

EXPERT WITNESS CONFERENCE

Case: Levin landfill consent review S128 Permit number 6011

Topic: Air discharge Permit 6011

Date: September 27th and 28th 2016

Venue: By e-mail and phone

Witnesses present:

Name	For
Doug Body (DB)	MWH for Horowhenua District Council (HDC)
Deborah Ryan (DR)	Jacobs for Horizons Regional Council (HRC)

Facilitator:

none

In attendance: (if applicable)

Stuart Standen (HRC) has been consulted regarding the monitoring related conditions to provide his input.

Environment Court Practice Note:

It is confirmed that all present:

- Have read the Environment Court Practice Note 2014 Code of Conduct and in particular
- Have read the Environment Court Practice Note 2014 in respect of Appendix 3 – Protocol for Expert Witness Conferencing and agree to abide by it.

Joint Witness statement:

- Key facts and assumptions
This JWS is further to the Appendix of conditions attached to the legal submission on behalf of HRC provided at the hearing, 19 September 2016. This JWS provides additional agreed wording for conditions of the air consent and identifies where there is still disagreement between HDC and HRC.
- Agreed; those issues which area agreed between the experts - see Table 1
- Disagreement; those issues not agreed and the reasons in each case - see Table 1

Signed:


Witness	Signature	Date
Doug Boddy (DB)		28/09/2016
Deborah Ryan (DR)		28/09/2016

Table 1 Air Permit Conditions– Additional Levin Landfill Air Permit Caucusing

Condition	Recommended wording	Agree or Disagree
3	<p>DB</p> <p>“There shall be no discharge of odour or dust from the landfill that in the opinion of a Regional Council Enforcement Officer, <u>or an independent and trained field odour assessor appointed by the Regional Council under delegated authority</u>, is noxious, dangerous, offensive, or objectionable beyond the property boundary. The Permit Holder will also ensure that ...”</p> <p>DR</p> <p>“There shall be no discharge of odour or dust from the landfill that in the opinion of a Regional Council Enforcement Officer is noxious, dangerous, offensive, or objectionable beyond the property boundary. The Permit Holder will also ensure that ...”</p> <p>“There shall be no objectionable or offensive odour to the extent that it causes an adverse effect at or beyond the boundary of the site.</p> <p>Advice note: In determining whether a non-compliance with condition 3 is occurring consideration shall be given to the FIDOL factors (frequency, intensity, duration, offensiveness and location), and as in accordance with Section 15.3 One Plan guidelines for managing offensive and objectionable effects.”</p>	<p>Disagree</p> <p>DB – I disagree with the proposed wording of this condition, as suggested by Ms Ryan. Under this condition, the consent authority, as regulator, has a duty to “inspect” the landfill from time to time to investigate and assess odour and it has a duty, wherever reasonably practicable, to investigate any complaint about alleged odour nuisance made by a member of the public (e.g. a resident). It may be necessary, from time to time, for Horizons to use two field odour assessors, or an independent odour assessor, in order to determine whether there is an “offensive or objectionable” odour beyond the boundary of the landfill and whether it originates from the landfill itself. There are two limbs to this: firstly whether the alleged odour is offensive and objectionable in the opinion of an “ordinary reasonable person” and, secondly, whether the odour originates from the landfill. It is not appropriate for a member of the public to judge whether the odour is offensive or objectionable and/or is originating from the landfill, although this information could be requested from the complainant, in the event that an odour complaint is received.</p> <p>The opinion and judgement of an enforcement officer is usually one of the most important factors in determining if, or when, an odour constitutes an “offensive or objectionable” odour. As the opinions and evidence of enforcement officers, or an independent assessor appointed by the consent authority under delegated authority, will also constitute important evidence before a Hearing Panel or Environment Court, it is crucial that enforcement officers are appropriately objective, competent and thorough in their investigations as to the source of the alleged odour nuisance. Field odour</p>

assessors should be trained in accordance with the MfE's *Good Practice Guide for Assessing and Managing Odour in New Zealand* (June, 2003) and in the modified German Standard VDI 3930. They should also be 'calibrated', where possible and practicable, in accordance with *Australian/New Zealand Standard AS/NZS 4323.3:2001, Section 9.7.2 screening assessment for an olfactometry panellist*.

