



Our reference: DOC14/147958-02, EF13/3895
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Mining Projects
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Thomas Watt

Dear Mr Watt

Jandra Quarry Intensification Project (DA 231-10-99 MOD 5)

I refer to correspondence received from the Department of Planning dated 30 July 2014 including the referenced document titled: *Jandra Quarry Intensification of Production Environmental Assessment (DA 231-10-99 MOD 5)*" (the modification) dated July 2014, and your request for comments from the Environment Protection Authority (EPA) regarding the modification.

The EPA understands the application is being considered under section 75W of the *Environmental Planning and Assessment Act 1979* to modify the existing development consent. The modification includes:

- extending the hours of operation to include weekday evenings (new hours 6:00am to 10:00pm Monday to Friday) and from 6:00am to 6:00pm Saturday, refuelling, servicing and maintenance from 6:00am to 10:00pm Monday to Saturday and the return of trucks to midnight;
- allowing 24 hour operation of asphalt production on a campaign basis;
- increasing maximum production from 250,000 to 475,000 tonnes per annum;
- processing some concrete batch plant waste;
- increasing the number of vehicle movements;
- increasing the frequency of blasting.

An issue relating to noise impacts needs to be addressed prior to consent being granted. Apart from this, the proposed modifications are such that most issues can be addressed via existing conditions of consent. The EPA has proposed additional conditions to address noise, air and waste issues associated with the proposal. Further details and suggested conditions are shown in the attachment to this letter.

Please contact Cameron Perry on (02) 4908 6808 if you require further information regarding this matter.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'P. Jamieson', followed by the date '18-8-14'.

PETER JAMIESON
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Attachment

Conditions that should be considered by the Department of Planning relating to this modification are shown below.

Scale and hours of operations

Should Department of Planning consider consent appropriate, conditions are necessary with regard to scale of operations and also hours of operation.

Noise

It is noted that during asphalt plant operation noise levels of up to 7 dBA above the criteria are predicted to occur at Residential Receiver 1. The Environmental Assessment notes that criteria could be met by constructing a noise barrier immediately east of the asphalt plant, but does not commit to this action. This is not acceptable. The proponent needs to implement feasible and reasonable noise ameliorative works to meet relevant noise criteria or come to a negotiated agreement. This issue needs to be resolved prior to consent being granted.

The EPA notes that it is predicted that Residential Receiver 1 will be subjected to noise levels up to 5 dBA above the day/evening criteria during Stages 2 and 3 (levels up to 8 dBA above criteria during worst case atmospheric conditions). The Department of Planning, when weighing up all relevant considerations (social, environmental, economic) needs to give consideration as to whether this impact is acceptable. The EPA understands that where noise exceeds the criteria by 5 dBA or greater and the Department of Planning considers the proposal on balance should be approved then a "purchase upon request" option is included in the consent. The EPA supports this approach for Residential Receiver 1 should the Department think approval appropriate.

It is also noted that Residential Receivers R2 and R6 are predicted to exceed the relevant criteria by 2 dBA when operations are occurring at or above RL74 (predicted to exceed criteria by up to 6 dBA under worst case atmospheric conditions). No ameliorative works have been proposed to address these non-compliances. The EPA recommends the following condition:

1. There must be no operations between 6 am to 7 am or 6 pm to 10 pm above RL 74 unless a Private Agreement is in place with all residences that experience noise greater than the noise limits or unless all affected dwelling have be acoustically treated to meet the intent of the noise limits.

It is noted that to meet project specific noise criteria in the early morning shoulder period operations need to be restricted. Although committed to by the proponent the EPA thinks it prudent to include these restrictions as a condition of consent. That is:

2. To ensure noise limits can be met during in the morning, during the early morning shoulder period (6 am to 7 am) there must be:
 - a. No works in the approved overburden emplacement area;
 - b. No works above RL 50; and
 - c. No operation of the mobile crushing plant.

It is noted the existing consent does not include noise limits. Given the proposed extent of expansion in operations noise limits are considered appropriate. The EPA recommends the following noise limits and explanatory conditions:

3. Noise generated at the premises must not exceed the noise limits in the table below. The locations referred to in the table below are indicated in the document titled: *Jandra Quarry Intensification of Production Environmental Assessment (DA 231-10-99 MOD 5)* dated July 2014

Residential Receivers	Day	Evening	Night (including Morning Shoulder 6-7 am)	
Noise descriptor	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (1 min)
R1, R4, R5, R8 and R9	41	41	40	51
R2, R6 and R7	39	38	38	48

Note: The EPA has not included Residential Receiver R10 as it is owned by the Quarry and will be demolished. The EPA has not included Residential Receiver R3 due to the high ambient noise levels already recorded at this site and the predicted low noise impacts from quarry operations brought about by natural acoustic shielding.

