



WESTERN AUSTRALIA

Ass # 899

Bull # 784

State # 393

OFFICE OF THE MINISTER FOR THE ENVIRONMENT

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

HOT BRIQUETTED IRON PROJECT, PORT HEDLAND (899)

BHP DIRECT REDUCED IRON PTY LTD

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.

A schedule of Environmental Management Commitments to be audited by the Department of Environmental Protection was published in Environmental Protection Authority Bulletin 784 (Appendix 6) and a copy as modified in August 1995 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.

**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

Published on

- 5 SEP 1995

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 is to be prepared and implemented to ensure that significant impacts on the environment resulting from the project are detected, reported on and managed promptly and correctly.

- 4-1 Prior to construction and in consultation with the Department of Environmental Protection and other appropriate government authorities, the proponent shall prepare an Environmental Management Programme which addresses, but is not limited to the following:

##### *Dust*

- 1 baseline monitoring of ambient dust outside the boundary of the project site, particularly at South Hedland and Wedgefield;
- 2 management of dust to acceptable levels during construction, operation, maintenance and de-commissioning of the project, and in consultation with the Town of Port Hedland;
- 3 monitoring and reviewing to verify the effectiveness of the dust control measures;
- 4 utilising the best practice environmental management ;

##### *Noise*

- 5 monitoring of noise inside and outside the designated buffer zone;

##### *Brine Discharge*

- 6 baseline monitoring at and around the brine outfall;
- 7 monitoring at and around the brine outfall to verify mixing, and the levels of contaminants;

##### *Flora and Fauna*

- 8 re-establishment of mangroves;
- 9 monitoring changes in nearby mangroves;
- 10 possible baseline monitoring for stygofauna in groundwater;

##### *Ballast Water Discharge*

- 11 management strategy to ensure that ballast water discharged from ships associated with the project comply with contemporary procedures by the Australian Quarantine Inspection Service ;

##### *"Greenhouse" Gas Emissions*

- 12 annual audits of all "greenhouse" gases emitted by the plant; and

##### *Waste Management*

- 13 recycling viability study.

- 4-2 The proponent shall implement the Environmental Management Programme required by condition 4-1, to the requirements of the Department of Environmental Protection on advice of appropriate government authorities.

- 4-3 In the event that monitoring or other observations show unacceptable environmental impacts, the proponent shall implement plans to mitigate these impacts.

## **5 Dust Management**

- 5-1 The proponent shall operate the project using the best practice environmental management, so that particulate emissions from the site do not cause unacceptable impacts on the surrounding environment (See condition 4-1).

## **6 Mangrove Systems**

- 6-1 Within one year following commissioning of the plant, the proponent shall re-establish mangrove systems lost through direct impacts from construction activities, to the requirements of the Environmental Protection Authority. The area of replacement mangrove systems shall be equal to or greater than the area lost due to construction activities (See condition 4-1).

## **7 Flood Plain and Storm Surge Area Management**

- 7-1 In consultation with the Water Authority of Western Australia and the Department of Transport on detailed engineering design, the proponent shall ensure that no adverse impacts on lands, including erosion and flooding (such as backflooding effects on South Hedland), result from the proposal.
- 7-2 In consultation with the Water Authority of Western Australia, the Department of Transport and the Department of Minerals and Energy on detailed engineering design, the proponent shall ensure that adequate flood and storm surge protection for critical components of the proposal are provided.

## **8 Decommissioning**

- 8-1 The proponent shall carry out the satisfactory decommissioning of the project, removal of installations and rehabilitation of the site and its environs.
- 8-2 At least six months prior to decommissioning, the proponent shall prepare a decommissioning and rehabilitation plan to achieve the objectives of condition 8-1.
- 8-3 The proponent shall implement the plan required by condition 8-2.

## **9 Time Limit on Approval**

The environmental approval for the proposal is limited.

- 9-1 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 by way of a request for a change in the condition under Section 46 of the Environmental Protection Act. (On expiration of the five year period, further consideration of the proposal can only occur following a new referral to the Environmental Protection Authority.)

