

Variation to Work
Plan Approved
[Signature]
22 FEB 2001
Signed pursuant of
Instrument of
Delegation

HAZELWOOD

POWER

ENVIRONMENTAL MANAGEMENT PLAN

WEST FIELD PHASE 1

MINERALS AND PETROLEUM
REGULATION
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ENVIRONMENTAL MANAGEMENT PLAN HAZELWOOD WEST PHASE 1

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PREAMBLE

P.1 Commitment to the Environment

Hazelwood Power's commitment to the environment is endorsed by the Chief Executive Officer and has the support of all levels of the business. Hazelwood Power's Environmental Policy is included as Attachment A1 to this EMP.

Hazelwood Power recently won an Environmental Excellence Award from the Australian Minerals and Energy Environment Foundation (AMEEF) for its holistic approach to environmental management.

The Environment Protection Authority (EPA) granted Hazelwood Power Accredited Licensee Status in 1999, endorsing its management, technical skills and good environmental performance.

Hazelwood Power has in place an Environmental Management system (EMS) which has been certified to the highest International Standard ISO 14001.

Hazelwood Power is a willing participant and signatory to a number of voluntary codes of environmental practice, including:

- Minerals Council of Australia.
- Electricity Supply Association of Australia (ESAA).
- Greenhouse Challenge.

P.2 Site Overview, History and Description

Overview

Mine area at grass level – 758 Ha.
 Mine perimeter at grass level – 12 Km.
 Average thickness of overburden – 18m.
 Average thickness of coal seam – 100m.
 No of employees – 220.

Production Statistics 1999/2000

- Overburden Removal by Dredger – 4.55 Million cubic metres
- Overburden Removal by Truck & Shovel – 0.46 Million cubic metres
- Total Overburden removed - **5.01** Million cubic metres
- Coal Winning – **19.47** Million tonnes

History

Hazelwood Power open cut brown coal mine is located immediately south of the Morwell Township beside the Princes Freeway (M1).

Initial operations commenced in the 1950's supplying coal to Morwell Power Station (170 MW), now known as Energy Brix Australia. Coal supply to Hazelwood Power Station (1600 MW) commenced in 1964. Approximately 450 million tonnes of coal has been excavated since the inception of the Mine.

Mining Operations

Mining operations are carried out 24 hours per day, 365 days per year. Clay overburden is removed with a Bucket Wheel Excavator ('Dredger'). Truck and Shovel operations are used where the overburden is of poor quality and to reclaim topsoil for rehabilitation work. Overburden is primarily disposed of in an internal dump in the base of the mine. Prior to internal dumping, all overburden was disposed of in a 330 Ha dump east of the mine. The majority of this dump has already been rehabilitated.

Coal winning operations are carried out using three Dredgers. An additional 4th (reserve) coal Dredger is also available to cover maintenance. Coal is transported out of the mine via a high-speed conveyor system to separate storage bunkers adjacent to Hazelwood Power Station and Energy Brix Australia.

1.0 GENERAL

1.1 Purpose & Scope

The purpose of this EMP is to ensure compliance with the environmental provisions of the **Mineral Resources Development Act 1990** and to protect and enhance the natural environment and biodiversity in the local area for the benefit of future generations.

This document establishes environmental management procedures to be followed by Hazelwood Power and its contractors during the Hazelwood Power West Field Development Project Phase 1.

This Plan will put in place controls on the construction and maintenance activities for the duration of the project as they relate to the natural and social environment.

Controls relating to the Health and Safety of Hazelwood Power employees, contractor's employees and suppliers of goods and services who engage in work on the project are outside the scope of this Plan.

Environmental impacts associated with the previous use of the site are also outside the scope of this Plan.

The activities of any person or company contracted to Hazelwood Power in any way are covered by this plan. All procurement documentation shall include environmental control requirements presented in this Plan as applicable to the service being provided.

1.2 Authorisation

This Environmental Management Plan is authorised by the Project Manager, Hazelwood West.

For the duration of this project, all personnel shall implement the requirements of this Plan.

1.3 Document Control & Revision

The Project Manager, in accordance with the distribution list in Section 1.4, shall issue this Plan and any approved revisions to it.

Revisions to this plan must be approved by the Project Manager and shall be made within the "Paradigm" document control system employed by Hazelwood Power.

1.4 Distribution

Uncontrolled copies of this Plan are issued to the Project Supervisor and the Contractor. The Project Supervisor shall be responsible for ensuring that the Contractor always has the latest version of the EMP.

2.0 INTRODUCTION

2.1 Relevant Authorities

Authorities that have an interest in environment issues relating to the project are:

- Latrobe Shire Council.
- Environment Protection Authority (EPA).
- Department of Natural Resources and Environment (DNRE).

2.2 Statutory & Policy Requirements

2.2.1 Applicable Law

The primary relevant legislation as amended is:

Federal Legislation:

- Environment Protection and Biodiversity Conservation Act 1999
- Environment Protection (Impact of Proposals) Act 1997
- Australian Heritage Commission Act 1975.
- Aboriginal and Torres Strait Islander Heritage Protection Act 1984.

State Legislation & Regulations

- Protection Act 1970.
- Minerals Resources Development Act 1990.
- Environmental Mineral Resources (Health and Safety in Large Open-cut Mines) Regulations 1995.
- Heritage Act 1995.
- Heritage (General) Regulations 1996
- Aboriginal Relics Act 1975.
- Archaeological and Aboriginal Relics Preservation Act 1972
- Archaeological and Aboriginal Relics Preservation Regulations 1992
- Coroners Act 1985
- Planning and Environment Act 1987
- Water Act 1989.
- Groundwater Act 1985.
- Dangerous Goods Act 1976.
- Dangerous Goods (Storage & Handling) Regulations 1989.
- Litter Act 1973.
- Museums Act
- Flora and Fauna Guarantee Act 1988
- CFA Act 1958
- Industrial Waste Management Policy, Waste Minimisation 1990
- Industrial Waste Management Policy, Waste Acid Sulphate Soils 1999
- Draft State Environmental Protection Policy Preventing and Managing Contaminated Land, 1998
- Draft Variation to State Environment Protection Policy (Air Quality Management) and State Environment Protection Policy (Ambient Air Quality) and Draft Policy Impact Assessment 2000
- State Environment Protection Policy Waters of Victoria 1988, Schedule F5 (Waters of the Latrobe River and Thompson River Catchment 1996)
- Interim Guidelines for Control of Noise from Industry in Country Victoria (EPA N3/89 Guidelines) 1989
- State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 16/5/89, amended 15/9/92

Hazelwood Power will establish open communications with the authorities identified in Section 2.1 as required and meet all of their regulatory requirements.

2.2.2 Environmental Policy and Licence Requirements

Hazelwood Power has publicly tabled an Environmental Policy (Attachment A1) outlining the company's environmental commitments. Contractors engaged on behalf of Hazelwood Power are obliged to also meet these environmental commitments.

Hazelwood Power has a Mining Licence MIN No 5004 and a Groundwater Extraction Licence No 2007412 from Southern Rural Water, Minerals & Petroleum. The business also had a single licence from the Environment Protection Authority – Licence No EM 30856 Accredited – which covers emissions to air, land and water as detailed below:

- Dust and gas emissions from the power station chimneys.
- Groundwater quality.
- Wastewater discharges from the Power Station into Hazelwood Cooling Pond and thence to Morwell River; from the Mine Western Perimeter into Morwell River; and from the Ash Pond into the Saline Water Outfall Pipeline.
- Deposits into the asbestos tip, the hard rubbish dump, and deposition of ash into the ash pond.

