



Ass # 867
Bull # 742
State # 361

WESTERN AUSTRALIA

MINISTER FOR THE ENVIRONMENT

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

PROPOSAL: TITANIUM DIOXIDE PIGMENT PLANT, KWINANA
(EXCLUDING THE CHLOR-ALKALI PLANT AND
THE AIR SEPARATION PLANT) (175A / 867)

CURRENT PROPONENT: TIWEST JOINT VENTURE

CONDITIONS SET ON: 26 APRIL 1989

Condition 1 is amended to read as follows:

1A Proponent Commitments

The proponent has made a number of environmental management commitments in order to protect the environment.

In implementing the proposal, including the modification to allow an increase in production to 64,000 tpa of finished titanium dioxide pigment, as reported on in Environmental Protection Authority Bulletin 742, the proponent shall fulfil those commitments applicable to the Pigment Plant made and listed in Appendix 2 of Environmental Protection Authority Bulletin 373; provided that the commitments are not inconsistent with the conditions or procedures contained in this statement. (A copy of the commitments is attached).

1B Implementation

Changes to the proposal which are not substantial may be carried out with the approval of the Minister for the Environment.

Subject to the conditions in this amended statement, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal. Where, in the course of that detailed implementation, the proponent seeks to change those designs, specifications, plans or other technical material in any way that the Minister for the Environment determines, on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

The following condition and procedure are inserted after condition 23:

24 Compliance Auditing

In order to ensure that environmental conditions and commitments are met, an audit system is required.

Published on

19 AUG 1994

- 24-1 To help verify environmental performance, the proponent shall prepare periodic Progress and Compliance Reports in consultation with the Department of Environmental Protection.

Procedure

- 1 The Department of Environmental Protection is responsible for verifying compliance with the conditions contained in this statement, with the exception of conditions stating that the proponent shall meet the requirements of either the Minister for the Environment or any other government agency.
- 2 If the Department of Environmental Protection, other government agency or proponent is in dispute concerning compliance with the conditions contained in this statement, that dispute will be determined by the Minister for the Environment.

Kevin Minson MLA
MINISTER FOR THE ENVIRONMENT

17 AUG 1994

Proponent's Commitments

TITANIUM DIOXIDE PIGMENT PLANT, KWINANA
(EXCLUDING THE CHLOR-ALKALI PLANT AND THE AIR
SEPARATION PLANT) (175A / 867)

TIWEST JOINT VENTURE

COOLJARLOO JOINT VENTURE
TITANIUM DIOXIDE PIGMENT PLANT
COMMITMENTS

INTRODUCTION

1. The proponent will prepare an Environmental Management Plan (EMP) for the pigment plant site.

The EMP will include a Hazard and Operability Study (HAZOP) and a Total Hazard Control Plan (THCP). The EMP will be completed and submitted to the Environmental Protection Authority (EPA) prior to the commissioning of the plant.

2. The proponent will prepare a plant emergency procedures plan which will be prepared in conjunction with and, co-ordinated into the proposed Kwināna Emergency Plan. The plan will be prepared and submitted to EPA prior to plant commissioning.

LANDSCAPING

3. The proponent will prepare a landscape and planting programme for the site.

PLANT EMISSIONS

4. The proponent will engage the services of a Manager, Environmental, Health and Safety Affairs, to manage the environmental health and safety concerns of the site.

ATMOSPHERIC EMISSIONS

5. Atmospheric emissions will be maintained to levels and standards agreed with the EPA.
6. An incinerator with a back up combustion chamber will be installed to reduce atmospheric emission of contaminants from the main process vent stack.
7. Fugitive emissions of $TiCl_4$ will be collected by a vacuum pick up system connected to a scrubber system.

WATER

8. Programmes will be established to minimise water usage, including where feasible, recycling of water within the plant circuit.

9. Water circulation systems will, generally, be located over concrete pads or hardstand with collection areas and sumps. Spills will be collected and routed to a neutralisation system to join the plant effluent stream.
10. Stormwater run off will be collected in a surface drain system and disposed of off site.
11. The settling ponds will be lined to prevent leaching of liquids into the groundwater. The ponds will be fitted with an under pond drainage system to intercept any leakage through the lining that may occur.

Details of the pond design will be included in the EMP.

12. A groundwater sampling and reporting procedure will be detailed in the EMP and submitted to the EPA prior to plant commissioning.

LIQUID EFFLUENT

13. The disposal of liquid effluents may be by either discharge into Cockburn Sound or into the Western Australian Water Authorities, Cape Peron sewerage disposal system.

The system selected will be to the approval of the appropriate authority and detailed in the EMP.

SOLID WASTE

14. Details of the mine rehabilitation plan, including details for the disposal of the pigment plant solid waste products will be outlined in the mine site EMP to be submitted to the EPA prior to the operation of the Pigment Plant.
15. The proponent will develop transport and disposal methods for the plant solid wastes to the approval of the authorities and will detail the methods to be used in the EMP.

NOISE

16. The proponent is committed to remain within the EPA guidelines for noise emissions. Monitoring of noise levels, during construction and operations will be undertaken on site and off site.

The results of the monitoring will be reported to the EPA.

The noise monitoring programme will be developed in consultation with the EPA and detailed in the EMP.

RADIATION

17. Regular checking and reporting to the appropriate authority to ensure that the EPA's guideline levels for radiation levels of uranium and thorium in feedstock, solid wastes, liquid effluent and product are met and maintained.

Full details of the developed radiation monitoring programme will be included in the EMP.

CHEMICAL STORAGE

18. The bunded area for the pure $TiCl_4$ tanks will be designed to hold 100% capacity of the $TiCl_4$ tanks.
19. The design specification for the $TiCl_4$ tanks will be submitted to the appropriate authorities for approval prior to construction.
20. The capacity of the emergency scrubbers will be sufficient to deal with all possible gaseous leaks from the storage vessels.

DECOMMISSIONING

21. When operations cease and no further use for the site facilities can be identified, buildings and equipment will be dismantled, sold or disposed of. The general plant area will then be cleaned up to a tidy condition.

Equipment used in the titanium dioxide plant will be checked for radioactivity, and where necessary decontaminated prior to sale or disposal. Cleanup procedures upon project completion date are detailed in the ERMP.