



Statement No.

MINISTER FOR THE ENVIRONMENT; SCIENCE

000678

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**KWINANA LIQUOR BURNER, EMISSIONS REDUCTION PROJECT
KWINANA**

Proposal: The construction and operation of Air Pollution Control Equipment for the Liquor Burner at the Kwinana Alumina Refinery in Cockburn Road, as documented in schedule 1 of this statement.

Proponent: Alcoa World Alumina Australia

Proponent Address: Kwinana Alumina Refinery, Cockburn Road,
NAVAL BASE WA 6165

Assessment Number: 1548

Report of the Environmental Protection Authority: Bulletin 1163

The proposal referred to above may be implemented by the proponent subject to the following conditions:

1 Implementation

1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.

2 Proponent Nomination and Contact Details

2-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.

Published on
23 JUN 2005

- 2-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 2-3 The nominated proponent shall notify the Department of Environment of any change of contact name and address within 60 days of such change.

3 Commencement and Time Limit of Approval

- 3-1 The proponent shall substantially commence the proposal within 12 months of the date of this statement or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

- 3-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond 12 months from the date of this statement to the Minister for the Environment, prior to the expiration of the 12-month period referred to in condition 3-1.

The application shall demonstrate that:

1. the environmental factors of the proposal have not changed significantly;
2. new, significant, environmental issues have not arisen; and
3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding 12 months for the substantial commencement of the proposal.

4 Source Emissions Characterisation Plan

- 4-1 Prior to commissioning the Liquor Burner, the proponent shall prepare a Source Emissions Characterisation Plan for identification and quantification of atmospheric emissions from the Kwinana Alumina Refinery operations, to the requirements of the Minister for the Environment on advice of the Department of Environment.

The Source Emissions Characterisation Plan shall set out an implementation programme and document procedures to enable:

1. Identification of the nature and range of atmospheric emissions, including odour, from all substantive point, fugitive and area sources, identifying the nature of excluded sources;

2. Quantification of identified atmospheric emissions from each source individually and cumulatively at the Kwinana Alumina Refinery and Residue Storage Area which are representative of the baseline operations at the premises, including identification of variability resulting from the operation of the refinery outside that baseline mode;
3. Development of an Atmospheric Emissions Inventory for the premises;
4. Description of Air Pollution Control Equipment in operation at the Refinery; and
5. Identification of source locations and their atmospheric emissions contribution within the emissions inventory which have the potential to have significant impacts off-site.

The Source Emissions Characterisation Plan shall include a description and timetable for the ongoing reporting, review and revision (if required) of source emissions characterisation.

Note: In the preparation of advice to the Minister for the Environment, the Environmental Protection Authority expects that the advice of the following organisations will be obtained:

- Department of Environment;
- Department of Health;
- Department of Industry and Resources; and
- Kwinana Industries Council.

- 4-2 Within eighteen months following commissioning of the Liquor Burner, the proponent shall complete the Atmospheric Emissions Inventory component of the Source Emissions Characterisation Plan required by condition 4-1.
- 4-3 The proponent shall make the Source Emissions Characterisation Plan required by condition 4-1 publicly available.

5 Source Emissions Verification Monitoring Plan

- 5-1 Prior to the ongoing operation of the Liquor Burner, the proponent shall prepare, implement and report on a Source Emissions Verification Monitoring Plan to the requirements of the Minister for the Environment on advice of the Department of Environment.

The objective of this Plan is to confirm the modeled reduced emissions from the Liquor Burner, as a result of the installation of the new Air Pollution Control Equipment.

This Plan shall include procedures and measures to:

1. document baseline exit emissions from the Liquor Burner's stack before its operation was ceased in May 2002;
2. specify the duration of the verification period, sampling frequency, sampling methods, analytical test methods and quality assurance and quality control procedures for monitoring of exit emissions from the Liquor Burner stack;

3. identify and list all the parameters required to be monitored, which shall include particulates, carbon monoxide, oxides of nitrogen, volatile organic compounds (includes acetone, acetaldehyde, formaldehyde, benzene and toluene) and trace metals;
4. verify that source emissions are no greater than those forming the basis for upgraded performance claims and modelling results as detailed in the Environmental Referral document *Kwinana Liquor Burner Emissions Reduction Project* (Alcoa Worldwide Alumina Australia, dated 5 November 2004).
5. verify that the Liquor Burner stack dimensions are adequate to avoid significant influence of building downwash effects;
6. progress consultation with the community and stakeholders on relevant matters; and
7. provide for technical review by an approved independent expert peer group.