The DNRE Mining Licence requires Hazelwood Power to consult with the public via an Environmental Review Committee, to have an Environmental Management Plan, and to have a five-year rehabilitation program for lands disturbed by mining activity.

Hazelwood Power continues its commitment to the Codes of Environmental Practice of both the Electricity Supply Association of Australia (ESAA) and the Australian Minerals Industry.

Hazelwood Power signed onto the Victorian Government's Energy Smart Cascade Program during the year. The objective of the program is to use fuel more efficiently and to reduce the amount of greenhouse gas emissions.

Hazelwood Power continued its commitment to the Latrobe Valley Taskforce and the Federal Government's Greenhouse Challenge.

2.3 Responsibilities

The Project Manager has ultimate responsibility to ensure that this Environmental Management Plan is implemented. The Contract Supervisor has responsibility to ensure that activities under his direct control are completed in compliance with this Plan and related Programs.

Wages personnel engaged in all field activities and under the direct control of the Contractor shall comply with the requirements of this Plan. The Contractor shall ensure that all wages personnel are fully inducted and trained in the requirements of this Plan.

The Project Manager shall ensure that all contractors and subcontractors are required to prepare and implement environment protection programs appropriate to their activities and to co-operate in any waste minimisation and recycling programs implemented on the project.

2.4 Integrated Work Procedures

The controls documented in the Environmental Management Programs appended to this Plan (Appendix 3) shall be integrated into Contractor and subcontractor Work Procedures as applicable by cross-referencing.

3.0 PROJECT ENVIRONMENTAL CONTROLS

3.1 Description of Existing Land Use, the Existing Environment and the Proposed Land Use.

The project area is located 1km south-west of Morwell within the Latrobe Valley region. A site plan is shown in Attachment 3. The Morwell Open Cut Mine was established to provide fuel for power generation and the subsequent supply of electricity to Victoria. Hazelwood Power can supply up to 25% of Victoria's electricity needs. Mining of the land for brown coal has been continuous for the past 50 years with several phases of expansion. All land within the mining licence boundary is required to be used for operational purposes or related services to allow for a continuing mining operation. However, some land within the boundary is temporarily leased for grazing until required for operational purposes.

The Hazelwood West Phase 1 Project comprises the following major activities:

- Earthworks to remove overburden for the initial opening up of the West Field.
- Construction of a Landscaping Embankment.
- Construction of Roads, Drains and Conveyor Formations.
- Deviation of a section of Eel Hole Creek.
- Dis-establishment of existing Conveyors and their re-establishment in the West Field.

The main environmental risks arising from these works are as follows:

- Water pollution resulting from erosion of earthworks.
- Water or land contamination resulting from fuel or lubricant spillage.
- Air pollution resulting from dust raised by earthmoving equipment.
- Noise pollution resulting from earthmoving equipment.
- Wildfire ignition within the work area.

These environmental risks and impacts are addressed in the following sections.

3.2 Identification of Environmental Risks and Impacts

Appendix 1 is a tabulation of the activities that will be undertaken to complete the project and the identification of consequential environmental risks, risk ratings and the planned mitigation strategies.

3.3 Environment Management Programs

Appendix 2 contains Environment Management Programs for the significant environmental impacts identified above.

4.0 EMERGENCY PREPARDNESS

Emergency response procedures for identified significant environmental impacts are included in the Environmental Management Programs.

5.0 MONITORING, AUDITING AND REPORTING

5.1 Surveillance and Audit

The Contract Supervisor shall carry out daily surveillance of all activities to ensure that they are being undertaken in accordance with the requirements of this Plan. Details of these routine inspections, any out of the ordinary occurrence, and corrective action, shall be recorded in a Daily Diary.

The Mine Compliance Manager will conduct annual Environmental Audits to confirm compliance to Plan requirements.

5.2 Monitoring

Monitoring requirements are included in the Environmental Management Programs.

The Mine Compliance Manager shall have responsibility for implementing all monitoring for the project or for arranging specialist consultants as required.

5.3 Reporting

The Contract Supervisor shall report in writing monthly to the Project Manager on the implementation of this Plan, including all significant events, the status of any non-conformances, summaries of all test results required by the specification and this Plan. The results of internal and external audits shall be reported in writing to the Project Manager by the Audit Team..

6.0 TRAINING

6.1 Training of Hazelwood Power and Contractor's Personnel

The Contract Supervisor shall ensure that all staff performing duties required by this Plan are properly trained. Where a training need is identified, appropriate arrangements shall be provided until the required training has been completed .

The Contract Supervisor shall ensure that all field operatives are inducted into the requirements of this Plan and in particular, the requirements of the Environmental Management Programs relevant to the work they are performing.

Where a new activity is to commence, the Contractor shall ensure that all staff and field operatives involved in that activity receive a briefing appropriate to the activity to be performed. At the briefing the environmental requirements shall be explained in detail. Where a new field operative joins the team after the initial briefing, in addition to the standard induction, the Contractor shall brief the new operative on environmental safeguards relevant to the work being undertaking.

6.2 Training of Subcontractors

Subcontractors shall be assessed as to their ability to achieve environmental performance consistent with the requirements of this Plan. The Contractor shall assess the requirements of the subcontractor package and, where considered necessary, subcontractors shall attend training sessions.

All subcontractor employees shall attend the Environmental Induction.

6.3 Induction Course

An Environmental Management Induction Course as set out in Appendix 3 shall be delivered to all personnel before commencing work on the project. This course shall be reviewed on at least an annual basis to ensure it reflects current circumstances. Revisions shall be authorised by the Project Manager. This course will be conducted by Hazelwood Power environmental staff in conjunction with Occupational Health and Safety Inductions.

7.0 COMMUNICATIONS

7.1 Communication on Significant Environmental Impacts

An Uncontrolled copy of this Environmental Management Plan will be issued to the Project Supervisor and the Contractor.

Hazelwood Power will be responsible for communicating with the external community regarding significant environmental impacts.

Environmental issues and resolution of environmental complaints shall be discussed at the Contractor's Monthly Health, Safety and Environment meetings.

Environmental issues of major concern associated with project works, including environmental complaints, will be discussed with the Hazelwood Power management team via the Hazelwood Power Environmental Management Audit Committee (EMAC) meeting.

7.2 Complaints Management

All environmental complaints received from Hazelwood Power employees, Contractors employees, Regulatory Authorities, interest groups or the general public shall be treated with respect. All complaints received shall be handled as per the Hazelwood Power "EMS Complaints Procedure - Mine" which is attached to this document as Attachment A2.

7.3 Neighbour Quality of Life Management

Hazelwood Power recognises the right of its nearest neighbours to maintain their quality of life. If the environmental effects of noise generated from the works are of such a serious nature that it impacts adversely on a near neighbour's quality of life, resulting in a complaint. The Contract supervisor will request the contractor to take such action as necessary to minimise any impact ensuring compliance with statutory obligations.

