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25 June 2019

Gwen Wilson
Group Manager – Safety Health Environment Community
Broken Hill Operations Pty Ltd

Re: Rasp Mine Modification 7 - Noise

Dear Gwen,

1 Introduction

EMM Consulting Pty Limited (EMM) has been engaged by Broken Hill Operations Pty Ltd (BHOP) to complete a review of potential noise impacts for the proposed Modification 7 (MOD7) of Project Approval PA 07_0018 (PA) for the Rasp Mine in Broken Hill, NSW.

BHOP was granted approval for Modification 4 (MOD4) of its PA in September 2017 to extend the life of the Blackwood Pit Tailing Storage Facility (TSF2) by installing embankments and a retaining wall at low points around its perimeter. TSF2 construction works are scheduled to start in late June 2019.

BHOP is now seeking to modify its PA (MOD7) to allow for the use of rock fill material currently stored in their BHP Pit for the TSF2 construction works. Approval for crushing and screening of material in the BHP Pit is also sought by BHOP, if required to reduce the particle size to the required fraction. These activities are currently approved to occur only in the Kintore Pit (as assessed for MOD4). It is noted that crushing and screening activities (if required) are only proposed to occur in either the Kintore Pit or the BHP Pit at any one time, and no additional plant or equipment is proposed.

No change to the TSF2 construction hours is proposed, which currently are standard construction hours between 7 am and 6 pm Monday to Friday, 8 am to 1 pm on Saturdays, and no work on Sundays or public holidays.

The purpose of this letter is to provide the findings of our review of the proposed MOD7 construction activities, noise levels likely to be generated as a result and an assessment of potential noise impacts. A figure showing the location of the BHP Pit and TSF2 construction works components is provided in Appendix A.

2 Noise impact

BHP Pit is located closer to the TSF2 embankment works than the Kintore Pit and hence relocating these activities to the BHP Pit would reduce travel distances for mobile plant (eg haul trucks) by up to a third. This has the potential to significantly reduce the TSF2 construction duration and therefore reduce the long-term risk of noise impact at sensitive receivers.

Crushing and screening activities for the TSF2 embankment works are currently approved to be conducted on the floor of the Kintore Pit at 70 m below surface. BHP Pit is shallower than the Kintore Pit at 15 m below the surface, however, lies closer to TSF2 and relatively in the centre of the site. Furthermore, a 4 m noise bund installed along the far side of the primary haul road (to the Run of Mine pad) will provide further shielding to southern sensitive receivers from noise generated by these activities.

A review has been completed of the noise model established for the MOD4 noise assessment and associated report *Rasp Mine Modification 4 – Concrete batching plant and TSF2 (Blackwood Pit) extension – Noise impact assessment* prepared by EMM in 2017. The review identified that noise levels likely to be generated by the proposed MOD7 activities, including crushing and screening activities in the BHP Pit, have the potential to marginally increase (up to 2 dB) total site noise predictions shown in the MOD4 noise assessment report (EMM 2017) for the most affected sensitive receivers (ie worst-case predicted $L_{Aeq,15min}$ was 54 dB at A12 during the construction of Embankment 2). Total site noise levels from the TSF2 embankments works, including the proposed MOD7 activities, are expected to remain well below and hence satisfy the PA noise limits of 65 dB $L_{Aeq,day}$. Therefore, no additional noise impact is expected from the proposed changes sought for MOD7 of the Rasp Mine PA.

3 Conclusion

The proposed MOD7 construction activities are unlikely to increase site noise predictions for the TSF2 embankments works (MOD4) above the relevant PA noise limits. In addition, MOD7 has the potential to significantly reduce the TSF2 construction duration and therefore reduce the long-term risk of noise impact at sensitive receivers. Therefore, additional noise impacts at surrounding sensitive receivers from MOD7 is unlikely.

We trust the above is satisfactory and if you have any further questions please contact our office.

Yours sincerely

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Senior Acoustic Consultant
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Reviewed by Katie Teyhan on 25/6/2019

Appendix A

Figure - BHP Pit and TSF2 construction


NORTH
BROKEN HILL
N
Crystal Street
Train
Station
500 m
Rail Yards
Café and Miners
Memorial
CML4
Primary Vent & Concrete Batching Plant
CML7
Delprats Shaft
BHP Pit
Rock Fill
&
Crusher
EMB1
EMB2
Kintore
Pit
Crusher
Blackwood Pit
TSF2
EMB3
Spillway
Rock Fill
Noise Bund
Historic Tailing Storage TSF1
Holten Drive
500 m
Eyre Street
SOUTH
BROKEN HILL
Quarry