



BROKEN HILL OPERATIONS PTY LTD

RASP MINE, BROKEN HILL
130 Eyre Street, Broken Hill
PO Box 5073
BROKEN HILL. NSW 2880

9th November 2010

Kane Winwood
Senior Planning Officer
Major Development Assessment
Department of Planning
23 – 33 Bridge Street
SYDNEY NSW 2000

Subject: Rasp Project Preferred Project Report

Dear Mr Winwood

Subsequent to exhibiting the Environment Assessment Report (EAR), Broken Hill Operations Pty Ltd (BHOP) has modified the layout and design of the Project in order to further minimise environmental impacts and streamline operations. The modifications involve:

- Locating the processing plant to the north-eastern end of the lease (away from densely populated residential areas);
- Removal of secondary and tertiary crushers and screens from the crushing circuit; and
- Loading concentrate into containers on trucks and transporting them to a newly constructed rail siding located at the north-eastern end of the lease.

The Department of Planning (DoP) requested that BHOP provide a description of these changes and any additional environmental assessments in a Preferred Project Report. BHOP engaged GWP Environmental Planning Pty Ltd (GWP) to compile this report, titled *Rasp Mine Preferred Project Report* (PPR) (BHOP, September 2010), which provides a detailed description of these modifications, as well as revised air quality, noise and surface water assessments. The PPR was exhibited from 8th October to the 25th October 2010. Following exhibition of the PPR, the DoP received eight submissions made by government agencies and the community on the Preferred Project, including seven submissions in support and one objecting.

This letter responds to submissions raised by:

- Department of Environment Climate Change and Water;
- Industry and Investment, New South Wales;
- Broken Hill City Council;
- Greater Western Area Health Service;
- Roads Traffic Authority, and
- General Public (3 submissions)

BHOP would like to acknowledge and thank all stakeholders for taking the time to review the PPR and for submitting a response. The following outlines BHOP's response to these submissions.



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SUBMISSIONS BY GOVERNMENT AGENCIES

Submission by Department of Environment Climate Change and Water

The Department of Environment Climate Change and Water (DECCW) has indicated support for the Project and recommends that conditions of consent include the following:

1 Dust

- The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

BHOP agrees, dust will be minimised by implementing the mitigation measures referenced in the Statement of Commitments, PPR - Annexure A

- Visible dust emissions from any tailings storage facility are not permitted at any time.

BHOP responded to this item in the Response to Submissions Report, July 2010 refer section 2.2.4 seeking an amendment to this commitment to:

“Visible dust emissions from any tailings storage facility will be negligible”.

BHOP continues to seek this amendment.

- Crushing of extracted material must only occur inside the processing enclosure.

BHOP agrees, all crushing by the primary crusher will occur inside an enclosed structure. Mobile crushers, if and where utilised, will have dust control fitted to the mobile unit to minimise dust generation.

Note: The term ‘processing enclosure’ may lead to confusion as the grinding circuit and the concentrate filters, enclosed in separate structures, are part of processing. This part of the process referred here should be the ‘crushing enclosure’, to avoid any confusion.

- The processing enclosure must be designed to operate under negative pressure at all times.

BHOP has been informed by the design engineers that the enclosure as provided together with the operation of the baghouse will form a negative pressure environment when in operation. Therefore BHOP agrees that during operation the crushing enclosure will operate under negative pressure.

In addition, although the Project is yet to appoint an engineering firm and commence detailed design, BHOP has provided drawings and a description of the crushing circuit to the DECCW to aid in their understanding of the structure and how it will operate. The following has been taken from this information together with several technical drawings which were also provided.

“Please find attached current drawings for the design of the primary crushing unit. The crusher will be contained within a building structure which is fully enclosed from the floor level to the roof as shown in attached drawings 30121-310-SK-002 - Rev B and 30121-310-M-002 – Rev E. The roof, bottom panels to the floor and the front and back sheeting have been added to provide this enclosed structure.