8.0 REFERENCES

8.1 Appendices

- 1 Environmental Risk Assessment
- 2 Environmental Management Programs
- 3 Environmental Management Induction Course
- 4 Responsibility Matrix

8.2 Attachments

- A1 Hazelwood Power Environmental Policy.
- A2 Hazelwood Power EMS Complaints Procedure –Mine
- A3 Site Plan
- A4 List of Hazelwood Power EMS Work Instructions
- A5 HP Work Instruction – “Hydrocarbon Spill Clean-up (Major)”

HAZELWOOD WEST PROJECT
WEST FIELD PHASE 1 REMAINING WORKS
ENVIRONMENTAL RISK ASSESSMENT

HazWest Admin\Project Approvals\Phase 1
Env Risk Assessment

H - High
M - Medium
L - Low

| ASPECT | ENVIRONMENTAL RISK | CONSEQUENCE | LIKELIHOOD | RATING | MITIGATION STRATEGIES |
|--|---|-------------|------------|--------|---|
| Development of Replacement Wetlands | | | | | |
| Replacing EVC 26 values prior to destruction | Replacement wetlands not better than existing as required by draft WGNVP | H | M | M | Harvest melaleuca seed and place into seed bank. Harvest melaleuca branches with seed to lay out at replacement sites just prior to transplant of root balls (trial techniques in 2001). Transplant root balls of melaleuca to new wetland site as regeneration trial. Understorey plantings at replacement wetland sites are designed to create a viable seed bank for natural regeneration. |
| Recovery of ephemeral area soil | Loss of seed banks and macro-invertebrates from rich ephemeral areas | H | H | H | Transfer soils from ephemeral areas to new proposed wetland site containing melaleuca root balls. |
| Access routes around wetlands | Vehicle/plant damage during maintenance | M | M | M | Develop and mark safe entry/exit points for island access |
| Seed sourcing from vulnerable species | Loss of seed diversity for vulnerable species | H | H | H | Seed collection, propagation and planting for vulnerable species. <i>Strezeleckii</i> is only identified species. |
| Habitat creation | Loss of animal life due to insufficient protective cover from predators | H | H | H | Development of islands as safe havens. Sourcing hollow logs from APP and NRE. Bat and bird nesting boxes installed. |
| Species recovery | Loss of species during destruction of existing wetlands | H | H | H | Species collection and transfer program |
| Maintenance | Infestation by weeds pests and wild fire | H | H | H | Annual weed and pest eradication and fire mitigation programs |
| Opening Up using Truck and Shovel | | | | | |
| Aboriginal Heritage & Archaeology | Potential loss of undefined values | H | H | H | Meet legal requirements |
| Rainfall Runoff Contamination | Waterway pollution | L | L | L | Unlikely as catchment is contained and runoff directed to existing treatment and licenced discharge points. Refer to Hazelwood Power EMP |
| Raised Dust | Air Pollution | H | M | M | Impacts modelled as satisfactory. Refer to Hazelwood Power EMP |
| Noise | Noise pollution | M | L | L | Generally satisfactory when operating below grass level. Refer to Hazelwood Power EMP |
| Refuelling | Spillage resulting in soil contamination | M | H | M | Refer to Hazelwood Power EMP |
| Screening Embankment Construction | | | | | |
| Cessation of Land Leasing | Wildfire | M | L | M | Annual Spring slashing / Hay baling |
| Topsoil Recovery | Damage / Loss of Topsoil | M | L | L | Recovery forms part of Contract |
| Public nuisance at Cemetery | Noise and dust from operations during periods of high public use of cemetery | M | H | H | Shutdown operations is to be response strategy for periods of high public use. Currently being agreed with Cemetery Trust. |
| Aesthetics from Cemetery | Visual degradation | M | H | H | Joint Cemetery Trust/HP signage explaining project. Minimise construction period to 2 -3 years with major impact limited to Y1. Landscaping plan developed. Some screening plantings in place. |
| Noise | Noise pollution | M | H | H | Noise impact modelling suggests restricting placement at night. Placement at night to be restricted. Some monitoring at nearest residence to confirm modelling in 2002. |
| Raised Dust | Air pollution | H | M | M | Intended shutdown at Cemetery and no near neighbours reduces any potential impact. Refer to Hazelwood Power EMP. |
| Transfer of Conveyor Systems | | | | | |
| Oil spillage from gearboxes and couplings | Soil contamination from spillage during decommissioning, transfer or erection | M | M | M | Minor spillages possible. Contractor responsibility during plant relocation. |
| Housekeeping | Scrap redundant plant | L | M | M | Refer to Hazelwood Power EMP |
| Temporary Deviation of Eel Hole Creek | | | | | |
| Refer Opening Up Earthworks | Refer Opening Up Earthworks Risks | | | | |
| Transfer of dirt materials across Eel Hole Creek | Potential for dirt to fall into Eel Hole Creek leading to water quality impacts | H | H | H | Development of a proper piped crossing of Eel Hole Creek to avoid truck spillage entering the waterway. Local runoff protection using methods contained within Hazelwood Power EMP. |
| Stabilisation of batters prior to cut over | Unstable batters running Eel Hole Creek will lead to contamination of EHC waters | H | H | H | Topsoiling, grassing and rip-rap on bends of Eel Hole Creek to provide long term stable batters. |
| Contractor Management | | | | | |
| Office and facility wastes | Contamination of land, soil and water | H | H | H | Ensure adequate Contractor QA system and include in Contract conditions and police |
| Storage and use of hazardous materials | Contamination of soil and water from spillage | H | H | H | Ensure adequate Contractor QA system and include in Contract conditions and police |
| Storage and use of fuels and lubricants | Contamination of soil and water from spillage | H | H | H | Ensure adequate Contractor QA system and include in Contract conditions and police |
| Transport of mobile plant between sites | Potential weed and fungus infestation from mobile plant transferred between sites | M | H | H | Ensure adequate Contractor QA system and include in Contract conditions and police |

APPENDIX 2

ENVIRONMENTAL MANAGEMENT PROGRAMS

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 01****Title: Harvest Melaleuca Branches & Root balls**

| | |
|-------------------------------------|--|
| Objective | To utilise existing <i>Melaleuca ericifolia</i> branches and root balls at replacement sites. |
| Target: | To create natural regeneration from viable seeds from branches and root balls. |
| To be achieved by (date): | April/May 2002 |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | <p>The water level is to be pumped right down.</p> <p>All plant and vehicles require firm access at both sites. Rainfall predicted to increase chance of successful transplant. (Late Summer to Autumn)</p> <p>Receivable site earthworks are to be completed prior to branches and root ball relocation.</p> <p>Main haul roads to be constructed as far as practicable so as to prevent dust.</p> <p>Haul roads to be watered sufficient to suppress dust.</p> <p>Work is to cease if dust suppression cannot be achieved during extreme weather conditions.</p> <p>All personnel shall be inducted into the requirements of this program.</p> |
| Resources: | Chainsaws, trucks, excavator, water truck, bulldozer |
| Emergency Response: | Nil |
| Monitoring and Inspection: | The contract supervisor shall ensure this program is implemented. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 02****Title: Melaleuca seed**

| | |
|-------------------------------------|---|
| Objective | To create a viable <i>Melaleuca ericifolia</i> seed bank |
| Target: | Two kilograms of seed. |
| To be achieved by (date): | Prior to destruction |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | Access must be when the water level is high or pumped right down. Seed must be collected and appropriately cleaned and stored. All personnel shall be inducted into the requirements of this program. |
| Resources: | Boat, loppers, bags |
| Emergency Response: | Nil |
| Monitoring and Inspection: | The supervisor shall ensure this program is implemented. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program NO: 03****Title: Ephemeral soil recovery**

| | |
|-------------------------------------|--|
| Objective | To utilise existing rich ephemeral soil at replacement wetlands |
| Target: | To prevent the loss of seed banks and macro-invertebrates from rich ephemeral areas. |
| To be achieved by (date): | April/May 2002 |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | <p>The water level is to be pumped right down.</p> <p>All plant and vehicles require firm access at both sites. Rainfall predicted to increase chance of successful transplant. (Late Summer to Autumn)</p> <p>Receivable site earthworks are to be completed prior to ephemeral soil being relocated.</p> <p>Main haul roads to be constructed as far as practicable so as to prevent dust.</p> <p>Haul roads to be watered sufficient to suppress dust.</p> <p>Work is to cease if dust suppression cannot be achieved during extreme weather conditions.</p> <p>All equipment must be cleaned prior to work commencing to prevent weed infestation.</p> <p>All personnel shall be inducted into the requirements of this program.</p> |
| Resources: | Trucks, excavator, water truck, bulldozer |
| Emergency Response: | Nil |
| Monitoring and Inspection: | The supervisor shall ensure this program is implemented. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 04****Title: Vehicle access**

