



Ass # 908

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State # 384

MINISTER FOR THE ENVIRONMENT WESTERN AUSTRALIA

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

PROPOSAL: SODIUM CYANIDE PLANT AT KWINANA AND  
TRANSPORT OF SODIUM CYANIDE BY RAIL  
(113 / 197 / 908)

COMPONENT: TRANSPORT OF SODIUM CYANIDE SOLUTION  
FROM KWINANA (908)

CURRENT PROPONENT: AUSTRALIAN GOLD REAGENTS PTY LTD

CONDITIONS SET ON: 15 OCTOBER 1987  
24 AUGUST 1989

The implementation of the transport component (road and rail) of these proposals is now subject to the following conditions which replace all previous conditions relating to transport:

**1 Proponent Commitments**

The proponent has made a number of management commitments in order to minimise risks to the public and the environment.

- 1-1 In implementing the proposals, including the transport of sodium cyanide by road reported on in Environmental Protection Authority Bulletin 772, the proponent shall fulfil the commitments made in the Public Environmental Reports (1986 and 1989), reported on in Environmental Protection Authority Bulletins 274 and 387; in the Notice of Intent (1987), reported on in Environmental Protection Authority Bulletin 284; in the document "Transport of Sodium Cyanide Solution from Kwinana, December 1994"; and in responses to issues raised during assessment and in subsequent correspondence with the Environmental Protection Authority; provided that the commitments are not inconsistent with the conditions or procedures contained in this statement.

A schedule of management commitments arising from the Public Environmental Reports (1986 and 1989), the Notice of Intent (1987) and the document "Transport of Sodium Cyanide Solution from Kwinana, December 1994" which will be audited by the Department of Environmental Protection is attached.

**2 Implementation**

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

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- 2-1 Subject to these conditions, the manner of detailed implementation of the proposals 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.

**3 Transport and Emergency Management (See procedures 3 and 4)**

- 3-1 The proponent shall establish detailed specifications for loading, transfer and unloading areas for iso-tainers at the plant site, rail terminals and mine sites.
- 3-2 The proponent shall outline specific safeguards for iso-tainers.
- 3-3 The proponent shall detail mine site storage and handling requirements.
- 3-4 The proponent shall identify responsibility for the various aspects of transport and transfer operations.
- 3-5 The proponent shall prepare contingency plans for dealing with spillages at all stages of the transport operation.

Note: The above conditions 3-1 to 3-5 are to be implemented to the requirements of the Department of Environmental Protection and other relevant public authorities.

- 3-6 Prior to the commencement of road transport on each route referred to in the document "Transport of Sodium Cyanide Solution from Kwinana, December 1994", the proponent shall consult with appropriate public authorities to ensure that all specific requirements are fulfilled in the transport and emergency response procedures, to the requirements of the Department of Environmental Protection and the Department of Minerals and Energy.

**4 Proponent**

These conditions legally apply to the nominated proponent.

- 4-1 No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.

**5 Time Limit on Approval**

The environmental approval for the project is limited.

- 5-1 If the proponent has not substantially commenced the project, as modified to include road transport, within five years of the date of this statement then the approval to implement the modified project shall lapse and be void. The Minister for the Environment shall determine any question as to whether the modified project has been substantially commenced.

Any application to extend the period of five years referred to in this condition shall be made before the expiration of that period, to the Minister for the Environment by way of a request for a change in the condition under Section 46 of the Environmental Protection Act. (On expiration of the five year period, further consideration of the proposals can only occur following a new referral to the Environmental Protection Authority.)

**6 Compliance Auditing**

To help determine environmental performance, periodic reports on progress in implementation of the proposals are required.

- 6-1 The proponent shall submit periodic Progress and Compliance Reports, in accordance with an audit programme prepared by the Department of Environmental Protection in consultation with the proponent.

**Procedure**

- 1 Unless otherwise specified, the Department of Environmental Protection is responsible for assessing compliance with the conditions contained in this statement and for issuing formal clearance of conditions.
- 2 Where compliance with any condition is in dispute, the matter will be determined by the Minister for the Environment.
- 3 The proponent's transport management systems, including transport procedures and operations, will be audited by the Department of Minerals and Energy, at least on an annual basis.
- 4 The Department of Minerals and Energy will report to the Department of Environmental Protection on incidents, cases of exceptions and non-compliance.

