



Our Ref: 3902/JM/LS/20170516

16 May 2017

Howard Reed
Director – Resource Assessments
Department of Planning and Environment
320 Pitt Street
Sydney NSW 2000

Dear Howard

Re: Rooty Hill Regional Distribution Centre Modification Application (05_0051 Mod 2) – Response to Submissions

This letter provides a response to the issues raised in submissions made during the public exhibition of the Environmental Assessment (EA) for the Rooty Hill Regional Distribution Centre Modification 2 (Mod 2). It has been prepared on behalf of Holcim (Australia) Pty Ltd (Holcim Australia) in response to a request from the Secretary of the Department of Planning and Environment (DP&E) in accordance with Clause 85A of the *Environmental Planning and Assessment Regulation 2000*.

Holcim Australia is seeking approval for an additional stockpile area within the existing footprint of the Regional Distribution Centre (RDC) through a modification to Project Approval 05_0051 in accordance with Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The EA that accompanied the modification application was exhibited from 16 March 2017 to 29 March 2017. This letter outlines Holcim Australia's response to matters raised in the submissions.

1.0 Submissions Received

There were no submissions received from community members on Mod 2.

A total of two submissions were received during the EA exhibition period. Both of the submissions were from NSW government agencies being:

- Environment Protection Authority (EPA)
- Blacktown City Council.

DP&E also requested some clarification as an outcome of its review of the EA. The response to the issues raised in each submission and by DP&E is provided below.

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75 York Street
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PO Box 783
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Canberra

PO Box 6135
56 Bluebell Street
O'Connor ACT 2602
Ph. 02 6262 9484

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50 York Street
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Brisbane

Level 11
500 Queen Street
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2.0 Department of Planning and Environment

2.1 Surface Water

Following discussion with Blacktown City Council regarding the requirements of the *Blacktown Development Control Plan 2015* (DCP) as noted in the submission, provide a discussion of the application of the DCP to the surface water management of the project.

As the 2006 Project Approval was granted under Part 3A of the EP&A Act, the statutory pathway for Mod 2 was via Section 75W of the EP&A Act. As such, the requirements of *Blacktown Development Control Plan 2015* are not applicable to the modification.

Holcim Australia will, however, undertake a further review of the need for any internal changes to the water management system as a result of Mod 2. Should the review identify changes are required to the water management system these will be adopted on site, and incorporated into an updated Operational Environmental Management Plan. Holcim Australia requests that review of the drainage plan be conditioned as part of the consent for Mod 2. If required, Holcim Australia will submit an updated Operational Environmental Management Plan to DP&E for approval.

Provide a revised drainage plan and modelling as well as a brief discussion to outline the expected change in runoff and pollutant loads due to the proposed works. The discussion should address how the existing water management system is expected to perform under the 'worst case' scenario (i.e. at a production rate of 4.0 million tonnes per annum and adverse weather conditions) and whether further mitigation measures would be required.

The proposed additional stockpiling area is located within the existing dirty water management system area. The water management system has been designed to meet the needs of the RDC operating at a production rate of 4 million tonnes per annum (Mtpa) as discussed in the 2010 Environmental Assessment for the currently approved layout. No changes are expected to be required to the existing water management system; however, Holcim Australia will undertake a drainage review prior to the construction of the additional stockpiling area to confirm. Should any changes be required they will be implemented prior to construction of the stockpiling area.

As discussed above, Holcim Australia has committed to undertake a further review of the water management system and if required update the site Operational Environmental Management Plan. Holcim Australia requests that review of the drainage plan be conditioned as part of the consent for Mod 2. If required, Holcim Australia will submit an updated Operational Environmental Management Plan to DP&E for approval.

2.2 Air Quality

Expand the predicted impacts from the dispersion model to include expected emission levels at full production, i.e. at 4.0 million tonnes per annum and under adverse meteorological conditions, e.g. hot, dry and windy days.

The air quality assessment for Mod 2 was undertaken by Pacific Environment. A response by Pacific Environment to this request from DP&E is provided as **Attachment 1** with a summary below.

In the EA an operating scenario based on a maximum production rate of 2.5 Mtpa was assessed to represent the potential air quality impacts that the RDC (including Mod 2) would have on nearby sensitive receptors (e.g. residences).

