COAL & ALLIED

Managed by Rio Tinto Coal Australia

10 January 2016

Howard Reed
Director Resource Assessments
Department of Planning and Environment
Level 22
320 Pitt Street
SYDNEY NSW 2000

Dear Howard

RE: Hunter Valley North Operations – Modification 6 – Response to DPI submission

Introduction

HV Operation Pty Ltd's (HV Operations) is seeking to modify development consent DA 450-10-2003 under section 75W of the *Environmental Planning & Assessment Act 1979* (EP&A Act) to permit the emplacement of fine (coal) reject within the Carrington Pit void.

The *Hunter Valley North Operations – Modification 6 - Environmental Assessment* (EA) prepared to accompany the modification application was publically exhibited for two weeks, from 16 November to 1 December 2016. A response to submissions was submitted to the NSW Department of Planning and Environment (DPE) on 14 December 2016.

A submission from NSW Department of Primary Industries (DPI) was received on 9 January 2017. This letter provides a response to DPI's submission.

Matters raised

1. Final landform water licensing

The proponent should provide further information regarding impacts of the fine reject emplacement on water licensing in the final landform and any changes to the Jerrys Plains Water Source Catchment area. Detail should be included on the licensing requirements of the approved final landform scenario and compared to that of the new proposed scenario.

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As noted in the EA, Carrington Pit will be reshaped with a final void of approximately 100 hectares and water levels in the final void will begin to recover. The final void has been designed and approved to be an evaporative sink to manage groundwater post-mining with the long term water recovery expected to be approximately 40mAHD (MER 2010).

Two options are approved for the post-mining design for the Carrington Pit final void. These are:

- an open water void above the capped emplaced materials that would generate an evaporative sink over an elevated range of 40m to 45mAHD; and
- a tree planted void, a filled and reshaped pit with a depression designed to facilitate evapotranspiration at an elevation above 45mAHD.

The proposed modification to emplace fine reject, rather than overburden, does not change these two final void options within Carrington Pit. This is described in Section 3.2.3 of the EA and illustrated in Figure 3.1. In addition, the proposed modification does not change the void's function as an evaporative sink to manage groundwater in the long term. Further, Section 3.2.4 of the EA states:

> The proposed change of material emplaced within Carrington Pit void does not alter the final void post-closure design options to be investigated within the FVMP [Final Void Management Plan].

As a result, the anticipated water take from the final landform within Carrington Pit is not expected to change as a result of the proposed modification.

The Jerrys Plains Water Source catchment area is divided into two management zones; Jerrys Management Zone, north of the Hunter River; and the Appletree Flat Management Zone, south of the Hunter River. The Jerrys Plains Water Source forms part of the Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources.

Given the proposed modification does not change the approved final landform design and its function as an evaporative sink for the long term management of groundwater within Carrington Pit, there are not anticipated to be any changes to the Jerrys Plains Water Source Catchment area.

2. Monitoring and reporting requirements

> The groundwater assessment did not include an assessment against the Aquifer Interference Policy. Although it is stated in the EA that the activity does not constitute an Aquifer Interference Activity the lower hydraulic conductivity of the fine rejects may, in conjunction with additional water pumped into the void, increase the groundwater head in the coal measures up gradient of Carrington Pit. This should be monitored and reported on in the site's Annual Review.

Section 7.3.2 of the EA states that the particle size and hydraulic conductivity of fine reject is lower than overburden and will potentially reduce the hydraulic gradient from surrounding strata to Carrington Pit. This could result in a short term increase in groundwater head within the coal measures and overburden surrounding the Carrington In Pit Fine Rejects Emplacement; however movement of water into Carrington Pit is influenced by the wider regional groundwater levels and hydraulic gradients which have resulted in the Carrington Pit void acting as a groundwater 'sink' as previously approved in DA 450-10-2003. As a result, the change in hydraulic conductivity would not obstruct flow to the final void and therefore the activity does not constitute an Aquifer Interference Activity as defined.

Notwithstanding the above, the existing development consent requires the implementation of a Water Management Plan (WMP) (refer to Condition 27, Schedule 4 of DA 450-10-2003). Groundwater monitoring at HVO North is undertaken in accordance with the HVO Groundwater Monitoring Program (GMP) which is included within the WMP. Currently, manual groundwater level monitoring is already conducted on a monthly, quarterly or 6-monthly basis, in addition to daily readings of recorded dataloggers. Groundwater levels will continue to be monitored as per the WMP should the proposed modification be approved.

Ongoing monitoring will continue to identify natural groundwater level changes during and post-mining activities. Reporting of the water levels monitoring results are and will continue to be included in the Annual Review (refer to Condition 5, Schedule 6 of DA 450-10-2003). The Annual Review will also continue to identify if any additional monitoring sites are required, or optimisation of the existing monitoring sites should be undertaken.

Given the above, HV Operations considers that the existing monitoring and reporting requirements within the development consent sufficiently address this matter raised by DPI.

Please contact Luke Holley on 07 3625 4101 if you wish to discuss matters further.

Yours sincerely

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