Ore will be fed to the crusher via a run of mine (ROM) bin. As per the suggestion of Mr Anthony Savage the enclosed structure over the ROM bin has been extended five meters out, over the front end load feed area as shown in attached drawings 30121-310-SK-002 Rev B and 30121-310-M-002 – Rev E. The additional structure sits flush onto the existing steel



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wing walls and is added to prevent particulate wind entrainment around the top of the ROM bin.

Crushed ore will be transported to the enclosed Crushed Ore Bin via a fully enclosed conveyor. The drawings 30121-310-M-002 - Rev E and 30121-320-M-001 – Rev E illustrate the conveyor.

As outlined in the Preferred Project Report (PPR) with the optimisation of the processing operation the secondary and tertiary crushing units and associated screens have been removed and we confirm there will be no screens used in the proposed crushing circuit. Dust from within the crushing enclosure will report to a baghouse. The baghouse being recovered from Bronzewing is to be refurbished prior to installation at the RASP Project. The bags and bag seals will be removed, the seal surface restored to the as new condition and new bags and bag seals installed. The bag reverse pulse air jet mechanism and dust release rotary valve will be overhauled.

The baghouse suction fan powered by the 55 kW motor will be overhauled to ensure that the as new rated capacity of 9.7 Nm³/sec at 3450Pa is achieved when installed at Rasp. The proposed baghouse was previously used in a higher throughput crushing operation with additional dust sources passing through the bag house, thus at Rasp it has excess capacity. The baghouse was designed to control dust generated at a crushing rate of 350 tonnes per hour, the requirement for the Rasp Project is 240 tonnes per hour. In addition at Bronzewing the baghouse serviced both the jaw and cone crushers and other areas of the crushing circuit, at Rasp it will only have to remove particulate associated with the jaw (primary) crusher.

The extremely high air flow into the bag house at 9700 L/sec results in a negative pressure being developed within the enclosed crusher building.

As can be seen from drawing 30121-310-M-002 – Rev E, four dust extraction points are currently proposed reporting to the bag house, including two points over the conveyor. The manufacturer's manual states that the control efficiency rate for this bag house is 99.5%”

- The processing enclosure and associated emission controls must be constructed and operated in such a manner, as to ensure visible fugitive emissions from the enclosure do not occur.

The design of the ‘crushing enclosure’ will minimise fugitive emissions and this has been taken into account in the air modelling. During crushing, with the baghouse in operation resulting in a negative pressure environment within the enclosure, dust emissions will be directed to the baghouse and will minimize the potential for fugitive emissions to occur.

2 Noise

- Shunting of concentrate wagons is restricted to between 7:00am and 6:00pm Mondays to Sundays.

BHOP agrees and has proposed these restrictions in its EAR.



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- The following activities are restricted to between 7.00am to 7.00pm Mondays to Sundays:

- (a) all construction work;
- (b) front-end-loader on the ROM pad;
- (c) rock breaking and primary crushing in the process area;
- (d) conveyors in the process area;
- (e) flat bed road truck haulage from process area to rail load out area;
- (f) locomotives at rail load out area;
- (g) forklift at rail load out area.

BHOP agrees and has proposed these restrictions for items (a), (b), (c) and (f) in its EAR. BHOP proposes to operate conveying systems in the processing area (not crushing circuit) and will continue to transport concentrate in containers on flatbed trucks to the rail load out area 24 hours per day. Note a forklift (not a front end loader) will operate at the rail load out area to unload the containers. These activities were included in the noise modelling conducted for both the EAR and the PPR. Therefore BHOP does not agree with the inclusion of restrictions to items (d), (e) and (g).

3 Maintenance of Plant and Equipment

- All plant and equipment installed at the premises or used in connection with the licensed activity:
 - (a) must be maintained in a proper and efficient condition; and
 - (b) must be operated in a proper and efficient manner.

BHOP agrees and makes no further comment.

4 Air Quality Management Plan

- The Air Quality Management Plan must include dust management practices that effectively minimise dust emissions at all times, including all mitigation measures discussed in the Environmental Assessment (*RASP Mine Zinc-Lead-Silver Project Environmental Assessment Report, July 2010*) and updated measures outlined in the Preferred Project Report (*RASP Mine Zinc-Lead-Silver Project Preferred Project Report September 2010*).

