

Air Quality Management Plan Jandra Quarry

Holcim Australia
November 2021

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1. Introduction

1.1 Background

The Air Quality Management Plan (AQMP) was developed for Jandra Quarry following the Environmental Impact Statement (EIS) and subsequent Development Consent issued on 30 March 2000 (DA-231-10-99) (Development Consent).

This AQMP forms part of the Environmental Management Strategy (EMS) for the Jandra Quarry. This AQMP has been prepared to meet the requirements of the Development Consent for the Jandra Quarry Intensification in Production Modification (DA-231-10-99 MOD 5) and supersedes the previous versions.

This AQMP has been prepared to address the Development Consent, the mitigation measures listed in the Jandra Quarry Intensification in Production Environmental Assessment (EA) and all applicable legislation.

1.2 Project Description

Hard rock extraction involves blasting and the use of large bulk earthwork machinery, which combined with processing equipment such as crushers and the hauling of material by truck on unsealed roads, generate dust. The intensification in production is likely to generate additional dust per unit time and for longer periods of time than previous operations.

DA-231-10-99 MOD 5 included operating a mobile asphalt plant 24 hours a day on a campaign basis. Asphalt plants generate emissions as well as odour that have the potential to impact on nearby sensitive receivers. During consultation with the community surrounding the Jandra Quarry, receiver R2 raised concern over the odour that they had experienced during historical asphalt production campaigns.

The Jandra Quarry Development Consent DA-231-10-99 (MOD 5) provides for the following approved activities, as shown in **Table 1** below.

Table 1 Summary of Approved Operations

Project component	Currently approved
Quarry life	Until 31 March 2045
Extraction limit (total)	16.5 million tonnes of quarry product over the quarry life
Extraction limit (annual)	490,000 tonnes of quarry product in any calendar year
Transport limit	475,000 tonnes of quarry product are to be transported from the site in any calendar year
Infrastructure	Mobile asphalt plant, mobile pug mill, primary, secondary crushing and screening plants, mobile crusher, workshop, fuel shed and maintenance area, office and amenities, sewage treatment system, heavy vehicle access road and stockpile area
Hours of operation	Blasting: 9:00am – 5:00pm Monday to Friday 9:00am – 3:00pm Saturday At no time on Sundays or Public Holidays Mobile Asphalt Plant and Associated Transport: 24 hours a day, 7 days a week (Sundays and Public Holidays included) Extraction and Processing Operations: 6:00am – 10:00pm Monday to Friday 6:00am – 6:00pm Saturday At no time on Sundays or Public Holidays Transportation Operations 6:00am – 10:00pm Monday to Friday 6:00am – 10:00pm

Project component	Currently approved
	Saturday At no time on Sundays or Public Holidays
Blasting frequency limit	Two times per month
Quarry operations limit	Above RL 20m AHD

Transport operations approved outside of the hours specified in **Table 1** include the return of trucks to site prior to midnight Monday to Saturday; delivery or dispatch of materials as requested by Police, Fire Brigade or other similar authorities; and emergency work to avoid the loss of lives, property and/or to prevent environmental harm.

The blasting frequency limit is twice per month, however this is not inclusive of any blasts required to ensure the safety of the quarry or workers on site.

It is understood that the proposed construction of a new heavy vehicle access road and expansion of the finished product stockpile area have been approved in the modified Development Consent (DA-231-10-99 MOD 5), requiring the clearing of 1.28 hectares of native vegetation. The implementation of a biodiversity offsetting strategy is required to offset the impacts of these actions. As of November 2021, this work had not yet been completed.

1.3 Purpose and Scope

This AQMP outlines the air quality monitoring and management to be undertaken at Jandra Quarry. The program addresses the requirements contained in Jandra Quarry's modified Development Consent (DA231-10-99 MOD 5) and the Jandra Quarry Environment Protection Licence (EPL) no. 2796.

This management plan has been reviewed in November 2021, with details of the review outlined in **Section 15**.

An application to modify DA-231-10-99 is being submitted concurrently with this management plan revision (November 2021). The modification seeks to align DA-231-10-99 requirements with those in EPL no. 2796 which was varied during August 2021 to revise dust and noise monitoring conditions among others. Following approval of the modification, Holcim will update this management plan to address all relevant changes.

1.4 Objectives

The objectives of this plan in relation to air quality management are to:

- Detail the controls to be implemented to minimise dust generation from Jandra Quarry;
- Establish an air quality monitoring system to assess the air quality performance against the specific air quality impact assessment criteria;
- Provide a mechanism to assess monitoring results against air quality impact assessment criteria;
- Provide a protocol for determining exceedances of the relevant criteria;
- To detail the requirements for reporting air quality criteria exceedance to the relevant stakeholders; and
- Manage air quality related community complaints in a timely and effective manner.

2. Stakeholder Consultation

2.1 Pre 2020 Consultation

In accordance with Schedule 3 Condition 15 of the Development Consent, this AQMP was prepared in consultation with the Environment Protection Authority (EPA).

Holcim Quarries consulted with the EPA regarding the update of EPL 2796 to modify a series of conditions including the air quality monitoring regime at Jandra Quarry. The EPA approved the EPL 2796 variation on the 27 August 2021 with the condition the AQMP be updated to reflect all relevant changes. A record of correspondence can be found in **Appendix A**.

2.2 2021 Consultation

A copy of the 2021 updated management will be sent to DPIE and the EPA for review and approval. Holcim will update this document and submit if comments are provided.

3. Statutory Requirements

3.1 Legislation

Legislation relevant to air quality management includes:

- *Environmental Planning and Assessment Act 1979 (EP&A Act);*
- *National Greenhouse and Energy Reporting Act 2007;*
- *Protection of the Environment Operations Act 1997 (POEO Act); and*
- *Protection of the Environment Operations (Clean Air) Regulation 2000.*

Relevant provisions of the above legislation are explained in the register of legal and other requirements included in Appendix A1 of the EMS.

3.2 Guidelines and Standards

The main guidelines, specifications and policy documents relevant to this AQMP include:

- *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (Department of Environment and Conservation NSW, 2007);*
- *AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method (Standards Australia); and*
- *Holcim Environmental Standards for Aggregate Operations (May, 2014).*

3.3 Development Consent Requirements

The Development Consent relevant to this AQMP are listed **Table 2**. A cross reference is also included to indicate where the condition is addressed in this AQMP or other environmental management documents.