| | |
|-------------------------------------|--|
| Objective | To minimise vehicle/plant damage during maintenance around wetlands. |
| Target: | No traffic hazards. Minimal damage to natural environment. |
| To be achieved by (date): | 2 March, 2001. |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | Minimal damage to area Earthworks are to be completed and permanent identification markers put in place at entry/exit points. |
| Resources: | Identification markers, ballast, back hoe/front end loader |
| Emergency Response: | Notify authorities immediately to commence clean up of major roads |
| Monitoring and Inspection: | The supervisor shall observe operations and issue instructions accordingly |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 05****Title: Seed collection for vulnerable species.**

| | |
|-------------------------------------|---|
| Objective | To prevent the loss of flora diversity of vulnerable species within the area |
| Target: | To collect as much seed as possible from plants being removed |
| To be achieved by (date): | Prior to removal of individual plants. |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | Individual trees must be correctly identified (ie <i>E. Strzeleckii</i>) Seed must be collected and appropriately cleaned and stored. All personnel shall be inducted into the requirements of this program. |
| Resources: | Loppers, bags |
| Emergency Response: | Nil |
| Monitoring and Inspection: | The supervisor shall ensure this program is implemented. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 06****Title: Habitat creation**

| | |
|-------------------------------------|---|
| Objective | To create a sufficient habitat for fauna. |
| Target: | To prevent fauna loss from predators. |
| To be achieved by (date): | May 2001 |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | <p>Source hard wood timber logs, preferably native to the area.</p> <p>All suitable logs within area to be affected by mining operations to be relocated to replacement sites.</p> <p>Only native species of timber must be used.</p> <p>All plant and vehicles require firm access at both sites.</p> <p>Receivable site earthworks are to be completed prior to logs being relocated.</p> <p>Logs may be hollow so extreme care must be taken when handling.</p> <p>Logs are to be placed in and around the water to supply habitat.</p> <p>Haul roads to be watered sufficient to suppress dust.</p> <p>Work is to cease if dust suppression cannot be achieved during extreme weather conditions.</p> <p>Install bird and bat nesting boxes at replacement wetlands.</p> <p>All equipment must be cleaned prior to work commencing to prevent weed infestation.</p> <p>All personnel shall be inducted into the requirements of this program.</p> |
| Resources: | Bird and bat boxes, excavator, low loader |
| Emergency Response: | Nil |
| Monitoring and Inspection: | The supervisor shall ensure this program is implemented. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program NO: 07****Title: Pest plant and animal eradication**

| | |
|-------------------------------------|--|
| Objective | To prevent the further spread of non-indigenous plant and animal species within the works area. |
| Target: | No introduction of non-indigenous plant or animals into the project area. Prevention of the spread of non-indigenous plant or animals within the project area. |
| To be achieved by (date): | Continual As required-prior to dispatch of each item of plant. |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | All equipment to be transported to site shall be washed down at the last place of use to remove soil deposits adhering to tyres, tracks, mudguards, suspension, differentials, etc prior to being loaded and transported to site. The transporter shall also be cleaned as appropriate. Annual eradication programs for non-indigenous plant and animal species. |
| Resources: | Wash down facilities at pick up point. Licensed contractor to control pest animals |
| Emergency Response: | Nil |
| Monitoring and Inspection: | The contract supervisor shall ensure all plant and transporters have been washed. Mine Environmental Officer shall frequently monitor for pest animal numbers. |
| References: | Catchment and Land Protection Act 1994 (Act No. 52/1994) |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 08****Title: Fire Management Plan – Coal Fires**

| | |
|-------------------------------------|--|
| Objective | To protect Hazelwood Mine and resources from coal fires. |
| Target: | No fires of any description |
| To be achieved by (date): | Ongoing |
| Applicable Licences/Permits: | Hazelwood Power “Burning and Welding Permit”. |
| Controls: | <ol style="list-style-type: none"> 1. Smoking prohibited within the Open Cut 2. Fire Alerts in extreme conditions – all non essential works on coal stopped and personnel return to depots on standby in case of fire. 3. Employees shall not use any tool that produces a flame or spark in the open on a day of TOTAL FIRE BAN 4. Prior to any burning or welding check if permits are required. 5. Wet coal / grass before and after burning / welding. 6. Only diesel vehicles with a modified exhaust system are allowed on coal surfaces. 7. Maintain plant / vehicles in a clean condition with minimal coal build-up around heat sources, and ensure they are fitted with the appropriate fire extinguishers and fire fighting equipment. 8. Park plant clear of any loose coal and shut down in a safe place, eg. On sand or clay, in shallow water, close to sprays at a minimum spacing of four metres. 9. Ensure personnel are trained in correct use of fire fighting equipment. 10. Regular maintenance of fire fighting equipment. |
| Resources: | Fire extinguishers, fire hoses and fittings, fire tanker. |
| Emergency Response: | In the case of a fire ring Hazelwood Mine Fire Service on 5777 or Emergency Number 3333. |
| Monitoring and Inspection: | The Contract Supervisor shall ensure this program is implemented. The Mine Compliance Manager shall conduct audits as appropriate. |
| References: | Hazelwood Power Emergency Response Plan – “Fire Instructions. |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 09****Title: Fire Management – Bush Fires**

| | |
|-------------------------------------|---|
| Objective | To protect the surrounding area from Bush Fires. |
| Target: | No fires of any description. |
| To be achieved by (date): | Ongoing |
| Applicable Licences/Permits: | Hazelwood Power "Burning and Welding Permit". |
| Controls: | <ol style="list-style-type: none"> 1. Employees shall not use any tool that produces a flame or spark outdoors on a day of TOTAL FIRE BAN. 2. Prior to any burning or welding check if permits are required. 3. Wet grass before and after burning / welding. 4. Ensure plant / vehicles are fitted with the appropriate fire extinguishers and fire fighting equipment. 5. Ensure personnel are trained in correct use of fire fighting equipment. 6. Regular maintenance of fire fighting equipment. |
| Resources: | Fire extinguishers, fire hoses and fittings, fire tanker. |
| Emergency Response: | In the case of fire ring Hazelwood Mine Fire Service on 5777 or Emergency Number 3333. |
| Monitoring and Inspection: | The Services co-ordinator shall ensure this program is implemented. The Mine compliance manager shall monitor the effectiveness and implementation of this program. |
| References: | 1. Hazelwood Power Emergency Response Plan – "Fire Instructions". |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 10****Title: Erosion and Sediment Control**

| | |
|-------------------------------------|---|
| Objective | To minimise erosion on site and prevent dirty water and sediment entering adjacent waterways. |
| Target: | Stormwater discharge quality to meet Hazelwood Power EPA Licence / Instructions. |
| To be achieved by (date): | Ongoing |
| Applicable Licences/Permits: | EPA Licence No: EM 30856 |
| Controls: | <p>All open cut drainage systems to flow to internal fire dam.</p> <p>Sedimentation basins and sumps to be constructed to intercept runoff and allow for Outflow of “clean” water via drains or pumping to fire dam.</p> <p>Catch drains, temporary drains and sedimentation basins shall be established as per Client instructions. Clean runoff from adjacent areas shall be intercepted and redirected to the nearest drainage line to prevent it from entering the earthworks area as well as working coal benches.</p> <p>All stockpiles of topsoil and embankment material shall be located away from drainage Lines and areas liable to flooding from streams and waterways. Drainage from stockpiles shall be collected and directed to a sedimentation basin.</p> <p>Silt fences where required shall be located at the toe of all batters and stockpiles to prevent silt entering drainage lines. This requirement can be ignored if a good grass cover exists between stockpiles and drainage lines.</p> |
| Resources: | Hay bales, silt fences. |
| Emergency Response: | The works shall be managed in a way to minimise adverse impacts such as erosion and flooding of coal levels during extreme storm events. |
| Monitoring and Inspection: | The Contractor shall inspect the drainage and sediment controls systems on a regular basis. The Mine Environmental Officer shall conduct weekly inspections and report on the performance of the drainage and sediment control system as required. |
| References: | EPA Act 1970, SEPP; EPA Publication 480 – “Environmental Guidelines for Major Construction Sites. |
| Attachments: | Drainage plans – as applicable. |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 11****Title: Dust Suppression**

