



Ass # 992
Bull # 816
State # 418

MINISTER FOR THE ENVIRONMENT WESTERN AUSTRALIA

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

**NICKEL-COBALT ORE MINING & PROCESSING
MURRIN MURRIN, 60 KM EAST OF LEONORA (992)**

ANACONDA NICKEL NL

This proposal may be implemented subject to the following 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, the proponent shall fulfil the commitments made in the Consultative Environmental Review and in response to issues raised following public submissions; provided that the commitments are not inconsistent with the conditions or procedures contained in this statement.

The consolidated environmental management commitments (April 1996) were published in Environmental Protection Authority Bulletin 816 (Appendix 4) and a copy 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.

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2-2 Where, in the course of the detailed implementation referred to in condition 2-1, the proponent seeks to change the designs, specifications, plans or other technical material submitted to the Environmental Protection Authority 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 Proponent

These conditions legally apply to the nominated proponent.

3-1 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.

4 Rare Flora

Declared Rare Flora should be managed within the project area so that no significant loss of the species occurs.

4-1 Prior to construction, the proponent shall prepare a plan for the conservation and management of *Hemigenia exilis* within the project area, to the requirements of the Department of Conservation and Land Management.

4-2 The proponent shall implement the plan required by condition 4-1 to the requirements of the Department of Conservation and Land Management.

5 Greenhouse Gas Emissions

The Environmental Management Programme and the Environmental Management System should address greenhouse gas emissions.

5-1 At appropriate times, the proponent shall address, in the Environmental Management Programme to be prepared under commitment 1, and in the Environmental Management System to be prepared under commitment 2, the following additional matters relating to greenhouse gas emissions:

1 calculations of the greenhouse gas emissions associated with the proposal, using appropriate methodology developed for Australia;

2 noting governments' desire to stabilise greenhouse gas emissions by the year 2000 and progressively reduce them thereafter. Also noting the Revised Greenhouse Strategy for Western Australia 1994 and the United Nations Framework Convention on Climate Change (FCCC); and

3 employment of best endeavours to comply with the position noted in 2 above and the FCCC Convention on greenhouse gas emissions, with reporting on progress,

to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

6 Decommissioning

The satisfactory decommissioning of the project, removal of plant and installations and rehabilitation of the site and its environs is the responsibility of the proponent.

6-1 Within five years following commissioning, or at such later time considered appropriate by the Minister for the Environment on advice of the Department of Environmental Protection, the proponent shall prepare a plan which:

- 1 describes the process for the decommissioning and rehabilitation of the project area;
- 2 provides for the long term management of ground and surface water systems affected by the tailings disposal area and evaporation pond area; and
- 3 provides for the development of a 'walk away' solution for the decommissioned mine pits, the process plant, the tailings dam and the evaporation pond and all associated infrastructure,

to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Department of Minerals and Energy and the Water and Rivers Commission.

Note: A 'walk away' solution means that the site shall either no longer require management at the time the proponent ceases operations, or if further management is deemed necessary, the proponent shall make adequate provision so that the required management is undertaken with no liability to the State.

6-2 The proponent shall implement the plan required by condition 6-1.

7 Time Limit on Approval

The environmental approval for the proposal is limited.

7-1 If the proponent has not substantially commenced the project within five years of the date of this statement, then the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment shall determine any question as to whether the 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.

Where the proponent demonstrates to the requirements of the Minister for the Environment on advice of the Department of Environmental Protection that the environmental parameters of the proposal have not changed significantly, then the Minister may grant an extension not exceeding five years.

8 Compliance Auditing

To help determine environmental performance and compliance with the conditions, periodic reports on the implementation of the proposal are required.

8-1 The proponent shall submit periodic Performance 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.

Note

The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the Environmental Protection Act.

Hon Peter Foss QC MLC
MINISTER FOR THE ENVIRONMENT

- 5 JUN 1996

**Proponent's Consolidated Environmental Management
Commitments**

April 1996

**NICKEL-COBALT ORE MINING & PROCESSING
MURRIN MURRIN,
60 KM EAST OF LEONORA (992)**

ANACONDA NICKEL NL

PROPONENT COMMITMENTS (992)

