

Recommended Conditions of Consent - EPA Comments



Notice No. - 1596266

DEPARTMENT OF PLANNING INDUSTRY AND ENVIRONMENT
ABN 20 770 707 468
4 PARRAMATTA SQUARE, 12 DARCY STREET
PARRAMATTA NSW 2150

Attention: Caleb Ferry

Notice Number 1596266
File Number SF20/282
Date 24-Jun-2020

Dear Mr Ferry

EPA Response to additional information provided for SSD Modification - Roberts Road Quarry - DA267/11/99 Mod 4

I refer to the application by Hodgson Quarries and Plant Pty Ltd to modify development consent DA267-11-99 and the accompanying additional information provided to the Environment Protection Authority (EPA) on 25 May 2020. The EPA has reviewed the additional information provided relating to Air and Noise, including the revised Noise Impact Assessment to reflect the Noise Policy for Industry (NPfI).

Hodgson Quarries and Plant Pty Ltd (the proponent) operates the Roberts Road Quarry located on the corner of Roberts Road at Maroota NSW (the premises). The proponent is seeking to modify the development consent (DA 267-11-99) for the premises to allow for importation of Virgin Excavated Natural Material (VENM) and Excavated Natural Material (ENM) for backfilling the extraction area to construct a free-draining final landform, and to undertake processing and blending. The modification of consent is sought to:

- import Virgin Excavated Natural Material (VENM) and Excavated Natural Material (ENM), to backfill the extraction area and create a final landform. Up to 320,000 tonnes per annum of VENM/ENM is proposed to be imported;
- On-site processing of selected, high sand content VENM and ENM for sale or blending with sand produced from the in-situ resources;
- Increase in the number of traffic movements permitted each day from 100 to 140. Up to 40 additional truck movements per day are associated with the proposed importation of VENM and ENM.
- An extension of the approved quarry life from 31 May 2025 to 31 May 2030.
- Removal of a condition limiting the area of exposed and active quarry extents to allow for backfill and rehabilitation of the completed sections of the Quarry with VENM and ENM.

I refer to your correspondence dated 25 May 2020 seeking advice from the EPA in relation to the additional information provided following the EPA's review of the Response to Submissions and request for further additional information dated 15 April 2020. The EPA has reviewed the additional information provided relating to Air and Noise, including a revised Noise Impact Assessment to reflect the Noise Policy for Industry (NPfI).

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The EPA has issued Environment Protection Licence No 6535 (EPL) under the *Protection of the Environment Operations Act 1997 (Act)* to HB Maroota Pty Ltd in respect of the site located at Cnr Roberts and Old Northern Roads, Maroota, NSW 2756, Lot 1 DP 228308, Lot 2 DP 228308 and Lot 2 DP 312327 (premises). The EPL permits the following scheduled activities:

- extractive activities (up to 500,000T tpa)
- crushing, grinding, or separating activities (each permitted up to 500,000T tpa)

If the proposed amount of VENM and ENM is approved the EPL will require variation under s.58 of the Act to include appropriate ancillary activities such as 'Receipt and processing of VENM and 'Receipt of ENM' on the EPL. This will limit the amount of and processing of VENM and ENM received, as approved by any conditions of consent. The applicant will need to apply separately to the EPA to vary this licence.

The licensee will also be required to comply with the conditions of *The excavated natural material order 2014 and The excavated natural material exemption 2014* (made under Clause 93 of the *Protection of the Environment Operations (Waste) Regulation 2019*).

The EPA has reviewed the additional information provided and is of the view that if the current activity is modified, EPL No. 6535 should be varied to effectively regulate the modified activity. The applicant will need to apply separately to the EPA to vary this licence. The EPL variation will also include changes to conditions, where relevant, around Air, Water and Noise.

Background

On 3 February 2020 the EPA provided a response (DOC20/6390) which identified issues with:

- the Air Quality Impact Assessment (AQIA), a revised AQIA to address the issues identified was requested,
- the Noise Impact Assessment (NIA), a revised NIA in line with the Noise Policy for Industry (NPfI) was requested,
- potential water pollution risks - a water impact assessment was requested with requirements provided along with recommended conditions to address the residual water pollution risks.

