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WESTERN AUSTRALIA  
MINISTER FOR ENVIRONMENT

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

SODIUM CYANIDE PLANT EXTENSION - KWINANA

AUSTRALIAN GOLD REAGENTS PTY LTD

This proposal may be implemented subject to the following conditions:

1. The proponent shall adhere to the proposal as assessed by the Environmental Protection Authority and shall fulfil the commitments made in the Public Environmental Report and in responses to questions raised during assessment (copy of commitments attached) and subject to the assumptions made in the risk assessment.
2. The proponent shall prepare, prior to commencement of each stage, a comprehensive hazard identification and risk management programme, to the satisfaction of the Minister for Environment and on advice from the Department of Mines.

The programme should include the following:

- . hazard and operability studies (HAZOP) of the process units, to be completed and submitted before mechanical construction commences;
- . safety engineering design;
- . quantified risk assessment;
- . implementation systems; and
- . safety reviews during the life of the plant at intervals to be determined by the Authority.

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3. The proponent shall;

- . maintain the process equipment, instrumentation and alarm systems consistent with the safety and reliability assessment of the plant; and
- . install very high integrity instrumentation for the control of the plant and for the detection of and response to any unplanned releases;

to the satisfaction of the Minister for Environment, following advice from the Department of Mines.

4. Prior to the construction of the extension, the proponent shall revise the present site emergency plan to the satisfaction of the Environmental Protection Authority to cover the proposed extension. The plan shall also meet the requirements of the Kwinana Integrated Emergency Management System.
5. The proponent shall revise the previous construction and operational stage management plans to cover the proposed extension. Each revised plan should be submitted to, and be to the satisfaction of the Environmental Protection Authority following advice of the Department of Mines before that stage of the development commences. The plans shall include the following:
  - . management of stormwater runoff from the site;
  - . emergency response for site workers in the case of present plant failure;
  - . storage and bunding requirements of additional sodium cyanide storage; and
  - . storage requirements for additional ammonia.
6. Prior to commissioning the extended plant, the proponent shall revise, to the satisfaction of the Environmental Protection Authority, the present wastewater and solid waste management plan to take into account the additional effluent resulting from expansion of the plant.
7. The proponent shall install in the ammonia pipeline, remotely operated, fast action, safety valves which can isolate each plant from the pipeline and the other plant.
8. The proponent shall be responsible for decommissioning the plant and rehabilitating the site and its environs to the satisfaction of the Environmental Protection Authority. The proponent shall, at least six months prior to decommissioning, prepare a decommissioning and rehabilitation plan to the satisfaction of the Environmental Protection Authority.

9. 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 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.

Bob Pearce, MLA  
MINISTER FOR ENVIRONMENT

## SUMMARY OF MANAGEMENT COMMITMENTS

The commitments that the proponent has made to environmental management during the design, construction and operation of the expanded facilities are as follows:

- . Prior to implementing any modifications to the design of the existing plant, the following safety checks will be undertaken:
  - referral of the proposed modification to the process licensor, Roehm GmbH;
  - liaison with the risk consultant on the proposed changes if they are likely to affect the risk analysis.
  - HAZOP analysis of the proposed modifications to the plant design.
- . Construction of the proposed expansion will be undertaken in accordance with a Construction Stage Management Report similar to that prepared for the existing plant but recognising the potential hazards of the existing plant, together with relevant conditions imposed by the EPA.
- . All construction materials and practices will be in accordance with the relevant Australian codes and international standards where appropriate.
- . The plant design will ensure that emissions of nitrogen oxides during normal operating conditions will be within the NH&MRC recommended guidelines and will also comply with guidelines adopted by the Victorian EPA.
- . Safety features incorporated into the existing plant will be incorporated into the expanded facilities.
- . Wastewater from the plant will be managed according to the wastewater management strategy approved by the EPA for the existing plant.
- . The process and storage areas will be sealed and bunded so that any washings, contaminated stormwater runoff or spills will be collected and directed to the wastewater treatment plant sump, and analysed and treated prior to disposal. Any discharge of treated wastewater into Cockburn Sound will comply with the criteria specified in Bulletin No. 103 or the terms of the EPA licence for the existing plant.
- . Any additional storage of sodium cyanide will be approved by the Chief Inspector of Explosives and Dangerous Goods.
- . A fire protection system will be incorporated into the expanded facilities in accordance with the requirements of the plant design and the Western Australian Fire Brigade Board. CSBP works' personnel will be trained in the appropriate fire-fighting techniques. In addition to the fire-fighting capability of CSBP's Kwinana works, the fire-fighting co-operative established by the industrial operators in the Kwinana district will be available for emergency assistance. CSBP has been participating in the development of the Western Australian Hazardous Materials Emergency Management Scheme.

- . All employees will be trained in the safe work practices and emergency procedures appropriate to the operation of the plant and handling of all associated materials. The management structure for the expanded facilities will incorporate at least two tiers of personnel technically qualified to manage hazardous chemical operations.
- . On-site emergency facilities at CSBP's Kwinana works will continue to include a dedicated emergency response vehicle, fire tender and an ambulance at all times, and an occupational health sister during normal working hours.
- . A detailed operating manual has been prepared for the existing plant from information supplied by the licensor, covering all process work, including start-up, and shut-down, plant testing, inspection and emergency action. The procedures manual will be amended as necessary to include the expanded facilities.
- . The proponent will arrange for observers from the licensor to be at the plant during commissioning of the duplicate plant if it is deemed necessary by the licensor and the proponent.
- . The duplicate plant and any interconnections to the existing plant will be subject to a full HAZOP study and follow-up prior to commissioning.
- . Stocks of neutralizing agent (ferrous sulphate) are located along the transport routes at agreed locations. They will be inspected regularly to ensure that they are in good order.
- . Emergency response practice sessions will take place on a basis agreed with the relevant authorities.
- . CSBP as the plant operator will maintain a dedicated emergency response vehicle at the Kwinana works and this will be available to service any off-site incident involving the transport of sodium cyanide.
- . Upon commissioning, monitoring of the existing plant will be undertaken in accordance with a comprehensive EMMP, and the proposed expansion will be incorporated into this EMMP to the satisfaction of the EPA.
- . Liaison with local Shires, the EPA, the Department of Mines, Westrail and counter-disaster groups will occur as appropriate in regards to proposed changes to the agreed transport routes or the addition of new market areas.
- . Subject to final regulations becoming law, AGR will prepare a Total Hazard Control Plan to the satisfaction of the Safety Coordinator, Explosives and Dangerous Goods Division of the Department of Mines, for the existing sodium cyanide plant at Kwinana. The plan will be extended to cover the operation of the duplicate solution plant.