



DOC21/669660-3, EF16/2461

Planning and Assessment Division  
Department of Planning, Industry and Environment  
Returned via Planning Portal

Attention: Joe Fittell

25 August 2021

Dear Mr Fittell,

**Planning Referral – Advice Request  
Hunter Valley Operations South MOD 6- Ammonium Nitrate Emulsion Plant**

I refer to your request for advice received on 5 August 2021 regarding State Significant Development Modification MP06\_0261-Mod-6 (**MOD 6**) for Hunter Valley Operations (**HVO**) South for construction and operation of a modular Ammonium Nitrate Emulsion (**ANE**) Plant.

The EPA has reviewed the MOD 6 application and the accompanying Statement of Environmental Effects report titled '*Proposed Modular Ammonium Nitrate Emulsion Plant*' prepared by Umwelt Environmental & Social Consultants dated July 2021 (**the SEE Report**) and provides the following comments and recommendations:

**Nature of manufacturing process**

The SEE Report states that, based on coal production rates of up to 42Mtpa, ANE requirements 'could be up to approximately 116,000 tpa' but the proposed production scale of the MOD 6 ANE plant is not clearly stated.

The SEE Report variously describes the ANE manufacturing process as continuous processing (in *Process and Risk Report* prepared by Greenice Pty Ltd) and batch or 'not continuous' processing (in *Air Quality Assessment* prepared by Jacobs Group (Australia) Pty Limited).

The EPA requires additional information about the proposed production scale (i.e. limit in tonnes per annum) and manufacturing process.

**Proposed Plant Locations**

The SEE Report states there may be a limited period when both Location A and Location B facilities are in use, however it is unclear whether cumulative impacts have been addressed.

The EPA requires additional information about the potential cumulative impact of the proposal.

## Water Management

The SEE Report states there will be no change to existing surface water and groundwater risks associated with the ANE plant.

Further justification is required to support no groundwater assessment being undertaken including information on ANE plant pollution control design, performance indicators and incident management protocols.

There is a risk that stormwater runoff from the ANE plant may be contaminated and unsuitable for capture in the Lake James Dam which is licensed to discharge to the Hunter River under Environment Protection Licence No. 640. Further information is required to demonstrate best practice stormwater management during the operational phase of the ANE plant.

## Predicted air emissions

The Air Quality Assessment (**AQA**) prepared by Jacobs Group (Australia) Limited applies background pollutant concentrations and meteorological data from 2014. Predicted air emissions are modelled from pollutant concentration data sourced from an ANE plant in Bajool QLD (Steer Environmental Consulting (2017)), however the production scale of this plant is not disclosed.

At Table 9 in the AQA the predicted 1- hour average maximum ground level concentration for NO<sub>2</sub> (µg/m<sup>3</sup>) within 200m of the plant varies significantly between Location A (29.4) and Location B (149.9) with an explanation that the difference is attributed to undulating terrain at Location B.

The AQA states that operational emissions will be primarily produced as exhaust gas from combustion of diesel fuel used to power two thermic fluid heating units if mains power is unavailable. The EPA understands that HVO will likely use mains power electricity which will result in emissions reductions; however, it is unclear in this case what the predominant emission sources would be.

The EPA requires justification for the use of 2014 meteorological data including a comparison to data from other time periods, especially if more recent data exists.

Further information is required about the production scale of the Bajool QLD ANE plant relative to this proposal.

Further information and discussion is required on the NO<sub>2</sub> concentration differences between the two proposed locations and possible dispersion scenarios which may lead to higher concentrations and exceedances of air quality criteria.

Further information is required about other emission sources from the ANE plant and their impact – i.e. from tank degassing or other ventilation sources such as uncovered tank storage.

If you have any questions about this matter, please contact Hannah Schuchmann on 0419 905 137 or email [info@epa.com.au](mailto:info@epa.com.au) (cc: [Hannah.schuchmann@epa.nsw.gov.au](mailto:Hannah.schuchmann@epa.nsw.gov.au)).

Yours sincerely



**STEVEN JAMES**  
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