

Environmental Protection Authority  
PO Box K822  
Perth. WA 6842

Dear Sir or Madam

**Submission on ERMP: Wagerup Refinery Unit Three Expansion**

The independent members of the Wagerup Medical Practitioners' Forum are those members who are independent from industry and government, and who have maintained an active participation in the Forum since it was established at the request of the WA Department of Health in 2001.

As the independent members of the Forum, we are pleased to respond to your invitation to comment on the proposed Wagerup Refinery Unit Three Expansion through the ERMP process, and attach our submission for this purpose.

Yours faithfully

**The Independent Members of the Wagerup Medical Practitioners' Forum**

Professor D'Arcy Holman  
Chairperson

Dr Brian Galton-Fenzi

Professor Andrew Harper

Dr Michael Phillips

Dr Moira Somers

23 June 2005

**Environmental Review and Management Program**

**Wagerup Refinery Unit Three Expansion**

**Submission by the Independent Members of the  
Wagerup Medical Practitioners' Forum**

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We represent the common view of the five independent members of the Wagerup Medical Practitioners' Forum, who have examined the effects on health of the Wagerup Alumina Refinery since 2001 when the Forum began. Professionally, we consist of a professor of public health, three experts in occupational and environmental health (two having held Associate Professor status) and a general practitioner with first-hand experience in treating patients from the refinery surrounds.

The following are key areas of consideration that provide a contextual background to the development of our position on the proposal to expand the Wagerup refinery to almost double its existing alumina production capacity:

- The evidence arising from earlier studies clearly indicates that the geography and topography of the area was never suitable for the placement of an aluminium refinery.
- The history of workers at the existing refinery, in our professional opinion, shows that a number of workers have suffered acute and chronic adverse health consequences as the result of working at the refinery.
- The evidence indicates that some of the neighbouring community members, including the people of the township of Yarloop, in our professional opinion have suffered acute and chronic adverse health consequences as the result of their close proximity to the existing refinery.
- Alcoa was initially slow to respond to these health problems when originally identified and, while Alcoa's responsiveness has improved, there has been insufficient duration or consistency of an improved performance on this issue to give us confidence that Alcoa has accepted ownership of the problems.
- Where responses have occurred to the health problems, these have generally been unsatisfactory for two reasons:
  - a. The response has been to 'measure the offending exposure or, more accurately, to measure an aspect of the concern such as 'odour', 'noise' or the levels of particular air pollutants. The process of measurement has been used to advocate for refinery productivity and emission controls as if it were itself an intervention process to reduce adverse health consequences.
  - b. There has been a cycle of community agitation, resulting in engineering controls to reduce emissions, then a justification by Alcoa to increase production on the basis of the additional engineering control measures that have been sought by the community. It therefore seems that Alcoa does not respond until pushed by the community.
- Following the installation of the last set of engineering control measures, including the increased height of the stack, the Health Department's community nurse in the Town of Yarloop continued to receive health complaints from the Town's residents.

- The local community continues to experience outrage and dysfunction as the result of health and social issues caused by the impact of the existing refinery.
- Despite a long history of causing adverse health effects, emission levels of pollutants from the refinery have been measured consistently below threshold levels of public health concern for individual pollutants. Thus the exact cause of the health problems in terms of a single chemical or a mixture of chemicals remains unknown.

Alcoa's expansion proposal gives us no basis on which to assure the local community that their health will not be further compromised by emissions from the refinery. Our reasons for this conclusion are as follows:

- There are considerable uncertainties surrounding this public health problem, including the lack of identification of a causal agent and the complex ecological system of environmental, biological and psychosocial factors that are likely to be at play in producing health effects. No-one can model with sufficient certainty what the short and longer-term health consequences of expansion would be. The most relevant point of certainty is that the history to date has been one of adverse health effects for community members.
- There is no new information presented in the proposal of a nature that would give us confidence in the safety of an expansion. The key arguments appear to be the ones that have not to date been helpful in resolving the problems: that emissions will be well within threshold limits; that further engineering controls will be applied; and that additional measurements will be made on pollutants and the health of the community.
- There is no proposal to increase the buffer zone, which will remain at a very small 1.2km, compared with the buffers of 6-8km around the Pinjarra and Worsley refineries. These refineries do not appear to have caused the same intensity of health problems.
- There is no proposal to provide local residents with genuine choices, such that those residents affected adversely by the proposed expansion would be able to leave the area freely, without economic loss or hardship.
- We are concerned that Alcoa's existing land policy has resulted in an increasing number of nearby tenants for whom Alcoa is the landlord. The tenant of a landlord, who is also a neighbouring producer of noxious emissions, may have a reduced freedom to voice concerns about health problems for fear of eviction.
- We note that in considering alternatives to expansion of Wagerup, Alcoa identifies (on p.43) that establishing a new refinery would face the difficulty of finding a site with sufficient separation distances from neighbouring properties to avoid potential conflicts between industry and other land uses. Given that the existing buffer is only 1.2km, it is difficult to see how the existing site meets this criterion of a 'sufficient separation distance'.

The economic benefits of the proposed expansion of the refinery to Western Australia, which are clearly of considerable magnitude, must be balanced against two counter-considerations:

- The short and long term costs of any worsening of health problems and social dysfunction in the local community.
- The ethics (in terms of social justice) of making a decision that could lead to the local community carrying most of the burden of potential health and social costs so that Alcoa and the State can gain economic benefits.

In summary, we do not support the proposal to expand the Wagerup refinery in the existing circumstance of an inadequate buffer zone. Our judgment is that, in the face of much uncertainty, the problematic history of the relationship between the refinery and the local community is the most reliable guide to what the future would hold if the refinery was to expand. On this basis we consider that the risk of further compromising the health and social functioning of the local community to be too high; and the trade off of this risk against the broader economic benefits to be unjust.

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