



DOC17/329352-02; EF16/11941

Mr Matthew Sprott
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Dear Mr Sprott

Comments on Response to Submission report- Mt Pleasant Operation (DA92/97)

Thank you for your email of 19 June 2017 inviting the Environment Protection Authority (EPA) to provide comment on the modification application, DA92/97 MOD3, submitted by MACH Energy Australia Pty Ltd. I note the modification seeks to extend the life of the open cut mine by six years, to 2026, extend overburden and waste rock emplacement areas and other associated amendments to approved final landform design.

MACH Energy Australia Pty Ltd holds Environment Protection Licence 20850 (the Licence) for Mount Pleasant Coal Mine for the scheduled activities of coal works and mining for coal.

The EPA has reviewed the document titled, '*Mount Pleasant Operations – Mine Optimisation Modification – Environmental Assessment*', dated 31 May 2017 prepared by Resource Strategies Pty Ltd (Modification EA).

The EPA advises that the Modification EA does not adequately demonstrate the proposal will not adversely impact the environment. It is recommended that further information be sought from the proponent regarding water management, air quality and noise generation. Explanation and the information sought on each of these areas is provided below.

Water Management

The EPA has concerns regarding management of water on and off-site. There are differences between the already approved water management system and the Modification EA as well as inconsistencies within the Modification EA itself. Justification for changes to the water management system has not been clearly demonstrated.

The EPA's main areas of concern are:

1. Surface Water Plan Presented in Modification EA

Presentation of the surface water management system in the Modification EA is inconsistent.

There are discrepancies between the water management system schematics (the schematics) in the modification, presented in Figure 8 in the main text (under section 2.8 on page 16), and Figure 6 in Appendix E (under section 2.2 on page 10). Figure 6 indicates a discharge from the Fines Emplacement Area (FEA) to Sandy Creek while this is not identified in Figure 8. The EPA does not support the discharge from the FEA offsite due to the potential quality of the water and associated contaminants. The proposal should ensure that all discharges from the FEA area are collected and fully contained within the premises.

Appendix E also suggests a discharge will occur from the Mount Pleasant premises to the Dry Creek Project (Bengalla Mine), however this is not discussed or identified within the main body of the Modification EA.

These discrepancies should be clarified to ensure the water management system to be implemented is adequately assessed and documentation demonstrates the water management system will not have a significant impact on receiving environments.

2. Discrepancies Between Modification EA and Existing Approval.

The water management system reviewed as part of the original approval consisted of six minewater dams, eight sedimentation dams and primary water storage dams. Water Management Plans available on the Mount Pleasant Coal Mine website indicate a different number and layout of minewater dams, sedimentation dams and primary water storage dams. The Modification EA presents a different schematic again with a different number and layout of various dams within the mine.

The proponent should clearly identify the water management system that is to be implemented at the site.

a) Design Criteria dam wall

Figures 3, 4 & 5 of Appendix E (under section 2.2, pages 7-9) in the Modification EA show a layer of 'active waste' in between the FEA and Environmental Dam 2. Active waste is not defined within the Modification EA or previous consent documents. Further information is requested stating the definition and characteristics of 'active waste'.

The EPA also requests further information regarding the design criteria of the FEA. Due to the hazardous nature of material being stored in this area, further clarification is sought to ensure the risk of any discharge is mitigated.

b) Water discharges from the premises.

The proponent must ensure that at all times they comply with section 120 of the *Protection of the Environment Operations Act 1997* which prohibits the pollution of waters. The design of the water management system needs to demonstrate this requirement is satisfied.

The Modification EA schematics (Figures 8 & 6) show discharges from many of the sediment dams to the Hunter River, Sandy Creek and Rosebrook Creek. Currently the Licence does not permit the discharge of water from the premises. Further information is needed to justify the nature and frequency of discharge(s) and the intention with regards to identifying discharge points on the Licence.