Table 2 Summary of Development Consent Requirements

Development Consent Condition No.	Requirement	Reference		
Schedule 3 Condition 10	The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria listed in Tables 5 and 6 at any residence on privately-owned land.	Section 6		
	Table 5 Long-term assessment criteria for particulate matter			
	Pollutant		Averaging Period	^d Criterion
	Total suspended particulate (TSP) matter		Annual	^a 90 µg/m ³
	Particulate matter < 10µm (PM10)		Annual	^a 30 µg/m ³
	Table 6 Short-term impact assessment criteria for particulate matter			
Pollutant	Averaging Period	^d Criterion		
Particulate matter < 10µm (PM10)	24 hour	^a 50 µg/m ³		

Development Consent Condition No.	Requirement	Reference								
	<p>Table 7 Long-term impact assessment criteria for deposited dust</p> <table border="1" data-bbox="411 331 1155 528"> <thead> <tr> <th data-bbox="411 331 598 450">Pollutant</th> <th data-bbox="598 331 770 450">Averaging Period</th> <th data-bbox="770 331 970 450">Maximum increase in deposited dust level</th> <th data-bbox="970 331 1155 450">Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td data-bbox="411 450 598 528">° Deposited dust</td> <td data-bbox="598 450 770 528">Annual</td> <td data-bbox="770 450 970 528">b 2g/m2/month</td> <td data-bbox="970 450 1155 528">a g/m²/month</td> </tr> </tbody> </table> <p>Notes:</p> <p>(a) Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources);</p> <p>(b) Incremental impact (i.e. incremental increase in concentrations due to the development on its own);</p> <p>(c) Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and</p> <p>(d) Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed to by the Secretary in consultation with the EPA.</p>	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level	° Deposited dust	Annual	b 2g/m2/month	a g/m ² /month	
Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level							
° Deposited dust	Annual	b 2g/m2/month	a g/m ² /month							
Schedule 3 Condition 11	The Applicant shall not cause or permit the emission of offensive odour beyond the boundaries of the site.	Section 7								
Schedule 3 Condition 12	The Applicant shall: (a) implement best practice management to minimise the odour and dust emissions of the development;	Section 7								
	(b) carry out regular air quality monitoring to determine whether the development is complying with the relevant conditions of this consent;	Section 8								
	(c) regularly assess air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent;	Section 8								
	(d) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see noted under Table 7); and	Section 7								
	(e) minimise the area of surface disturbance and maximise progressive rehabilitation of the site, to the satisfaction of the Secretary.	Section 7								
Schedule 3 Condition 13	The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Tables 5, 6, and 7 at any occupied residence on quarry-owned land unless:	Section 7								
	(a) the tenant has been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schedule 4 of this consent;	Section 7								
	(b) the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;	Section 7								
	(c) air quality monitoring is regularly undertaken to inform the tenant of the actual particulate emissions at the residence; and	Section 8								
(d) data from this monitoring is presented to the tenant in an appropriate format for a medical practitioner to assist the tenant in making informed decisions on health risks associated with occupying the property, to the satisfaction of the Secretary.	Section 8									
Schedule 3 Condition 14	The Applicant shall prepare and implement an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be submitted to the Secretary for approval by 31 August 2015;	This document								

Development Consent Condition No.	Requirement	Reference
	(b) describe the measures that would be implemented to ensure: <ul style="list-style-type: none"> ▪ compliance with the relevant conditions of this consent; ▪ best practice management is employed; and ▪ the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events; 	Section 3; and Section 7.
	(c) describe the proposed air quality management system; and	Section 9
	(d) include an air quality monitoring program that: <ul style="list-style-type: none"> ▪ is capable of evaluating the performance of the development; ▪ includes a protocol for determining any exceedances of the relevant conditions of consent; ▪ effectively supports the air quality management system; and ▪ evaluates and reports on the adequacy of the air quality management system. 	Section 8
Schedule 3 Condition 15	For the life of the development, the Applicant shall ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> guideline	Section 8.4
Schedule 5 Condition 3	Management Plan Requirements The Applicant shall ensure that the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include:	Section 4
	(a) detailed baseline data;	
	(b) a description of: <ul style="list-style-type: none"> ▪ the relevant statutory requirements (including any relevant approval, licence or lease conditions); ▪ any relevant limits or performance measures/criteria; and ▪ the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; 	Section 3; Section 6; and Section 7
	(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Section 7
	(d) a program to monitor and report on the: <ul style="list-style-type: none"> ▪ impacts and environmental performance of the development; and ▪ effectiveness of any management measures (see (c) above); 	Section 8 and 9
	(e) a contingency plan to manage any unpredicted impacts and their consequences;	Section 10
	(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 11
	(g) a protocol for managing and reporting any: <ul style="list-style-type: none"> ▪ incidents; ▪ complaints; ▪ non-compliances with statutory requirements; and ▪ exceedances of the impact assessment criteria and/or performance criteria; and 	Section 9
	(h) a protocol for periodic review of the plan.	Section 11

3.4 EIS Statement of Commitment Requirements

The table below outlines the Statement of Commitment requirements.

Table 3 EIS Statement of Commitment Requirements

Commitment	Addressed in Section
<p>Air Quality</p> <p>Holcim will continue to undertake air quality management in accordance with the existing Jandra Quarry Environmental Management Plan required to be prepared to the satisfaction of the Director-General in accordance with Condition 12 of Schedule 2 of DA-231-10-99. Air quality management controls implemented in accordance with the Environmental Management Plan include:</p> <ul style="list-style-type: none"> • Regular watering of haul roads and stockpiles; • Limiting speeds of vehicles on unsealed surfaces to 40 kph; • Minimising vehicle kilometres travelled on unpaved roads; • Rehabilitating disturbed areas; • Conduct drilling and blasting during suitable meteorological conditions (i.e. not during high winds); • Drill holes capped with stemming to restrict the upward emission of dust; • Dust extraction units on drill rigs and crushing / screening plants to be well maintained; • Seals and mist sprays on crushing and screening plants to be well maintained; and • Dust displaced during silo filling to be controlled by an appropriate filter (i.e. a reverse pulse silo filling filter or equivalent). <p>These existing air quality management measures as outlined in the Environmental Management Plan will be further refined and enhanced with the following controls:</p> <ul style="list-style-type: none"> • Level 1 watering (<2 l/m²/hr) of unsealed haul roads when dust is visible; • Level 2 watering (>2 l/m²/hr) of the processing and stockpile area; • Maintain the active pit and overburden emplacement area to the minimum size during all stages of the quarry development; • Limit the speed of graders maintaining unsealed surfaces to 8 kph; • Extraction of shot rock materials and stripping, hauling and emplacement of overburden would not be undertaken simultaneously; and • Receiver R2 would be notified prior to the commencement of asphalt production campaigns, for the first year following asphalt production (post approval). This would provide receiver R2 with the opportunity to monitor odour during asphalt production and provide feedback to Holcim’s Quarry Manager. This feedback would allow Holcim to consider whether further odour management controls are required, where reasonable and feasible. <p>Holcim will continue to implement the existing air quality monitoring program which comprises*:</p> <ul style="list-style-type: none"> • Dust deposition gauges permanently placed along the four development consent boundaries and continuously monitored at monthly sample intervals; and 	<p>Section 7 and Section 8</p>

Commitment	Addressed in Section
<ul style="list-style-type: none"> Real-time monitors placed at the three closest sensitive receptors and monitored every three years. 	

