



Ass # 956

Bull # 794

State # 410

MINISTER FOR THE ENVIRONMENT WESTERN AUSTRALIA

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

DIRECT REDUCTION / HOT BRIQUETTED IRON PLANT, CAPE LAMBERT (956)

AUSTRALIAN UNITED STEEL INDUSTRY PTY LIMITED

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 proponent's consolidated environmental management commitments were published in Environmental Protection Authority Bulletin 794 (Appendix 5), and a schedule (February 1996) indicating those commitments 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.
- 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.

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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 **Environmental Management Programme**

An Environmental Management Programme applicable in two stages, prior to and post commissioning, is required.

- 4-1 Prior to commissioning, the proponent shall prepare Stage 1 of the Environmental Management Programme, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

This Programme shall address, but not be limited to the following:

Ocean cooling water intake and discharge

- 1 nature and location of the intake and discharge points on the Robe River Mining Co Ltd jetty;
- 2 prediction of the ocean water quality, including water temperature change at and around the ocean outfall and comparison with an agreed water quality standard, including commitments;
- 3 the sensitivity of the marine ecosystem to changes in temperature and the adequacy of a 4°C above ambient ocean water temperature discharge limit (Commitments 19 and 20);
- 4 the method for determining the nature of the mixing zone;
- 5 baseline monitoring of environmental conditions at and around the ocean outfall; and
- 6 an oil/chemical spill contingency plan.

Ground water and existing surface water hydrology

- 7 the control of surface water, run-off, drainage and tailings dam such that the groundwater is protected;
- 8 a water efficiency and conservation programme relating to the use of fresh water; and
- 9 a monitoring and audit programme for groundwater and surface water quality at and around the plant and tailings dam, with particular emphasis on iron as an indicator.

Gaseous emissions (including greenhouse gases and odours)

- 10 a monitoring and audit programme for all gaseous and odorous emissions (stack and ambient), including greenhouse gases;
- 11 calculations of the greenhouse gas emissions associated with the proposal, using appropriate methodology developed for Australia;
- 12 noting the 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
- 13 employment of best endeavours to comply with the position noted in 12 above, and the FCCC Convention on greenhouse gas emissions, with reporting on progress.

Dust and particulate emissions

- 14 a monitoring and audit programme for all dust and particulate emissions (including fugitive dust) and the moisture content of storage stockpiles as a means of gauging the effectiveness of dust control.

- Liquid and solid waste disposal
- 15 an inventory of the volume, contents and location of all waste disposal sites. These details are to be indicated on the site plan for future reference; and
 - 16 details of waste disposal approvals obtained by the proponent from relevant government authorities.

Noise

- 17 a noise assessment for the overland conveyor.

- 4-2 Within three months following commissioning, the proponent shall prepare Stage 2 of the Environmental Management Programme, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection. This Programme shall address, but not be limited to the following:

Ocean cooling water intake and discharge

- 1 verification that mixing and transport of cooling water at the ocean outfall meets the agreed standard;
- 2 rectification measures in the event that monitoring indicates that water quality, including cooling water discharge mixing and transport at the ocean outfall are not to the agreed standard; and
- 3 details of mangroves lost during construction or operation of the project and proposed rehabilitation programme.

Groundwater and existing surface water hydrology

- 4 a rehabilitation plan and closure strategy for the tailings dam.
- 4-3 The Environmental Management Programme shall propose clear environmental objectives, based upon but not limited to the subject of conditions 4-1 and 4-2 above.
- 4-4 The proponent shall implement the two stages of the Environmental Management Programme required by conditions 4-1 and 4-2 at appropriate times.

5 Water Resources

Due to the very large quantity of water required for the proposal and the possibility of significant environmental impacts in its provision, a comprehensive water resource strategy should be determined.

