

Peer Review



Date: Wednesday, 24 August 2016

Frasers Property Australia

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FAO: Lee Homer

Project Name:	Coles Smeaton Grange – Proposed Recycling Facility – Air Quality
Reference:	17.1011.L2V1

Benedict Recycling Pty Ltd proposes to construct and operate a waste recycling and transfer facility at 52 Anderson Road, Smeaton Grange. Frasers Property Australia manages a Coles Distribution Facility, located to the immediate south of the proposed recycling facility. Frasers Property Australia has commissioned Northstar Air Quality to provide:

1. A summary of the potential air quality impacts resulting from the construction and operation of the proposed recycling facility on the Coles Distribution Facility;
2. A recommendation to the NSW Department of Planning and Environment (DP&E) which identifies any identified issues with the air quality assessment; and
3. Draft consent conditions/operational requirements deemed to be suitable for inclusion in any granted approval.

This letter provides information relating to items 2 and 3 with information relating to item 1 having previously been provided on 22 August 2016 (ref: 17.1011.L1V1).

If you require any further information or clarification, please do not hesitate to contact the undersigned at your convenience.

For and on behalf of

Northstar Air Quality Pty Ltd

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1. Background

Benedict Recycling Pty Ltd proposes to construct and operate a waste recycling and transfer facility (the Facility) at 52 Anderson Road, Smeaton Grange NSW. Approval is sought for the Facility to accept a total of 140,000 tonnes per annum (tpa) of inert waste (such as construction and demolition waste, selected commercial and industrial waste) from businesses and the general public. Approximately 28,500 waste deliveries are anticipated annually once the facility is operating at maximum capacity. Waste would generally be stored undercover in a waste transfer and holding shed prior to processing (screening and sorting) although some segregated heavy materials would be stored on the hardstand. No special, liquid, hazardous, restricted solid waste or general solid waste (putrescible) are proposed to be accepted at the Facility.

The development is considered State Significant Development (SSD 7424) and as such, Secretary's Environmental Assessment Requirements (SEARs) have been issued. For air quality issues, these SEARs are as follows:

Air Quality and Odour – including:

- *a quantitative assessment of the potential air quality, dust and odour impacts of the development in accordance with relevant Environment Protection Authority guidelines;*
- *the details of buildings and air handling systems and strong justification for any material handling, processing or stockpiling external to a building;*
- *a greenhouse gas assessment; and*
- *details of proposed mitigation, management and monitoring measures.*

An air quality impact assessment (AQIA) has been performed for the proposed Facility by Ramboll Environ Australia Pty Ltd (ref AS121963, dated 17 June 2016 “the Ramboll AQIA”). This letter provides a review of the Ramboll AQIA and provides a number of possible consent conditions/operational requirements which could be considered to be included in any conditions of approval for the Facility.

2. Summary

The peer review has identified a number of issues which require consideration or clarification. Of the five issues identified, one is an observation, three of medium significance and one of high significance.

3. Review

The peer review contained within this document relates to the Ramboll AQIA for the Facility dated 17 June 2016 (ref: AS121963).

The review has considered the following:

- Adoption of relevant/appropriate criteria/guidelines and standards.
- The methodology adopted in performing the assessment.
- The appropriateness of the data obtained to inform the assessment.
- The suitability of the modelling and analysis performed.

The peer review has highlighted a number of matters that should be addressed. The aim of this peer review is not to provide a value judgement on the quality of the work performed, but identify matters that may be regarded as a risk to the conclusions drawn from the report. In most cases this is usually that further evidence is required to support an assumption. The observations have been categorised as:

Significance	Description
Comment only	Observation only
Low	Issues identified are not likely to change the conclusions of the report
Medium	Issues identified may have the potential to change the conclusions of the report
High	Issues identified have the potential to change the conclusions of the report

A tabulated summary of identified issues is provided overleaf. It is recommended that any commentary provided by Northstar as to the potential impact of issues identified should be investigated by Ramboll Environ.