| | |
|-------------------------------------|--|
| Objective | To minimise raised dust, which would cause nuisance to local residents, workers and the natural environment. |
| Target: | No complaints. No traffic hazards. Minimal raised dust. |
| To be achieved by (date): | Ongoing for all activities that have potential to cause raised dust. |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | <p>The area of exposed soil is to be kept to a minimum.</p> <p>Earthworks are to be completed and permanent protection placed over exposed soils as quickly as possible.</p> <p>Main haul roads to be constructed as far as practicable so as to prevent dust.</p> <p>Haul roads to be watered sufficient to suppress dust.</p> <p>Topsoil stockpiles and exposed areas to be watered if necessary to suppress dust.</p> <p>Work is to cease if dust suppression cannot be achieved during extreme weather conditions.</p> |
| Resources: | Water carts. |
| Emergency Response: | Water offending area immediately. |
| Monitoring and Inspection: | The Contractor shall observe operations and issue instructions accordingly. The Contract Supervisor shall monitor controls. |
| References: | Environment Protection Act, 1970. |
| Attachments: | Hazelwood Power EWI – “Minimise Fugitive Dust from the Mine”. |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 12****Title: Grass mowing for Bush Mitigation works**

| | |
|-------------------------------------|--|
| Objective | To prevent bush fire by removing fire hazard. |
| Target: | Successful fire break |
| To be achieved by (date): | Continuous |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | <p>Verges of public roads external to the Mine and areas of grass around the mine perimeter are to be mown using a tractor-driven rotary slasher. If access is difficult an articulated arm –mounted mower can be used</p> <p>Mowing shall be carried out using a slight overlap of passes to ensure as near as practical a continuous fire break from the fence line to the edge of the road.</p> <p>Where possible mowing shall be carried out along the contours and the finished work shall have a neat appearance.</p> <p>Work near trees requires extreme care to avoid damage to the trees.</p> <p>No work shall be carried out during or after heavy rain to avoid damaging the ground.</p> <p>No work shall be carried out on days of Total Fire Ban.</p> |
| Resources: | a tractor-driven rotary slasher or an articulated arm –mounted mower |
| Emergency Response: | Should the work fall behind program, remedial measures shall be taken to get the program back on target. |
| Monitoring and Inspection: | The Service co-ordinator shall ensure this program is implemented and monitored as required. |
| References: | All work shall be carried out in accordance with industry best practice and comply with current, relevant Australian Standards; the Mineral Resources Development Act; and Victorian Workcover Authority Regulations. |
| Attachments: | The work is defined drawings M190D009C, M190D001H |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 13****Title: Topsoil Recovery**

| | |
|-------------------------------------|---|
| Objective | To ensure the highest quality of topsoil at the rehabilitation site. |
| Target: | To prevent the damage/loss structural breakdown of topsoil due to excessive handling. |
| To be achieved by (date): | Continual |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | <p>Recovery, storage and redistribution must be preformed in ways, which preserve the desirable attributes of the soil.</p> <p>Preferably topsoil should be used for rehabilitation processes immediately.</p> <p>If topsoil is stockpiled it should be stored at less than 2 meters high for as little time as possible.</p> <p>All topsoil storage areas shall be located away from drainage lines and areas liable to flooding from streams and waterways.</p> <p>Silt fences where required shall be located at all stockpiles to prevent silt entering drainage lines.</p> |
| Resources: | Hay bales, silt fences. |
| Emergency Response: | The works shall be managed in a way to minimise adverse impacts during extreme storm events |
| Monitoring and Inspection: | The Contractor and Contract Supervisor shall ensure this program is implemented and drainage and sediment control systems inspected on a regular basis. |
| References: | Topsoil Quality and Quantity Analysis (Bubb 1999) |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 14****Title: High Public use at cemetery**

| | |
|-------------------------------------|--|
| Objective | Minimal noise and dust from operations during periods of high public use of the cemetery |
| Target: | No non-conformances, minimal raised dust, minimal noise. |
| To be achieved by (date): | Continuous |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | Cemetery trust to notify: Hazelwood Power's contract supervisor, RTL's supervisor 24-48 hours prior to a funeral. Shutdown of operations is to commence prior to funeral commencing. This is to be negotiated with the Cemetery trust. |
| Resources: | Nil |
| Emergency Response: | Nil |
| Monitoring and Inspection: | The contractor shall ensure this program is implemented and monitored. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 15****Title: Aesthetics from cemetery**

| | |
|-------------------------------------|--|
| Objective | To prevent visual degradation. |
| Target: | No non-conformances, minimal raised dust, minimal noise. |
| To be achieved by (date): | Continuous during construction |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | <p>Joint cemetery trust/HP signage explaining the project</p> <p>Minimise construction period to 2-3 years.</p> <p>Major impact limited to year 1</p> <p>Landscaping plan developed</p> <p>Screen planting's in place more to be established</p> |
| Resources: | Signage |
| Emergency Response: | Nil |
| Monitoring and Inspection: | The contractor shall ensure this program is implemented and monitored. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 16****Title: Noise**

| | |
|-------------------------------------|--|
| Objective | To prevent noise pollution. |
| Target: | No non-conformances, minimal noise. |
| To be achieved by (date): | Continuous during construction |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | Construction of the screening embankment requires noise impact modelling which suggests restricting placement at night. Some placement at night to be restricted. Monitoring at nearest residence to confirm modelling in 2002 |
| Resources: | Noise monitoring equipment |
| Emergency Response: | Nil |
| Monitoring and Inspection: | The Contractor shall observe operations and issue instructions accordingly. The Contract Supervisor shall monitor controls. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 17****Title: Scrap redundant plant**

| | |
|-------------------------------------|--|
| Objective | To clean up all redundant plant. |
| Target: | To place all plant in designated lay down areas and remove all redundant plant from site. |
| To be achieved by (date): | Continuous |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation |
| Controls: | Plant identified as redundant to be removed off site. Plant which is still useful to be relocated to designated lay down areas. All personnel to clean work site prior to completing work order. |
| Resources: | Scrap metal skips |
| Emergency Response: | Nil |
| Monitoring and Inspection: | The contractor shall ensure this program is implemented and monitored. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 18****Title: Temporary deviation of Eel Hole Creek**

| | |
|-------------------------------------|---|
| Objective | To prevent water quality impacts on Eel Hole creek. |
| Target: | No non-conformances. |
| To be achieved by (date): | Continuous during construction. |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation EPA Licence No: EM 30856 |
| Controls: | Transfer dirt material across Eel Hole Creek Install a piped crossing across Eel Hole Creek to avoid spillage entering the waterway. Install a silt fence and oil boom down stream of piped crossing. Ensure dust suppression strategies are in place. |
| Resources: | Silt fence, oil boom, pipe, and water carts. |
| Emergency Response: | The works shall be managed in a way to minimise adverse impacts. |
| Monitoring and Inspection: | The contractor shall ensure this program is implemented and monitored. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 19****Title: Stabilisation of batters**