- 5-1 Prior to construction, the proponent shall fully investigate the availability of adequate and suitable water resources for the project, in collaboration with the Water and Rivers Commission and one or more water suppliers.
- 5-2 Prior to commissioning, the proponent shall prepare a strategy for the provision of adequate and suitable water resources for the project, which is consistent with the findings of the investigation required by condition 5-1, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection and the Water and Rivers Commission.

The proponent shall ensure that any water resources development is referred to the Environmental Protection Authority for environmental assessment.

- 5-3 The proponent shall implement the water resource strategy required by condition 5-2.

6 Fauna

- 6-1 The proponent shall protect rare fauna within the project area.

- 6-2 Prior to commencement of construction, to achieve the objective of condition 6-1, the proponent shall conduct a fauna field survey of the region to:

- 1 quantify the results of the desktop study detailed in the Consultative Environmental Review; and
- 2 determine appropriate protection, relocation, rehabilitation and/or re-establishment of affected rare fauna populations;

to the requirements of the Environmental Protection Authority on advice of the Department of Conservation and Land Management.

- 6-3 The proponent shall implement measures arising from the findings of the rare fauna field survey required by condition 6-2 to achieve the objective of condition 6-1.

7 Decommissioning

- 7-1 The proponent shall carry out the satisfactory decommissioning of the project, removal of installations and rehabilitation of the site and its environs.

- 7-2 To achieve the objectives of condition 7-1, at least six months prior to decommissioning, the proponent shall prepare a decommissioning and rehabilitation plan.

- 7-3 The proponent shall implement the plan required by condition 7-2.

8 Time Limit on Approval

The environmental approval for the proposal is limited.

- 8-1 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.

9 Performance Review

- 9-1 Each five years following the formal authority issued to decision-making authorities under Section 45(7) of the Environmental Protection Act 1986, the proponent shall submit a review of environmental protection, including but not limited to, the environmental objectives and the audit of performance against the objectives.

The objectives shall be derived from those identified by the Environmental Protection Authority in Bulletin 794 and from condition 4 above.

This review shall be to the Environmental Protection Authority's requirements, on advice of the Department of Environmental Protection. The environmental objectives may be changed by the Environmental Protection Authority following the review.

10 Compliance Auditing

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

- 10-1 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 Data arising from any future meteorological data collection in the Karratha to Cape Lambert area should be used by appropriate Government agencies in assessing the air quality performance of the proponent.
- 2 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.
- 3 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

22 MAR 1996

Schedule of Environmental Management Commitments

which will be audited

by the Department of Environmental Protection

20 February 1996

**DIRECT REDUCTION / HOT BRIQUETTED IRON
PLANT, CAPE LAMBERT (956)**

AUSTRALIAN UNITED STEEL INDUSTRY PTY LIMITED

NOTE: The commitments which will be the subject of a formal auditing programme by the Department of Environmental Protection are indicated by an asterisk.

- 1* Prior to commencement of construction, the Proponent will prepare an Environmental Management Programme in consultation with the EPA and CALM and to the reasonable satisfaction of the Minister for the Environment.
- 2* The Proponent will progressively rehabilitate disturbed areas to minimise disturbance of biological communities. The rehabilitation will be undertaken using best industry practice and will be completed to the reasonable satisfaction of the Minister for the Environment.
- 3* Prior to the commencement of construction, the Proponent will develop and implement a weed control and vehicle hygiene programme in consultation with CALM, the APB and other relevant DMA's and to the reasonable satisfaction of the Minister for the Environment. This programme will be included in the EMP.
- 4* The Proponent will establish a programme to monitor total dissolved solids, total suspended solids, pH and conductivity in the principal tributary prior to its discharge from the site. This programme will be designed prior to the commencement of construction and will be implemented periodically during the construction and operational phases, to the reasonable satisfaction of the Minister for the Environment.
- 5* The Proponent will minimise the off-site transport of sediments through the use of sedimentation ponds, the minimisation of exposed surfaces and identification and treatment of on-site areas with erosion potential. This will be carried out to the reasonable satisfaction of the relevant DMA's and the Minister for the Environment.
- 6* The Proponent will use the best practicable technology during the operation of the Project to ensure that the emissions of oxides of nitrogen from the power station do not exceed 0.07g/m^3 (expressed as NO_2 at 0°C , 101.3kPa , 15% oxygen, dry). This will be undertaken to the reasonable satisfaction of the Minister for the Environment.
- 7* The Proponent will minimise the emissions of hydrogen sulphide by:
 - 1 monitoring the dosage of di methyl-disulphide to minimise the emissions of hydrogen sulphide from the reformer gas stream; and
 - 2 partially incinerate the direct reduction shaft emission of hydrogen sulphide prior to its discharge.