*Note, in accordance with the August 2021 EPL 2796 variation, depositional dust monitoring is no longer required at the site. Additionally, the existing PM₁₀ HVAS monitor has been replaced by an aerosol particle monitor (Dust Sentry Pro) in accordance with the August 2021 EPL 2796 variation.

The Dust Sentry Pro monitors each parameter specified in **Section 6** including TSP and PM₁₀.

3.5 2019 Independent Environmental Audit – Updates

An Independent Environmental Audit (IEA) was completed for Jandra Quarry by GHD, with the report dated December 2019. There were several recommendations from that report relevant to this management plan.

Table 4 Independent Environmental Audit – Required Updates

IEA REC Number	Recommendation	Comment
IEA REC 3	Update the AQMP to ensure it accurately reflects operations on-site relating to the air quality monitoring network, ensuring the revised AQMP is provided to DPIE for approval.	The air quality monitoring network has been updated to reflect the August 2021 EPL 2796 variation. The updated AQMP will be submitted to DPIE for approval (refer Section 2.2).

4. Baseline Air Quality Data

The air quality results from 2016 to 2020 have been reviewed as part of the 2021 AQMP review, with a summary outlined below.

Table 5 Summary of DDG Results

Dust Depositional Gauge	Monitoring Summary for Annual Review Period	Monitoring Results 2020 Period	Monitoring Results 2019 Period	Monitoring Results 2018 Period	Monitoring Results 2017 Period	Monitoring Results 2016 Period
		(g/m ² /month)				
DDG1	Insoluble Solids Reporting Period Average	1.0	1.1	0.6	0.6	0.4
	Max. Insoluble Solids	20.1*	4.4	1.8	1.2	0.8
	Min. Insoluble Solids	0.3	0.2	0.3	0.2	<0.1
DDG2	Insoluble Solids Reporting Period Average	1.7	1.4	0.8	0.8	0.9
	Max. Insoluble Solids	2.8	4.0	2.2	1.5	2.9
	Min. Insoluble Solids	0.8	0.2	0.1	0.3	<0.1
DDG3	Insoluble Solids Reporting Period Average	1.3	1.4	0.5	0.7	0.5
	Max. Insoluble Solids	3.6	4.6	1.4	1.3	0.7
	Min. Insoluble Solids	0.4	0.2	0.1	0.2	<0.2
DDG4	Insoluble Solids Reporting Period Average	1.1	1.0	0.5	0.6	0.7
	Max. Insoluble Solids	2.1	3.3	1.5	1.3	1.8
	Min. Insoluble Solids	0.3	0.3	0.1	0.2	0.4
DDG5 [^]	Insoluble Solids Reporting Period Average	NS	NS	2.9	2.9	1.2
	Max. Insoluble Solids	NS	NS	10.8	9.8	1.9
	Min. Insoluble Solids	NS	NS	1.5	0.9	0.2

*Contaminated sample.

[^]Depositional dust monitoring was not completed at DDG5 as it was historically because it is not an EPL monitoring location.

Table 6 PM₁₀ Monitoring Trends

Monitoring Summary for Annual Review Period	Monitoring Results 2020 Period (µg/m ³)	Monitoring Results 2019 Period (µg/m ³)	Monitoring Results 2018 Period (µg/m ³)	Monitoring Results May – December 2017 Period (µg/m ³)
PM ₁₀ Reporting Period Average	17.3	20.0	14.2	14.4
Max. PM ₁₀	102	94	42	40
Min. PM ₁₀	5.9	0.1	2.0	2.0

Depositional dust monitoring commenced in 2016, once management plans were approved by the DPIE. From 2016 – 2020 the annual depositional dust levels have been within the criteria.

Results for 2018 were very similar to the 2017 PM₁₀ results. Results in 2019 are higher than those of 2017 and 2018, while 2020 results are lower than 2019 with a PM₁₀ annual average of 17.3 µg/m³. Despite the minimal fluctuation, the longterm PM₁₀ average remains within the criteria. Four short term exceedances occurred during 2019 and two in 2020. These results were affected by the bushfires and continued dry conditions.

The requirement to monitor depositional dust was removed by the August 2021 EPL 2796 variation. Holcim are currently seeking a modification to DA-231-10-99 to remove the requirement to monitor depositional dust to align with EPL 2796. The current monitoring requirements are described in **Section 8**.

Figure 1
Surrounding land use, residences and environmental monitoring locations

JANDRA QUARRY - AIR QUALITY MANAGEMENT PLAN



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 incurred by any person in reliance on this document or any part of this document, whether or not
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SOURCE: EDH 2014

DNB2013 000028 001

5. Potential Air Quality Impacts

Activities undertaken at Jandra Quarry utilising various heavy machinery, plant and equipment, likely to generate dust are identified below.

- Clearing;
- Earthworks;
- Drilling and blasting;
- Crushing and screening;
- Stockpiling; and
- Material handling and dispatch.

Air emissions other than dust, which may be generated include:

- Vehicle and plant emissions; and
- Emissions from asphalt plant operation.

6. Air Quality Assessment Criteria

Schedule 3 Condition 12, of the Development Consent provides the air quality impact assessment criteria for the operation of Jandra Quarry.

6.1 PM₁₀ and TSP

Goals for dust concentration are referred to as long term (annual average) and short term (24 hour maximum) goals. The TSP and PM₁₀ annual average goals relate to the total dust in the air and not just the dust from quarry operations. Schedule 3 Condition 12 of the Development Consent specifies the air quality criteria for Jandra Quarry. The Development Consent criterion for particulate matter is outlined in **Tables 7 and 8**.

