyond the boundary, prior to completion of upgrade works. The resource consent held by NZFPL is due to expire in February 2003, and the company is

preparing its application for a replacement. NZFPL has also indicated that almost all of the regular complainants support their continued operation.

Moa Point Wastewater Treatment Plant

Moa Point Wastewater Treatment Plant is the treatment facility for Wellington City's wastewater, and is operated by Anglian Water International (AWI). Separate air discharge consents are held for the Plant and the pumping station. The treatment plant discharge has a unique condition that requires no *discernible* odour beyond the boundary. Complaints are usually received during light southerly or northerly winds.

AWI has installed a venturi device on the plant stack and no complaints have been received since. AWI has also made continued efforts to minimise odour from the pumping station, including increasing the stack height, installing gas-tight seals at the wet wells, and discharging wet well gases via the main stack scrubber at the treatment plant.

Chemwaste

Chemwaste is a waste processing plant that accepts rendering and industrial waste, such as galvanising acid, ink waste, sump waste and septage. The plant has been fully enclosed in a modern facility since July 2002, with all air emissions treated and discharge via a biofilter, in accordance with the resource consent. These improvements have resulted in a significant reduction in the number of odour complaints.