These activities will be undertaken during the operational phase to the reasonable satisfaction of the Minister for the Environment.
- 8* In the unlikely event that odours are detected in residential areas and the AUSI Iron Project is identified as the source, the proponent will take reasonable action to isolate the source of the odours within the plant and undertake reasonable remedial action to eliminate the problem.
- 9* The Proponent will implement dust mitigation measures including containment and suppression during the construction of the Project to the reasonable satisfaction of the Minister for the Environment.

- 10* The Proponent will minimise dust generation during the operation of the facility by implementing the following measures to the reasonable satisfaction of the Minister for the Environment:
- 1 maintain a landscaped perimeter around the facility;
 - 2 use of particulate scrubbing equipment;
 - 3 covering of conveyor transfer points;
 - 4 regular cleaning of areas likely to accumulate dust;
 - 5 sealing of major roadways; and
 - 6 use of water sprays on stockpiles.
- 11* The Proponent will conduct periodic monitoring of the major point source emissions for sulphur dioxide, oxides of nitrogen, particulates and hydrogen sulphide. The frequency of such testing will be determined in consultation with the EPA and the monitoring programme will be undertaken to the reasonable satisfaction of the Minister for the Environment.
- 12* The total carbon dioxide emission for the Project will be calculated by the Proponent on an annual basis and reported to the EPA. These activities will be carried out to the reasonable satisfaction of the Minister for the Environment.
- 13* The Proponent will monitor ambient dust levels in the vicinity of its plant on a quarterly basis. A dust deposition monitoring programme would be established to record the dust deposition on a quarterly basis. In addition, ambient dust concentrations will be monitored in the event that dust complaints relating to the Project occur. The monitoring programme will be conducted to the reasonable satisfaction of the Minister for the Environment.
- 14* The Proponent will ensure that noise associated with the construction and operation of 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 minimise the impact and achieve the required standards. These measures will be carried out to the reasonable satisfaction of the Minister for the Environment.
- 15* Prior to the construction of the tailings dams, the Proponent will undertake geotechnical investigations and will design and operate the dams to meet the reasonable requirements of DOME and the Minister for the Environment.
- 16* The Proponent will complete an assessment of the potential environmental impacts of the port site and the associated infrastructure. The assessment will be undertaken in full consultation with the EPA, CALM and the Department of Transport and to the reasonable satisfaction of the Minister for the Environment.
- 17* The Proponent will assess the sensitivity of the receiving environment to the discharge of concentrated seawater (brine) prior to the construction of the facility. These investigations and the final design of the diffuser will be developed in consultation with the EPA and to the reasonable satisfaction of the Minister for the Environment.
- 18* If sensitive resources are identified, the Proponent will model the dispersion and dilution characteristics of the discharge plume to predict its impact and design the discharge facility to minimise any impacts on such communities. These activities will also be undertaken prior to the construction of the facility, in consultation with the EPA and to the reasonable satisfaction of the Minister for the Environment.
- 19* During the operational phase, the Proponent will discharge the concentrated ocean cooling water using a surface-based diffuser. The discharge system will be designed to minimise any potential environmental impacts.