Table 7 Long Term Impact Assessment Criteria for Particulate Matter

Pollutant	Averaging Period	Criterion
Total Suspended particulate (TSP) matter	Annual	90 µg/m ³
Particulate matter < 10µm (PM ₁₀)	Annual	30 µg/m ³

Table 8 Long Term Impact Assessment Criteria for Particulate Matter

Pollutant	Averaging Period	Criterion
Particulate matter < 10µm (PM ₁₀)	24 hour	50 µg/m ³

The monitoring of particulate matter against the criterion stipulated in **Table 7** and **Table 8** is to exclude samples where the impact of extraordinary events listed below are likely to have influenced the monitoring results:

- Bushfires;
- Prescribed burning;
- Dust storms;
- Sea fog;
- Fire incidents;
- Illegal activities; or
- Any other activity agreed to by the Secretary of DPIE, in consultation with the EPA.

6.2 Dust Deposition

Dust deposition levels refer to the quantity of dust particles which settle out of the air as measured in grams per square metro per month (g/m²/month) at a particular location. Schedule 3 Condition 12 of the Development Consent outlines maximum allowable limits in terms of an acceptable increase in dust deposition over the existing background levels.

Table 9 Long Term Impact Assessment Criteria for Deposited Dust

Pollutant	Averaging Period	Maximum Increase in Deposited Dust Level	Maximum Total Deposited Dust Level
	Annual	2 g/m ² /month	4 g/m ² /month

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

7. Air Quality Management Controls

A range of environmental requirements and control measures are identified in the EA, Conditions of Approval and Holcim Environmental Guidelines. Specific measures and requirements to address impacts on air quality are outlined in **Table 10**.

Table 10 Air Quality Controls

ID	Measure / Requirement	Reference	When Required	Responsibility
AQMM1	Regular watering of haul roads and stockpiles.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM2	Limiting speeds of vehicles on unsealed surfaces to 40 kph.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM3	Minimising vehicle kilometres travelled on unpaved roads.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM4	Rehabilitating disturbed areas as soon as practically possible.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM5	Conduct drilling and blasting during suitable meteorological conditions (i.e. not during high winds).	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM6	Drill holes capped with stemming to restrict the upward emission of dust.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM7	Dust extraction units on drill rigs and crushing / screening plants to be well maintained.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM8	Seals and mist sprays on crushing and screening plants to be well maintained.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM9	Dust displaced during silo filling to be controlled by an appropriate filter (i.e. a reverse pulse silo filling filter or equivalent).	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM10	Level 1 watering (<2 l/m ² /hr) of unsealed haul roads when dust is visible.	Section 6.4.3 of EA	All stages. Prior to dust	Quarry Manager

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ID	Measure / Requirement	Reference	When Required	Responsibility
			becoming visible	
AQMM11	Level 2 watering (>2 l/m ² /hr) of the processing and stockpile area.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM12	Maintain the active pit and overburden emplacement area to the minimum size during all stages of the quarry development.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM13	Limit the speed of graders maintaining unsealed surfaces to 8kph.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM14	Extraction of shot rock materials and stripping, hauling and emplacement of overburden would not be undertaken simultaneously.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM15	Receiver R2 would be notified prior to the commencement of asphalt production campaigns, for the first year following asphalt production (post approval). This would provide receiver R2 with the opportunity to monitor odour during asphalt production and provide feedback to Holcim's Quarry Manager. This feedback would allow Holcim to consider whether further odour management controls are required, where reasonable and feasible.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM16	Dust deposition gauges permanently placed along the four development consent boundaries and continuously	Section 6.4.3 of EA	All stages	Quarry Manager

Jandra AQMP

ID	Measure / Requirement	Reference	When Required	Responsibility
	monitored at monthly sample intervals.			
AQMM17	Compliance monitoring of PM ₁₀ is to be undertaken at a suitable frequency to ensure the development is complying with its approved air quality criteria.	Section 6.4.3 of EA	All stages	Quarry Manager
AQMM18	Holcim will procure and operate a weather monitoring station in accordance with Schedule 3 Condition 15 of the development consent,	Schedule 3 Condition 15	All stages	Quarry Manager
AQMM19	All internal paved/sealed roadways shall be maintained in a clean and dust free state to minimise dust from vehicle movement.	Guideline 4.9	All stages	Quarry Manager
AQMM20	Dust emissions shall not be visible beyond the boundary of the site during operation.	Guideline 4.9	All stages	Quarry Manager
AQMM21	Unsealed roadways and pavement areas that are subject to vehicle movement or dust generating activities shall be watered or treated to minimise dust emissions.	Guideline 4.9	All stages	Quarry Manager
AQMM22	Roadways immediately beyond the site entrance shall be regularly inspected and swept to prevent build-up of material.	Guideline 4.9	All stages	Quarry Manager

8. Air Quality Monitoring

8.1 Inspections

Routine inspections by the Quarry Manager (or delegate) of air quality controls and monitoring equipment will occur throughout the operational lifetime of the development. Detail on the nature and frequency of these inspections are documented in the EMS.

8.2 Monitoring Locations and Methodology

An aerosol particle monitor (Dust Sentry Pro) has been installed in accordance with Condition M2.2 of EPL 2796 (refer to **Figure 1**). The Dust Sentry Pro monitors each parameter specified in **Section 6** including TSP and PM₁₀.

PM₁₀ will be continuously monitored and results will be available immediately through the online system and will be analysed with consideration of the criteria stipulated in **Section 6**. Continuous PM₁₀ data will be used as a real time management tool linked with the Contingency Plan (**Section 10**) to ensure appropriate air quality controls are being implemented to keep PM₁₀ levels within criteria stipulated in **Section 6**. Real time PM₁₀ monitoring will be used as an additional management tool to the proactive management controls outlined in **Section 7**.

The high volume air sampler (HVAS) with a PM₁₀ collection head previously installed at the closest sensitive receiver has been replaced by the aerosol particle monitor in accordance with the August 2021 EPL 2796 variation.

The four dust deposition gauges previously placed along the four development consent boundaries have been removed in accordance with the August 2021 EPL 2796 variation. As discussed in **Section 1.3** an application to modify DA-231-10-99 is being sought to align all monitoring conditions with those in EPL 2796.

Air quality compliance monitoring is undertaken at the sampling frequency stipulated in **Table 11**.