| | |
|-------------------------------------|--|
| Objective | To prevent unstable batters impacting water quality on Eel Hole creek. |
| Target: | No non-conformances. |
| To be achieved by (date): | Continuous |
| Applicable Licences/Permits: | Mining Licence-West Field Work Plan Variation EPA Licence No: EM 30856 |
| Controls: | All batters must be topsoiled and sown down with grass seed. Riffles and Rip-rap to be install to provide long term stability of batters prior to the introduction of water |
| Resources: | Topsoil, grass seed, rip-rap. |
| Emergency Response: | The works shall be managed in a way to minimise adverse impacts. |
| Monitoring and Inspection: | The contractor shall ensure this program is implemented and monitored. |
| References: | Nil |
| Attachments: | Nil |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 20****Title:Litter Control**

| | |
|-------------------------------------|--|
| Objective | To maintain a clean and tidy construction site. |
| Target: | No visible litter. |
| To be achieved by (date): | Ongoing. |
| Applicable Licences/Permits: | Nil. |
| Controls: | <p>Rubbish bins will be located at all places where personnel are likely to produce litter such as at the site office and crib facilities. All litter from the office and crib areas will be collected and disposed of at the local municipal tip as part of the refuse management system.</p> <p>Workers will be inducted into the requirements of the program.</p> |
| Resources: | Rubbish bins. |
| Emergency Response: | Not Applicable. |
| Monitoring and Inspection: | The contractor shall check that this program is being implemented. |
| References: | Nil. |
| Attachments: | Hazelwood Power EWI – “Hard Rubbish Disposal Instrucion”. Hazelwood Power EWI – “Other Unspecified Wastes Instruction”. |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 21****Title: Waste Minimisation and Recycling**

| | |
|-------------------------------------|---|
| Objective | To achieve best practice waste minimisation and recycling of waste and maximum use of recycled products for the project having regard for local conditions. |
| Target: | No rework. At least one significant use of a recycled product in the permanent works. No recyclable material to landfill or waste. |
| To be achieved by (date): | Ongoing. |
| Applicable Licences/Permits: | Nil. |
| Controls: | The Contractor shall identify recyclers for materials such as: <ol style="list-style-type: none"> 1. Waste oil. 2. Nonferrous scrap metal. 3. Ferrous scrap metal. 4. Timber / firewood. 5. Batteries. <p>Wherever possible, dedicated bins shall be provided and used to segregate Recyclable material.</p> |
| Resources: | Provision of recycling bins, waste oil tanks. |
| Emergency Response: | Not Applicable. |
| Monitoring and Inspection: | The contractor shall ensure personnel correctly use bins and tanks provided |
| References: | Nil. |
| Attachments: | Hazelwood Power EWI: <ul style="list-style-type: none"> • Disposal of Lead Acid batteries • Disposal of Rechargeable batteries • Disposal of Scrap Steel • Disposal of Waste Oil, Degreaser • Office Paper Disposal Instruction. |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 22****Title: Waste Water Management**

| | |
|-------------------------------------|--|
| Objective | To control handling and disposal of wastewater. |
| Target: | To contain all wastewater on site. No uncontrolled or illegal discharges to the environment. |
| To be achieved by (date): | Ongoing. |
| Applicable Licences/Permits: | |
| Controls: | <p>The contractor shall ensure waste generated is properly disposed.</p> <p>All wastewater from crib facilities and ablution blocks shall be either directed to the sewer or collected in a septic tank. All wastewater from wash down slabs to be directed through a triple interceptor pit or sedimentation pit before inflow through the drainage system.</p> <p>The septic tank, triple interceptor pit and/or sedimentation pit shall be monitored and arrangements made for a licensed operator to pump out the tank on a needs basis.</p> |
| Resources: | Triple Interceptor Pit, Sedimentation Pit, Septic Tank. |
| Emergency Response: | See Hazelwood Power Emergency Response Plan. |
| Monitoring and Inspection: | The contractor shall check that this program is being implemented. The Mine Environmental Officer shall monitor the implementation and effectiveness of the program. |
| References: | Hazelwood Power Emergency Response Plan. |
| Attachments: | Nil. |

Environmental Management System**Project: Hazelwood West****Environmental Management Program N0: 23****Title: Storage and use of Fuels and Lubricants**

| | |
|-------------------------------------|---|
| Objective | To store and use fuels and lubricants in a safe manner and in accordance with relevant legislation and regulations. |
| Target: | No incidents. No soil or water contamination. |
| To be achieved by (date): | Ongoing |
| Applicable Licences/Permits: | Hazelwood Power EPA Licence. |
| Controls: | Fuels shall be stored in containers surrounded by bunds having the capacity to store 110% of the volume of the largest container within each bunded area. Bunds shall be lined with an impermeable liner. All loose fuel and lubricant drums shall be stored within the bunded area regardless of whether they are full or empty. |
| Resources: | Bunds, spill kit. |
| Emergency Response: | If a fuel or lubricant spill occurs, the spill shall be contained (if not in a bunded area), spilled product collected using absorbent material and the contaminated soil cleaned up and disposed of at an approved disposal site. |
| Monitoring and Inspection: | The Contractor shall ensure this program is implemented and any non-conformance shall be reported to the Mine Environmental Office. All personnel shall immediately report a spill to the Supervisor. |
| References: | 1. Hazelwood Power Emergency Response Plan – “Hazardous Materials”. |
| Attachments: | Hazelwood Power EWI – Hydrocarbon Spill Cleanup (Minor Spills) Hazelwood Power EWI – Hydrocarbon Spill Cleanup (Major Spills) Hazelwood Power EWI – Disposal of Empty Oil/Grease Drums |

APPENDIX 3***ENVIRONMENTAL MANAGEMENT INDUCTION COURSE*****ENVIRONMENTAL AWARENESS TRAINING
FOR CONTRACTORS****HAZELWOOD POWER MINE****SESSION GUIDE****DRAFT****LEAD-IN**

Key Point - *“Good Environmental Management is Good Business”*

OHP**COURSE OBJECTIVE**

To appreciate that HP, which is an old business, is lifting itself to be up there with the best environmental performers through continuous improvement.

OHP**HP ENVIRONMENTAL POLICY****OHP****REGULATIONS**

Regulations the business operates under:

- *Environment Protection Act 1970 (EPA)*

Waste Discharge Licence*Air**Land**Water**Noise**} Require Licences - Mine(2)...Discharge to Morwell R
Tip(HRD)***OHP**

- *Mineral Resources Development Act 1990 (DNRE)*

Mining Licence*Environmental Review Committee (Public Consultation)**Rehabilitation**Fugitive Dust***OHP**

- *Water Act 1989*

Groundwater Licence

*Groundwater Extraction (Artesian Dewatering)
Regional Settlement*

OHP

*Environmental Management System (EMS Certified to ISO 14001)
EPA Accredited Licence (Self Regulation)*

- HP committed to complying with these Regulations – Contractors must also comply
- Helps keep costs down - “Get it right - do it once”
- Environmental Management is everyone’s responsibility (shared)

Link-In

There are areas where all of us can make some simple changes to do even better. These have been identified through observations/audits.

Power Station also conducts similar training.

5 MIN

BODY

1 HP Environmental Credentials

- HP has an Environmental Management System that has been audited to the highest International Standard ISO 14001.
- HP has Accredited Licensee Status with the EPA.
- HP has achieved an Environmental Excellence Award from the Australian Minerals & energy Environmental Foundation (AMEEF).