BHOP agrees and makes no further comment.

5 Odour

- No condition of this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997.

BHOP does not anticipate any offensive odours being emitted from the mine site.

6 Concentration Limit(s)

BHOP agrees with monitoring Points 1 and 2 and will include Process Enclosure / Baghouse stack concentration limits in its Air Quality Management Plan.



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7 Noise Limits

Construction noise from the premise must not exceed an $L_{Aeq}(15 \text{ minute})$ noise emission criterion of 34 dB(A).

BHOP response:

The construction noise limit proposed by DECCW of 34dB(A) is inconsistent with the INP, which proposes a minimum threshold of 35dB(A). This minimum threshold was used in the operational limits proposed and should be adopted for construction. This limit is also inconsistent with the DECCW's ICNG, which requires a limit of background plus 10dB during normal construction hours (equating to 40dB(A)).

BHOP seeks a limit of 40dB(A) for construction noise during the standard daytime hours and 35dB(A) for 6pm to 7pm Mon to Fri, 1pm to 7pm Saturdays and Sundays.

Operational noise limit(s) criterion - dB(A) $L_{Aeq}(15 \text{ minute})$

In regards noise limits provided in the table, BHOP agrees and will include requirements in its Noise Management Plan.

8 Requirement to Monitor Pollutant Concentrations

BHOP agrees with monitoring Points 1 to 13 (note there is no Point 4) and will include details in its Air Quality Management Plan.

BHOP will ensure the location of ambient air quality monitoring stations are based on modelling results and agreed with DECCW.

BHOP agrees to install and operate the ambient air monitoring stations prior to the commencement of construction works, and will use the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales to site and operate the monitoring stations*.

9 Requirement to Monitor Weather

BHOP currently has a meteorological monitoring station in operation and the site and any requirements for upgrading the station's monitoring parameters will be agreed with DECCW.

Submission by Industry and Investment, New South Wales

Industry and Investment, New South Wales (I&I NSW) indicates support for the Project and seeks a condition, as per the EAR, which requires BHOP to complete a Rehabilitation Plan.

BHOP response:

BHOP will prepare and implement a Rehabilitation Plan (or any such plan as required by the Project approval) which addresses all aspects of rehabilitation and mine closure.

Submission by Broken Hill City Council

Broken Hill City Council (BHCC) indicates support for the Project and notes that a number of positive environmental impacts compared to the original proposal. BHCC has also requested the following:



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- Specific details regarding arrangements in relation to access and egress at the Eyre Street entrance / exit to the mine site to be provided to BHCC prior to commencement of the works; and
- Assessment, including an independent current condition report, of the Holten Drive access point be undertaken for the construction phase and any damage caused to the roadway as a result of these activities be repaired at no cost to the BHCC.

BHOP response:

BHOP agrees to provide BHCC with the arrangements for any changes to the Eyre Street entrance / exit from the mine site prior to the commencement of works and will, if it is determine to use the Holten Drive access point, conduct an assessment of the condition of the roadway.

BHOP also agrees to repair, at its own expense, any damage to the road as a result of its activities.

Submission by Greater Western Area Health Service

Greater Western Area Health Service (GWAHS) acknowledges that the modifications to the proposed project site and processing activities are an improvement from the original EAP Report. The following issues are also raised:

- Construction noise, in particular additional receptors (to A12) to be applied;
- Noise and vibration, as above dot point;
- Air quality, current receptors are concentrated in Eyre Street and Crystal Street and do not adequately monitor activity at the proposed operations area.
- Community health, comments as reflected in the GAWHS submission to the EAR remain the same, with an additional request that soil monitoring is made public – at least to the Lead Reference Group;
- Water resources, as per previous submission;
- Rainwater tanks, as per previous submission, and
- Effluent reuse, as per previous submission.

BHOP response:

BHOP reiterates the comments included in its Response to Submissions Report, September 2010 and emphasises that there is currently a 'whole of Broken Hill' blood lead monitoring / surveillance program which includes all areas surrounding the proposed mine site.