## **10 Compliance Auditing**

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

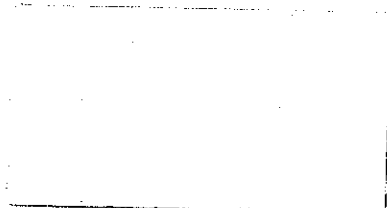
- 10-1 The proponent shall submit periodic Progress and Compliance Reports, in accordance with an audit programme prepared by the Department of Environmental Protection in consultation with the proponent.

### **Procedure**

- 1 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**

- 1 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.



Peter Foss, MLC  
MINISTER FOR THE ENVIRONMENT

04 SEP 1995

**Schedule of Environmental Management Commitments**

**which will be audited**

**by the Department of Environmental Protection**

**August 1995**

**HOT BRIQUETTED IRON PROJECT  
PORT HEDLAND (899)**

**BHP DIRECT REDUCED IRON PTY LTD**

The proponent has made a number of environmental commitments in the CER document and during the assessment of the proposal, as follows:

#### PRE-CONSTRUCTION

- 1 All supervisory construction personnel will be instructed in the protection of cultural and ecological resources in the project area and will be briefed on all agreed commitments, to the satisfaction of the DEP.
- 2 Once final design is complete a final Aboriginal Heritage Survey will be conducted. Appropriate approvals will be obtained from the Minister of Aboriginal Affairs should disturbance to any archaeological or ethnographic sites be required. This will be to the satisfaction of the Aboriginal Sites Department.
- 3 An Environmental Management Plan will be prepared and approved by DEP prior to construction activities commencing. This will be implemented during the construction and operational phases of the project. Issues addressed will include monitoring, reporting, rehabilitation and the control of feral fauna and declared species of flora. Management of other flora and fauna including environmentally significant weeds will also be addressed, in consultation with the Department of Conservation and Land Management.

#### DURING CONSTRUCTION

- 4 The limits of construction activities will be determined by BHP DRI with activities restricted to, and confined within, those limits. All construction vehicle movements outside of the construction areas will be restricted, where practicable, to predesignated roads and tracks. This will be to the satisfaction of the DEP.
- 5 The contractor will be instructed to do everything reasonably within its power to prevent and suppress fires on, or near, the development site. BHP DRI will also comply with Bushfire Board requirements. This will be to the satisfaction of the DEP.
- 6 The contractor will be required to maintain suitable crossings for all roads, trails and fences that will be affected during construction and operation activities, to the satisfaction of the DEP.
- 7 Should any archaeological sites be identified during construction activities, BHP DRI recognises its obligations under the *Aboriginal Heritage Act 1972 - 1990* to cease activities that may impact on the site and to initiate discussions with the Aboriginal Sites Department on an appropriate course of action.
- 8 All waste materials generated during construction activities will be disposed of in a manner satisfactory to the DEP.
- 9 No new access ways will be constructed where existing access is available and suitable for BHP DRI purposes. This will minimise ground disturbance and limit unauthorised access. This will be to the satisfaction of the DEP.
- 10 During construction of the pipelines, transmission lines, conveyor and access roads, BHP DRI will only remove vegetation that is essential for construction purposes, or the safe operation of the infrastructure, to the satisfaction of the DEP.
- 11 Wherever possible, existing borrow pits will be used. If new sites are required pits will be sited, excavated and rehabilitated according to the standards set out in the *BHP-Newman Guidelines and Objectives for Borrow Pit Development and Rehabilitation*, to the satisfaction of the DEP.

- 12 BHP DRI recognises its obligations under the noise provisions of the *Environmental Protection Act 1986* to take corrective action to ensure that noise levels comply with current standards.
- 13 Appropriate dust control measures, such as the spraying of exposed surfaces with water, will be implemented should dust levels prove to be an issue, to the satisfaction of the DEP.
- 14 Should important species of fauna be located on the site, discussions will be held with CALM on appropriate management techniques, to the satisfaction of the DEP.

