



Environmental Protection Act 1986

**Hon Stephen Dawson MLC**  
**Minister for Environment**

## **MINISTER'S APPEAL DETERMINATION**

### **APPEAL IN OBJECTION TO AMENDMENT OF LICENCE L6217 WAGERUP ALUMINA REFINERY, WILLOWDALE ROAD, WAGERUP**

#### **Purpose of this document**

This document sets out the Minister's decision on an appeal lodged under section 102(3)(b) of the *Environmental Protection Act 1986* in objection to the former Department of Environment Regulation's (DER) amendment of the above licence. This document is produced by the Office of the Appeals Convenor for the Minister but is not the Appeals Convenor's own report, which can be downloaded from the Appeals Convenor's website at [www.appealsconvenor.wa.gov.au](http://www.appealsconvenor.wa.gov.au).

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<b>Appellant:</b>	Community Alliance for Positive Solutions Inc
<b>Licence Holder:</b>	Alcoa of Australia
<b>Proposal description:</b>	Wagerup Alumina Refinery
<b>Minister's Decision:</b>	The Minister allowed the appeal in part
<b>Date of Decision:</b>	20 February 2018

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#### **REASONS FOR MINISTER'S DECISION**

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The Minister acknowledged the considerable time that has elapsed since the lodgement of the appeal and thanked the appellant for its forbearance through this process.

The Minister noted that the appeal investigation was prolonged for a number of reasons, including the initial delay by the former Department of Environment Regulation (DER) in responding to the appeal, and further delays in responding to questions relating to volatile organic compound (VOC) emissions.

The details of the appeal are set out in the Appeals Convenor's report. In summary, the appellant's key concerns relate to the adequacy of the assessment of emissions of VOC, particulates and noise from the premises. The appellant requested that the increase in production from 2.65 to 2.85 million tonnes per annum not be approved until further studies are undertaken to capture all emission sources and to verify the quantum and nature of emissions from the facility. The appellant also raised concerns in respect to ground and surface water contamination and abstraction of groundwater.

## **VOC emissions**

By this ground of appeal, the appellant submitted that significant VOC emission sources were not regulated, and that as a result, a significant proportion of VOC emissions are occurring without apparent control under the licence. The appellant requested that this issue be addressed, and that the production increase not be approved pending clarification of total VOC emissions and their health and environmental impacts.

Information provided by the licence holder indicates that the majority of point source VOC emissions from the premises now come from low-elevation sources, not high-level stacks. The highest single point source is identified as the cooling towers.

In response to a request for advice from the Appeals Convenor, DER advised that following the implementation of the VOC reduction program and focus on high-elevation calciner emissions, the increased significance of low-elevation VOC emission sources requires further assessment to ensure that an accurate inventory is maintained to better inform risk-based assessment of emissions. To that end, DER commenced investigations to introduce controls on water quality associated with cooling towers.

Subsequent advice from the Department of Water and Environmental Regulation (DWER), which assumed DER's role on 1 July 2017, was that the apparent high level of relative emissions of VOC from cooling towers should be viewed with caution, as assessing emissions from these sources can be unreliable and can overestimate actual emissions of VOCs. As such, it stated that monitoring of cooling tower air emissions as part of monitoring requirements in the licence would have limited value.

DWER advised that noting the number and complexity of sources across the refinery, a full review will be undertaken in regard to the most appropriate monitoring techniques and requirements for each source. By improving the accuracy of monitoring, DWER considers that a more appropriate approach can be taken towards regulating the site, as opposed to production limits.

Taking into account the above, and noting the review of the licence that is currently underway, the Minister requested DWER to complete the review expeditiously to address the identified uncertainties, especially in relation to low-elevation emission sources. The Minister also endorsed DWER's commitment to liaise with the community, in particular the appellant, on changes that may be made to improve the effectiveness of the assessment and regulation of VOC emissions from the premises.

## **Dust and other emissions to air**

The appellant expressed concern that DER's assessment of the proposal was deficient in respect to dust and particulate emissions, specifically that insufficient consideration was given to emissions of fine particulate matter of up to 2.5 micrometres in size (PM<sub>2.5</sub>).

The Minister considered the Appeals Convenor's advice in relation to this ground of appeal, and noted that while National Pollutant Inventory (NPI) data for the premises shows that total PM<sub>2.5</sub> emissions from the refinery are either the same or lower than for other refineries in the State, the increase between 2009 and 2016 warrants further consideration. The Minister therefore requested DWER to review the nature and scale of particulate emissions from the premises generally, and PM<sub>2.5</sub> in particular, as part of its current review of the licence.