4. For the purpose of the condition 3;
- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays.
 - Evening is defined as the period 6pm to 10pm.
 - Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.
5. The noise limits set out in condition 3 apply under all meteorological conditions except for the following:
- a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or
 - b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
 - c) Stability category G temperature inversion conditions.
6. For the purposes of condition 5:
- a) Data recorded by the meteorological station identified as EPA Identification Point <?> must be used to determine meteorological conditions ; and
 - b) Temperature inversion conditions (stability category) when determined by the sigma-theta method must be determined in accordance with Part E2 of Appendix E to the NSW Industrial Noise Policy. Temperature inversion conditions (determined by vertical temperature gradient in degrees C) are to be determined by direct measurement over a minimum 50m height interval as referred to in Part E2 of Appendix E to the NSW Industrial Noise Policy.
7. To determine compliance:
- a) with the L_{eq(15 minute)} noise limits in this Noise Limits condition, the noise measurement equipment must be located:

- approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
 - within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
 - within approximately 50 metres of the boundary of a National Park or a Nature Reserve.
- b) with the $L_{A1(1 \text{ minute})}$ noise limits in this Noise Limits condition, the noise measurement equipment must be located within 1 metre of a dwelling façade.
- c) with the noise limits in this Noise Limits condition, the noise measurement equipment must be located:
- at the most affected point at a location where there is no dwelling at the location; or
 - at the most affected point within an area at a location prescribed by this Noise Limits condition.
8. A non-compliance of this Noise Limits condition will still occur where noise generated from the premises in excess of the appropriate limit is measured:
- at a location other than an area prescribed by this Noise Limits condition; and/or
 - at a point other than the most affected point at a location.
9. For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

The consent currently limits the proponent to conducting noise monitoring every three years. This may not be appropriate given the proposed scaling up of production and hours of operation. The EPA therefore proposes rewording of Condition 44 of the consent to read.

44. To assess compliance with Condition 3, attended noise monitoring must be undertaken in accordance with the above conditions and:
- a. at Residential Receiver locations R1 and R2 as shown in the document titled: *Jandra Quarry Intensification of Production Environmental Assessment (DA 231-10-99 MOD 5)* dated July 2014 (or at other locations detailed in writing by the EPA);
 - b. occur yearly or other frequency required by the EPA;
 - c. occur during each day, evening and night period as defined in the NSW Industrial Noise Policy.
10. For each monitoring point specified in the table below the proponent must monitor, or be able to obtain data from a representative weather station, the parameters specified in Column 1. The proponent must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Air temperature	°C	Continuous	1 hour	AM-4
Wind direction	°	Continuous	15 minute	AM-2 & AM-4
Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4
Sigma theta	°	Continuous	15 minute	AM-2 & AM-4
Rainfall	mm	Continuous	15 minute	AM-4
Relative humidity	%	Continuous	1 hour	AM-4

Air

The EPA notes that it is predicted that odour impacts from the asphalt will be well below the relevant criteria and consequently the Environmental Assessment predicted odours are unlikely to cause any nuisance at any nearby sensitive receivers. It is appropriate to formalise this assessment via a condition of consent as shown below.

11. The proponent must not cause or permit the emission of offensive odour beyond the boundary of the premises.

The EPA notes Condition 43A of the existing consent requires monitoring every three years for total suspended particulates. Given the proposed scaling up of operations and the move towards the measurement of finer fractions of dust the EPA suggests the following rewording of the condition as follows:

- 43A. Notwithstanding Condition 43, the concentration of fine particulates less than 10 µm in diameter, as measured by PM₁₀, must be measured annually at Residence R1 at a time generally corresponding to when winds are blowing towards Residence R1 and quarry operations are consistent with normal operations (or at another location or other frequency or time as advised in writing by the EPA).

Note: Residential Receiver R1 is shown in the document titled: *Jandra Quarry Intensification of Production Environmental Assessment (DA 231-10-99 MOD 5)* dated July 2014.

Waste Receipt and Processing

The EPA notes that the modification includes the transportation and processing on the premises of "Concrete Washout Material" from regional concrete batch plants. The Environmental Assessment notes this concrete waste would be stockpiled on site in bunded areas, processed and blended with quarry raw product to produce road base. Based on the information detailed in the Environmental Assessment the EPA has no objection to this practice, however the Environment Protection Licence for the facility would need to be amended to allow this to occur and should consent be granted for the modification it is the intent of the EPA to add the following condition to the licence.

12. The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below.

Code	Waste	Description	Activity	Other Limits
NA	General or Specific exempted waste	Waste that meets all the conditions of a resource recovery exemption under Clause 51A of the <i>Protection of the Environment Operations (Waste) Regulation 2005</i>	As specified in each particular resource recovery exemption.	NA
	General solid waste (non-putrescible)	Concrete "wash-out" wastes from concrete batch plants only	The waste must be stockpiled on site in bunded areas and can be processed and blended with quarry raw product to produce quarry product(s).	Must not process greater than 3,000 tpa or store greater than 1,500 tonnes at any time.

End