Comment	Section	Comment	Significance
1	1.2 Secretary's Environmental Assessment Requirements	<p>The SEARs for the development require " <i>the details of buildings and air handling systems and strong justification for any material handling, processing or stockpiling external to a building</i>". Discussion of some of these operations is provided in Section 2.1.1 (pp 3), 2.1.2 and 2.1.3 (pp 4):</p> <p><i>Seven product bays, which will be four metres high and blockwalled</i> (S2.1.1) – four of these stockpiles are assumed from Figure 2-2 to not be located within the waste transfer holding shed.</p> <p><i>Wastes would generally be stored undercover...</i>(S2.1.2) – the use of the term 'generally' indicates that waste could be stored externally in some instances.</p> <p><i>Sorting would generally occur within the waste transfer holding shed.</i> (S2.1.3) – once again the use of the term 'generally' indicates that sorting could occur externally.</p> <p>It is considered that further justification for some of the operations proposed to be performed external to the building should be provided.</p>	Medium
2	1.2 Secretary's Environmental Assessment Requirements	<p>The SEARs also require details of proposed mitigation, management and monitoring measures to be provided. No discussion of monitoring measures is provided within the AQIA. Given the potential issues with nuisance dust within the boundary of the Coles Distribution Centre (see comment 4), it would be recommended that a campaign of dust deposition monitoring be performed for the duration of the construction period. Given that dust deposition contours are shown to be $>2 \text{ g}\cdot\text{m}^{-2}\cdot\text{month}^{-1}$ within the boundary of the Coles Distribution Centre during operation (Figure A3.6) an appropriate period of dust deposition monitoring during operation at maximum throughput should be performed to ensure that exceedances of the nuisance dust criterion are not experienced on the land occupied by the Coles Distribution Centre.</p>	Comment

Comment	Section	Comment	Significance
3	Section 5.2 Background PM ₁₀	<p>Background PM₁₀ concentrations were obtained from the NSW OEH Campbelltown West Air Quality Monitoring Station (AQMS) for the year 2014. The maximum 24-hour PM₁₀ concentration monitored at the AQMS during 2014 is noted as being 49.4 µg·m⁻³, on 21 November 2014. This concentration has been excluded from further data analysis on the basis that it is likely to be due to a localised event (the example of grass cutting is provided). The general approach for exclusion of elevated particulate events is that adopted within the National Environment Protection (Ambient Air Quality) Measure (AAQ NEPM) which identifies 'exceptional events' as:</p> <p><i>a fire or dust occurrence that adversely affects air quality at a particular location, and causes an exceedance of 1 day average standards in excess of normal historical fluctuations and background levels and is directly related to: bushfire, jurisdiction authorised hazard burning or continental scale windblown dust.</i></p> <p>The discussion provided indicates that coincident elevated concentrations were not experienced at neighbouring AQMS which suggests that the event was not related to wide scale dust or fire events. Additionally, the event was not in exceedance of the 1-day standard. It might be argued that the localised event could be typical of the area in which the Campbelltown West AQMS is sited, and therefore of the proposed Project site, and should be retained for further analysis.</p> <p>It is recommended that further analysis of air quality data for the Campbelltown West AQMS is analysed to identify whether the distribution of PM₁₀ concentrations in 2014 is typical or atypical of the longer term record. If elevated concentrations are often observed in other years examined, then these should be considered to be representative of the likely particulate environment of the area, or if atypical then additional confidence can be gained that they can be removed from further analysis.</p> <p>The exclusion of a particular measurement on the basis that it was a localised event may not necessarily affect the conclusions of the assessment given that the off-site incremental impacts are predicted to be approximately 10% of the relevant criterion. However, on the basis that the measurement of 49.4 µg·m⁻³ is retained (and assuming that maximum incremental impacts occur on the same day), then exceedances of the 24-hour PM₁₀ criterion may be experienced in the surrounding environment due to the operation of the Facility. This would suggest that a more refined assessment (contemporaneous analysis of incremental and background air quality) be performed, or that additional control measures should be implemented at the Facility to minimise emissions of particulate matter.</p>	Medium