On 15 April 2020 the EPA provided a response (DOC20/249727-8) following review of additional information provided, which resulted in additional information being requested:

- Air - Revised AQIA, issues identified with the air quality impact assessment have been adequately addressed the referenced site-specific monitoring data for annual average PM_{2.5} is significantly above the annual average impact assessment criteria of 8 ug/m³. The EPA recommended that prior to project determination the proponent investigate the source of elevated annual average PM_{2.5} impacts from current operations, and if required propose mitigation and rectification measures to reduce these impacts. The EPA will consider requiring these measures to be implemented via a pollution reduction program or special condition on the licence. In Umwelt's response dated 20 May 2020, it was advised that "the requirement for a Pollution Reduction Program is not warranted".
- Noise - March 2020 Response to Submissions (RtS) did not address the EPA's concerns. The EPA also noted that the EPL was not updated following approval of MOD 3, therefore different metrics were used to assess noise related morning limits (L10 vs. Leq). The EPA requested that the NIA be revised in line with the NPfI, as requested in previous letters to Umwelt on 24 April 2020 and DPIE on 3 February 2020.
- Water - The RtS clarified that no discharges are expected to occur during operational quarrying, however the RtS indicated that discharges may be required during construction of final landform. No further assessment is required at this stage given that no licensed discharge point is currently proposed. A recommended condition of approval was provided. In Umwelt's response dated 20 May 2020, it was advised that "the Applicant does not object to this condition".

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On 30 April 2020 a teleconference between representatives from the EPA and Umwelt was held. During the teleconference the EPA discussed the issues raised, relating to Noise, in their response to DPIE (letter dated 15 April 2020) to assist Umwelt understand the issues and request for an updated NIA in line with the NfPI.

Recommendation

The EPA has reviewed the information provided in Umwelt's response dated 20 May 2020.

Noise

The EPA is satisfied with the responses to our requests in relation to Noise. Recommended licence conditions are provided in **Attachment A**. Please note that the attached conditions contain noise limits for the receivers identified as A, B, C, D, F, G, H within the Umwelt report. Receiver E is located away from the quarry and was only referenced by Umwelt for traffic noise purposes.

We note that receivers B, D and H in the report (1st, 4th and last address in the attached GTA table, respectively) have recommended noise levels that equivalent to the predicted noise levels the updated report rather than the Project Noise Trigger Levels (PNTLs). In this instance, we have not recommended licencing these locations to the PNTLs because the predicted noise levels are representative of the existing noise environment, which is consistent with how the Noise Policy for Industry applies to existing sites (Section 6.1).

Although Umwelt have recommended alternative consent conditions in Table 6.3 of their report, the EPA recommends that at locations where the predicted noise levels are below the PTNLs, the PTNL should be adopted as the appropriate noise limit in the licence. These recommendations are set out in the attachment A.

Air

The EPA still has a remaining outstanding issue relating to the predicted annual average PM2.5 (cumulative) ground level concentrations, which are significantly above the EPA impact assessment criteria. The EPA would like the proponent to investigate the source of elevated annual average PM2.5 impacts from current operations, and if required, propose mitigation and rectification measures to reduce these impacts. Further detailed comments can be found at **Attachment B**.

The EPA recommends a further teleconference to discuss resolution of the remaining outstanding issue with the proponent followed by the agreed additional information.

In the event that the proposal is further modified, either by the applicant prior to the granting of consent or by DPIE as a result of the conditions proposed to be attached to the consent, the EPA requests that DPIE consult with the EPA about the changes before modifying the consent. This will enable EPA to determine whether the proposed licence conditions need to be modified in light of the changes.

If you have any questions, or wish to discuss this matter further please contact Lisa Crambrook on (02) 8837 6079 or email lisa.crambrook@epa.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Lara Barrington'.

.....
Lara Barrington

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Unit Head Regulatory Operations

Metropolitan West

(by Delegation)

Attachment A - Recommended licence conditions - Noise

Attachment B - Detailed comments on additional information provided relating to Air

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Attachment A - Recommended licence conditions - Noise

Noise Limit Conditions

L6.1 Noise generated at the premises must not exceed the noise limits at the times and locations in the table below.