2 Continuous Improvement

- Power Station Precipitator Upgrade Program
- Greenhouse Challenge
- Replacement Wetlands Project
- Rehabilitation works, including native grasses
- Public Reporting

3 Areas Still Requiring Improvement

3.1 Fuel and Lubricant Spillage

Problem - any oil spilt could get into HCP/Wetlands or contaminate the ground.
[EPA regulations **prohibit** hydrocarbons in water discharges - clearly a breach of licence]

Simple Remedies:

- Take care when refuelling plant & vehicles
- Use absorbant to immediately soak up minor spills
- Ensure all storages are bunded
- Promptly fix leaking fittings

3.2 Dirty Water Resulting from Erosion

Problem - Dirty (polluted or turbid) water overflowing from retention dams or running off earthworks batters is unacceptable if it can get into watercourses.

Simple Remedies:

- Use Siltfences
- Topsoil batters and sow down with grass ASAP
- Better manage systems - Pumps/Dams.
- Inspect dams regularly – repair leaks/erosion promptly
- Important to communicate re system abnormal - heavy rain/pump u.s.

3.3 Fugitive Dust

Problem - Too much raised dust (Fugitive Dust) in the Mine. H & S and Mining Licence compliance issues here. Complaints received form Morwell Township - we want to be a good neighbour

Simple Remedies:

- Be proactive – if dry/windy weather forecast, put on extra water cart(s)
[F/S Supervisor responsible for mine levels and roads - sprays/water cart
Contractor responsible for haul roads and loading/disposal areas]
- Inspect working area regularly

3.4 Waste Management

Problem – risk of soil or water contamination from residual materials.

Simple Remedy:

- Only approved materials to HRD(Tip) – Env Officer has key **OHP - HRD**
- Empty Grease/Oil Drums to approved bunded areas
- Rubbish and Scrap Steel to Skips for disposal/recycling

3.5 Housekeeping

Problem - H & S, poor image.

OHP's (typical examples good & bad, Drums, Bunds)

Simple Remedy:

- Put everything in its proper home

RECAP

Summarise on 1 page handout.

WRAP UP

Putting all this in content.

- EMS/Paradigm – approaching Worlds Best Practice
- Legal/Obligations to EPA/Mines Dept

All personnel have responsibilities to carry out work in order to meet HP environmental commitments

- Supervisors and Managers accountable
- Corporation and/or individuals can be fined if negligent
- Want to be a good neighbour

3 MIN

HANDOUTS REMINDER

1 Page Summary

Rehab Brochure

Annual Enviro Report

APPENDIX 4
RESPONSIBILITY MATRIX

| <i>Environmental Management Program</i> | <i>Contract Supervisor</i> | <i>Supervisor</i> | <i>Contractor</i> | <i>Mine environmental officer</i> | <i>Mine compliance manager</i> | <i>Services Co-ordinator</i> |
|---|---|---------------------------|---|--|--|-------------------------------------|
| <i>01 – Harvest Melaleuca</i> | <i>Implement program</i> | | | | | |
| <i>02 – Melaleuca seed</i> | | <i>Implement program</i> | | | | |
| <i>03 – Ephemeral soil</i> | | <i>Implement program</i> | | | | |
| <i>04 – Vehicle access</i> | | <i>Observe operations</i> | | | | |
| <i>05 – Seed collection</i> | | <i>Implement program</i> | | | | |
| <i>06 – Habitat creation</i> | | <i>Implement program</i> | | | | |
| <i>07 – Pest plant and animal</i> | <i>Ensure plant & transporters have been washed</i> | | | <i>Monitor pest plant and animals</i> | | |
| <i>08 – Fire management</i> | <i>Implement program</i> | | | | <i>Conduct audits</i> | |
| <i>09 – Fire management</i> | | | | | <i>Monitor the effectiveness and implementation of the program</i> | <i>Implement program</i> |
| <i>10 – Erosion and sediment control</i> | | | <i>Inspect drainage/sediment controls</i> | <i>Monitor</i> | | |
| <i>11 – Dust Suppression</i> | <i>Monitor controls</i> | | <i>Observe operations</i> | | | |
| <i>12 – Grass mowing</i> | | | | | | <i>Implement and monitor</i> |

| | | | | | | |
|---|------------------------------|--|--|---|--|--|
| 13 – Topsoil recovery | <i>Implement and monitor</i> | | | | | |
| 14 – Public use at cemetery | | | <i>Implement and monitor</i> | | | |
| 15 – Aesthetics from cemetery | | | <i>Implement and monitor</i> | | | |
| 16 – Noise | <i>Monitor controls</i> | | <i>Observe operations</i> | | | |
| 17 – Redundant plant | | | <i>Implement program</i> | | | |
| 18 – Deviation of Eel Hole Creek | | | <i>Implement program</i> | | | |
| 19 – Stabilisation of batters | | | <i>Implement program</i> | | | |
| 20 – Litter control | | | <i>Implement program</i> | | | |
| 21 – Waste minimisation | | | <i>Ensure personnel correctly use bins</i> | | | |
| 22 - Waste water management | | | <i>Implement program</i> | <i>Monitor the implementation and effectiveness</i> | | |
| 23 - Fuels and lubricants | | | <i>Implement program, report non-conformance</i> | <i>Monitor the implementation and effectiveness</i> | | |

Refer to Environmental Management Plan Paradigm Document

ATTACHMENTS

A1 Hazelwood Power Environmental Policy

A2 Hazelwood Power EMS Complaints Procedure – Mine

A3 Site Plan

A4 List of Hazelwood Power EMS Work Instructions

A5 HP Work Instruction – “Hydrocarbon Spill Clean-up (Major)”



Environmental Policy Current

ENVIRONMENTAL POLICY

Hazelwood Power is committed to mining low cost coal and generating a reliable supply of electricity in a safe, socially and environmentally responsible manner.

Hazelwood Power will:

- consider environmental requirements at all levels of the business decision making process;
- set and achieve environmental objectives and targets to continuously improve environmental performance;
- ensure that all operations comply with environmental legislation and regulations and meet voluntary agreements and community expectations;
- regularly review and publicly report environmental performance;
- ensure that all employees and contractors are fully aware of and meet their environmental responsibilities;
- operate a third-party certified Environmental Management System (ISO 14001) and maintain EPA Accredited Licensee status;
- recognise, communicate and respond to community concerns on environmental matters;
- identify opportunities to improve waste segregation, minimisation and re-use; and
- improve natural resources and their ecological values to promote continued sustainable biodiversity.

