



Environmental Protection Authority

EPA Bulletin No. 1038

Hon Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT AND HERITAGE

Dear Minister

Silicon Project Kemerton – Environmental Condition 13

On 20 June 2001, you requested the Environmental Protection Authority (EPA), pursuant to section 46 of the *Environmental Protection Act 1986*, to inquire into a request by Simcoa Operations Pty Ltd to amend Environmental Condition 13 of the "Statement that a proposal may be implemented" issued by the then Minister for Environment on 13 May 1988.

Condition 13 reads :-

"Should the proponent wish to alter its operations to use reductants other than jarrah charcoal and jarrah woodchips in a proportion greater than 15% of the total reductant charge, it shall, prior to such alterations present detailed management plans to the satisfaction of the Environmental Protection Authority, outlining the likely changes in emissions and proposed control procedures."

Simcoa Operations Pty Ltd has, for some time, wanted to move away from almost total reliance on jarrah as a source of its reductants. Although the Condition provides a mechanism whereby the percentage of jarrah can be less than 85%, through the preparation of a detailed management plan, the Condition has been generally read as a requirement for the Company to use at least 85% jarrah. Accordingly, an amendment to the Condition is required to enable Simcoa to use materials other than jarrah as reductants in its process. Other materials would include non-jarrah timbers as well as coal. The SO₂ emissions levels need to be set to control emissions from coal if used.

Simcoa has demonstrated its conservation credentials in a number of ways and most recently in relation to the section 46 request to vary its approvals for the Moora Quartz site mine which provides the raw material for the Simcoa Operations at Kemerton.

Following discussions between Simcoa and the EPA, Simcoa gave consideration to a replacement Environmental Condition which took into account the SO₂ emissions from the baghouse in the plant. A movement from timber to coal would increase SO₂ emissions because coal inevitably contains some sulphur.

The proposed replacement for Environmental Condition 13 is as follows :-

Emissions from the existing baghouse (plus an additional one of the same height if required by future expansion) must not exceed the SO₂ levels shown in Table 1 :-

Table 1 – Ambient limits for SO₂ for Licensing Simcoa's Kemerton operation

| Location | Limit (ppm) | Limit (mcg/m³) |
|-------------------------|--------------------------|----------------------------------|
| Revised buffer boundary | 0.20 1-hour averaging | 572 1-hour averaging |
| Revised buffer boundary | 0.08 1-day averaging | 229 1-day averaging |
| Revised buffer boundary | 0.02 1-year averaging | 57 1-year averaging |

Explanatory note on the Condition :-

The reference to the second baghouse is not intended to constitute pre-approval of future expansion and relates to the results of the air modelling which showed that the emissions footprint would not change if a second baghouse of the same height was installed. A higher building or a baghouse with a stack would lead to changes from what has been modelled.

The Environmental Protection Authority agreed at its meeting on 8 November 2001 to recommend that the existing Environmental Condition 13 be deleted and replaced with the proposed Condition on ambient limits for sulphur dioxide set out above.

The Department of Environment, Water and Catchment Protection (DEWCP) has supported the revised Condition 13, which imposes the NEPM standards.

Simcoa has expressed concern that the SO₂ limit set out in the proposed new Environmental Condition could be amended through the DEWCP licensing system.

This matter has been discussed with Mr Roger Payne, Chief Executive Officer of DEWCP, who has advised me that whilst the Licensing Branch needs some flexibility in relation to licence conditions, there was a clear intent by DEWCP licensing to follow the EPA advice and the Minister's Environmental Conditions. Mr Payne also advised that there would need to be a very strong justification to depart from the limits set through the EPA and Ministerial process.

At the EPA meeting, Mr Jim Brosnan of Simcoa informed members that Simcoa would extend its monitoring of SO₂ levels so it can demonstrate it is meeting the Condition and would be keeping DEWCP and EPA informed about the results.

Recommendation

1. That you accept this letter as advice to you pursuant to your section 46 request of 20 June 2001 about Environmental Condition 13 in relation to the operation of Simcoa's Silicon Plant at Kemerton.
2. That you agree to the deletion of Environmental Condition 13 of the Ministerial Statement of 18 May 1988.
3. That you agree to the inclusion of a new Environmental Condition 13 in the Ministerial Statement of 13 May 1988 as follows :-

Condition 13

The proponent shall not allow emissions from the existing baghouse (plus an additional one of the same height if required by future expansion) to exceed the sulphur dioxide (SO₂) levels shown in Table 1 :-

Table 1 - Ambient limits for sulphur dioxide(SO₂)

| Location | Limit (ppm) | Limit (µg/cubic metre) |
|-------------------------|--------------------------|-------------------------|
| Revised buffer boundary | 0.20 1-hour averaging | 572 1-hour averaging |
| Revised buffer boundary | 0.08 1-day averaging | 229 1-day averaging |
| Revised buffer boundary | 0.02 1-year averaging | 57 1-year averaging |

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Yours sincerely



Bernard Bowen
CHAIRMAN

3 January 2002