Table 11 Location and frequency of monitoring

Monitoring Location	Pollutant	Sampling Frequency	Sampling Method
R1	PM ₁₀	Continuously	AM-22

8.3 Monitoring Standards and Record Keeping

Air quality monitoring at Jandra Quarry is undertaken in accordance with all relevant Australian Standards, legislation and EPA approved methods for sampling. The Australian Standards and EPA approved methods relevant to the AQMP are listed below:

All sampling and analysis will be undertaken in accordance with the *Protection of the Environment Operations (Clean Air) Regulation 2010* and the guidelines specified in the DECC publication "*Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (2005)*";

To comply with monitoring and recording conditions included in the EPL for Jandra Quarry, all monitoring records required to be kept by the licence will be:

- In a legible form, or in a form that can readily be reduced to a legible form;
- Kept for at least four years; and
- Produced in a legible form to any authorised officer of EPA who asks to see them.

Jandra AQMP

The following records will also be kept in respect of air quality monitoring undertaken:

- The dates on which the monitoring was undertaken;
- The times at which the monitoring was undertaken;
- The point at which the monitoring was undertaken; and
- The name of the person who undertook the monitoring.

8.4 Meteorological Monitoring

Schedule 3 Condition 15 of the Development Consent requires meteorological data to be sourced for the lifetime of the development from a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

Holcim have installed a weather station at the dam within the Jandra Quarry. This weather station will operate in accordance with the requirements of Schedule 3 Condition 15 of DA-213-10-99 and Condition M4 of EPL 2796 for the life of the development.

9. Reporting and Compliance Management

9.1 Evaluation of Air Quality Results

The Quarry Manager will review monitoring results against the air quality criteria cited in **Section 6**.

Table 12 Reporting and Exceedances

Aspect	Summary
Initial Notification	<p>As soon as practical after becoming aware of the breach air quality criteria, the Quarry Manager will notify the Holcim NSW Planning and Environment Manager and enter the incident into INX.</p> <p>The Quarry Manager will notify the Secretary of the DPIE of the EPA of the incident as soon practicable.</p> <p>In the event of the monitoring results exceeding the air quality criteria, the Quarry Manager or delegate will review:</p> <ul style="list-style-type: none"> • Meteorological data; • The occurrence of any extraordinary events during the sampling period; • The location and duration of activities on site during the sampling period; and • Any other activities within the immediate region of Jandra Quarry.
Reporting	<p>A report will be prepared and submitted by the Quarry Manager to the DPIE and EPA within 7 days of becoming aware of the incident, this report will include:</p> <ul style="list-style-type: none"> • Cause of the non-compliance. • If any environmental harm was caused due to the non-compliance. • Actions undertaken to rectify the non-compliance and ensure.
Subsequent Review	<p>Following the reporting of subsequent review, should it be concluded that the Quarry is the source of elevated pollutant levels, the continuous improvement process outlined in the EMS is to be implemented and corrective actions identified.</p>

9.2 External Reporting

A summary of air quality monitoring results will be provided in the Jandra Quarry Annual Review. The Annual Review will be prepared and submitted to the Secretary, in accordance with Schedule 5 Condition 4, of the Jandra Quarry Development Consent. The Annual Review will be made available to the public through the CCC and the Jandra Quarry website.

In addition, in accordance with Protection of the *Environment Legislation Amendment Act 2011 (Amendment Act)* and Schedule 5 Condition 10 of the Development Consent, Holcim Australia will also publish air quality monitoring results on the Holcim (Australia) website <http://www.holcim.com.au>.

Performance monitoring, which includes an assessment of the effectiveness of air quality monitoring and compliance with the relevant Development Consent and EPL conditions, may be discussed at Community Consultative Committee (CCC) meetings.

The effectiveness of the dust management controls utilised at Jandra Quarry will be reported to DPIE within the Annual Review by the reporting of monitoring data. The Annual Review will also identify whether any additional dust management controls are required to be implemented at Jandra Quarry or whether there are any technological advancements in dust control which are suitable for implementation at Jandra Quarry.

Any investigations related to exceedances will be detailed in the Annual Review.

9.3 Community Complaints and Independent Review

9.3.1 Community Complaints

Complaints relating to air quality from Jandra Quarry are to be managed in accordance with the requirements of the Jandra Quarry EMS. A summary of complaints will be published on the Jandra Quarry website and provided in the Annual Review.

9.3.2 Independent Review

In the event a landowner considers Jandra Quarry is exceeding air quality criteria at his or her property, the landowner may request an independent review of the air quality impacts at the property. The independent review will be conducted in accordance with the procedure described in Schedule 4 Condition 2 – 5 of the Development Consent.

9.4 Training

All employees and contractors working on site will undergo a site induction and training, which will cover issues relating to air quality management, including:

- The existence and requirements of this Plan;
- Dust control measures;
- Location of sensitive receivers;
- Internal speed limits; and
- Complaints reporting.

Further details regarding staff induction and training are outlined in the EMS.

10. Contingency Plan

In accordance with Schedule 5 Condition 2 of the Development Consent, Holcim will assess and manage air quality related risks to ensure compliance with the criteria outlined in **Section 6**.

Where a non-compliance relating to air quality criteria has occurred, Holcim will to the satisfaction of the secretary of the DPIE:

- Take all reasonable and feasible measures to ensure the exceedance ceases and does not recur;
- Consider all reasonable and feasible options for remediation (where relevant) and submit a report to the DPIE describing those options and any preferred remediation measures or other course of action; and
- Implement remediation measures as directed by the Secretary of DPIE.

Table 13 outlines the Trigger Action Response Plan for this management plan with this prepared to meet Schedule 5 Condition 3 of the Development Consent.

