

30 April 2017

WM Project Number: 15225
Our Ref: 15225 Ltr 300417 NH

Christopher Curtis
JBA Urban Planning
173 Sussex Street
SYDNEY NSW 2000

Dear Chris

Re: Ingleburn Batteries - Responses to EPA Submissions (Air Quality)

Thank you for providing us with NSW EPA's request for additional information regarding the Air Quality Impact Assessment (AQIA) for the Ingleburn Batteries Proposal.

We have reviewed EPA's requests for additional information, and our responses are presented in Table 1.

In addition to providing the responses in Table 1, we have also prepared an updated AQIA (Wilkinson Murray Report No. 15225 Version C, dated April 2017). The responses provided herein should be read in conjunction with the updated AQIA.

I trust this information is sufficient. Please contact us if you have any further queries.

Yours faithfully

WILKINSON MURRAY



Nic Hall
Manager (Wollongong)

Table 1 Responses to Submissions

Submission	Response	References
<u>Emission estimation</u>		
The proponent's Air Quality Impact Assessment (AQIA) report has been based on reported emissions at an existing facility in the United States, and makes reference to a report for that facility (Environ, 2008)¹. The AQIA: • tabulates the emission rates for the referenced facility; • states that the referenced facility is very similar to the proposed development, however, no detailed comparison or discussion is included; • tabulates the estimated emissions for the proposal, which have been scaled based on the differences in throughput between the referenced facility and the proposal; and • does not include the test reports for the referenced facility. The EPA notes that as per the <i>Approved Methods for Modelling and Assessment of Air Pollutants in NSW</i>, the EPA's preferred methods for estimating emissions for proposed sources are manufacturer's specifications or emission guarantees. The EPA recommends that the AQIA report should be supported by: • The provision of the test data for the referenced facility; and • Manufacturer's specifications or emission guarantees for the proposal. Additionally, the AQIA does not include a demonstration that the proposal will comply with prescribed limits contained in the <i>Protection of the Environment Operations (Clean Air) Regulation 2010</i>. Assurance of Clean Air Regulation compliance should be provided in the revised assessment.		
	The Client has provided an emissions guarantee for the Proposal, which is based upon an emissions specification from the Manufacturer of the equipment. The updated AQIA presents dispersion modelling results based upon the emissions guarantee. Accordingly, the emissions from the facility in the United States are no longer relevant to the Proposal. The updated AQIA identifies the relevant limits contained in the <i>Protection of the Environment Operations (Clean Air) Regulation 2010</i> and demonstrates compliance with these limits.	Revised AQIA, Section 7.1 Revised AQIA, Section 4.4 & Section 7.1

¹ Environ 2008 – PSD Construction Permit Application for Battery Recycling Facility Expansion, Environ International Corporation, Atlanta GA, USA.

Fugitive Emission Capture and Control

Section 7.3 of the AQIA outlines the provision of sealed vessels and fugitive emission capture mechanisms with control via a wet scrubber. The EPA notes that no fugitive emissions have been accounted for within the assessment.

The EPA requests a demonstration that there are no fugitive emissions associated with the proposal through the provision of further information which details:

- The unit operations that include the fugitive emission capture mechanisms;
- The unit operations that are proposed to be sealed;
- The mitigation measures for handling the outputs (specifically those containing lead) from the process, and the provision of fugitive emission capture and control mechanisms; and
- If the building is proposed to be designed and operated under negative pressure.

The Manufacturer and the Client have advised that, since the battery recycling machinery is essentially a “closed system”, the likelihood of fugitive emissions is very low. During normal operations, there are only two significant openings in the plant: the opening where the whole batteries enter the plant, and the point where solid lead is ejected from the plant. At the point where the batteries are fed into the plant, water sprays and ventilation, connected to the scrubber system, are employed to control any emissions leaving the system. At the point where solid lead metal is collected from the process, large fabric bags are tightly fitted around the outlet to ensure that all material is captured.

The revised AQIA includes a recommendation that measurements are conducted once the Proposal is operating to confirm that no fugitive emissions are occurring, and that suitable mitigation measures are implemented in the event that fugitive emissions are identified.

Revised AQIA, Section 7.3

Tanker Loading

Section 7.3 of the AQIA states “*When transferring the electrolyte to a tanker truck, a vapour return line should be connected between the tanker truck and the on-site electrolyte storage vessel in order to capture any vapours from the tanker truck that are displaced during transfer*”. The EPA notes that the assessment has not included any emissions during transfer of the sulfuric acid. The EPA requests clarification on the incorporation of the vapour return line in to the project design.

This process is no longer part of the Proposal. Acid will not be stored in a tank, nor transferred to a tanker truck. Instead, acid from the batteries will be neutralised, and this solution would be stored in a tank prior to removal from site by a waste contractor.

Revised AQIA, Section 2.1

Predicted Ground Level Concentrations of Sulfuric Acid

The assessment includes comparison of the predicted ground level concentrations (GLC) of sulfuric acid against impact assessment criteria at assessed discrete receptors. EPA notes that the impact assessment criteria for sulfuric acid applies at and beyond the boundary of the facility.

The assessment should be revised to include the maximum predicted GLC for sulphuric acid across the modelling domain to confirm no predicted impacts at or beyond the site boundary.

In accordance with the emissions specification from the Manufacturer, and the emissions guarantee from the Client, sulfuric acid is not considered likely to be emitted to air by the Proposal. Therefore, it has been removed from the AQIA.

Revised AQIA, Section 7.1
