



WESTERN AUSTRALIA

MINISTER FOR THE ENVIRONMENT

Ass # 903

Bull # 767

State # 377

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

PROPOSAL: TAILINGS POND REHABILITATION PROJECT AND  
EFFLUENT MANAGEMENT SYSTEM UPGRADE,  
BALDIVIS (323/903)

CURRENT PROPONENT: WESTERN MINING CORPORATION LIMITED

CONDITIONS SET ON: 30 MAY 1991

The implementation of this proposal is now subject to the following conditions which replace all previous conditions:

**1 Proponent Commitments**

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

- 1-1 In implementing the proposal (including the documented modifications of August 1994), the proponent shall fulfil the relevant environmental management commitments made in documentation on the Baldivis Tailings Pond Rehabilitation Project and Effluent Management System Upgrade in August 1994, reported on in Environmental Protection Authority Bulletin 767; and in the Consultative Environmental Review and responses to issues raised during the assessment, published in Environmental Protection Authority Bulletin 489 as Appendix 1; provided that the commitments are not inconsistent with the conditions or procedures contained in this statement.

A schedule of environmental management commitments (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.

- 2-1 Subject to these conditions, 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.

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### **3 Decommissioning**

- 3-1 The proponent shall carry out decommissioning of the project, removal of the plant and installations and rehabilitation of the site and its environs.
- 3-2 At least six months prior to decommissioning, the proponent shall prepare a final decommissioning and rehabilitation plan to achieve the objectives of condition 3-1.
- 3-3 The proponent shall implement the plan required by condition 3-2 to achieve the objectives of condition 3-1.

### **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 Compliance Auditing**

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

- 5-1 The proponent, in consultation with the Department of Environmental Protection, shall prepare an Audit Programme, which includes requirements for the preparation of periodic Compliance Reports.
- 5-2 The proponent shall subsequently implement the Audit Programme required by condition 5-1.

### **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 public authority.
- 2 If the Department of Environmental Protection, other public authority 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

18 JAN 1995

# **Schedule of Environmental Management Commitments**

**December 1994**

## **TAILINGS POND REHABILITATION PROJECT & EFFLUENT MANAGEMENT SYSTEM UPGRADE, BALDIVIS (323/903)**

**WESTERN MINING CORPORATION LIMITED**

### **General Commitments**

- 1 The groundwater contamination resulting from the tailings pond will be rectified as specified in the CER and subsequent documentation assessed by the EPA.
- 2 All facilities which are used to hold contaminated materials associated with polluted groundwater recovery or polluted effluent/slurry or solid waste disposal (at the Refinery and Baldivis sites) will be so designed so as to contain spillage.
- 3 The proponent will modify its contaminated groundwater recovery programme and its tailings pond management procedures, if it cannot meet licence conditions placed on it by EPA.
- 4 The proponent will provide regular reports to the EPA, or as directed by the EPA, on the progress and results of studies by the independent consultants for the project.
- 5 The proponent will implement as appropriate any plans necessary to meet its environmental objectives.
- 6 The proponent will continue to transport solid tailings residues, resulting from its Kwinana nickel operations back to the Kambalda minesite and this will be done to the satisfaction of the EPA and the Health Department. If the proponent were to change this practice and dispose of this solid waste elsewhere, it would only do so after first obtaining approval from the EPA.

### **Tailings Pond**

- 7 The proponent will cease discharging plant effluent into the tailings pond by 30 June 1995.
- 8 Treatment and disposal of the effluent will be carried out to the satisfaction of the EPA.
- 9 The proponent will commence to dewater the tailings pond as soon as practical after the commissioning of the CMF pretreatment plant and no later than 30 June 1995. The dewatering and subsequent treatment and disposal of the pond liquor will be carried out to the satisfaction of the EPA.
- 10 The proponent will, at least six months prior to completing the dewatering of the tailings pond, prepare a decommissioning and rehabilitation plan for review and approval by the EPA.
- 11 Rehabilitation of the existing tailings pond site will be carried out to the satisfaction of the EPA, Health Department, Water Authority, the Department of State Development and any other relevant agency.
- 12 During the dewatering and rehabilitation programmes the associated environmental management plans will be modified as deemed necessary and where practical to minimise the impact of pollution on the environmental surrounds.

### **Waste Water Treatment Plant**

- 13 The proponent will operate, manage and monitor the performance of the waste water treatment plant so that waste recovery can be continually optimised.
- 14 The proponent will maintain the waste water treatment plant to a level which will enable processing of contaminated groundwater at the treatment rates indicated in the CER (and subsequent documentation). The proponent will undertake further upgrading of the waste water treatment plant if treatment of the contaminated groundwater is not progressing at a satisfactory rate.
- 15 The proponent will continue to investigate new technology and improvements to improve its waste water treatment plant to optimise recovery of pollutants.
- 16 All operations at the treatment plant will be designed and operated to contain all spillages and contaminated run off within the site boundaries .
- 17 The proponent will manage the disposal of any solids from the treatment plant to prevent contamination of the environment.