The Modification EA references 'overflow due to rainfall in excess of design criteria', however, the design criteria are not specified within the Modification EA. The design criteria for each dam is requested. Additional information is also sought on the frequency, volume and expected quality of

water to be discharged to the environment, as well as the expected quality and quantity of water in the receiving environment during discharge events.

c) Water supply options

The Modification EA states that water availability may be an issue in low water inflow events. Additional water may need to be sourced for use on site, such as for use in the coal handling preparation plant and for dust suppression around the premises.

The Modification EA refers to constructing a pipeline from other surrounding mines to obtain water in times of low water supply. The EPA seeks clarification if this is to be considered as part of the current modification.

If the water supply pipeline forms part of the current modification, the EPA requires the following information:

- Where water is to be sourced from;
- The expected quality and quantity of this water; and
- The expected frequency of the need to require this water.

Consideration should also be given to other alternate sources such as reclaimed water from local municipal sewage treatment plants, rather than drawing from the Hunter River.

Air Quality

A full air quality assessment has been provided to assess the impacts of the proposed modification. This has included explicit inclusion of five nearby mines based on information in the latest development consent for each. These are (year of assessment in brackets): Bengalla (2013); Mount Arthur (2013); Mangoola (2013); Muswellbrook Coal Mine (2016); Drayton South (2015).

The EPA issued EPL 20850 for the mine on 24th November 2016 (before modification 2). Conditions on the EPL include reactive management requiring cessation of dust-generating activities under adverse conditions, being elevated concentrations of PM₁₀ and wind blowing from the north-west sector. The proposed modification does not require change to these licence conditions.

While the proposed modification is not expected to increase impacts to the air environment, assessment shows impacts greater than EPA's impact assessment criterion for annual average PM₁₀ concentration at five privately owned receptors identified as 4, 6, 20, 21, and 43 in the Modification EA. The EPA requests further information regarding options to mitigate these exceedances of annual criterion.

Assessment also shows additional days exceeding the 24-hour impact assessment criterion for each of PM_{2.5} and PM₁₀ at twelve privately owned receptors. Proper implementation of the reactive management scheme mitigates exceedances of the impact assessment criterion for each 24-hour PM₁₀ concentration and 24-hour PM_{2.5} concentration that would otherwise occur.

Noise Generation

The noise and vibration components of the MACH Energy application to modify the consent for the Mount Pleasant Open Cut Coal Mine was reviewed. The EPA can support the proposed modification subject to the following changes.

- Updating of Tables 1, 2 and 3 of the current approval, as proposed in the Wilkinson Murray Noise and Blasting Assessment, which was submitted with the modification application.

- The noise limits in Table 3 of the current approval, as updated, are to apply under all meteorological conditions except:
 - winds greater than 3m/s at 10m above ground level;
 - temperature inversion conditions greater than 3 degrees Celsius per 100m. The reference to OEH should be changed to a reference to EPA in condition 24 (b) of the current approval, which requires continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy (INP), or as otherwise approved. Note this usually requires a 60m tower.

- Modifying factor adjustments are to be applied to the noise limits in Table 3 in accordance with the INP or any superseding NSW government environmental noise policy. This includes any low frequency noise corrections.

- Meteorological conditions are to be those measured at a meteorological station established on the premises or as otherwise agreed with the EPA and DPE. Access to current and historical meteorological conditions is to be made available to EPA and DPE.

The EPA is concerned that no correction factor has been added to measured noise levels to account for low frequency annoying characteristics. The assessment states that this will be done once the modification is approved, if necessary. The EPA notes that in circumstances where a noise assessment has not taken into account a correction factor and the correction factor is found to apply post-approval, there are potentially significant implications, not only with respect to compliance limits but also potentially with the application of acquisition and mitigation rights. The proponent should make adequate contingency for this.

I trust this information is of assistance, if you require any further information regarding this matter, please do not hesitate to contact George Jamieson on (02) 4908 6845

Yours sincerely

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