Location	Noise Limits in dB(A)
	Day
	LAeq(15 minute)
100 Old Telegraph Road, Maroota (Lot B, DP356946)	40
35 Roberts Road, Maroota (Lot 2, DP548169)	44
4471 Old Northern Road, Maroota (Lot A, DP356946)	41
11 Roberts Road, Maroota (Lot 1, DP548169)	43
4460 Old Northern Road, Maroota (Lot 1, DP570966)	41
59 Roberts Road, Maroota (Lot 10, DP206018)	40
45 Roberts Road, Maroota (Lot 9, DP206018)	43

L6.2 For the purposes of condition L6.1:

- a) Day means the period from 7am to 6pm Monday to Saturday and the period from 8am to 6pm Sunday and public holidays.

L6.3 Noise-enhancing meteorological conditions

- a) The noise limits set out in condition L6.1 apply under the following meteorological conditions:

Assessment Period	Meteorological Conditions
Day	Stability Categories A, B, C, D and E with wind speeds up to and including 3m/s at 10m above ground level.

- b) For those meteorological conditions not referred to in condition L6.3(a), the noise limits that apply are the noise limits in condition L6.1 plus 5dB.

L6.4 For the purposes of condition L6.3:

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- a) The meteorological conditions are to be determined from meteorological data obtained from a meteorological weather station
- b) Stability category shall be determined using the following method from Fact Sheet D of the *Noise Policy for Industry* (NSW EPA, 2017):
 - i. Pasquill-Gifford stability classification scheme (section D1.3.1).

L6.5 To assess compliance:

- a) with the LAeq(15 minutes) noise limits in condition L6.1, the noise measurement equipment must be located:
 - (i) approximately on the property boundary, where any residence is situated 30 metres or less from the property boundary closest to premises; or where applicable,
 - (ii) in an area within 30 metres of a residence façade, but not closer than 3 metres where any residence on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable,
 - (iii) in an area within 50 metres of the boundary of a National Park or Nature Reserve,
 - (iv) at any other location identified in condition L6.1
- b) with the LAeq(15 minutes) noise limits in condition L6.1, the noise measurement equipment must be located:
 - (i) at the reasonably most affected point at a location where there is no residence at the location; or,
 - (ii) at the reasonably most affected point within an area at a location prescribed by condition L6.5 (a).

L6.6 A non-compliance of conditions L6.1 will still occur where noise generated from the premises is measured in excess of the noise limit at a point other than the reasonably most affected point at the locations referred to in condition L6.5 (a) or L6.5 (b).

NOTE to L6.5 and L6.6: The reasonably most affected point is a point at a location or within an area at a location experiencing or expected to experience the highest sound pressure level from the premises.

L6.7 For the purpose of determining the noise generated from the premises, the modifying factor corrections in Table C1 in Fact Sheet C of the *Noise Policy for Industry* (NSW EPA, 2017) may be applied, if appropriate, to the noise measurements by the noise monitoring equipment.

L6.8 Noise measurements must not be undertaken where rain or wind speed at microphone level will affect the acquisition of valid measurements.

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Attachment B - Detailed comments on additional information provided relating to Air

Information reviewed in providing comments

- *Additional Information Responding to the EPA's review of the Response to Submissions prepared to support Roberts Road Quarry Modification 4 (DA267-11-99-Mod-4)*, prepared by Umwelt (Australia) Pty Limited dated 20 May 2020 (the additional information)
- *Air Quality Impact Assessment for Proposed Modification 4*, dated 18 March 2020, prepared by Jacobs Group (Australia) Pty Limited (the revised AQIA)

Previous EPA comments and recommendations

The EPA previously:

- Advised that whilst the assessment identifies mitigation measures, the existing site specific annual average PM2.5 concentrations are significantly above the impact assessment criteria. This indicates an impact occurring from existing operations. This then further identifies potential issues with the actual implementation of mitigation measures consistent with best practice
- Recommended that the proponent investigate the source of elevated annual average PM2.5 impacts from current operations (which have been adopted as background), and if required, propose mitigation and rectification measures to reduce these impacts. The recommendation was based on the air quality impact assessment having adopted an annual average PM2.5 concentration of 13.5 $\mu\text{g}/\text{m}^3$ for assessing cumulative impacts, based on existing monitoring data collected at the premises.