1. Prior to commencement of the project, the proponent will prepare and implement an Environmental Management Programme for the construction phase, in consultation with the DEP, DME, CALM and other relevant agencies to meet the requirements of the EPA. Further, the proponent will ensure that its contractors will comply with the environmental management strategies and procedures described in the EMP.
 2. The proponent will develop and implement an Environmental Management System for the operation of the project prior to the start of operations. This EMS will be developed in consultation with the DEP, DME and CALM, and to the satisfaction of the EPA. Further, the proponent will ensure that its contractors will comply with the environmental management strategies and procedures described in the EMS.
 3. The proponent will progressively rehabilitate disturbed areas to minimize disturbance of biological communities. The rehabilitation will be completed to the satisfaction of the EPA in accordance with the approved EMP and EMS.
 4. The proponent will undertake the construction, operation and decommissioning of the project in a manner that minimizes disturbance to *Hemigenia exilis* populations. The proponent will also comply with the requirements of the *Wildlife Conservation Act 1950*. Further, the proponent will require its contractors to comply with this commitment. This will be undertaken to the satisfaction of the EPA and CALM, in accordance with the approved EMP and EMS.
 5. The proponent will minimize erosion by minimizing the extent of land disturbance and progressively rehabilitating disturbed areas. This will be undertaken to the satisfaction of the EPA and DME in accordance with the approved EMP and EMS.
 6. The proponent will minimize the off-site transport of sediments by minimizing exposed surfaces, identifying and treating on-site areas prone to erosion and progressively rehabilitating disturbed areas. The proponent will also undertake a water quality monitoring programme for Cement Creek and Katata Creek. These monitoring programmes will be developed and implemented to meet the requirements of the EPA, DME and WRC.
 7. The proponent will implement dust mitigation measures including containment and suppression during construction to the satisfaction of the EPA and DME.
 8. The proponent will minimize dust generation during operation of the facility by the following measures:
 - 1 regular cleaning of areas likely to accumulate dust;
 - 2 sealing of major roadways within the processing plant; and
 - 3 use of water sprays on mine areas, ore and calcrete haulage routes, stockpiles and other project areas, as required.
- This programme will be completed to the satisfaction of the EPA and DME.
9. The total carbon dioxide emission for the project will be calculated by the proponent on an annual basis and reported to the DEP.
 10. The proponent will ensure that noise from the project will comply with the requirements of the *Noise Abatement (Neighbourhood Annoyance) Regulations 1979*. If noise levels attributable to the project exceed EPA criteria, the proponent will take measures to reduce the impact.

11. The proponent will design and operate the overburden waste dumps such that they are stable and resistant to erosion, to the satisfaction of the EPA and DME.
12. The proponent will design and operate the tailings dam in accordance with the requirements of the EPA and DME to ensure that the tailings dam and evaporation pond do not result in unacceptable impacts to the existing groundwater regime. The tailings dam and evaporation pond will be treated to minimize permeability, if required.
13. Prior to construction and operation of the tailings dam and the evaporation pond, the proponent will undertake the following:
 - 1 A more detailed assessment of tailings solids and liquids geochemistry, including predicted compositions relevant to environmental guidelines and standards. This assessment will focus on Total Dissolved Solids, major ions, and metals (via an elemental analysis).
 - 2 An assessment of the predicted particle form and geotechnical characteristics of the tailings, including settling characteristics, and settled and compacted permeabilities.
 - 3 A more detailed evaluation of potential alternative tailings disposal options, including provision for the re-examination of the in-pit disposal option five years after the commencement of operations.
 - 4 A modelled feasibility assessment for the treatment of the tailings dam floor to achieve consistently low permeability to prevent excess seepage, depending on the predicted tailings permeability. The acceptable permeability rate will be assessed on the basis of the predicted seepage rate and effects on the groundwater.
 - 5 A detailed investigation of the hydrogeology of the tailings dam and evaporation pond sites to assess the depth to groundwater ('perched' or otherwise), aquifer characteristics, groundwater flow rates, and groundwater quality. The potential rise in groundwater levels and the dilution rates for seepage from these facilities will then be assessed, and predictions made regarding the resultant quality of the underlying groundwater and the requirement to decrease the permeability of the tailings dam to prevent unacceptable environmental impacts.

This work will be undertaken to meet the requirements of the EPA, DME and WRC.

14. The proponent will design and install a groundwater monitoring programme up and down-gradient of the tailings dam and the evaporation pond prior to the construction of these facilities. The monitoring programme will be designed and operated to the satisfaction of the DME, DEP and WRC.
15. The proponent will minimize the impact of the project on pastoral activities and ensure that pastoral water supplies in the project area are maintained.
16. The proponent will comply with the provisions of the *Aboriginal Heritage Act 1972-1980*.
17. The following commitments are made relating to the plant operations;
 - 1 hazardous chemicals and fuel storage areas will be bunded, and constructed in accordance with AS 1940 - 1933;
 - 2 systems will be installed (either as procedures or by design) that would ensure shutdown following a release of either hydrogen or natural gas;

- 3 rigorous procedures will be in place to prevent air ingress into vessels containing either natural gas or hydrogen, at either plant start-up or shutdown;
 - 4 the flare exhaust stack will be sited such that there is no potential for off-site thermal radiation effects and at a height sufficient to ensure adequate dispersion of toxic emissions; and
 - 5 a hazard and operability (HAZOP) study will be conducted during the detailed design of the plant processing facilities.
18. The proponent will undertake additional fauna studies to ensure that adequate information is available for the purposes of managing the project as well as educating the workforce. The scope of these studies will be determined prior to the commencement of the construction phase in consultation with the DEP and CALM and will be undertaken to meet the requirements of the EPA.
19. The proponent will specify emissions criteria in tender documents for the supply of equipment for the Plant. Compliance testing will be carried out by the proponent during the commissioning of the Plant to confirm that the emissions from the plant equipment are within the specified limits. This commitment will be implemented to meet the requirements of the EPA.