

Submission of Jason Pene on the Proposed Amendments to the National Standards for Air Quality

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Summary of Submission

I request that the recommendations contained in Preferred Option 4b of the discussion document be adopted in the amended National Environmental Standards for Air Quality (AQNES), with the further adoption of the following recommendations:

- Adopt Recommendation (5) from the discussion document in regard to placing a greater focus on education
- Adopt Recommendation (16) from the discussion document in regard to the introduction of guidance on domestic heating restrictions
- Introduce mandatory reporting of CO, NO₂, SO₂ and O₃ monitoring data where this is conducted in addition to PM₁₀.

I consider that the adoption of Option 4b along with the additional recommendations listed above will achieve the objectives of the AQNES in the most equitable manner.

My submission in the format provided in the discussion document is attached.

¹ Please note that the views expressed in this submission are my own and do not reflect the views of any company

1 Preferred Options

1.1 Option 4a

I support the recommendations of Preferred Option 4a in the main but consider the requirement for mandatory offsetting is inequitable and is unlikely to further achieve the objective of the AQNES.

I AM NOT in favour of the amendments proposed in Option 4a.

Reasons

The following is a consideration of mandatory offsets, the problems inherent in any requirement for mandatory offsetting of new discharges and why such a requirement should not be included in the amended AQNES.

Variable Impacts of Offsets on Ambient Concentrations

A new PM₁₀ discharge for which consent is sought is likely to have a number of differences from the PM₁₀ source or sources to be modified or removed to offset the new discharge. The new and existing sources are likely to result in different impacts on ambient PM₁₀ concentrations. These differences include:

- **Temporal differences in emission rates.** Domestic wood burners are most likely to discharge in the morning and evening but an industrial discharge might only occur during working hours – this would lead to differences in impacts on diurnal ambient concentrations.
- **Spatial differences in locations.** The impact of discharges of contaminants on ambient concentrations is usually greatest in close proximity to the discharge and diminishes over distance – the replacement of one discharge with the other is unlikely to lead to the same distribution of ambient concentrations in the environment.
- **Differences in dispersion characteristics.** Discharge characteristics such as discharge heights and exhaust velocities influence the dispersion of contaminants. The dispersion characteristics of industrial discharges are usually far superior to those of residential wood burners or bus exhausts (say).

These differences are likely to mean that in most if not all cases, the offsetting of emissions is unlikely to translate directly to a reduction in ambient concentrations throughout the receiving environment. The benefits of offsets may be observed in the vicinity of the modified or removed source but not necessarily in the vicinity of the new consented discharge.

Some examples of the implementation of offsets have been provided in the review documentation however no evidence of research into the effects of offsets on ambient concentrations in the area has been provided. As such, there has been no validation of the benefits of offsets, which are highly questionable.

Offsets Likely to Target Better Controlled Discharges

The proposed mandatory offsets, as proposed in Option 4a, will apply primarily to new industries. New discharges would be expected to take advantage of current technology in implementing the best practicable option to control the discharge in accordance with the existing requirements of the Resource Management Act (RMA). As such, new discharges are likely to have a lesser impact on ambient concentrations in general than existing discharges that may implement older or less effective methods of control.

Instead of targeting new discharges that are likely to have a good level of control of emissions methods that reduce the impact of the least efficient discharges or those discharges that have the greatest impact on ambient concentration are more likely to achieve the objective of the AQNES.

Such methods may include encouraging or inducing the replacement of dirty domestic heating and the review of existing consents for industrial discharges that do not implement the BPO for controlling emissions. Some regional plans already include these objectives.

Environment Court Consideration of Offsets

Offsets were considered by the Environment Court in its decision on the appeal of Southern Link designation in Nelson [2004. 10 ELRNZ 369 (EnvC)].

In that decision the Environment Court questioned the applicability of mitigating the potential health effects of one type of PM₁₀ discharge (in that case diesel vehicle emissions) through reducing or removing emissions from another type of PM₁₀ source (in that case solid fuel heating emissions).

An argument could be made that some PM₁₀ discharges are similar to PM₁₀ sources in the vicinity that are available to provide offsets (e.g. a new coal combustion discharge could potentially be offset by the removal of another coal combustion discharge in an adjacent location). However, those opportunities are likely to be limited and for the majority of PM₁₀ discharges the use of offsets would be open to question by the Environment Court.

As such, the AQNES should not include a mandatory requirement to implement offsets when their legality is questionable in most circumstances.

The removal of a mandatory requirement to implement offsets from the amended AQNES would not preclude their use as a method of mitigating as part of the resource consent process.

