



MINISTER FOR THE ENVIRONMENT AND HERITAGE

Statement No.

000602

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

**SODIUM CYANIDE PLANT AT KWINANA AND
TRANSPORT OF SODIUM CYANIDE BY RAIL
SODIUM CYANIDE PLANT EXTENSION, KWINANA
(Includes Transport of Solids)**

Proponent: Australian Gold Reagents Pty Ltd

Proponent Address: PO Box 345, Kwinana WA 6167

Assessment Number: 1422

Previous Assessment Numbers: 113, 197 and 908

Previous Statement Numbers: Statement No. 006 published on 15 October 1987,
Statement No. 073 published on 24 August 1989, and
Statement No. 384 published on 12 May 1995.

Report of the Environmental Protection Authority: Bulletin 1047

Previous Reports of the Environmental Protection Authority: Bulletins 274, 284, 387 and
772

The implementation of the *transport component* of the proposals to which the above reports of the Environmental Protection Authority relate is subject to the conditions and procedures contained in Ministerial Statement No. 384 (12 May 1995), as amended by the following:

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Condition 1 (Proponent Commitments) of Statement No. 384 is deleted and the following condition is inserted:

1 Proponent Commitments

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

- 1-1 In implementing the proposals, including the modifications on the transport of sodium cyanide by road and the transport of solid sodium cyanide, as reported on in Environmental Protection Authority Bulletins 772 and 1047, respectively, the proponent shall fulfil the relevant commitments published on 12 May 1995 and those made on 16 July 2002. (Copies of both the commitments of 12 May 1995 and 16 July 2002 are attached).

The following conditions and procedures are inserted immediately following condition 6 of Statement No. 384:

7 Review of Transport Options (Kwinana to Fremantle)

- 7-1 The proponent shall complete the review of transport options and related matters referred to in supplementary commitment 6 immediately following the two-year period of transport of solid sodium cyanide commencing on the issue of the section 45(7) notices to the decision-making authorities, to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority, unless the rail improvements (which are expected to be completed along with significant progress in relation to how freight moves between Kwinana and Fremantle) have not been completed in the opinion of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

In that event, the proponent shall complete the review within three years following commencement of solid sodium cyanide transport, to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

8 Duration (Road Transport of Solid Sodium Cyanide - Kwinana to Fremantle)

- 8-1 The proponent may use road transport of solid sodium cyanide for a period of not more than three years from the issue of the section 45(7) notices to the decision-making authorities, unless the rail improvements referred to in condition 7-1 have not been completed, in the opinion of the Minister for the Environment and Heritage acting on advice of the Environmental Protection Authority.

In the event that rail improvements have not been completed, the Minister for the Environment and Heritage, acting on advice of the Environmental Protection Authority, will extend the duration of the use of road transport of solid sodium cyanide beyond the three years referred to above.

- 8-2 Following consideration of the review of transport options and related matters, referred to in condition 7-1, the Minister for the Environment and Heritage, acting on advice of the Environmental Protection Authority, may extend the period of three years referred to in condition 8-1.

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT AND HERITAGE

- 2 AUG 2002

**Proponent's Consolidated Environmental Management
Commitments**

12 May 1995

&

16 July 2002

**SODIUM CYANIDE PLANT AT KWINANA AND
TRANSPORT OF SODIUM CYANIDE BY RAIL
SODIUM CYANIDE PLANT EXTENSION,
KWINANA**

(Assessment No. 1422)

(Includes Transport of Solids)

AUSTRALIAN GOLD REAGENTS PTY LTD

TRANSPORT OF SODIUM CYANIDE SOLUTION
FROM KWINANA (908)

SCHEDULE OF CONSOLIDATED MANAGEMENT
COMMITMENTS

of 12 May 1995

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.

**Proponent's Consolidated Supplementary Commitments of 16 July 2002
Transport of Solid Sodium Cyanide (Assessment No. 1422)**

No.	TOPIC	ACTION	OBJECTIVE	TIMING	ADVICE
1	Transport Management Plan	1) Update the existing Transport Management Plan (TMP) to incorporate the transport of solid sodium cyanide. The TMP is to include: <ul style="list-style-type: none"> • The approved route (as outlined in submission); • Use of Intermediate Bulk Containers that meet IMDG Code; • Sea container inspections; and • Port disruption procedures; 2) Implement the TMP.	To ensure safe and effective management of transport operations.	Prior to transport of solid sodium cyanide, review bi-annually.	MPR
2	Transport Route	Review the approved transport route and update the Risk Assessment (as required). (see Timing column).	To minimise risk.	Ongoing As required based on: <ul style="list-style-type: none"> • Updates to the recommended Dangerous Goods Route; • Changes to facilities adjoining the route; and • A review of traffic data. Otherwise 3-yearly review.	MPR

3	Emergency Response & Training	Update the existing emergency response procedures and training provisions to include the transport, storage and handling of solid sodium cyanide.	To provide emergency response during product transport and assistance within the wharf area.	Prior to transport of solid sodium cyanide and update as required by the proponent's standard procedures.	MPR FESA
4	Storage and Handling at Port	Audit the Stevedore's operations, Safety Management System and Emergency Response Plans for handling solid sodium cyanide.	To verify that control measures and assumptions identified in the QRA are provided and/or implemented. To verify that the Port Operations are compliant with Dangerous Goods in Ports Regulations with respect to solid sodium cyanide. To verify that drainage from the solid sodium cyanide laydown area is contained and emergency response is adequate.	Prior to transport of solid sodium cyanide and then bi-annually.	MPR, FPA
5	Storage and Handling at Port	Review the Fremantle Port's Marine Safety and Environmental Management Plan with respect to solid sodium cyanide storage and handling.	To verify compliance with the Dangerous Goods in Ports Regulations with respect to solid sodium cyanide. To verify that the emergency response procedures for a sodium cyanide spill are adequate.	Prior to transport of solid sodium cyanide.	MPR

6	Transport Mode	Review other transport options, including road/rail viability and risk assessment.	To ensure the most effective transport mode is used, and public safety is protected.	Note: The timing requirements of this commitment are determined by condition 7.	MPR DPI
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Abbreviations

- DEP = Department of Environmental Protection
- DPI = Department of Planning and Infrastructure
- EPA = Environmental Protection Authority
- FESA = Fire and Emergency Services Authority
- FPA = Fremantle Port Authority
- MPR = Mineral & Petroleum Resources, Department of
- IMDG = International Maritime Dangerous Goods
- QRA = Qualitative Risk Assessment