Note: In the preparation of advice to the Minister for the Environment, the Environmental Protection Authority expects that the advice of the following organisations will be obtained:

- Department of Environment;
- Department of Health;
- Department of Industry and Resources; and
- Kwinana Industries Council.

5-2 During the implementation of the Source Emissions Verification Monitoring Plan required by condition 5-1, the proponent shall report any monitoring results of source emissions which are greater than 20 per cent higher than those presented in the Environmental Referral document *Kwinana Liquor Burner Emissions Reduction Project* (Alcoa Worldwide Alumina Australia, dated 5 November 2004), to the Department of Environment within one week following validation of the result.

5-3 The proponent shall submit the monitoring results of the Source Emissions Verification Monitoring Plan to the Department of Environment within three months following the completion of monitoring.

Notes

- 1 The Minister for the Environment will determine any dispute between the proponent and the Department of Environment over the fulfilment of the requirements of these conditions.

The Proposal (Assessment No. 1548)

The construction and operation of Air Pollution Control Equipment for the Liquor Burner at the Kwinana Alumina Refinery in Cockburn Road, Naval Base.

The Key Proposal Characteristics are as shown in Table 1.

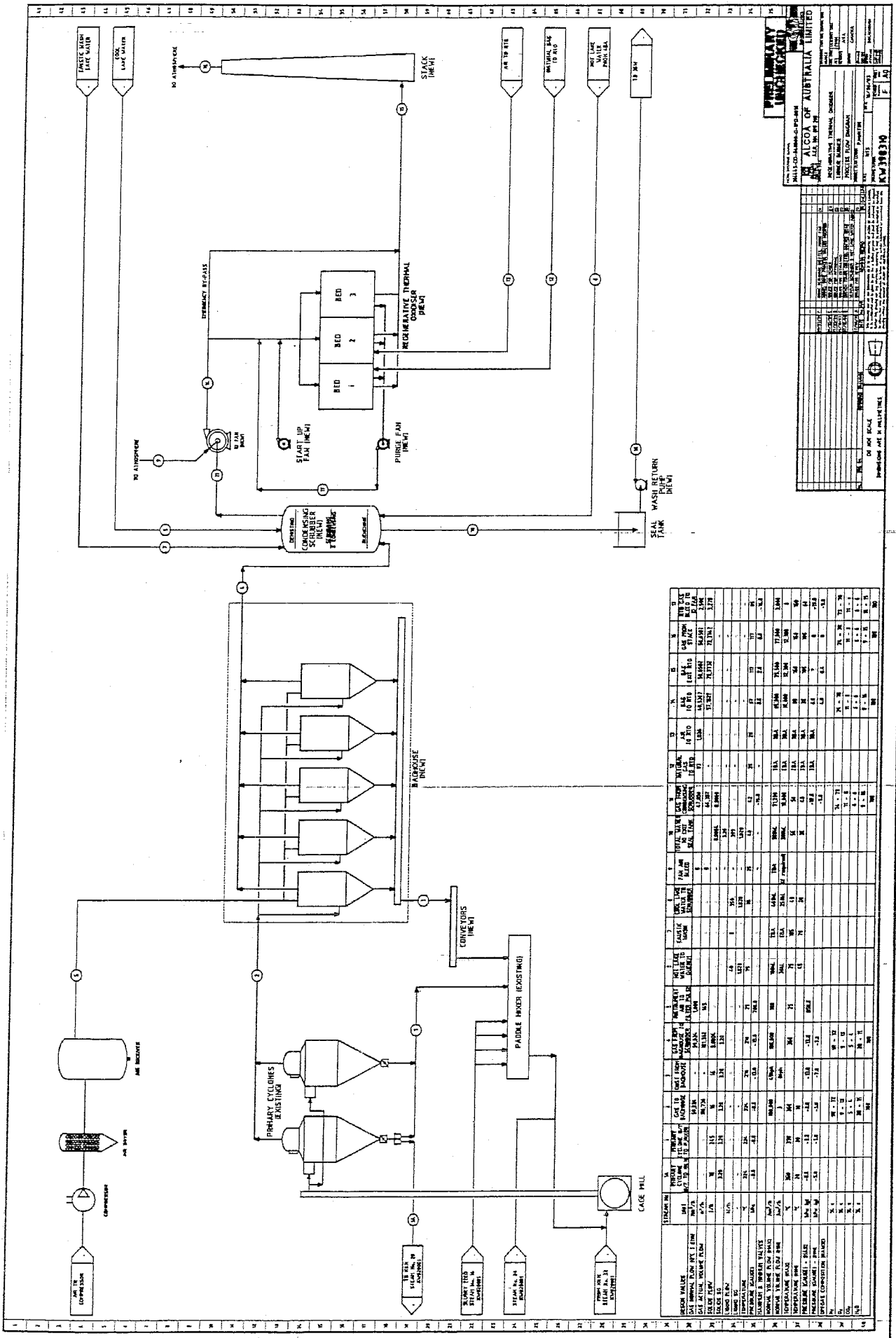
Table 1 – Key Proposal Characteristics

Major Components
<ul style="list-style-type: none">• Primary cyclone• Filters for particulates control• Condensing wet scrubber• Regenerative thermal oxidiser unit, and• 70-metre stack height.

Figures (attached)

Figure 1 – Plant Layout for the Upgraded Emissions Control Equipment.

Figure 2 – Process Flow Diagram of the Upgraded Emissions Control Equipment.



ITEM NO.	DESCRIPTION	UNIT	QTY	PRICE	TOTAL	DATE	STATUS
1	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
2	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
3	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
4	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
5	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
6	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
7	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
8	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
9	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
10	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
11	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
12	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
13	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
14	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
15	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
16	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