The key issue, as I see it, is that there is a distinction between an "odour event" as recorded in Mr and Mrs Grange's (in an odour diary) and an "odour complaint", as lodged with HDC and HRC. It is important to ensure that any odour complaints received in the future are reported to HDC who will then inform HRC, as it is only through this step-wise process that: (a) HDC can respond and investigate the odour at the time of the incident, or shortly after, and implement any remedial action, if required; and (b) the HRC enforcement officer can undertake a site visit to verify the complaint. If, in the opinion of an enforcement officer who has carried out a field odour assessment using the FIDOL factors (or who has appointed an independent assessment), the complaint is verified and an odour is deemed to be offensive or objectionable beyond the boundary of the landfill, then the odour-generating activity at the landfill would be non-compliant with condition 3. It is also important for the enforcement officer to consider whether an odour complaint is 'reasonable', 'unreasonable' or 'vexatious', in his or her opinion, as an "ordinary reasonable person."

In other words, the human nose, preferably "calibrated", of a trained field odour assessor, should be used to determine whether odour beyond a boundary is considered to be offensive or objectionable in their opinion, particularly in the case, such as this one, where complaints have only arisen from one property, and in light of the fact that none of the complaints have

been verified by a Horizons enforcement officer.

Mr and Mrs Grange's odour diary (or complaints record) alone should not be used to determine the level of effect in the surrounding community, particularly as it relates to a single address. It should be supported by a field odour assessment(s) (i.e. an actual site visit). I note that the term "reasonable ordinary person" in the One Plan should actually be "ordinary reasonable person". The MfE GPG for Odour states that it's not enough for where to be a history of odour complaints for it to be determined that there are "objectionable or offensive" odour effects. The term "ordinary reasonable person" is supposed to bring more objectivity (e.g. the FIDOL factors, the assessor's experience gained from other project sites, the use of trained and calibrated assessors) into what is a very subjective assessment technique, after all it relies on the opinion of a field odour assessor, and this person should be an enforcement officer or an independent assessor, not a member of the public. With that in mind, and as mentioned above, it may be necessary to use more than one field odour assessor from time to time (or at the same time, which is in accordance with the German Standard VDI 3940). Having said that, it is also possible to use telephone surveys or online questionnaires to gather information about the level of odour effect in a community, however, this data must be supported by a field odour assessment. Paragraph 15.3 of the One Plan does refer to the fact that it should be the enforcement officer doing the field odour assessment and that it is *"not enough for a neighbour or some other person within the relevant environment to consider the activity or matter to be offensive or objectionable."* This is consistent with the MfE GPG for Odour, which states: *"for a breach of the condition to occur it would generally not be sufficient for one person or one council officer to find an odour objectionable in a one-off situation unless it can be demonstrated that an adverse effect has occurred in that instance."* The Guide goes on to say:

		<p><i>"Whether there is a breach is always dependent on all of the FIDOL factors. All the recommended assessment methods are to assist in determining whether the above consent condition or minimum standard can be, or is being, complied with for an individual discharge source. Sufficient proof is required before enforcement action can be taken in relation to this condition." That "sufficient proof" should be in the opinion of a trained field odour assessor or enforcement officer.</i></p> <p>DR – my proposed wording is consistent with the form recommended in the Ministry for the Environment's <i>Good Practice Guide for Assessing and Managing Odour</i> (2003), see page 16. The proposed advice note provides direction as to how the conditions is assessed, which is explained in the One Plan. Reference to the officer (or other trained individual) unnecessarily limits the condition and the regional council's duties are adequately covered by the RMA provisions.</p> <p>Ultimately, compliance is determined by the judge and the evidential basis for this, which is established through case law, not the opinion of a trained field odour assessor or enforcement officer. Referring to page 13 of the odour guide, court evidence for the "ordinary reasonable person" test is stated as <i>"generally means that a history of complaint information, council officer investigations and evidence from affected parties is needed."</i></p>
3(d)	<p>DR/DB</p> <p>"From the commencement date of the decision of the 2015 review of conditions, the Consent Holder must ensure that intermediate cover is placed over daily cover to close-off a fill area that will not</p>	<p>Agree</p> <p>DB added a definition for temporary capping and was comfortable with the definition in the main body of the condition.</p> <p>DR noted that the details relating to cover and including timeframes and the materials used need to be clear and enforceable.</p>

