

**Hunter New England Local Health District  
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**Health**  
Hunter New England  
Local Health District

7 October 2016

Emma Barnet  
Environmental Planning Officer  
Department of Planning & Environment  
GPO Box 39  
Sydney NSW 2001

Dear Ms Barnet

**Modification to Weston Aluminium Dross Recycling Plant- Weston Aluminium MOD 10 (SSD 86-04-01 Mod 10) & Modification 8 to Weston Aluminium Dross Recycling Plant - remove distinction between SPL types (SSD 10397 of 1995 MOD 8).**

I refer to the Environmental Assessment (EA) exhibited on the NSW Department of Planning & Infrastructure web site in relation to the Modification to Weston Aluminium Dross Recycling Plant- Weston Aluminium MOD 10 (86-04-01 Mod 10) & Modification 8 to Weston Aluminium Dross Recycling Plant - remove distinction between SPL types (SSD 10397 of 1995 MOD 8).

Weston Aluminium is seeking to remove the distinction between spent pot lining (SPL) types in the consent thereby enabling the facility to process first cut and second cut SPL as well as a mix of both. Currently an Aluminium Dross recycling and Spent Pot Lining Type 2 processing facility exists on-site. The proposed modification to processing both SPL types would utilise existing plant, equipment and infrastructure - including emission control systems. The additional SPL processing would be included in the maximum combined total of 40,000 tonnes which already exists for Dross Aluminium and Type 2 SPL (previously approved).

Hunter New England Population Health (HNEPH) has reviewed the Environmental Assessment Report and provides the following discussion points to be considered in the approval process for this project.

**Air Quality**

The Air Quality Impact Assessment (AQIA) determined that the modification has the potential to emit a range of air pollutants including particulate matter (PM10 and total suspended particulate) carbon monoxide, cyanide, chlorine, fluoride/hydrogen fluoride, heavy metals, hydrogen chloride, nitrogen dioxide, oxides of sulphur, and volatile organic compounds. Emissions could occur from delivery, transfer and storage of SPL on site as

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well as operation of the reveratory and rotary furnaces in which the processing of SPL would be undertaken.

Air quality monitoring during the trial processing of SPL Type 1 material did not indicate any exceedances of air pollutant concentration limits and air dispersion modelling does not indicate any additional exceedances beyond that attributed to background monitored data. However, all air pollutants such as particulate matter, fluoride and cyanide would need to be closely controlled.

Airborne particulate matter is identified as being a key air quality issue, whilst no exceedances with current criteria are expected the following information should be considered:

On 15 December 2015, the National Environment Protection Council (NEPC) agreed to vary the National Environment Protection (Ambient Air Quality) Measure (NEPM). The amending instrument took effect on 4 February 2016. The new standards are as follows:

Pollutant	Averaging Period	Maximum concentration standard	Maximum allowable exceedances
Particles as PM <sub>10</sub>	1 day	50 µg/m <sup>3</sup>	None
	1 year	25 µg/m <sup>3</sup>	None
Particles as PM <sub>2.5</sub>	1 day	25 µg/m <sup>3</sup>	None
	1 year	8 µg/m <sup>3</sup>	None

Reference: <https://www.legislation.gov.au/Details/F2016C00215>

It would be expected that the EPA will introduce the amended criteria within the foreseeable future, and the proponent should consider this.

HNEPH notes that Cyanide is present in larger amounts in raw Type 1 SPL compared to Type 2 SPL. Although Weston Aluminium would monitor emissions from the stack, real time cyanide monitoring does not occur. Cyanide samples once collected and tested, would need to be compared to EPA criteria and exceedances acted upon as per the Environmental Protection License.

The site has real time fluoride monitoring system in place and this system would ensure fluoride emissions are within the limits prescribed by the Environmental Protection Licence. Conditions are in place from previous approvals to ensure that should fluoride emission exceed the levels prescribed in the Environmental Protection Licence, then processing must cease. This should ensure that any significant deviations would be identified, processing would cease and impacts would be minimised.

HNEPH notes that processes to detect and deal with plant failure including scrubber/baghouse malfunction alarms are in place. Weston Aluminium should ensure its Fire Safety Plan, Emergency Plan and Safety Management systems are all updated.

## Noise

Environmental noise can have negative impacts on human health and well-being. Receivers in the locality surrounding the industrial area are primarily residential and commercial. Noise emitted by the Weston Aluminium Plant is not anticipated to increase since existing infrastructure will be used and no increase in production beyond already approved totals is to occur. Truck movements should continue to be limited to between the hours of 7am to 10pm, since sections of the vehicle route are still proximal to residences.



**Surface Water**

The operator should ensure there is minimal impact from the proposed development on the water quality of surrounding natural waterways, particularly from stormwater runoff. Consistent with the previous approval for SPL type 2 the existing stormwater control system should be maintained including monitoring for cyanide.

HNEPH is aware that all SPL processing will take place in sealed buildings, bunding in place. Spillage control method includes the return of any spilt material to be reprocessed. Strategies are in place for transporting of SPL to the facility in a manner that prevents spillage and inundation of SPL by water. Consideration has been given to storm damage to the sealed building containing SPL and the potential for water to enter. Water can react with parts of the SPL to form explosive gases. The Hazard Assessment indicates that the volumes of hydrogen contained in the SPL are not large enough to cause a significant reaction. Spill management strategies consistent with the previous approval for SPL type 2 should be maintained.

**Soil and Groundwater**

Soil contamination with SPL materials could occur as a result of failure of containment processes such as spills and stormwater ingress. Containment and spill response planning should be part of the site management and emergency response plan. These matters have been considered in the air and water sections.

If you require any further information please contact Allison Garrett, Environmental Health Officer on 4924 6476.

Yours sincerely,



Dr David Durrheim

**Service Director- Health Protection**  
**Hunter New England Population Health**