Table 13 Trigger Action Response Plan – Air Quality

Key Element	Trigger Response /	Condition Green	Condition Amber	Condition Red
Above Annual Criteria: <ul style="list-style-type: none"> • Dust depositional dust; • TSP; and • PM₁₀ 	Trigger	Depositional Dust Annual Average is <2 g/m ² /month TSP Annual Average is <60ug/m ³ /month PM ₁₀ Annual Average is <20 ug/m ³ /month	Depositional Dust Annual Average is >2 g/m ² /month; but <4 g/m ² /month TSP Annual Average is >60 ug/m ³ /month but <90ug/m ³ /month PM ₁₀ Annual Average is >20 ug/m ³ /month but <30 ug/m ³ /month	Depositional Dust Annual Average is >4 g/m ² /month TSP Annual Average is >90 ug/m ³ /month PM ₁₀ Annual Average is >30 ug/m ³ /month
	Response	No response required. Continue monitoring program.	Review and investigate operational activities and respective control measures. Implement additional remedial measures as per Section 6.	<ul style="list-style-type: none"> • Review and investigate operational activities and respective control measures. Implement additional controls if due to Holcim operational activities as per Section 6; • Engagement of air quality consultant if non compliances are due to Holcim activities; • Reporting of non - compliance in the Annual Review; and • Submit an incident report to DPIE as per Schedule 5 Condition 6 and 8 of the Project Approval.
Above Short Term PM ₁₀ Criteria:	Trigger	PM ₁₀ result is <40 ug/m ³ for short term criteria	PM ₁₀ result is >40 ug/m ³ but <50 ug/m ³ for short term criteria	PM ₁₀ result is > short term criteria of 50 ug/m ³

Jandra AQMP

Key Element	Trigger Response /	Condition Green	Condition Amber	Condition Red
	Response	No response required. Continue monitoring program.	<p>Review and investigate operational activities and respective control measures. Implement additional remedial measures, such as:</p> <ul style="list-style-type: none"> • Deployment of additional water sprays; • Relocation or modification of dust-generating sources; and • Additional staff training. 	<ul style="list-style-type: none"> • Submit an incident report to DPIE; • Review and investigate operational activities and respective control measures. Implement additional controls if due to Holcim operational activities; • Engagement of air quality consultant if non compliances are due to Holcim activities; and • Reporting of non - compliance in the Annual Review.
Visual Dust	Trigger	Wind Speeds below 15kph.	Wind Speeds between 15 and 30kph.	Wind Speeds > 30kph.
	Response	Continue AQMP implementation.	<p>Support Services Supervisor reviews effectiveness of control measures. Implement additional remedial measures, such as:</p> <ul style="list-style-type: none"> • Deployment of additional water sprays; • Relocation or modification of dust-generating sources; and • Temporary halting of dust generating activities. 	<p>Inspection of site by Production and Quarry Managers to determine if there is a need to halt dust generating activities.</p> <ul style="list-style-type: none"> • Halted activities do not recommence until remedial measures or additional remedial measures are in place or wind speeds drop to acceptable levels; and • Record as a non - compliance in the incident report.
Crusher plant dust	Trigger	No dust is seen coming from crusher or site plant.	A moderate amount of dust is seen coming from the crusher or site plant.	Excessive dust is seen coming from the crusher and other site plant.

Jandra AQMP

Key Element	Trigger Response /	Condition Green	Condition Amber	Condition Red
	Response	Continue AQMP implementation.	<ul style="list-style-type: none"> • Increase sprinklers; • Monitor weather conditions; • Review the adequacy of screening; and • Review the operational settings of the crusher plant. 	<ul style="list-style-type: none"> • Stop crushing; • Increase sprinklers; • Monitor weather conditions; • Review the adequacy of screening; • Review the operational settings of the crusher plant; and • Only recommence activities if mitigation measures have been reviewed and are effective.
In pit dust	Trigger	No dust is seen coming from quarrying (in pit) activities	A moderate amount of dust is being generated from quarrying (in pit) activities. Dust is not leaving the pit.	Excessive dust is being generated from quarrying (in pit) activities. Dust is leaving the pit.
	Response	Continue AQMP implementation.	<ul style="list-style-type: none"> • Additional water carts; • Monitor weather conditions; and • Review operational activities. 	<ul style="list-style-type: none"> • Stop quarrying; • Additional water carts; • Monitor weather conditions; • Review operational activities; and • Only recommence activities if mitigation measures have been reviewed and are effective.
Haul road dust	Trigger	No dust is seen coming from transport along haul roads.	A moderate amount of dust is seen coming from haul roads.	Excessive dust is seen coming from transport along haul roads. Dust is leaving site.
	Response	Continue AQMP implementation.	<ul style="list-style-type: none"> • Additional water carts; • Monitor weather conditions; • Review operational activities. 	<ul style="list-style-type: none"> • Stop haulage; • Additional water carts; • Monitor weather conditions; • Review operational activities; and • Only recommence activities if mitigation measures have been reviewed and are effective.

11. Review and Improvement

Continuous improvement of this AQMP will be achieved in accordance with the EMS, through the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process is designed to:

- Identify areas of opportunity for improvement of environmental management and performance;
- Determine the cause or causes of non-conformances and deficiencies;
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies;
- Verify the effectiveness of the corrective and preventative actions;
- Document any changes in procedures resulting from process improvement; and
- Make comparisons with objectives and targets.

This AQMP will be reviewed, and revised as necessary, in accordance with the requirements of Schedule 5 Condition 5 of the Development Consent which states: within 3 months of the submission of an:

- (a) an annual review under condition 4;
- (b) an incident report under condition 6; and
- (c) an audit report under condition 8 below; and
- (d) any modifications to this consent.

the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.

In terms of sub clause a), the requirement to review and update management plans will be assessed during the preparation of each Annual Review. The Annual Review will state which management plans require updating and which management plans do not require updating.

Update versions of management plans will be put on the website.

12. Definitions

The terminology utilised within this AQMP is defined in **Table 14** below.

Table 14 **Definitions**

Term	Definition
Dust Deposition	Dust particles that settle out from the air – measured in grams per square per unit time (g/m ² /month).
HVAS	High Volume Air Sampler.
Non-Compliance	Occurs when environmental monitoring results do not comply with Development Consent Criteria.
PM ₁₀	Particulate matter less than 10 micrometres (µm) in size.
PM _{2.5}	Particulate matter less than 2.5 micrometres (µm) in size.
TSP	Total Suspended Particulate (µg/m ³). The nominal size of this fraction has particles with a diameter of up to 50 micrometres (µm).
µg/m ³	Micrograms per cubic metre.

13. Roles and Responsibilities

Environmental roles and responsibilities for Jandra Quarry personnel are outlined below.

