



New Zealand air quality case law review: what stinks and why

The recent updates of three Good Practice Guides for the assessment and management of odour, dust and discharges to air from industry by the Ministry for the Environment (*Good Practice Guide for Assessing and Managing Odour* (ME 1278, November 2016); *Good Practice Guide for Assessing and Managing Dust* (ME 1277, November 2016); *Good Practice Guide for Assessing and Managing Discharges to Air from Industry* (ME 1276, November 2016)) provides a timely opportunity to consider the legal context. This article reviews existing case law for air quality and identifies some helpful principles for general resource management.

AIR QUALITY CASE LAW OVERVIEW

The outstanding feature, when reviewing New Zealand air quality case law, is that it is nearly all about odour. This concentration of litigation reflects regional council air quality complaints data, which are heavily skewed towards odour issues. From a Resource Management Act 1991 (RMA) perspective, odour is the penultimate effects-based discharge because:

“Odour is perceived by our brains in response to chemicals present in the air we breathe – it is the effect those chemicals have on us.” (Good Practice Guide for Assessing and Managing Odour at [2.1])

The other result of odours being directly, and intimately, connected with our brains is that they can produce

Author:

Louise Wickham,
Director and Senior
Air Quality Specialist,
Emission Impossible Ltd



extraordinarily emotional responses:

“Unlike other sensory information, olfactory stimulation is the only sense that reaches the cerebral cortex without first passing through the thalamus. This can lead to intense emotional and behavioural responses to certain odours.” (Good Practice Guide for Assessing and Managing Odour at [2.1])

However, despite being readily perceptible by the general public at extremely low concentrations (parts per billion and parts per trillion), odours can be technically difficult and expensive to characterise with any accuracy. Even if they can be characterised, odours cannot be readily quantified and assessed within a toxicological framework because odours are typically comprised of hundreds, if not thousands, of chemicals. Thus it is practically impossible

to establish on a quantitative basis the health effects, if any, of a problematic odour. (This is not true for instances where the discharge is a singular pollutant (eg methyl methacrylate from chemical manufacture). However, such examples are rare.)

To counter this, air quality professionals have derived an ingenious assessment approach – the FIDOL factor framework, these factors being:

- Frequency – how often an individual is exposed to the odour.
- Intensity – the strength of the odour.
- Duration – the length of exposure.
- Offensiveness (character) – the “hedonic tone” of the odour, which may be pleasant, neutral or unpleasant.
- Location – the type of land use and nature of human activities in the vicinity of an odour source.

Each FIDOL factor is assessed individually, and then all FIDOL factors are considered together to make an overall judgement of whether an odour is offensive or objectionable for the purposes of s 17 of the RMA. This works surprisingly well in practice to assess the actual severity of an odour in spite of the differences in individual odour perception, whilst taking into consideration reasonable expectations for the location where the odour is occurring. (After all, a strong odour of jet fuel is publicly acceptable at the airport but not in an office block in the city.) Or, in legal terms, the *reasonable person test* as first outlined in *Zdrahal v Wellington City Council* [1995] 1 NZLR 700 (HC).

New Zealand courts have supported the FIDOL assessment framework (see for example *Waikato Environmental Protection Society Inc v Waikato Regional Council* [2008] NZRMA 431 (EnvC) (the New Zealand Mushrooms Ltd case), *R v Interclean Industrial Services Ltd* DC Auckland CRI-2011-092-16845, 2 August 2012 and *Waste Management NZ Ltd v Auckland Council* [2015] NZEnvC 178), and have even applied it to the assessment of noise (another perception-based effect) in *Brooks v Western Bay of Plenty District Council* [2011] NZEnvC 216. It is also used widely overseas, for example in the United Kingdom (Department for Environment, Food and Rural Affairs *Odour Guidance for Local Authorities* (March 2010)), Ireland (Environmental Protection Agency (Office of Environmental Enforcement) *Air Guidance Note 5 (AG5): Odour Impact Assessment Guidance for EPA Licensed Sites* (2010)) and Australia

(Department of Environment and Heritage Protection (Queensland) *Guideline: Odour Impact Assessment from Developments* (2013)).

From a legal perspective, the application of this assessment methodology has resulted in case law determining that an offensive or objectionable odour is both unreasonable and a significant adverse effect (*Wilson v Selwyn District Council* EnvC Christchurch C23/04, 16 March 2004). Notably, this includes chronic (low-level, high-frequency) odours (see the New Zealand Mushrooms Ltd case). Because after all, as noted by Judge Thompson when considering odour in *R v Interclean Industrial Services Ltd* DC Auckland CRI-2011-092-16845, 2 August 2012:

“It is perhaps somewhat like pornography – you will know it when you see it or, in this case, smell it.”
(at [20])

INTERNALISING EFFECTS: SEVEN PRINCIPLES

The New Zealand Mushrooms Ltd case is possibly New Zealand’s longest-running odour dispute. The upside, however, is that it has resulted in some excellent case law that is instructive for general resource management.

