DOC19/871107-3

Mr Anthony Ko
Senior Environmental Assessment Officer
Department of Planning, Industry and Environment
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Dear Mr Ko

Proposed Snowy 2.0 – Segment Factory, Cooma – SSI-10034 – EIS Exhibition

I refer to the public exhibition of the Environment Impact Statement (EIS) for the proposed Snowy 2.0 Segment Factory at Cooma and the request for comments from the NSW Environment Protection Authority (EPA). This request was received via the Department of Planning, Industry and Environment (DPIE) Major Projects Portal on 4 October 2019.

The EPA has reviewed the EIS for the proposal "Snowy 2.0 *Environmental Impact Statement – Proposed Segment Factory*" prepared by EMM consulting dated 25 September 2019 and provides the following comments for DPIE's consideration. Attachment 1 to this letter outlines the specific details of the EPA's assessment, with it's recommendations highlighted in italics.

In summary, the EPA has identified some issues with the noise and vibration impact assessment (Appendix G of the EIS) and the air quality impact assessment (Appendix I of the EIS) that require further clarification. It is recommended that DPIE seek clarification of these issues from the proponent to enable the complete assessment of the EIS.

Should the proposed segment factory be approved, the proponent will need to apply to the EPA for an Environment Protection Licence (EPL) for the scheduled activity "Concrete works". This EPL will be required for both the construction and operational phases of the proposed segment factory.

I trust these comments will assist DPIE in the assessment of the proposal. Should you have any queries or wish to discuss this matter further, please contact Nigel Sargent on (02) 6229 7002 or via email to queanbeyan@epa.nsw.gov.au

Yours sincerely

Gary Whytcross 6 November 2019.

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ATTACHMENT 1

NOISE AND VIBRATION

The *Proposed Segment Factory Noise and Vibration Impact Assessment* (September 2019) in Appendix G of the EIS has appropriately considered noise and vibration. Residual noise impact from both the construction and operation of the segment factory are predicted. Exceedances of the road traffic noise criteria during the peak periods on the Snowy Mountains Highway (south) and Polo Flat Road (north) are also predicted. These issues are detailed further below and should be addressed prior to determination.

1. Operational noise may be underestimated

Noise from the operation of the segment factory has been assessed in accordance with the Noise Policy for Industry (EPA, 2017) under noise-enhancing conditions. However, operational noise impacts at properties on Carlaminda Road may have been underestimated. The properties are described as industrial land-uses and assessed against the (Noise Policy for Industry) amenity criterion of 70 dB(A) Leq. However, it is understood these properties are residential premises, in which case the project intrusiveness noise level should be applied. This would lead to exceedances of 4 dB during the day and 8 dB during evening and night periods at R2, which are 'marginal' and 'moderate' residual noise impacts respectively.

The EPA recommends the proponent amend the noise assessment to assess the properties on Carlaminda Road as residential premises (including a maximum noise level assessment at night) or provide further information to justify classifying these properties as industrial land-uses.

2. Construction noise exceedance

Construction of the segment factory is anticipated to take approximately five-months. Some work is scheduled outside of the recommended standard hours in Table 1 of the *Interim Construction Noise Guideline* (DECC, 2009) on Saturdays during the periods 7am to 8am and 1pm to 5pm. An exceedance of up to 7 dB is predicted at a residence on Carlaminda Road.

The EPA recommends the proponent should investigate further feasible and reasonable mitigation including a commitment to managing residual construction noise impacts in the Environmental Management Plan described in Section 7 of the noise impact assessment.

3. Increase in road traffic noise

Road traffic noise is predicted to increase on Snowy Mountains Highway (south) and Polo Flat Road (north) by 5.5 dB and 2.4 dB respectively over a duration of up to 3-months. These changes in road traffic will be noticeable to the community during this period.

The EPA recommends that the proponent should ensure a traffic management plan is in place, including community notification and/or engagement.

4. Cumulative noise impacts

The proposed segment factory will supply tunnel linings for the proposed Snowy 2.0 project (main works) with both these project components to operate concurrently. This will result in cumulative changes in noise levels in certain areas and locations, including Cooma. The EPA advises that the community will hear and likely be affected by noise at difference times during the overall Snowy 2.0 project. In particular, proposed changes in traffic volume and composition increases in road traffic noise (even when these comply with relevant criteria) is likely to be the major cause of this.

As a result, the acoustic environment is likely to change and activities associated with the Snowy 2.0 project will be audible, particularly as the project progresses.

The EPA recommends that the proponent monitor the cumulative changes to the acoustic environment and the potential for this to impact upon on the amenity of the community that live in and around the Snowy 2.0 project areas.