Table 15 Roles and Responsibilities

Personnel	Responsibilities
Holcim Australia District Manager	<ul style="list-style-type: none"> • Approve appropriate resources for the effective implementation of this plan.
Jandra Quarry Manager	<ul style="list-style-type: none"> • Provide that sufficient resources are allocated for the implementation of this Plan. • Coordinate the implementation of biodiversity and rehabilitation management controls and strategies in accordance with this Plan. • Coordinate the review of this plan in accordance with the requirements of the Development Consent. • Coordinate the rehabilitation monitoring requirements of this plan, and evaluate and report monitoring results as required.
Planning and Environment and Community Co-ordinator	<ul style="list-style-type: none"> • Coordinate the air quality monitoring requirements of this plan. • Evaluate and report monitoring results as required. • Coordinate air quality related incident investigations and reporting as required by legislation and internal standards and guidelines. • Undertake an annual review of this AQMP.
All employees and contractors	<ul style="list-style-type: none"> • Comply with all requirements of this AQMP. • Report all potential environmental incidents to the Quarry Manager immediately. • Seek approval from the Quarry Manager prior to making changes to infrastructure/processes which may result in increased air quality emissions.

14. References

Environmental Protection Licence 2796

NSW DEC 2007. Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales.

National Environment Protection Council (NEPC), 2003. Advisory reporting standards for PM2.5.

NSW Minerals Council, 2000. Technical Paper- Particulate Matter and Mining Interim Report

Standards Australia, AS/NZS 3580.10.1:2003 Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.

Standards Australia, AS/NZ 3580.9.3:2003 Methods for sampling and analysis of ambient air

Determination of suspended particulate matter- Total suspended particulate matter (TSP) - High volume sampler gravimetric method.

Standards Australia, AS/NZS 3580.1.1:2007 Methods for sampling and analysis of ambient air - Guide to siting air monitoring equipment.

15. Change Information

Table 16 **Change Information**

Version	Date	Change Summary
1	October 2016	Update for MOD 5 Modification
2	November 2021	Review of the template for all Jandra management plans; <ul style="list-style-type: none"> • General structure updates; • Section 2 – Consultation; • Section 3 – Statutory requirements – separate section; • Section 4 – Update to baseline information; • Section 5 – Addition of potential impacts section; • Section 7 – Inclusion of responsibilities and timing for controls; • Section 8 – Update to the air quality monitoring sites and procedures to reflect the August 2021 EPL variation; • Section 10 – Addition of TARP; and • Section 15 – inclusion of change information.

Jandra AQMP

EPA

RE: Draft Licence Variation Notice No. 1609049 - Jandra Quarry - EPL 2796

Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au>
To: Shilpa Shashi <shilpa.shashi@holcim.com>

Wed, Jul 14, 2021 at 6:06 PM

Hi Shilpa,

I meant to also clarify that in order for the Dust Sentry Pro to be considered fit for purpose at Jandra Quarry, the Air Quality Management Plan (AQMP) will need to be updated to include details regarding:

- a description of what data will be collected and the frequency in which the data is captured and reported;
- access to and management of the data collected; and
- how the monitoring data will be used both pro-actively and reactively (for example to support the premises air quality strategy).

An update to the AQMP need not hold up finalisation of the licence variation. These updates can occur afterwards.

Please note that the proposed variation does not remove any other monitoring requirements required by any relevant development consent. Please advise if you believe the proposed monitoring conflicts with any development consent requirements.

Regards,

Rebecca Akhurst

Operations Officer

Regulatory Operations Metro

NSW Environment Protection Authority

D 02 4908 6807 | M 0408 611 267



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Report pollution and environmental incidents 131 555 or +61 2 9995 5555

Please note I work Monday, Tuesday and Wednesday

[Quoted text hidden]

[Quoted text hidden]

RE: Draft Licence Variation Notice No. 1609049 - Jandra Quarry - EPL 2796

9 messages

Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au>
 To: Shilpa Shashi <shilpa.shashi@holcim.com>

Wed, Jul 14, 2021 at 5:21 PM

Hi Shilpa,

I have spoken with EPA's Air technical specialist and confirmed that the proposed Dust Sentry Pro device is suitable for use at Jandra Quarry. I am not aware of specific sites that use this technology however am advised that it is widely used in industry.

If you would like to use the Dust Sentry Pro I propose amending the Frequency and Sampling Method in condition M2.2 of the licence from:

M2.2 Air Monitoring Requirements**POINT 11**

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Every 6 days	AM-18

To:

POINT 11

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Continuous	Special Method 1

Note: Special Method 1 means sampling an analysis using the aeroqual Dust Sentry Pro particle monitor.

Could you please confirm which method of PM10 sampling you prefer and I will finalise the licence variation.

Regards,

Rebecca Akhurst

Operations Officer

Regulatory Operations Metro

NSW Environment Protection Authority

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From: Shilpa Shashi <shilpa.shashi@holcim.com>
Sent: Tuesday, 13 July 2021 11:56 AM
To: Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au>; Matt Neil <matt.neil@lafargeholcim.com>
Subject: Re: Draft Licence Variation Notice No. 1608992 - Tuncurry Sand Quarry - EPL 13359

Hi Rebecca,

Thank you for your email. We accept the changes on the draft variation for Jandra Quarry.

Query - Is it possible to replace PM 10 with a dust sentry device for live monitoring of dust data ? Do you know of any sites that use this methodology. Please see attached Specification sheet.

Many thanks

On Mon, Jul 12, 2021 at 5:01 PM Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au> wrote:

Hi Shilpa,

Please see attached email with the draft variation for Jandra quarry for your consideration and comment.

Regards,

Rebecca Akhurst

Operations Officer

Regulatory Operations Metro

NSW Environment Protection Authority

D 02 4908 6807 | **M** 0408 611 267



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From: Shilpa Shashi <shilpa.shashi@holcim.com>
Sent: Monday, 12 July 2021 3:38 PM
To: Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au>
Subject: Re: Draft Licence Variation Notice No. 1608992 - Tuncurry Sand Quarry - EPL 13359

Hi Rebecca,

Thank you. I will get back to you by tomorrow. Was looking to organise a Met station at the site for Tuncurry.

Please could you send the Jandra EPL for review please. I will provide commentary by end of tomo for Jandra as well.

Many thanks,

Shilpa

On Mon, Jul 12, 2021 at 2:03 PM Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au> wrote:

Hi Shilpa,

Thanks for your email. I was on leave last week so am only responding now. Are you able to provide comment on the draft variation for Tuncurry sand quarry but COB tomorrow 13 July 2021 if you haven't already?

I also sent Matt Neil a draft variation for Jandra quarry. Comments on that draft were due 22 June 2021. Did you receive that draft and were you intending to provide comment?

