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20 May 2025

Jarrod Blane
Team Leader
Department of Planning, Housing and Infrastructure

Via: Major Projects Planning portal

EPA Advice on Environmental Impact Statement
Mod 5 Bloomfield Colliery Continuation Project – MP07_0087-Mod-5

Dear Jarrod,

I am writing in response to your request for the NSW Environment Protection Authority (EPA) to review the Environmental Impact Statement (EIS) for the proposed Mod 5 to the Bloomfield Colliery Continuation Project at Four Mile Creek Road, Ashtonfield.

The EPA has reviewed the following documents:

- *Modification Assessment* (revision 0) – GHD – 28 March 2025
- *Air Quality Impact and Greenhouse Gas Assessment* (version 001) – Todoroski Air Sciences – 15 July 2024
- *Noise and Blasting Impact Assessment* (version 2) – EMN – 17 July 2024
- *Groundwater Impact Assessment* (revision 2) – GHD – 19 February 2025
- *Surface Water Impact Assessment* (revision 1) – GHD – 19 February 2025
- *Contamination Assessment* (revision 1) – GHD – 2 September 2022
- *Remediation Action Plan* (revision 0) – GHD – 30 August 2022

The EPA understand the proposal is for:

- Extend approval for mining until 31st December 2035
- Increase mining area by 39ha
- Extract coal to deeper seams (Big Ben) in existing disturbed areas (Creek Cut)
- Increase total ROM extraction by 5.8Mt over mine life
- Reduce the production rate from 1.3Mtpa of ROM coal to 0.9 Mtpa
- Change final landform
- Continue use of infrastructure (coal handling and preparation plant) approved by Abel MP 05_0136 until 31st December 2035

Bloomfield Collieries currently holds Environment Protection Licence (EPL) 396 issued under the *Protection of the Environment Operations Act 1997* (POEO Act) for mining of coal at the premises.

Following review of the EIS and associated documentation, the EPA considers that additional information is needed to address the matters identified below, and recommends the Department of Planning, Housing and Infrastructure (DPHI) consider the following comments as part of its assessment.

1. Matters to be addressed prior to determination

a. Greenhouse gas emissions

The GHG assessment estimates the project will have Scope 1 and Scope 2 emissions above the 25,000 tonne CO_2-e and is subject to the NSW Guide for Large Emitters (the Guide).

The GHG assessment does not address the requirements of the Guide, however the EIS states the proposal will be amended to address the Guide as part of the response to submissions.

The EPA recommends DPHI request a revised GHG assessment that addresses the detailed comments in **Attachment A.** This will ensure the proposal appropriately addresses the relevant sections of the Guide.

b. Air

The EPA requires additional information to support its review of the predicted dust emissions. Detailed comments outlining these requirements are provided in Attachment A.

2. Matters to be addressed with conditions

a. Noise

The Noise and Blasting Impact Assessment (NBIA) identifies potential for residual noise impacts in Section 9 for assessment locations L, M, M1 and N2. The EPA considers that the NBIA provides an adequate assessment of noise and blasting impacts from the proposal and identifies feasible and reasonable mitigation measures to reduce impacts on nearby sensitive receivers. However, the EPA recommends that DPHI take into account the nature and extent of these impacts as part of its assessment of the proposal.

The EPA asks that it be consulted further once a response to this submission has been provided and prior to determination, as the EPA would be likely to recommend to DPHI conditions relating to noise, air quality and GHG emissions for consideration and inclusion as part of any approval of the project.

If you have any further questions about this matter, please contact Carlos Ferguson at environmentprotection.planning@epa.nsw.gov.au.

Yours sincerely,

GABRIELLE SUTHERLAND
A/Unit Head – Environment Protection Planning
NSW Environment Protection Authority

ATTACHMENT A – Detailed comments for DPHI consideration – Additional information recommended - Mod 5 Bloomfield Colliery Continuation Project - MP07_0087-Mod-5

The EPA provides the additional detailed comments below for consideration by DPHI as part of its assessment of the proposal.

a. Greenhouse Gas Emissions

The NSW Guide for Large Emitters (the Guide) applies to the proposal, which is likely to have Scope 1 and Scope 2 emissions above the 25,000 tonne CO2-e threshold. The Guide provides a framework for proponents to address and minimise GHG emissions from projects in NSW and assists planning authorities with understanding GHG impacts from proposals.

The EPA recommends DPHI request a revised Greenhouse Gas (GHG) assessment be submitted, consistent with the relevant sections of the Guide. The following comments are provided to assist with revision of the GHG assessment and relevant requirements of the Guide.

1. Revised GHG assessment should include discussion of all emissions sources

   The GHG assessment notes that underground mining ceased in 1992. However, it does not discuss whether legacy emissions can be expected from previous underground mining operations.

   For clarity, the GHG assessment should also specify what greenhouse gas emissions sources under the Abel Project Approval (PA 05_0136) are proposed to be included in MOD5.