Comment	Section	Comment	Significance
4	Section 6 Construction dust impact assessment	<p>The construction dust impact assessment has been performed using a risk based approach. The selection of receptors at which construction dust impacts have been considered has not taken into account places of work (medium sensitivity receptors for dust soiling in the UK IAQM methodology), such as the Coles Distribution Centre. Place of work are also included in the medium sensitivity category for PM₁₀ health effects although it is acknowledged that the workers at the Coles Distribution Centre would be located inside and for periods of less than 24 hours and as such, would be considered less sensitive to PM₁₀ health effects.</p> <p>Should assessment of dust soiling impacts at the Coles Distribution Centre (<20m to the site boundary) be assessed, this would be considered to be a medium sensitivity area for dust soiling impacts. The risk of impacts associated with earthworks would be in the medium risk category as opposed to the low risk category as identified in Table 6-1 of the AQIA. The mitigation measures provided in Section 10.1 of the AQIA are appropriate for low risk ratings only. Additional controls over and above those provided in Section 10.1 should be identified to mitigate/minimise this risk.</p>	High
5	Section 7.3 Emission reduction factors	<p>It is noted that the AQIA has been performed without the inclusion of emission control factors associated with any windbreak effects provided by the waste transfer shed and therefore the particulate matter impacts predicted may be viewed as conservative.</p> <p>The level of risk associated with any elevation in particulate matter could be reduced however, should these operations be performed permanently within a building. It is recommended that those periods when these operations are not performed be adequately defined in terms of material characteristics, control measures to be implemented if the operations are performed externally or prevailing meteorological conditions under which these operations would be performed.</p>	Medium

4. Proposed Conditions of Consent

The following outlines a number of proposed draft consent conditions/operational requirements for consideration for inclusion in any granted approval. These requirements relate to the issues identified in the review in **Section 3** and aim to provide additional confidence that the Facility would be constructed and operated in a manner which would minimise impacts upon the surrounding sensitive environment. It is noted that the sensitivity of the area surrounding the Facility is not the same (i.e. a mix of residential receptors sensitive to dust deposition and health impacts, and commercial receptors sensitive solely to dust deposition). Any conditions should consider the sensitivities of all surrounding land uses.

The proposed conditions relate to:

- the performance of operations or stockpiling of materials external to the waste transfer shed.
- the monitoring of dust at the boundary of the site with the Coles Distribution Facility.
- ensuring that a dust management plan is constructed for both the construction and operational phases of the Facility.

The proposed conditions are provided as relate to:

- A dust management plan should be developed for both the construction and operational phases of the Facility.
- The dust management plan should include commitments to a range of dust mitigation techniques which are appropriate to ensure that dust emissions do not impact upon surrounding sensitive receptors.
- The dust management plan should take into consideration the range of sensitivities in the area, including commercial and residential, and be suitable to minimise impacts upon each of those land uses.
- The Facility should be constructed and operated in a manner that minimises dust emissions.
- Any sorting, processing or storage of materials should be performed within the waste transfer holding shed. Should any sorting, processing or storage of materials be required to be performed outside of this area for any reason, then sufficient dust mitigation should be implemented to effectively eliminate dust emissions.
- Monitoring of air quality impacts should be performed at the nearest sensitive receptor (considering that the range of sensitivities includes commercial receptor sensitivity to dust deposition) during both construction and operation of the Facility. Monitoring during the construction phase should be performed for the entire duration of construction. During operations, monitoring should be performed for an appropriate duration to allow the demonstration that no exceedance of the NSW EPA nuisance dust criterion is being experienced at any sensitive receptor, which includes non-residential locations.