Regards,

Rebecca Akhurst

Operations Officer

Regulatory Operations Metro

NSW Environment Protection Authority

D 02 4908 6807 | **M** 0408 611 267



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Please note I work Monday, Tuesday and Wednesday

From: Shilpa Shashi <shilpa.shashi@lafargeholcim.com>
Sent: Wednesday, 7 July 2021 12:44 PM
To: Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au>
Subject: Re: Draft Licence Variation Notice No. 1608992 - Tuncurry Sand Quarry - EPL 13359

Hi Rebecca,

Trust you are well. Sorry was iflat out with Annual reporting period. Can I get back to you on the draft by the end of this week please. Apologies for the delay.

Many thanks,

Shilpa Shashi

Planning and Environment Coordinator NSW / ACT

Holcim (Australia) Pty Ltd

Level 7 Tower B - 799 Pacific Highway Chatswood NSW 2067

M +61 (0)427 859 852

E shilpa.shashi@lafargeholcim.com

----- Forwarded message -----

From: Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au>
Date: Tue, 18 May 2021 at 16:39
Subject: Draft Licence Variation Notice No. 1608992 - Tuncurry Sand Quarry - EPL 13359
To: Matt Neil <matt.neil@lafargeholcim.com>

Hi Matt,

Please find attached correspondence regarding proposed variation of Environment Protection Licence 13359 for Tuncurry Sand Quarry. Please provide the requested information and any comments to the EPA by the requested date.

Please contact me if you have any questions.

Regards,

Rebecca Akhurst

Operations Officer

Regulatory Operations Metro

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Please note I work Monday, Tuesday and Wednesday

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PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL


--
Matthew Neil

Quarry Manager

Holcim Jandra Quarry and Tuncurry sands

Mob-0429790627

Ph-0265543169

 A member of LafargeHolcim

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PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL

Shilpa Shashi <shilpa.shashi@holcim.com>
To: Matt Neil <matt.neil@lafargeholcim.com>

Wed, Jul 14, 2021 at 5:26 PM

FYI - Good news. Lets talk tomorrow.
[Quoted text hidden]

Shilpa Shashi <shilpa.shashi@holcim.com>
To: Greer Laing <GLAING@ramboll.com>

Wed, Jul 14, 2021 at 5:27 PM

FYI - Good news :)

----- Forwarded message -----
From: **Rebecca Akhurst** <Rebecca.Akhurst@epa.nsw.gov.au>
Date: Wed, Jul 14, 2021 at 5:21 PM
Subject: RE: Draft Licence Variation Notice No. 1609049 - Jandra Quarry - EPL 2796
To: Shilpa Shashi <shilpa.shashi@holcim.com>

[Quoted text hidden]

Greer Laing <GLAING@ramboll.com>
To: Shilpa Shashi <shilpa.shashi@holcim.com>

Wed, Jul 14, 2021 at 5:30 PM

Great news!

I wonder if Jandra bought or are renting the HVAS from VGT?

Kind regards

Greer Laing

Lead Consultant

D +61 2 4962 5444

M +61 477 434459

glaing@ramboll.com

Ramboll Australia Pty Ltd.
ACN 095 437 442
ABN 49 095 437 442

[Quoted text hidden]

Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au>
To: Shilpa Shashi <shilpa.shashi@holcim.com>

Wed, Jul 14, 2021 at 6:06 PM

Hi Shilpa,

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- a description of what data will be collected and the frequency in which the data is captured and reported;
- access to and management of the data collected; and
- how the monitoring data will be used both pro-actively and reactively (for example to support the premises air quality strategy).

An update to the AQMP need not hold up finalisation of the licence variation. These updates can occur afterwards.

Please note that the proposed variation does not remove any other monitoring requirements required by any relevant development consent. Please advise if you believe the proposed monitoring conflicts with any development consent requirements.

Regards,

Rebecca Akhurst

Operations Officer

Regulatory Operations Metro

NSW Environment Protection Authority

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The EPA acknowledges the traditional custodians of the land and waters where we work. As part of the world's oldest surviving culture, we pay our respect to Aboriginal elders past, present and emerging.

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Please note I work Monday, Tuesday and Wednesday

[Quoted text hidden]

[Quoted text hidden]

Shilpa Shashi <shilpa.shashi@holcim.com>

Thu, Jul 15, 2021 at 4:19 PM

To: Greer Laing <GLAING@ramboll.com>

FYI

[Quoted text hidden]

Shilpa Shashi <shilpa.shashi@holcim.com>

Mon, Aug 16, 2021 at 3:44 PM

To: Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au>

Cc: Matt Neil <matt.neil@lafargeholcim.com>

Hi Rebecca,

Trust you are well. Rebecca, I am working on Jandra's Air Quality Management Plan. I have also spoken to DPIE, they have accepted the use of Dust Sentry. As advised, I will be working on the Air Quality Management Plan, and will submit that through the DPIE portal this month.

Any updates on the EPL for Licence?

Many thanks,

Shilpa Shashi

Planning and Environment Coordinator NSW / ACT

Holcim (Australia) Pty Ltd

Level 7 Tower B - 799 Pacific Highway Chatswood NSW 2067

M +61 427 859 852

www.holcim.com.au

Please consider the environment before printing this email.

E shilpa.shashi@holcim.com

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Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au>

Wed, Aug 18, 2021 at 12:56 PM

To: Shilpa Shashi <shilpa.shashi@holcim.com>

Hi Shilpa,

Thanks for the update. If you can confirm that you are happy for me to amend condition M2.2 as per below then I will finalise the licence variation for you.

POINT 11

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Continuous	Special Method 1

Note: Special Method 1 means sampling an analysis using the aeroqual Dust Sentry Pro particle monitor.

Regards,

Rebecca Akhurst

A/Senior Operations Officer

Regulatory Operations Regional

NSW Environment Protection Authority

D 02 4908 6807 | M 0408 611 267

Please note I work Monday, Wednesday and Thursday



www.epa.nsw.gov.au @NSW_EPA

The EPA acknowledges the traditional custodians of the land and waters where we work. As part of the world's oldest surviving culture, we pay our respect to Aboriginal elders past, present and emerging.

Report pollution and environmental incidents 131 555 or +61 2 9995 5555

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Shilpa Shashi <shilpa.shashi@holcim.com>
To: Rebecca Akhurst <Rebecca.Akhurst@epa.nsw.gov.au>

Fri, Aug 20, 2021 at 6:09 PM

Hi Rebecca,

Thanks, Yes please.. Please could you amend the EPL. We are working on the Air Quality Management Plan to reflect the change.

Many thanks,

Shilpa Shashi
Planning and Environment Coordinator NSW / ACT

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