



Health
Western NSW
Local Health District

Our ref: D17/2067

Elle Donnelley
A/Senior Planner Resource Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Donnelley

Broken Hill North Mine Recommencement Project SSD 7538

Please find attached comments from the Western NSW Local Health District in regard to the Health Risk Assessment prepared as part of the EIS for the above project.

Should you wish to discuss this matter further, please do not hesitate to contact me on (08) 8080 1504.

Yours sincerely

David Ferrall
Senior Environmental Health Officer
6 March 2017

Health Protection covering Western NSW and
Far West Local Health Districts
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Health Risk Assessment

Contrary to the statement on page 2-24 of the Health Risk Assessment (HRA), blood lead levels (BLLs) of children between 1 and 4 years of age, from 1991 to 2014, have not necessarily been in steady decline. In fact between 2011 and 2014 the number of children with BLLs <10µg/dL has gone from 88% down to 80%.

The NHMRC recommends if a person has a BLL above 5 µg/dL, the source of exposure should be investigated and reduced, particularly if the person is a child or pregnant woman. Any reference or comparison to 10µg/dL in the HRA should be removed so as to avoid confusion and misrepresentation of the assessment.

The HRA shows in one modelling scenario that BLLs in children may increase slightly over a 25 year period. There should be no increase in children BLLs, and preferably a decline, as a result of the operation of the mine.

The current Health Risk Assessment does not seem to take into consideration any dust generated from “free areas” on the site. All “free areas” should be identified and included in the modelling for the HRA.

The bioaccessibility value of 10% used in the HRA, Part 5.2.2.3.6 does not reflect the values that have been suggested by researchers in Broken Hill. *Yang & Cattle 2015*, found a mean bioaccessibility value of between 51% and 60% in Broken Hill while *Juhasz 2011*, found over 60% bioaccessibility in Broken Hill.

The proponent should review their IEUBK modelling taking into consideration the above comments.

Updated Human Health Risk Assessment

Within one year of the commencement of operation of the project, and every five years thereafter, the Proponent should update the HRA prepared for the project and presented in the EA using current monitoring data.

Air Quality

All haulage roads should be sealed and maintained and the mobile crusher enclosed to limit dust emissions from their respective activities.

Free areas should be identified and managed to ensure they are not a source of dust generation.

The conversion of the existing tailings area into an evaporation pond should be subject to a management plan to the satisfaction of the NSW EPA.

Community Health

Western NSW Local Health District and NSW Health have reviewed the risk assessment presented by Perilya Broken Hill Ltd which has identified lead as the main driver of health risk with regard to this proposal and as such feel the proponent should contribute to public health education and blood lead level monitoring.

During the implementation of the project and in consultation with the Broken Hill Lead Reference Group, the Proponent should make a reasonable contribution towards the cost of:

- a) public health monitoring, particularly in relation to child blood lead levels; and
- b) public education campaigns about the health risks associated with lead.

The Proponent should prepare and implement a Lead Management Plan (LMP) for the project and:

- a) be prepared using best practice dust and lead minimisation strategies
- b) be prepared in consultation with the Broken Hill Lead Reference Group
- c) be updated in alignment with ongoing HRAs
- d) outline the proposed commitment towards the cost of:
 - public health monitoring, particularly in relation to child blood lead levels, and tracking of this data over time; and
 - public education campaigns about the health risks associated with lead, including lead hygiene, lead and children, tank water lead risks and soil lead contamination risks.
- e) identify additional reasonable and feasible measures that could be implemented either on site or in the areas adjoining the site to minimise the potential lead impacts of the project and “free areas”;
- f) include a program for the staged implementation of the measures identified in (c) above in the event that dust emissions are higher than predicted or the public health monitoring suggests further action is required to reduce blood lead levels in the environment surrounding the site; and
- g) include a detailed communication strategy, that outlines how the relevant dust and blood level monitoring data would be reported on the Proponent’s website along with any relevant public education material.