Hon. Peter Foss, MLC  
MINISTER FOR THE ENVIRONMENT

**TRANSPORT OF SODIUM CYANIDE SOLUTION  
FROM KWINANA (908)**

**SCHEDULE OF CONSOLIDATED MANAGEMENT  
COMMITMENTS**

**to be audited by the Department of Environmental Protection**

**AUSTRALIAN GOLD REAGENTS PTY LTD**

## **Transport Management**

- 1 The proponent will conform to all regulations and statutes relevant to the transport of dangerous goods as administered by the Explosive and Dangerous Goods Division, Department of Minerals and Energy (DOME).
- 2 The proponent will report any significant transport incidents to DOME.
- 3 The proponent is committed to the transport management systems contained in the document "Transport of Sodium Cyanide Solution from Kwinana, December 1994".
- 4 A procedure will be maintained for communications with the transport operations base as each vehicle travels along a transport route to a mine and until that vehicle logs off.
- 5 Each driver will maintain a log which includes time of departure from the Kwinana area, and a general goal will be to clear the metropolitan area before significant traffic build-ups occur.
- 6 The tank containers will be manufactured to meet Australian and international codes, and will comprise a tank mounted in a steel frame of standard dimensions (referred to as "an iso-tainer").
- 7 Safety features of the iso-tainers include use of top loading/discharge, a pressure relief device, an integral ruggedised steel frame enclosure and additional strengthening around the loading/discharge point to provide roll-over protection. The tops of the nozzles would be below the top of the iso-tainer frame providing additional roll-over protection.
- 8 The tanks will be marked clearly with emergency information panels.
- 9 Sodium cyanide solution will be loaded by a delivery hose and coupling into iso-tainers secured onto railway wagons or road vehicles at the siding at the plant site at Kwinana.
- 10 During rail transport the iso-tainers will be secured by twistlocks onto a flat-top rail wagon. Each standard gauge wagon will accommodate two iso-tainers and each narrow gauge will accommodate one. The twistlocks will be designed to ensure that in event of a derailment the container will remain secured to the wagon.  
The same twistlocks are to be used for securing the iso-tainers to the road trailers.
- 11 For rail transport, Westrail will provide a controlled siding from the existing railway line to the plant site at Kwinana with facilities for marshalling and shipping of wagons and iso-tainers. As part of these facilities a contained non-porous area and associated sump and pump system will be provided.

## **Emergency Response Management**

- 12 The proponent will continue to liaise with Local Government Authorities, relevant government departments, State emergency authorities and the local emergency management advisory committees before transport commences along approved transport routes, to address local and specific issues, including setting up emergency plans and training programmes.
- 13 It is proposed that suitable emergency procedures be developed with the emergency services authorities for transport of sodium cyanide solution. The proponents are willing to continue to participate in the development of any such procedures, and in the implementation of any training programmes.
- 14 The emergency planning includes:
  - (1) training of transport operators including Westrail staff;
  - (2) provision of protective equipment to appropriate staff;
  - (3) strategic stocks of ferrous sulphate or other cyanide-neutralizing chemicals in event of emergency;
  - (4) handling and transport procedures for spilled sodium cyanide solution and the neutralized effluent; and
  - (5) communications.
- 15 The potential hazards identified will be reviewed and appropriate contingency measures incorporated into existing on-site and off-site emergency procedures for the Kwinana works.
- 16 The proponent will change emergency response procedures for spillages during transport in accordance with any new data available to minimise ecological impacts.
- 17 Emergency response practice sessions will take place on a basis agreed with the relevant authorities.
- 18 The plant operator will continue to maintain a dedicated emergency response vehicle at the Kwinana Works and have appropriately trained response personnel available to service any off-site incident involving the transport of AGR's sodium cyanide solution.
- 19 Vehicles will continue to be equipped with means of communicating quickly, efficiently and reliably with an operational base, eg by means of 2-way radios, and shall be fitted with equipment and materials in accordance with the approved emergency plan.
- 20 The neutralizing agents used to treat any spilled sodium cyanide solution will be ferrous sulphate, sodium hypochlorite solution or hydrogen peroxide with copper catalyst or soda ash. Hydrogen peroxide is the preferred reagent for use within the plant. This technology is guaranteed by the process licensor as safe and effective. For offsite incidents, ferrous sulphate is the preferred neutralizing agent but in appropriate situations, other agents such as sodium hypochlorite may be used under strict AGR/CSBP direction.
- 21 Adequate stocks of neutralizing agent (preferably ferrous sulphate) will be maintained at the plant and along the main transport routes at agreed locations for use in emergencies. They will be inspected regularly to ensure that they are kept in good order.

## **Auditing**

- 22 In addition to any required audits by a regulatory body, the proponent will continue to perform its own audits.
- 23 The proponent is committed to and will abide by the principles of Responsible Care which include in the Australian Chemical Industry Council's (ACIC), now the Plastics and Chemical Industries Association (PACIA) Code of Practice for the transport of chemicals.