- 20* The Proponent will not discharge waters more than 4°C above the ambient ocean temperature. The design and operation of the diffuser will be undertaken in consultation with the EPA and to the reasonable satisfaction of the Minister for the Environment.
- 21* Prior to commissioning, the Proponent will undertake a survey of toxic contaminants that may occur in the effluent, particularly organic pollutants (eg. heavy metals), in the marine sediment and suitable biota from the area.
- 22* Following commissioning, the Proponent will periodically undertake further testing to assess the impact of the project. The frequency of testing will be decided in consultation with the EPA and all sampling results will be supplied to the EPA on an annual basis. These activities will also be undertaken to the reasonable satisfaction of the Minister for the Environment.
- 23* In the event that unacceptable levels of contamination are identified and are shown to be attributable to the AUSI Iron Project, AUSI will:
- 1 assist in the investigations to identify the source;
 - 2 undertake remedial action on its plant if it is the source of contamination; and
 - 3 remediate the impacted area if its plant is the source of contamination.
- 24* The Proponent will undertake periodic testing for the presence of heavy metals and free chlorine and other marine water quality parameters in the vicinity of the ocean intake and discharge streams during the operation of the Project and to the reasonable satisfaction of the Minister for the Environment. The frequency of the testing will be determined in consultation with the EPA and the Proponent will report the results annually unless the monitoring identifies metal levels outside of preset criteria, in which case the results will be reported to the EPA as soon as they are known.
- 25* The following commitments are made by the Proponent to minimise the risks associated with the operation of the proposed plant:
- 1 hazardous chemicals and fuel storage areas will be bunded and constructed in accordance with AS1940 - 1993;
 - 2 the 2,000kPa natural gas distribution system will be placed a minimum of 44m inside the boundary fence of the site;
 - 3 systems will be installed (either as procedures or by design) that would ensure shutdown following a release of either hydrogen or natural gas;
 - 4 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;
 - 5 abnormal operating conditions which have the potential to produce high levels of toxic emissions will be identified and procedures put in place to either correct the condition or shutdown the operation; and
 - 6 the hot flare 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.
- These activities will be undertaken to the reasonable satisfaction of the Minister for the Environment.
- 26* The following commitments are made by the Proponent in order to minimise the risks associated with construction and operation of the natural gas pipeline:
- 1 construction in accordance with AS2885 - 1987;
 - 2 separation distance between the lateral natural gas pipeline and residential properties of approximately 125m. This distance is based on a preliminary estimation of risks and is considered to be very conservative;
 - 3 marking of the pipeline route;
 - 4 regular patrols of the pipeline (including walking, road and aerial patrols);

- 5 communication with adjacent landowners;
- 6 appropriate corrosion protection and detection (internal and external);
- 7 appropriate depth of cover; and
- 8 slabbing at all road, rail and river crossings.

These activities will be undertaken to the reasonable satisfaction of the Minister for the Environment.

- 27* Prior to commissioning, the Proponent will establish a ground water monitoring programme to record the water quality and depth of the water table at the perimeter of the Plant area and the fine tailings dam. The monitoring programme will be designed to monitor water quality both upstream and downstream of the tailings dam on a quarterly basis. The monitoring programme would be designed and implemented to the reasonable satisfaction of the Minister for the Environment.
- 28 The Proponent will undertake an ethnographic and archaeological survey of the project area and obtain all approvals required under the *Aboriginal Heritage Act* (1972-1980). This survey will be undertaken prior to the construction of the Project and to the reasonable satisfaction of the Minister for Aboriginal Affairs.
- 29 The Proponent will address Aboriginal heritage issues in the induction programme to increase awareness of Aboriginal culture and will provide training and employment opportunities for Aboriginal people during the construction and operation of the Project.
- 30 The Proponent will circulate the draft of the EMP to the agencies, regulators, groups and individuals who have made submissions on the CER.

Comments would be sought over a two week period and the EMP will be revised to incorporate these comments where appropriate.

A summary of any comments received will also be included in the final EMP.