A production rate of 2.5 Mtpa was used in the assessment as this is the maximum capacity of the current staged layout of the RDC constructed to date. It was shown that Mod 2 results in a small increase (<1%) in total emissions compared with the current operations. The Mod 2 assessment utilised meteorological data measured at St Marys by NSW Office of Environment and Heritage for the year 2015. As such, it incorporated a range of meteorological conditions including adverse conditions of hot, dry and windy days.

In 2010, Modification 1 (Mod 1) which incorporated an air quality assessment at full production of 4.0 Mtpa was approved for the RDC. Compliance with the relevant air quality criteria was demonstrated at sensitive receptors. Production at 4.0 Mtpa at the RDC would require construction of additional facilities at the site and would therefore have a different emissions profile.

As requested by DP&E an assessment of the implications of the additional stockpiling area proposed by Mod 2 on the air quality emissions of the RDC operating at 4.0 Mtpa has been undertaken and is provided as Attachment 1. This assessment has found that the change in emissions at 4.0 Mtpa will be minimal and the additional stockpiling area is not expected to change the impacts as predicted in the 2010 EA.

2.3 Noise

Verify whether the predicted noise levels in Table 5-1 of the *Operational Noise Review* (Appendix 2 of the EA) were correctly assigned in the table and if so, provide an explanation for the predicted reduction in noise level with an increase in production (see predicted values for 'Existing production' versus 'Future Full-scale operations' at Crawford Street and Boronia Shelter under 'Proposed storage re-arrangements' and at Mavis Street under 'Present activities').

The noise assessment for Mod 2 was undertaken by Jacobs. A response by Jacobs to the noise queries raised by DP&E is provided as **Attachment 2** with a summary below.

It is confirmed that the predicted noise levels in Table 5-1 of the *Operational Noise Review* (Appendix 2 of the EA) are correct. The predicted reduction in noise levels at an increased production rate for several receivers is due to the layout/arrangement changes that would be in place at full production. This includes internalisation of several activities into purpose-built factory-style sheds. For some receivers the screening and attenuation provided by these structures offsets the increase in noise resulting from the higher intensity operations.

Expand the predicted impacts from the noise model to include noise levels under adverse meteorological conditions, or if already included, provide a statement to confirm that either the default adverse meteorological conditions or the available adverse meteorological data were incorporated into the predictive model.

Jacobs has advised that consistent with guidance presented in the *NSW Industrial Noise Policy* (INP), (EPA 2000), noise predictions were made for default adverse meteorological conditions.

3.0 Environment Protection Authority

EPA officers inspected the site on 23 March 2017 with Holcim personnel, and after reviewing relevant environmental factors the EPA concurs with the conclusions presented in the EA.

- **Noise:** the licensee has demonstrated a high level of compliance with current noise limits, and the proposed new activity is not expected to significantly affect surrounding receivers or result in noise exceedances.
- **Air Quality:** the modification will result in less than 1 per cent increase in total dust particulate emissions compared with current operations. The licensee will install sprinklers at the new stockpile area. Exceedances of PM2.5 at some receivers are predicted to occur due to high background particulate levels, with minimal contribution from the RDC
- **Water quality:** Surface waters are not expected to be impacted as the new activity will be conducted within the existing water management system area

Noted.

If the application is approved, the EPA recommends that the Operational Environmental Management Plan is amended to reflect operational changes at the site to continue to ensure environmental impacts are minimised and managed.

Noted.

The EPA recommends that construction work hours associated with the modification are added to consent conditions.

Noted.

4.0 Blacktown City Council

The change in surface type and intensification of the use of the area proposed will lead to a requirement to satisfy Part J of Blacktown Development Control Plan 2015 (BDCP 2015). The existing water treatment system within the site is at a lower standard than Part J and is insufficient to address the range of pollutants or to allow for an increase in pollutant levels. Revised drainage plans and MUSIC modelling will be required to be submitted to comply with Part J of the BDCP 2015.

As discussed above, the requirements of *Blacktown Development Control Plan 2015* are not applicable to the modification. However, as also discussed above, Holcim Australia has committed to undertake a further review of the water management system, incorporating the results of surface water modelling, and if changes are required update the site Operational Environmental Management Plan. Holcim Australia requests that this be conditioned as part of the consent for Mod 2.

If you require any further information regarding the above matters please do not hesitate to contact me on 02 4950 5322.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Lachlan Sweeney', with a stylized, flowing script.