### **Evaporation Cells**

- 18 The evaporation cells will be operated and managed to the satisfaction of the EPA, Water Authority, the Health Department and any other relevant statutory agency.
- 19 To ensure that the final salt residue in the evaporation cells conforms to predicted specifications for future management, the chloride bleed effluent composition and discharge rates, will be monitored.
- 20 If the quality or quantity of chloride bleed effluent does not conform to specifications the effluent will be retreated or otherwise disposed of in an acceptable manner.
- 21 Salt residues building up in the evaporation cells over the lifetime of the cells will be managed to the satisfaction of the EPA and Health Department.
- 22 Seepage rates from the evaporation cells will be monitored and any leakage from the structure will be immediately notified to the EPA.
- 23 The proponent will take immediate action to recover leakage and repair the structure.
- 24 The proponent will, at least six months prior to dewatering the evaporation cells prepare a decommissioning and rehabilitation plan for review and approval by the EPA.
- 25 When decommissioning, the proponent will cease discharge to and dewater the evaporation cells. The recovered water will be evaporated or treated and disposed of in an acceptable manner.
- 26 Rehabilitation of the evaporation cell site will be carried out to the satisfaction of the EPA, Health Department, Water Authority and other relevant agencies.

- 27 During rehabilitation, the evaporation cell site will be stabilised to prevent leakage subsequently occurring even during periods of high rainfall. This stabilisation will be carried out to the satisfaction of the EPA and the Water Authority.

### **Monitoring and Reporting**

- 28 Throughout the life of the project, the proponent will maintain and implement an Environmental Monitoring Programme.
- 29 The monitoring programme will be submitted to the EPA for approval and will include:
- 1 groundwater monitoring bores and locations
  - 2 land transects for vegetation monitoring
  - 3 monitoring for protection of Lake Cooloongup
  - 4 frequency and time of monitoring, and
  - 5 reporting times to the EPA
- 30 All samples taken in the monitoring programme will be analysed in a laboratory acceptable to the EPA.
- 31 The proponent will monitor all pipelines running between the Refinery and Baldivis for integrity.
- 32 In the case of spillage to the environment resulting from effluent pipeline failure, the proponent will immediately inform the EPA of such spillage, immediately clean up the leakage and as soon as possible remediate any environmental impact.
- 33 The proponent will monitor and control insects and weeds around the tailings pond and evaporation cells to the satisfaction of the EPA, the Health Department and the City of Rockingham.
- 34 The proponent will monitor and ensure that the tailings pond and evaporation cells are fenced so as to avoid public access at all times.
- 35 The proponent will monitor the evaporation cells seepage rates.
- 36 If the EPA identifies an environmental impact on Lake Cooloongup or surrounding areas resulting from contaminated groundwater generated by the proponent, the proponent will undertake remedial action to the requirements of the EPA.
- 37 The proponent will submit regular reports to the EPA or as directed by the EPA. The report will include:
- 1 Advice to the EPA on the fulfilment or otherwise of any Ministerial Conditions and Commitments given for the project which may have been achieved or had impact during the reporting period.
  - 2 Operating and recovery performance data for the treatment plant.

- 3 Disposal and distribution, including volumes and composition, of all:
  - (a) Refinery effluent streams, and
  - (b) Treatment plant streamswithin the refinery site as well as to the Baldavis site.
- 4 All monitoring data as proposed in the Environmental Monitoring Programme, and
- 5 Seepage rates of the evaporation cells.

**Definitions:**

1. **CMF Plant**  
Continuous microfiltration plant.
2. **Waste Water Treatment Plant**  
Infrastructure associated with the CMF pretreatment, nano filtration and reverse osmosis plants.
3. **Tailings Pond**  
Old pond previously used for storage of tailings residue and plant effluent and which is now considered for dewatering and rehabilitation.
4. **Evaporation Cells**  
New facilities to accept and evaporate chloride bleed effluent from the reverse osmosis plant as per CER (dated September 1990).
5. **Plant Effluent**  
Waste liquor from the nickel operations at the refinery.
6. **Chloride Bleed Effluent**  
Waste liquor from the reverse osmosis section of the treatment plant.
7. **Pond Liquor**  
Liquor in the tailings pond.
8. **Rehabilitation**  
Site decommissioning after dewatering the tailings pond or other evaporative storage.