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Department of Planning, Infrastructure and Environment
Returned via Planning Portal

Attention: Ms Rose-Anne Hawkeswood
By email: rose-anne.hawkeswood@planning.nsw.gov.au

12 May 2020

Dear Ms Hawkeswood

Newcastle Coal Infrastructure Group - Coal Export Terminal Optimisation Project Approval (06_0009) Modification Report
Further Information Required by the Environment Protection Authority

I refer to your email to the Environment Protection Authority (EPA) received 22 April 2020, seeking recommended conditions of consent in relation to the Newcastle Coal Infrastructure Group (NCIG) Coal Export Terminal Optimisation (MP06-0009 Mod 3), located in the Kooragang Island area of New South Wales, in the City of Newcastle local government area.

The modification involves an increase to the throughput capacity of the coal terminal from 66 million tonnes per annum to 79 million tonnes per annum by optimising use of the existing infrastructure at the site. The project comprises:

- An increase in the average daily train movements to approximately 28 trains unloaded per day (depending on the length and capacity of the trains). There would be no change to the maximum approved limit of 40 trains unloaded on any one day.
- An increase in the number of ships loaded up to approximately 16 ships per week (i.e. up to approximately 815 ships per year), compared to the current loading of up to approximately 12 ships per week at the existing NCIG Coal Export Terminal operating at a capacity of 66 Mtpa.

The EPA has reviewed the *Coal Export Terminal Optimisation - Statement of Environmental Effects - Project Approval (06_0009) Modification Report* prepared by Newcastle Coal Infrastructure Group dated April 2020 (the SEE) and has determined that the EPA requires additional information to properly assess the application.

The EPA is unable to offer further advice until all the information listed in Attachment A of this letter have been supplied.

If you have any questions about this matter, please contact Genevieve Lorang on (02) 4908 6869 or by email to hunter.region@epa.nsw.gov.au

Yours sincerely

MITCHELL BENNETT
Unit Head – Regulatory Operations

Encl: Attachment A - Further Information Required by the EPA

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Attachment A: Further Information Required by the EPA

AIR QUALITY

The EPA requires additional information prior to considering whether to recommend conditions of approval.

Demonstration that particulate matter controls are adequate

The EPA requires:

- additional detail to demonstrate that the controls proposed to be used for particulates from coal stockpiles, including watering of stockpiles, are appropriate, effective and consistent with best practice; or

- an assessment of all reasonable and feasible options to improve water application to the highest sections of coal stockpiles that are impacted by strong north-westerly wind conditions, and nomination of the preferred option(s) that will be implemented to improve water application to the highest sections of the coal stockpiles.

Section 2.3.2 of the Air Quality Impact Assessment (AQIA) lists two of the key efficiency improvements of the project as extending stockpiles to their eastern limit and improved utilisation of the approved stockpile height of 25 metres.

The AQIA identifies wind erosion from the coal stockpiles, even with controls in place, as the dominant source of particulate emissions from the premises. Wind erosion from the coal stockpiles makes up approximately 40% of the total particulate emission from the premises (Table 6-1), with 60 tonnes emitted per year. Appropriate control of wind erosion from the coal stockpiles is therefore very important, specifically the appropriate use of water sprays.

The coal stockpiles are oriented in a generally north-west/south-east direction. Data provided in the SEE indicates that winds from the north-west quadrant are the predominant feature of the area and that strong north-westerly winds are common. North-westerly winds funnel down the coal stockpiles due to their orientation. Because of the orientation of the coal stockpiles, the water sprays are perpendicular to the predominant north-westerly winds.

On several occasions, the EPA has observed that the current water sprays are not effective during these stronger north-westerly winds because they do not reach the top of the stockpiles under these conditions. The EPA has also observed that during north-westerly winds, PM_{10} levels at Stockton, downwind of the coal stockpiles, may exceed the relevant criteria even though particle levels at other monitors around Newcastle are lower.

The EPA understands that NCIG has traditionally operated its coal stockpiles below the approved height. As part of the proposed increase in throughput, coal stockpile heights will increase by about two metres. Water sprays will therefore be even less likely to reach the top of the stockpiles during strong winds.

The AQIA applied an emission control efficiency (reduction) of 50% through the application of water sprays (Table B-2). If water sprays fail to reach the top of the stockpiles during strong winds, their control efficiency would decrease, particulate emissions would increase, and the potential impacts may be inconsistent with those predicted in the AQIA. Given that each stockpile is over one kilometre long, this increased height could result in a significant increase in the surface area of coal exposed to wind erosion.

NCIG has advised the EPA that it considers that increased use of water sprays in the north-west sector of the coal yard, upwind of the stockpiles, is assisting to reduce offsite emissions. All feasible controls, such as these, need to be fully evaluated.

Assessment of air quality impacts on industrial receivers

The EPA requires an amended AQIA or supporting documents that fully assess air quality impacts on all sensitive receptors.

The AQIA predicts the modification's air quality impacts at the nearest residential receptors in Mayfield and Stockton. No specific assessment was conducted at the nearby Kooragang Island or Mayfield industrial and commercial premises.

The *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (EPA 2017) requires impacts to be assessed at 'Sensitive Receptors' and defines these as "a location where people are likely to work or reside. This definition includes industrial and commercial premises on Kooragang Island and Mayfield as these are premises where people work.