Offsets May Not Influence Compliance with the AQNES

Airshed compliance is monitored at what at the location or locations that are anticipated to have the highest concentrations in the airshed, those locations are usually in residential areas or where vehicle emissions are likely to be high. Unless the new discharge for which consent is sought (which is likely to be an industrial discharge) is in the vicinity of a compliance monitoring location for the airshed, the offsetting of emissions is unlikely to influence compliance with the AQNES in that airshed.

Offsets Inequitable for Temporary Discharges

New PM₁₀ discharges of a temporary or short-term nature would be treated in the same manner as permanent or long-term discharges with the proposed mandatory offsets, despite a significant difference in the duration of potential effects. For example, a construction project within a non-complying airshed may require the use of a temporary concrete batching plant or mobile asphalt plant. A resource consent for these discharges would be required to offset discharges as if a permanent batching plant or asphalt plant was to be located in the area (assuming offsets are permanent).

Mandatory offsets would therefore lead to an inequitable imposition on temporary discharges.

Costs and Benefits of Offsets

The cost benefit analysis has estimated the costs of implementing offsets for each new discharge in a non-complying airshed at \$400,000. This is a significant cost and in light of the lack of validated benefits to air quality, as discussed above, those costs are unwarranted.

1.2 Option 4b

I support the recommendations of Preferred Option 4b and consider the adoption of those recommendations will further achieve the objectives of the AQNES in the most equitable manner.

I AM in favour of the amendments proposed in Option 4b.

Reasons

I support the increase in permissible exceedances for PM₁₀ from one to three as it will bring the AQNES into line with World Health Organisation guidelines.

I support the exclusion of exceptional events from exceedances as it will provide clarity and will not lead to penalties for circumstances beyond the control of Regional Councils or emission sources within an airshed. The grounds for excluding events or measured concentrations as exceptional needs to be clearly defined in the regulations.

I support the extension of the timeline for compliance to 2018, subject to the provision of clear plans outlining effective and equitable measures to bring about compliance within non-complying airsheds. I would support an extension to up to 2020 (as outlined in the Technical Advisory Group report) if those plans are in place. Those plans should be subject to regular progress audits. I support the use of Section 27 of the RMA to require this information.

I support the provision of better information to the public through mandatory reporting of PM₁₀ monitoring data. I further suggest that reporting of monitoring data be mandatory for all AQNES contaminants.

I support the establishment of an air quality compliance strategy and investigation of funding links as they will further achieve the objectives of the AQNES in an equitable manner.

I would like some further changes to be made to the amendments proposed in Option 4b.

Changes

I consider that Option 4b may be improved through the adoption of some of the recommendations provided for other options described in the discussion document as follows:

- Recommendation (5) in regard to placing a greater focus on education, which could assist in reducing domestic emissions and improving poorly controlled industrial emissions; and
- Recommendation (16) in regard to the introduction of guidance on domestic heating restrictions would also assist in reducing domestic emissions.

I also recommend that the following recommendation is also adopted:

- An introduction of mandatory reporting of monitoring data of the other AQNES contaminants (CO, NO₂, SO₂ and O₃) where those contaminants are monitored.

2 Costs and benefits

I have no comments to make.

3 Decision I Wish the Minister to Make

Proposed amendments	<input checked="" type="checkbox"/> Increase the permitted number of exceedance of the PM ₁₀ standard from one to three exceedances per year.
	<input checked="" type="checkbox"/> Exclude exceptional events from counting as exceedances of the PM ₁₀ standard ² .
	<input type="checkbox"/> Require mandatory offsets for new industry consents in reaching airsheds after 2018 (ie, do no harm).
	OR
	<input checked="" type="checkbox"/> Remove all industry consent restrictions
	<input checked="" type="checkbox"/> Extend the timeline for compliance to 2018.
	<input checked="" type="checkbox"/> Introduce mandatory reporting of PM ₁₀ monitoring data.
	<input checked="" type="checkbox"/> Use existing ministerial powers under the Resource Management Act 1991 (section 27).
	<input checked="" type="checkbox"/> Establish an air quality compliance strategy.
<input checked="" type="checkbox"/> Investigate the feasibility of funding links (denial of funding in breaching airsheds).	
Other proposed amendments you would like the Minister to make.	<ul style="list-style-type: none"> ■ Adopt Recommendation (5) from the discussion document in regard to placing a greater focus on education ■ Adopt Recommendation (16) from the discussion document in regard to the introduction of guidance on domestic heating restrictions ■ Introduce mandatory reporting of CO, NO₂, SO₂ and O₃ monitoring data, where this is conducted, in addition to PM₁₀.

² Provided the exceptional events are clearly defined.