17	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
18	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
19	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
20	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
21	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
22	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
23	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
24	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
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32	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
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34	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
35	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
36	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
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95	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
96	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
97	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
98	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
99	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED
100	STEAM VALVE	1/2"	1	100	100	1/10	INSTALLED

ALCOA OF AUSTRALIA LIMITED

PROJECT: Kwinana Liquor Burner Emissions Reduction Project

DRAWING NO: KWJ98310

DATE: 28-Jul-04

DESIGNED BY: [Name]

CHECKED BY: [Name]

APPROVED BY: [Name]

SCALE: 1:1

PROJECT LOCATION: Kwinana, Western Australia

CLIENT: ALCOA

CONTRACT NO: [Number]

ISSUE NO: [Number]

ISSUE DATE: [Date]

ISSUE DESCRIPTION: [Description]

PROJECT MANAGER: [Name]

PROJECT ENGINEER: [Name]

PROJECT SUPERVISOR: [Name]

PROJECT ASSISTANT: [Name]

PROJECT OFFICE: [Address]

PROJECT PHONE: [Number]

PROJECT FAX: [Number]

PROJECT EMAIL: [Address]

PROJECT WEBSITE: [Address]

PROJECT URL: [Address]

PROJECT CONTACT: [Name]

PROJECT CONTACT PHONE: [Number]

PROJECT CONTACT FAX: [Number]

PROJECT CONTACT EMAIL: [Address]

PROJECT CONTACT WEBSITE: [Address]

PROJECT CONTACT URL: [Address]

PROJECT CONTACT ADDRESS: [Address]

PROJECT CONTACT CITY: [City]

PROJECT CONTACT STATE: [State]

PROJECT CONTACT POSTAL CODE: [Code]

PROJECT CONTACT COUNTRY: [Country]

PROJECT CONTACT CONTINENT: [Continent]

PROJECT CONTACT OCEAN: [Ocean]

PROJECT CONTACT CLIMATE: [Climate]

PROJECT CONTACT VEGETATION: [Vegetation]

PROJECT CONTACT SOIL: [Soil]

PROJECT CONTACT WATER: [Water]

PROJECT CONTACT AIR: [Air]

PROJECT CONTACT GROUND: [Ground]

PROJECT CONTACT SKY: [Sky]

PROJECT CONTACT SUN: [Sun]

PROJECT CONTACT MOON: [Moon]

PROJECT CONTACT STARS: [Stars]

PROJECT CONTACT PLANETS: [Planets]

PROJECT CONTACT GALAXIES: [Galaxies]

PROJECT CONTACT UNIVERSE: [Universe]

Figure 2

Process Flow Diagram of the Upgraded Emissions Control Equipment

Client: Alcoa

Project: Kwinana Liquor Burner Emissions Reduction Project

Drawing Ref: KEH

Date: 28-Jul-04

ENVIRON