Lachlan Sweeney
Senior Environmental Scientist



ATTACHMENT 1

Lachlan Sweeney
Senior Environmental Scientist
Umwelt (Australia) Pty Ltd

lsweeney@umwelt.com.au

11 May 2017

Dear Lachlan

Re: Holcim Rooty Hill Regional Distribution Centre Modification Application (05-0051 Mod 2)

Pacific Environment (PE) completed an air quality assessment (AQA) in February 2017 (**Pacific Environment, 2017**) as a Technical Appendix to the Environmental Assessment (EA) prepared by Umwelt (Australia) Pty Ltd on behalf of the proponent, Holcim (Australia) Pty Ltd (Holcim).

The AQA presented an assessment of the air quality impacts associated with the Holcim Australia Regional Distribution Centre (RDC) at Rooty Hill, including the proposed minor modification (MOD 2):

- creation of an additional stockpile area (0.43 hectares) adjacent to the existing truck parking area;
- utilisation of the additional stockpile area – handling of material and loading of trucks at this location.

An operating scenario based on a maximum production rate of 2.5 million tonnes per annum (Mtpa) was assessed to represent the potential air quality impacts that the RDC (including the modification) would have on nearby sensitive receptors (e.g. residences). It was shown that the modification results in a small increase (<1%) in total emissions compared with the current operations. A production rate of 2.5 Mtpa was used in the AQA as this is the maximum capacity of the current staged layout of the RDC constructed to date. It is noted that the RDC is approved to operate at 4.0 Mtpa, however, this requires construction of additional facilities at the site and will therefore have a different emissions profile.

The MOD 2 assessment utilised meteorological data measured at St Marys by NSW Office of Environment and Heritage for the year 2015. As such, it has incorporated a range of meteorological conditions including adverse conditions of hot, dry and windy days.

Following public exhibition of the EA, NSW Department of Planning and Environment (DP&E) has requested an assessment of the air quality impacts at full production of 4.0 Mtpa. This letter provides a response to that request.

The original air quality assessment for the RDC, was prepared by Holmes Air Sciences (now Pacific Environment) in 2005 (**Holmes Air Sciences, 2005**). In 2010, MOD 1 was approved for

the RDC. In support of MOD 1, PAEHolmes (now Pacific Environment) completed an AQA that assessed the air quality impacts at full production of 4.0 Mtpa (**PAEHolmes, 2010**) which demonstrated compliance with the relevant air quality criteria at sensitive receptors.

A direct comparison between the predicted air quality impacts in 2010 (for MOD 1) and 2017 (for MOD 2) is not possible for the following reasons:

- different meteorological data were used;
- a different dispersion model was used;
- there have been some updates to emission factors applied;
- the work completed in 2010, modelled TSP emissions only and PM₁₀ and PM_{2.5} concentrations were derived from the TSP output, while the work completed in 2017 modelled emissions of TSP, PM₁₀ and PM_{2.5} individually.

However, it is possible to compare the total TSP emissions as assessed for MOD 1, and the change in emissions proposed for MOD 2. This provides an indication of the estimated change in total emissions due to MOD 2 allowing comment to be made on any potential changes to the resulting ground level concentrations.

Table 1 presents a summary of the total TSP emissions from the RDC, as assessed for MOD 1.

Table 1: MOD 1 TSP emissions (kg/y)

Activity	TSP emission rate (kg/y)
RDC: Trains unloading to unloading station	1,097
RDC: Transfer conveyors unloading to storage bins*	987
RDC: Transfer conveyors unloading to radial stacker	183
RDC: FEL transferring from radial stacker to trucks	366
RDC: Total truck movements on-site (sealed road)	13,636
RDC: Dispatch/loadout of materials to trucks	3,656
RDC: Wind erosion from stockpiles and exposed areas	3,504
RDC: Vehicles on CBP site	5,486
RDC: Vehicle exhausts at CBP	1,295
RDC: Dumping to ground bins at CBP	366
RDC: FEL loading to hoppers at CBP	366
RDC: Unloading to storage bins at CBP	110
RDC: Residual dust from loading cement/ash to silos at CBP**	658
RDC: Unloading from bins to trucks at CBP	366
RDC: Wind erosion from exposed areas at CBP	1,051
CBP: Vehicles on CBP site	5,486
CBP: Vehicle exhausts at CBP	1,295
CBP: Dumping to ground bins at CBP	366
CBP: FEL loading to hoppers at CBP	366
CBP: Unloading to storage bins at CBP	110
CBP: Residual dust from loading cement/ash to silos at CBP**	658
CBP: Unloading from bins to trucks at CBP	366
CBP: Wind erosion from exposed areas at CBP	1,051
TOTAL	42,825