AIR QUALITY

The EPA has reviewed the Air Quality Impact Assessment (AQIA), *Proposed Segment Factory, EMM Consulting Pty Ltd., September 2019* in Appendix I of the EIS. The AQIA was generally prepared in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (Approved Methods)*. However, the following issues should be addressed prior to determination.

1. Assessment does not include a worst-case scenario

The AQIA included a modelling scenario based on maximum 12-month production:

"A single air pollutant emissions scenario representative of maximum 12-month production at the proposed segment factory has been configured to quantify worst-case emissions from the operational phase"

Although this scenario is representative of expected operations, the inclusion of a worst-case modelling scenario based on maximum daily material handling is likely to result in higher project-related increments and additional predicted exceedances.

The EPA recommends:

a) ***The proponent should revise the AQIA to include a worst-case scenario representative of expected maximum daily operations, including maximum peak daily material handling.***
b) ***The AQIA should include tabulated contemporaneous predictions and background concentrations for the most impacted receptors for all particle size fractions and averaging periods.***

2. Unclear Emissions inventory assumptions

The AQIA does not transparently justify the emissions for the modelled scenario. Some assumptions and input data used in the emission estimation calculations have not been adequately justified, including:

- Hauling

The emissions inventory presented as part of the AQIA shows that the most significant contribution to TSP, PM_{10} and $PM_{2.5}$ emissions are from hauling (73%, 57% and 40% respectively). However, a screening review of the estimation of emissions for hauling activities shows discrepancies in the methodology used. It is unclear if the haul distance presented in Table D.1 covers round trips or just one direction. For instance, following the same approach used in the AQIA for the calculation of the activity rate for "Raw materials trucks – paved roads" indicates the other activity rates calculated in the table (column 4) below could have been underestimated.

Activity	Distance (km)	Loads/y	Calculated Activity rate (VKT/y)	Activity rate in Table D.1 (VKT/y)
Raw materials trucks - paved roads	0.6	13,728	16,474	16,474
Forklifts transporting segments from shed to paved yard	0.1	20,280	4,056	2,028
Trucks transporting segments from paved yard to storage area	1.0	20,280	40,560	20,280
Forklifts in stabilised soil storage area loading trucks	0.1	8,424	1,685	842
Segment transport - stabilised soil storage area to paved	1.0	8,424	16,848	8,424
Segment transport - paved roads to site exit	1.5	8,424	25,272	12,636

The EPA recommends the proponent revise the AQIA to clarify and transparently present input variables used to calculate expected emissions for hauling activities.

- Boiler combustion emissions

Whilst, the AQIA includes emissions from LPG combustion from the two boilers used in the process, it does not clearly state the number of hours the boilers are expected to operate. In this sense, there is uncertainty regarding how representative the estimated boiler emissions are of expected operations.

The EPA recommends the proponent revise the AQIA to justify assumed and adopted input variables used to calculate assessed emissions.

3. Additional controls for large increment and predicted additional exceedances:

Section 7.4 of the AQIA shows that cumulative results for 24-hour $PM_{2.5}$ concentrations result in four additional exceedances across receptors on Polo Flat Road. In addition to the additional exceedances, modelling results for 24-hour PM_{10} concentrations predict large increments. For instance, 24-hour PM_{10} concentrations at the closest residential receptor (R2) are predicted to be 10.6 $\mu g/m^3$, which represents 21% of the EPA impact criterion (50 $\mu g/m^3$). A revised worst-case scenario including daily maximum processing quantities is likely to result in even larger increments.

The assessment states that the additional exceedances are due to high background levels. It is then concluded that the operation of the proposed segment factory is unlikely to cause adverse air quality impacts. However, based on the information provided in the emissions inventory, the EPA considers not all reasonable and feasible measures are being considered to control particulate emissions from the site. For instance, the estimated $PM_{2.5}$ emissions from diesel combustion from front-end-loaders (FEL) and forklifts (that account for approximately 32% of the total emissions for this pollutant) could be revised to investigate and implement the use of better technologies with lower emissions.

Further, Section 7.7 of the Approved Methods specifies that if the impact assessment criteria are exceeded, the dispersion modelling must be revised to include control strategies until compliance is achieved.

The EPA recommends:

a) The proponent should investigate and include all feasible and reasonable measures to reduce particulate emissions, including contributions from diesel combustion from the onsite fleet, and achieve compliance with the EPA assessment criteria.

b) The proponent nominates and commits to implement controls that are consistent with best practice control of fugitive emissions to minimise potential impacts.