   The revised GHG assessment should include discussion on the following:
   a) If greenhouse gas emissions from previous underground mining operations will contribute to fugitive emissions
   b) What GHG emission sources under the Abel Project Approval (PA 05_0136) are proposed to be included in MOD5

2. Provide information used to estimate fugitive emissions

   Estimates of annual Scope 1 fugitive greenhouse gas emissions for the modification are listed in the results table, and these appear to be estimated using site-specific emissions factor/s (EF). The GHG assessment should include details and discussion of the emission factors used to estimate emissions.

   The following details should be included to support the estimated fugitive emissions:
   a) Specify ROM quantities and emissions factors used to estimate Scope 1 fugitive emissions for all scenarios
   b) Discuss the process and considerations used to determine the emission factor/s in estimating the fugitive emissions.
   c) Discuss if (and how) a gas assignment model was used to avoid or reduce fugitive emissions from areas with high gas content.

3. Provide information used for emissions estimate

   The GHG assessment should clearly document the assumptions, data, and methods used to estimate emissions. It should include enough supporting information to allow the calculation of Scope 1 and 2 emissions to be replicated. This information should be disaggregated for each operation (i.e quantity of individual fuels consumed, fugitive gas emissions, electricity consumption and production estimates, global warming potentials applied, and the abatement effectiveness applied for GHG emission mitigation measures).

This information is critical to informing the EPA's review of the GHG assessment, the following details should be discussed further in the revised GHG assessment:

a) Discussion and justification of assumptions made for the activity data in Table 7-1, Table 7-2, Table 7-3, and Table 7-4. For example, it will be useful to include electricity requirements, number of hours the equipment plant will be operated, type of vehicles, number of kilometres travelled, and fuel consumption requirements to meet energy and transport requirements.
b) It is noted that the results tables (Table 7-7, Table 7-8, Table 7-9) include scope 1 emissions from explosives. The GHG assessment should be revised to include explosives as a potential source and to include description of input data and assumptions used to estimate these emissions.
c) Scope 2 emissions should be updated to be reflective of the most recent available emission factors.
d) It is noted that the emissions factors in Table 7-5 were sourced from Table 9 of the Australian National Greenhouse Accounts Factor and were for diesel and gasoline combustion for vehicles manufactured prior to 2004. The GHG assessment should discuss if this is reflective of the mine's fleet by including a discussion and revision (if needed) of the emissions factors.
e) Estimated emissions appear to have been switched on the results tables for oils and grease, and for gasoline and diesel – transport. The correctly labelled emissions should be included in the revised GHG assessment.
f) Details on how emissions from SF6 leakage were estimated.
g) A reference document for the Scope 3 rail and ship transport emissions factors should be provided.

4. Inclusion of emission reduction goals and comprehensive evaluation of GHG mitigation measures

   The EPA recommends that the GHG assessment be revised to include emission reduction goals, which is a key component of the Guide.

   Further, the proposed GHG abatement measures in the GHG assessment do not appear to have been evaluated against the mitigation hierarchy in the Guide.

   The EPA recommends that the revised GHG assessment demonstrates how the mitigation hierarchy shown in Figure 1 of the Guide has been considered and applied. This should include details of the feasibility assessment of proposed GHG mitigation measures in accordance with section 4.3.2 of the Guide.

   Measures mentioned in the GHG assessment are considered limited and broadly refer to the efficient use and maintenance of equipment and optimising on-site operations. While diligent and ongoing implementation of this approach can result in reduction of emissions, the current GHG assessment has not demonstrated that is has considered the mitigation hierarchy to first avoid and then reduce emissions.

   The revised GHG assessment should also discuss any monitoring/testing that support if or when GHG measures may be adopted in Bloomfield mine.

b. Air

The EPA recommends the Air Quality Impact Assessment (AQIA) be revised to include supporting information on how it is intended to meet the proposed control efficiency for hauling on unpaved surfaces.

Should sufficient evidence not be provided, the EPA recommends updating the emissions inventory and dispersion modelling with a control factor that is adequately justified.

It is noted Section C1 the AQIA appendix states that the control factor used for hauling on unpaved surfaces is 80%. However, the calculations in the Dust Emissions Inventory (Table C-2) suggest that a control factor of 85% has been applied to the relevant sources in the AQIA (instead of the nominated 80%), which include several of the major dust sources, including:

- hauling overburden to dump,
- hauling ROM to ROM pad,
- hauling overburden reject to dump.

Together, these sources account for ~25% of the predicted PM_{10} emissions and ~40% of the TSP emissions from the proposal. It is considered small changes to the applied control factors are likely to significantly impact the total dust emission rates.

The NPI Emission Estimation Technique Manual for Mining nominates a 75% control factor for level 2 watering (> 2 litres/m^2/h). The EPA recommends further information be provided on how the proposal will achieve an 80% or an 85% control factor for these sources.