The appellant also submitted that the assessment of the application to increase production failed to take into account emissions of metals, poly-aromatic hydrocarbons (PAH) and greenhouse gases. In relation to metals and PAH emissions, DER advised that the information available to it at the time the licence was amended did not indicate that these

emissions pose a significant environmental or health risk that would warrant specific assessment or regulatory control through the licence.

The Minister considered that DER adequately assessed these emission types with the information available at the time the decision was made. However, he noted the Appeals Convenor's advice that since the licence was issued, NPI data show that although mercury emissions at Wagerup are generally the lowest of the four alumina refineries operating in the State, there has been an apparent increase in mercury emissions over the last two reporting periods. For completeness, the Minister requested DWER to consider the apparent increase in mercury emissions as part of the current review.

### **Noise**

By this ground of appeal, the appellant submitted that the licence holder has been unable to demonstrate that it can maintain noise levels in the Yarloop and surrounding communities to the standards set under the *Environmental Protection (Noise) Regulations 1997* (the Noise Regulations), specifically 35 decibels (dB) for night time operations. To address this issue, the appellant requested that the licence be amended to include controls on noise emissions, and no production increase should be granted until noise levels meet statutory requirements.

Having considered the Appeals Convenor's advice in relation to this ground of appeal, the Minister agreed that given other standards apply to noise emissions from the refinery (either through the Regulation 17 approval or the Noise Regulations), it is unnecessary for additional measures to be applied through the licence. The Minister noted that a new request for an approval under regulation 17 is currently being coordinated by DWER, and public submissions were open until 31 January 2018. There is a right of appeal against the terms of any approval given under regulation 17.

### **Impacts to ground and surface water**

By this ground of appeal, the appellant contended that leakage from the residue drying areas (RDAs) is causing contamination of groundwater, and that risks of overtopping during storm events poses an unacceptable risk to surface waters and the environment generally.

On the information available, the Minister considered that DER's assessment of these risks was adequate. However, noting that the licence is currently under review, he concurred with the Appeals Convenor's recommendations and allowed the appeal to the extent that he requested DWER to amend condition W2 to ensure that no contaminated water is released to the environment from the premises, consistent with the commitment in the licence holder's Long Term Residue Management Strategy.

### **Abstraction of groundwater**

The appellant asserted that insufficient attention was given by DER to the assessment of potential impacts to groundwater and the environment from the abstraction requirements for the expansion.

Noting DER's advice that the licence holder requires separate approval to take water under the *Rights in Water and Irrigation Act 1914*, the Minister agreed with both DER and the Appeals Convenor that this is the appropriate mechanism by which the impacts of abstraction can be considered. The Minister therefore dismissed this ground of appeal.

### **Process issues**

The appellant raised a number of other issues in respect to the amendments to the licence, including the level of community engagement and cost of obtaining details of relevant standards. The Minister considered DER's advice in this regard, and agreed with its

recommendations. Noting the current review underway, the Minister encouraged the appellant to liaise with DWER as to access to the text of standards referenced in the approval.

### **Other matters**

In respect to matters raised about other licensed premises associated with the refinery and the status of the buffer zone, as these are not related to the amendments to the licence, they are beyond the scope of the appeal.

### **Conclusion**

For the reasons stated above, the Minister allowed the appeal to the extent that he requested DWER to:

- ensure the identified uncertainties in respect to VOC emissions, particularly in relation to low-elevation sources, are considered as part of the review currently underway;
- review the nature and scale of particulate emissions from the premises generally, and PM<sub>2.5</sub> in particular;
- consider the implications of the apparent increase in mercury emissions shown in recent NPI data; and
- amend condition W2 to ensure that no contaminated water is released to the environment from the premises, consistent with the commitment already contained in the licence holder's Long Term Residue Management Strategy.

The Minister expressed his strong expectation that DWER will conduct the review expeditiously, and make amendments to the licence as required to meet contemporary standards and community expectations.

Given the strong advocacy role the appellant has demonstrated in respect to these premises over many years, the Minister encouraged the appellant to continue its engagement in the review process.

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Note: this decision is published pursuant to the terms of section 110 of the *Environmental Protection Act 1986* and regulation 8 of the *Environmental Protection Regulations 1987*.

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