In one judgment from the case, *Waikato Environmental Protection Society Inc v Waikato Regional Council* [2008] NZRMA 431 (EnvC), the Environment Court identified seven general principles with respect to internalisation of effects (at [185]–[186], referring to *Winstone Aggregates v Matamata-Piako District Council* (2004) 11 ELRNZ 48 (EnvC) and *Wilson v Selwyn District Council* EnvC Christchurch C23/04, 16 March 2004):

- (1) In every case, activities should internalise their effects unless it is shown that they cannot do so.
- (2) There is a greater expectation of internalisation of effects of newly established activities than of older activities.
- (3) Having done all that is reasonably achievable, total internalisation of effects within the site boundary will not be feasible in all cases, and there is no requirement in the RMA that that must be achieved.
- (4) The test for odour is objective.
- (5) There is a duty to internalise adverse effects as much as reasonably possible.
- (6) It is accepted that in respect of odour the concern is to ensure that odour levels beyond the boundary are

not unreasonable (being the same as offensive or objectionable or significant adverse effects).

- (7) In assessing what is reasonable, one must look into the context of the environment into which the odour is being introduced, as well as the planning and other provisions (location).

This last principle – the requirement to consider the location, and specifically the planning provisions of a location – should, on the face of it, be well supported. The need for industries with significant emissions of dust and odour to have healthy separation distances from sensitive activities such as housing and schools are the driving force behind the introduction of Business Heavy Industry and Special Purpose Quarry zones in the Auckland Unitary Plan. It is similarly reflected in the recent update to the *Good Practice Guide for Assessing and Managing Odour*, which now states:

“For assessment of amenity effects, reference should be made in the first instance to the relevant district/city and, in some cases, regional plans for specific amenity values for various land-use zones.”
(at [2.5])

However, consideration of location is still subject to the reasonable person test. It is widely accepted to be unreasonable for city folk moving to the country to complain about rural odours from a cowshed. The same is not true for people living in the country being adversely impacted by industrial levels of odour from poultry farming, as was found to be the case in *Craddock Farms Ltd v Auckland Council* [2016] NZEnvC 51, (2016) 19 ELRNZ 390.

TERM OF CONSENT: KEY DETERMINANTS

The RMA is silent on the matter of term of consent, and little guidance is available for councils and decision-makers alike on what is acceptable or appropriate for different applications. Whilst it is clearly reasonable to provide the maximum 35-year term of consent for the construction of a new hydroelectric dam (assuming any adverse effects are avoided, remedied or mitigated), the same is not necessarily true for an existing coal-fired power station that is nearing the end of its design life. And how to address future changes in the surrounding environment that may alter the basis on which an assessment of effects, and a decision, are founded?

Air quality is also an area in which research is constantly

updating our state of knowledge. Whilst there has been scientific consensus on the need for ambient air quality guidelines for particulate matter since the 1980s (World Health Organization (WHO) *Air quality guidelines for Europe* (1987)), it was only in 2006 that global guidelines for both PM_{2.5} and PM₁₀ were published (WHO *Air Quality Guidelines Global Update 2005: Particulate matter, ozone, nitrogen dioxide and sulfur dioxide* (2006)). Then in 2013 the International Agency for Research on Cancer (IARC) classified particulate matter as carcinogenic because of an increased risk of lung cancer (IARC “Outdoor air pollution a leading environmental cause of cancer deaths” (Press Release No 221, 17 October 2013)). More recent research indicates that particulate matter is associated with atherosclerosis, adverse birth outcomes and childhood respiratory disease, as well as Alzheimer’s disease and other neurological endpoints, cognitive impairment, diabetes, systemic inflammation and aging (WHO *Review of evidence on health aspects of air pollution – REVIHAAP Project: Technical Report* (2013); WHO *WHO Expert Consultation: Available evidence for the future update of the WHO Global Air Quality Guidelines (AQGs)* (2016)). All of which have serious implications for assessments of effects and decisions based thereon.

Fortunately, case law has considered some of these issues for determining duration of consent, at least with respect to odour. In *PVL Proteins Ltd v Auckland Regional Council* EnvC Auckland A61/01, 3 July 2001 the Environment Court identified the following matters that would generally support a longer term of consent:

- An applicant’s need for certainty, particularly to protect investment.
- An activity that generates known and minor effects on the environment on a constant basis.

However, the Court also identified the following matters that would generally support a shorter term of consent:

- Future changes in the vicinity of a proposal.
- An activity which generates fluctuating or variable effects, or which depends on human intervention or management for maintaining satisfactory performance, or which relies on standards that have altered in the past and may be expected to change again in future.

- Uncertainty of the effectiveness of conditions to “protect the environment” and taking into consideration the applicant’s “past record of being unresponsive to effects on the environment and making relatively low capital expenditure on alleviation of environmental effects compared with expenditure on repairs and maintenance or for profit” (at [31]).