#### POST CONSTRUCTION

- 15 Any roads, fences or trails that may be damaged as a result of construction work will be repaired, to the satisfaction of the DEP.
- 16 All areas not required for permanent facilities outside of the project boundaries will be rehabilitated consistent with the Environmental Management Plan, to the satisfaction of the DEP.
- 17 During operation, air quality monitoring will be carried out to ensure compliance with EPA standards. This will include ambient air monitoring as outlined in the EMP approved by the DEP. Corrective action will be taken if emission standards are exceeded. This will be to the satisfaction of the DEP. In addition, monitoring and corrective action will be taken to address fugitive dust emissions, to the satisfaction of the DEP.
- 18 During operation, a suitable surface water quality monitoring programme will be instituted and corrective action will be taken if unacceptable impacts are identified, to the satisfaction of the DEP.
- 19 Groundwater quality in the vicinity of the plant site will be monitored and corrective action will be taken if unacceptable impacts are identified, to the satisfaction of the DEP.
- 20 The physical behaviour of brine discharge will be quantified through the implementation of a monitoring programme. If unacceptable environmental impacts are identified, corrective action will be taken, to the satisfaction of the DEP.
- 21 Solid and liquid wastes generated during operation and maintenance activities will be either recycled or disposed of in an approved manner, to the satisfaction of the DEP. The proponent will monitor and report on all site generated aqueous discharges (excluding stormwater run-off) to the environment in consultation with the Water Authority.
- 22 Prior to commissioning, an Emergency Response Plan will be prepared that address issues relating to the release of  $H_2S$ , fires, gas leaks and explosions. Employees will be trained in the Emergency Response Plan. This will be to the satisfaction of the DEP.
- 23 Prior to commissioning, a community education programme will be developed and implemented to ensure that the community is fully informed on issues relating to potential  $H_2S$  release and noise. This will be to the satisfaction of the DEP.
- 24 A noise monitoring, documentation and employee education programme will be introduced at the start of plant operation to ensure minimum employee exposure to high noise levels. This will be to the satisfaction of the DEP.
- 25 A hazardous materials management programme will be developed, introduced and maintained to the satisfaction of the DEP.
- 26 The proponent will make its best endeavour to see that all vessels associated with the HBI Project will comply with the "Voluntary guideline for Ballast water and sediment discharge from overseas vessels entering Australian waters" or the "Draft Australian Ballast Water Management Strategy".
- 27 Prior to commissioning, the proponent will conduct a final HAZOP and also include a hazardous zone classification for the plant.

- 28 The proponent will carry out air quality monitoring and will take corrective action if any adverse impacts are identified from the project affecting the limestone engravings.
- 29 The proponent will take corrective action if any adverse environmental impacts on Cargill Salt operation are identified from the project.
- 30 The proponent will implement dust control measures as proposed in Appendix 9, and will install dust control system sufficient to mitigate identified real environmental impacts.
- 31 The proponent will consult with DOME and the Water Authority to ensure that engineering design and statutory requirements for the concentrator residue impoundment are met.
- 32 The Benfield surge solution concrete pond or tank, and the sediment traps for the stormwater run-off will be designed in consultation with the Water Authority.
- 33 The proponent will take measures in the project design to minimise the impacts of hydrogen sulphide, including redesigning the stack configuration to allow injection of hydrogen sulphide-containing CO<sub>2</sub> stream into the hot exhaust stack from the Recycle Gas Heaters, and specifying redundant pumps and fans for the desulphurization system.
- 34 The proponent will ensure that all plant items purchased for this project will meet the sound power levels assumed for the noise modelling carried out by the consultant (Sound and Vibration Technology, 1994).
- 35 The proponent, through BHP, will aim to reduce emissions of greenhouse gases per unit of production (in particular, carbon dioxide and methane) through increased energy efficiencies and more efficient use of fossil fuels in its production processes and other activities, where these programmes are technically and economically viable.