FEL = front end loader

CBP = concrete batch plant

Table 6-3 of the 2017 AQA showed that the additional TSP emissions due to MOD 2 were calculated to be 180 kg/y, due to an increase in area susceptible to wind erosion. This represents an increase in total TSP emissions of less than 0.5%.

Extensive experience by the author of this letter in the assessment of emissions from dust-generating activities has shown that an increase in TSP emissions of up to 15-20% typically results in minimal change to predicted concentrations at sensitive receptors.

The utilisation of the additional stockpile area assessed in MOD 2 is estimated to increase total emissions by less than 0.5% at a production rate of 2.5 Mtpa. The additional stockpile area would be used in a similar manner at the full production volume of 4.0 Mtpa and as such it is considered that the percentage increase in total emissions would be similar to the 0.5% assessed in MOD 2 and substantially below the 15-20% that typically results in change to predicted concentrations at sensitive receptors.

Kind regards

Judith Cox
Principal Consultant – Air Quality
Pacific Environment Limited
Phone: 02 9870 0900
Email: judith.cox@pacific-environment.com

References:

Holmes Air Sciences (2005). Air Quality Impact Assessment: Readymix Regional Distribution Centre at Rooty Hill. Prepared for National Environmental Consulting Services. 30 June 2005.

Pacific Environment (2017). Holcim Australia Rooty Hill RDC Air Quality Assessment. AQU-NW-003-20328F. Prepared for Holcim Australia c/- Umwelt, 27 February 2017

PAEHolmes (2010), Air Quality Impact Assessment: Proposed Minor Modification to Holcim Regional Distribution Centre (RDC) Roti Hill. Prepared for Umwelt (Australia) Pty Ltd. Job No: 3869. 1 September 2010.



ATTACHMENT 2

3 May 2017

Attention: Lachlan Sweeney
Senior Environmental Scientist
Umwelt (Australia) Pty Ltd
75 York Street
Teralba, NSW 2284

Project Name: Rooty Hill Distribution Centre
Project Number: IA137500.1

Subject: Response to DoPE noise-related comments for RHDC S75W application

Dear Lachlan

The purpose of this letter is to provide clarification regarding the two noise-related questions received from the NSW Department of Planning and Environment (DoPE) in their letter dated 31 March 2017, for the pending Section 75W application for the Rooty Hill Distribution Centre (RHDC).

Both queries have been reproduced below:

3. Noise

- Verify whether the predicted noise levels in Table 5-1 of the *Operational Noise Review* (Appendix 2 of the EA) were correctly assigned in the table and if so, provide an explanation for the predicted reduction in noise level with an increase in production (see predicted values for 'Existing production' versus 'Future Full-scale operations' at Crawford Street and Boronia Shelter under 'Proposed storage re-arrangements' and at Mavis Street under 'Present activities').
- Expand the predicted impacts from the noise model to include noise levels under adverse meteorological conditions, or if already included, provide a statement to confirm that either the default adverse meteorological conditions or the available adverse meteorological data were incorporated into the predictive model.

Clarifications to address both the questions are provided below.

Noise – Clarification 1

Jacobs confirms that these values are correct. Consistent with initial planning for the RHDC, full-scale operations involve the internalisation of several activities into purpose-built factory-style sheds. At some receiver locations the screening and attenuation provided by these structures offsets the increase in noise resulting from the higher intensity of operations.

3 May 2017

Subject: Response to DoPE noise-related comments for RHDC S75W application

Noise – Clarification 2

Consistent with guidance presented in the *NSW Industrial Noise Policy* (INP), (NSW Environment Protection Authority, 2000), noise predictions were made for default adverse meteorological conditions.

Please don't hesitate to get in touch on 02 4979 2688 or 0450 737 022 if you require any further information in relation to these matters.

Yours sincerely



Luke Spencer

Experienced Environmental Engineer

+61 2 4979 2688

Luke.Spencer@jacobs.com