In doing so, the Court specifically noted:

“The term of a consent, and the ability of a consent authority to review conditions of the consent, provide different safeguards.” (at [78]; for a concise explanation, see [78]–[79])

The Court further helpfully outlined the advantages, or otherwise, afforded by a review under s 128 of the RMA instead of a varying term of consent:

- A review, as opposed to a shorter term of consent, may be more effective in keeping conditions up to date, relevant and adequate.
- A review, in conjunction with a longer term of consent, may be used if it is capable of addressing all areas of concern.
- However, a review may not be adequate, as opposed to a shorter term of consent, where the operation has given rise to considerable public disquiet, as it cannot be initiated by affected residents.
- Similarly, a review may not be adequate where a consent-holder’s financial viability might constrain controls intended to avoid, remedy or mitigate significant adverse effects on the environment.

CAUSATION OF DISCHARGE TO THE ENVIRONMENT: SEVEN PRINCIPLES

In science, determination of causality is an iterative and meticulous process wherein consensus that *A* caused *B* can only be achieved once chance, bias and confounding can be ruled out with reasonable confidence. Similarly in law, as noted by Harrison J in *URS New Zealand Ltd v District Court at Auckland* [2009] NZRMA 529 (HC) at [59] (upholding Judge McElrea’s decision in *Auckland Regional Council v URS New Zealand Ltd* DC Auckland CRI-2008-004-13603, 16 April 2009), “the causation inquiry is of a purely factual nature, to be undertaken on all the evidence”.

The *URS* case helpfully summarised seven principles by

which causation of discharge can be determined:

- (1) The question of causation must be approached on a common-sense basis. In each case it will be a question of whether the evidence establishes that the defendant contributed sufficiently to the chain of causation of discharge to justify a finding of guilt.
- (2) There can be more than one cause of discharge and more than one liable party.
- (3) It would be unjust to prosecute only those who were responsible for a discharge at the final stage of the chain of causation. The RMA is designed to promote self-regulation and acceptance of responsibility.
- (4) A person may discharge a contaminant in terms of s 15(1) of the RMA unintentionally, that is, without knowledge or foresight of the discharge. A requirement of foresight or knowledge of the discharge would be inconsistent with the available defences. There is no room for a mental element in the act of discharge.
- (5) For a person to discharge a contaminant, he or she must have a causal connection to the discharge. The statutory meaning of “discharge” extends to engaging in an activity which results in the emission or discharge of a contaminant.
- (6) The word “discharge” embraces the concept of causing to discharge, thereby bringing into the net of liability a party whose acts or omissions are an operative or effective factor in the chain of causation leading to a physical discharge.
- (7) A person will discharge for the purposes of s 15(1) if the operations which that person was in a position to control caused the discharge. The element of control in the context of s 15(1) does not relate to the site at the point or time of discharge, but rather to control of a causative act or omission. It is not necessary for a person to control a site to be liable for a discharge at or from the site.

Taranaki Regional Council v Fonterra Ltd [2015] NZDC 12604 provides an illuminating (air quality) case study of these principles in action. In this case Fonterra was held criminally liable and fined \$192,000 for a discharge to air (odour) from a plant they neither owned nor operated (see *Taranaki Regional Council v Fonterra Ltd* [2015] NZDC 14962 for sentencing). Fonterra had contracted the South

Taranaki District Council (STDC) to dispose up to 8,000,000 litres of waste buttermilk in the Eltham wastewater treatment plant. Specifically, Fonterra contracted with the STDC to treat the waste in the earthen anaerobic digester (EADER) which had previously been decommissioned because *it never worked properly*. Consequently the buttermilk decomposed, the EADER leaked, and the town of Eltham was subjected to extremely offensive odours for many months.

In this case the District Court systematically considered causation of discharge to determine that:

- Fonterra's contract with the STDC was the reason that the EADER was pressed into use. As such, the STDC was contracting to treat and dispose of Fonterra's waste.
- In doing so, the STDC noted uncertainty in its ability to suitably treat the waste. As such, the STDC (which was also prosecuted and fined for offensive odours: *Taranaki Regional Council v South Taranaki District Council* DC New Plymouth CRI-2014-043-1196, 24 November 2014) was not fully responsible for the buttermilk from Fonterra.
- Given the plant's history, the discharge of offensive odours was reasonably foreseeable. However, Fonterra

asked "virtually no questions" (at [51]), and failed to take steps that reasonably prudent persons would have taken to have confidence that the waste would be suitably treated.

- Fonterra was thus liable for the discharge of odours. It would be unjust to only prosecute the STDC at the final stage of causation.

Thus Fonterra was determined to be the prime contributor in the chain of causation leading to the discharge of offensive odours. On the matter of contracting, Judge Dwyer made the point of noting:

"Firstly, as a matter of basic principle I do not consider that a party conducting an activity which might potentially cause adverse effects can evade its responsibility to do so in a manner which avoids or prevents those adverse effects (in this case the escape of odour) by delegating responsibility to a third party, whether by arms' length contract or otherwise[.]" (at [42])

Industry contracting for the disposal of any environmental waste would do well to take note.