Adopted annual average background PM2.5 concentration

The additional information makes reference to information provided in the revised AQIA, with some additional context, and makes reference to the monitoring data collected from the onsite High Volume Air Sampler (HVAS), the Dixon Sands TEOM, and the NSW government monitoring station at Richmond (approximate 25 km from the premises)

The additional information makes the conclusion that the collected data is indicative of elevated PM2.5 concentrations on a regional scale, as opposed to a local (Quarry specific) one. Consequently, the proponent considers a Pollution Reduction Program to reduce PM2.5 impacts is not warranted.

Derivation of the adopted annual average PM2.5 concentration for assessing cumulative impacts

The estimated annual average PM2.5 concentration adopted in the assessment was derived from:

- Calculated PM2.5/PM10 ratios from the monitoring data collected at the HVAS, which is located adjacent to the main internal access road. The HVAS operates on a six-day cycle sampling frequency.
- Applying the ratio to the continuous PM10 data collected at the Dixon Sands TEOM
- Data for the 2017 calendar year

An annual average PM2.5 concentration of 13 $\mu\text{g}/\text{m}^3$ was derived and adopted in the revised AQIA.

Comparison of referenced monitoring data

TA-Air provide the following high-level comparison of monitoring data for the referenced monitoring locations (refer to table below) for 2017, the year modelled in the air quality impact assessment.

Indicative comparisons of monitoring data for 2017 Calendar Year

Monitoring Location	PM2.5 ($\mu\text{g}/\text{m}^3$)		PM10 ($\mu\text{g}/\text{m}^3$)	
	Max (24 hour)	Annual Average	Max (24 hour)	Annual Average
Richmond	34	7	52	16

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Onsite HVAS	54	12	48	15
Dixon Sands TEOM	-	-	52 ¹	13

¹Approximate only. Estimated from figure 5-4 of the revised AQIA

The EPA provide the following indicative observations:

- Annual average PM10 at Richmond, onsite HVAS, and Dixon Sands TEOM monitoring locations are not considered substantially different, noting differences in monitoring methods and data sizes
- Maximum 24-hour PM10 at Richmond, Onsite HVAS, and Dixon Sands TEOM monitoring locations are not considered substantially different, noting differences in monitoring methods and data sizes
- Annual average PM2.5 and maximum 24-hour PM2.5 at the onsite HVAS are notably higher than the Richmond monitoring data. The differences are more substantial than differences in PM10 monitoring data.

Based on the above the EPA consider that the PM2.5 monitoring data utilised as the basis for assessing cumulative impacts is not indicative of issues on a regional level, but are more likely due to local PM2.5 sources or issues around the quality and accuracy of the HVAS PM2.5 data.

In considering the HVAS PM2.5 monitoring data, the EPA has conducted a screening review of the data published on the Hodgsons Quarries Website (<https://www.vgt.com.au/hodgsons>). It is noted that of the 61 monitoring results reported in 2017, nine of the monitoring periods show a PM2.5 concentration that is greater than the measured PM10 concentration reported on the same day. This indicates issues around the quality and accuracy of the HVAS data.

The EPA notes that the HVAS monitoring is located within the boundary of the premises, and hence data collected from this location may not be representative of offsite concentrations.

Additionally, the comparative information provided by the proponent contradicts information presented in the revised Air Quality Impact Assessment, which states “*The measured annual average of 11.6 ug/m³ at the Quarry is also well above the values measured over the last five calendar years (2013 to 2018 inclusive) at the nearest air quality monitoring station operated by the Office of Environment and Heritage (OEH) at Richmond. Over these five years annual averages of 6.7, 7.7, 7.9, 7.0 and 8.1 ug/m³ were measured*”.

The contradicting information is an issue as the elevated on-site and Dixon Sands monitoring data was used in the revised air quality impact assessment as justification for its inclusion in the air quality impact assessment to represent the impact of the existing Quarry.

Proponent commitments

The EPA notes that the additional information advises that the proponent has committed to completing a review of the location of the Quarry HVAS, as part of an overall review of the Air Quality Management plan, with relocation undertaken where practical.