	<p>receive additional lifts of waste or final cover for more than three months. The combined depth of cover, including daily cover, over the waste shall be a minimum of 300 millimetres <u>and may comprise of uncontaminated soil, and/or a mixture of sand and mulched woody material.</u> Raw sand can not be used as intermediate cover. Intermediate cover shall be stabilised within 20 working days of completion, and shall include a <u>A temporary or permanent cap shall be applied on top of the intermediate cover within three months of an area last receiving fill. The temporary cap shall comprise of a layer of low permeability material (e.g. compacted cohesive soil with a thickness of at least 500 millimetres).</u> <u>[Advice Note: The purpose of the temporary or permanent cap is to: reduce water and air ingress; reduce fugitive odour emissions; improve the aesthetics of the landfill; improve the management of litter, vermin and birds; and improve the efficiency of the gas collection system. The final (or permanent) cap must comply with condition 14C of Discharge Permit 6010 ie comprise of a layer of low permeability material (e.g. compacted cohesive soil with a thickness of 700 millimetres and a hydraulic conductivity of less than or equal to 1×10^{-7} metres per second. It may also be appropriate to make a temporary cap final by applying a cap with a thickness of 200 millimetres over the top of the temporary cap]."</u></p>	
3(e)	<p>DR</p> <p>Advice note: Favourable meteorological for emission testing <u>methane surface monitoring</u> include those where weather and ground conditions are dry with less than 0.5 mm of rain having fallen for at least two days, and instantaneous wind speed should</p>	<p>Agree</p> <p>For consistency the advice note to the condition should also be changed to "methane surface monitoring" rather than emission testing.</p>

	be less than 25 km per hour ideally 5 to 10 km per hour.	
3 (p)	<p>DB</p> <p>"Within 2 months of the commencement date of the 2015 review of conditions, the Permit Holder shall prepare an Odour Management Plan (OMP) that includes:</p> <ul style="list-style-type: none"> i. Design specifications for daily, intermediate and final capping; ii. Methodology for monthly boundary <u>field odour</u> monitoring; iii. Methodology for monthly surface monitoring for methane; iv. Methodology for biofilter monitoring; v. Odour control practices relating to the leachate pond; vi. Odour control practices for the working face of the landfill; vii. <u>Locations of odour control/treatment equipment (e.g. biofilter and flare);</u> viii. <u>The odour complaints investigation and recording procedure;</u> ix. <u>The phasing of the Landfill construction and operation (filling), including the design and collection efficiency of the existing and proposed gas collection system (GCS). This shall also include a description of the thickness and type of cover and capping material used at different phases of the landfill development;</u> x. <u>The operational procedures regarding the use of the biofilter, flare and GCS, including maintenance and breakdown procedures and methods to be followed to prevent a significant discharge of odour;</u> xi. <u>The resource consent conditions relevant to discharges to air at the landfill;</u> xii. <u>Staff training requirements to implement the monitoring and controls stated in the resource consent conditions."</u> 	<p>Agree</p> <p>Wording provides for a more comprehensive OMP</p>

New 3(r)	<p>DR</p> <p>The Consent Holder shall collect meteorological data from an on-site weather station. The data recorded shall consist of wind direction, wind speed, air temperature, barometric pressure, relative humidity and rainfall. The meteorological monitoring shall be:</p> <ol style="list-style-type: none"> i. In general accordance with the Good Practice Guide for Air Quality Monitoring and Data Management, Ministry for the Environment, 2009, or subsequent updates; ii. Continuous for the duration of the consent comprising, 1 min data, collected and averaged to 10-min and 1-hour time periods; and iii. At a point that is representative of local weather conditions across the site. <p>The Consent Holder shall provide the Manawatu-Wanganui Regional Council with information collected from the weather station referred to in condition 3(r). The data shall be in a suitable data file format that allows the Manawatu-Wanganui Regional Council to upload it on a data management system. The data shall be provided as a minimum on a monthly basis, or as soon as possible upon request.</p>	<p>Agree in part</p> <p>Condition addressed the need for meteorological monitoring to provide data for managing the site and investigations.</p> <p>Note that Stuart Standen (HRC) would prefer to have the data provided directly on an hourly or at least daily basis. This is to avoid him having to request it (possibly frequently). DB has advised he is not sure of the practicality of this and needs to check with HDC. It was not possible to get confirmation from HDC before finalising this JWS.</p>
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6C	<p>DB</p> <p>"The Consent Holder shall notify a Manawatu-Wanganui Regional Council Consents Monitoring Officer and the Midcentral District Health Board's Medical Officer of Health as soon as practicable after becoming aware of any offensive or objectionable odour emanating from the landfill. An explanation as to the cause of the incident <u>and</u> details of any remedial <u>and follow-up actions taken</u> <u>and the wind speed and wind direction measured at the landfill at the time of the incident</u> shall also be provided to the Regional Council Consents Monitoring Officer."</p>	Agree
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