In relation to the new comments listed at dot points 1 to 4 above:

Construction, Noise and Vibration:

The issue of construction noise limits and monitoring locations is moot given that predictions are well under the minimum threshold INP criteria of 35dB(A). It does not matter where or how many monitors are used during construction since levels are predicted to be relatively low and below background noise levels, refer below noise contours for construction.



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Receptor A12 is a representative worst case assessment location used for defining potential levels in that area. When conducting any form of compliance monitoring, the community can be assured that the monitoring will be undertaken at the closest and most affected residence during the specific construction activity occurring at the time. If monitoring shows limits are met at the worst receptor, then they will be met at other less exposed locations.

Monitoring locations will be determined in agreement with DECCW and will form part of the Noise Management Plan.



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Air Quality:

As mentioned under BHOP's response to DECCW above, all monitoring locations will be agreed with DECCW and will form part of the Air Quality Management Plan.

Community Health:

BHOP has committed to providing an annual environment report for the community and the soil monitoring results together with air quality results will be included in this report.

Other:

The comments made by BHOP as outlined in the Response to Submissions Report, September 2010 still apply.

Submission by Roads Traffic Authority

The Roads Traffic Authority (RTA) does not object to the Project approval subject to comments in their previous submission for the EAR and the following in relation to the use of the Holten Drive access point for construction.

- An auxiliary lane right turn treatment (AJR) as per figure 4.8.24 of the RTA Road Design Guide (copy attached) be constructed on Holton Drive.
- An auxiliary lane left turn treatment (AJL) as per figure 4.5.4 of the RTA Road Design Guide (copy attached) be constructed on Holton Drive.
- Safe Intersection Sight Distance (SISD) of a minimum of 105 metres, as per the RTA Road Design Guide for a 60 kilometre per hour zone, is to be maintained at the access to Holton Drive, with any necessary corrections for grade.

BHOP response:

BHOP will review the need to use this access point during construction. If this access point were to be used it would only be accessed for specific and limited items. BHOP believes it is unreasonable to seek the above road changes for an access point that may be used on two or three occasions and only during the construction phase of the Project.

BHOP proposes that a management plan for use of this access point be developed similarly to the arrangements for the South Road access point prior to its use.

SUBMISSIONS BY THE GENERAL PUBLIC (3 submissions)

Submission by Glen Ravenscroft:

Mr Ravenscroft objects to the Project (see previous submission for EAR). Mr Ravenscroft acknowledges that the Project as outlined in the PPR "that a lot of the health impacts are reduced from the previous plan" however also outlines that some health and well being issues remain. In summary these include comments regarding air quality, noise, storm water management, remediation of soils in residents properties, community health, biophysical environment and devaluation of land.

BHOP response:

BHOP has provided information, including assessments and mitigation measures, in the PPR and accompanying consultant studies in regards to air quality, noise and storm water management, and has provided information in regards to community health and the biophysical environment in the EAR. BHOP considers that these issues have been addressed and makes no further comment.



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In regards to soil contamination BHOP understands that there are elevated levels of lead (and zinc) throughout Broken Hill and that the Greater Western Area Health Service has allocated risk zones in Broken Hill based on these elevated results, refer EAR Chapter 9 and Annexures I(A) and I(B). BHOP has no plans to conduct land remediation in these areas.

Mining has been conducted on Consolidated Mine Lease 7 for over 128 years and BHOP, as a Mining company, can make no comment on existing or future land values in Broken Hill.

Submission by Bronwyn Plimer and Alan Tucker

Ms B Plimer and Mr A Tucker made submissions supporting the Project as it will add to the economic benefits of Broken Hill by providing employment which in turn will support other business in the town. It also acknowledged that BHOP has met previous obligations and that BHOP has taken sufficient actions to address the concerns of residents.

Please contact the undersigned if you require clarification or additional information, 0431 483 825.

Yours Sincerely

Gwen Wilson
Group Manager – Safety Health Environment Community
CBH Resources Ltd