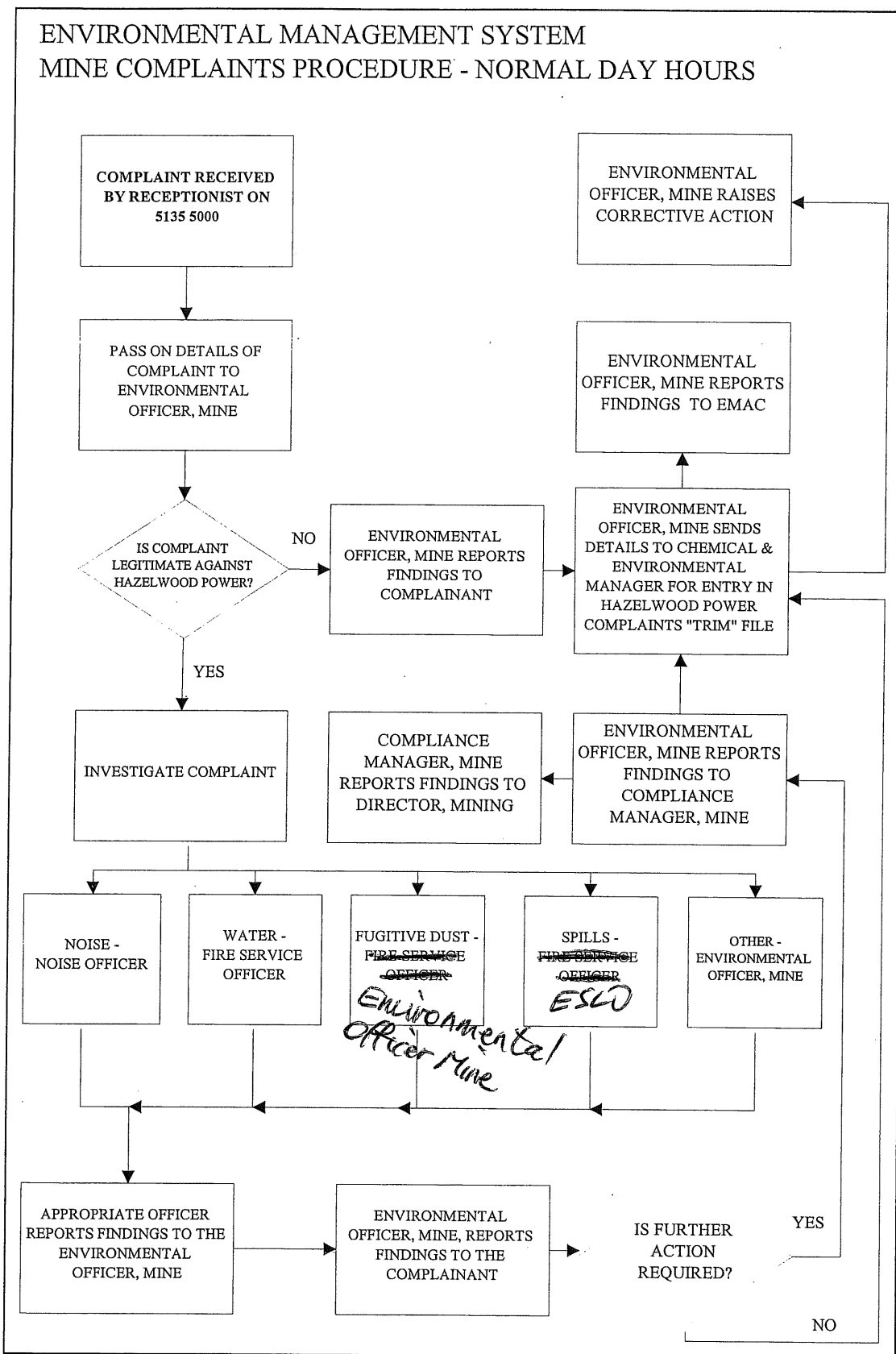
The Partnership Representatives, through the Chief Executive Officer, are responsible for environmental compliance and implementing system and performance improvements by:

- ensuring the EMS is effectively resourced and maintained;
- identifying compliance requirements through the Environmental Audit Program and actioning all areas of non-compliance;
- reviewing and implementing the Environment Improvement Plan;
- meeting all reporting requirements of the EPA, the DNRE, other statutory bodies and voluntary agreements; and
- informing the community of Hazelwood Power's actions to protect the environment, including the regular publication of environmental performance results.

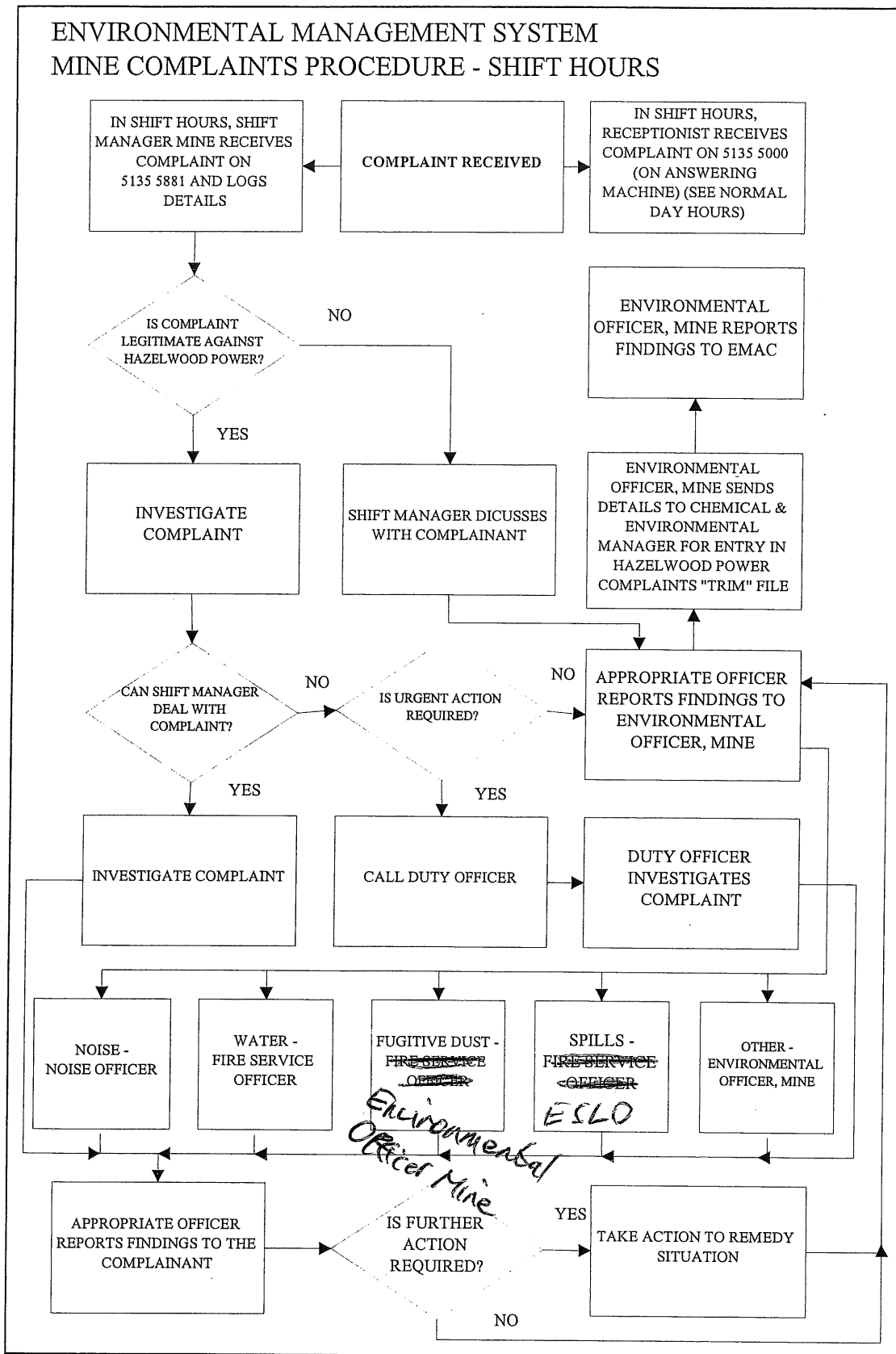
**Ken Teasdale,
Chief Executive Officer**

2nd August 2000

HAZELWOOD POWER
 EMS Complaints Procedure – Mine Current



HAZELWOOD POWER
 EMS Complaints Procedure – Mine Current



HAZELWOOD POWER
EMS Complaints Procedure – Mine Current

APPENDIX 1
NAMES OF OFFICERS

| POSITION | OFFICER | | |
|---|-------------------------|-----------------------------|---|
| | STATION | MINE | CORPORATE |
| Environmental Officers | David Addis | Kevin Jones | |
| | | Nicole Bubb | |
| Shift Managers | Rob Sharrock | Gary Rhodes | |
| | Mark D'Alterio | Peter Coad | |
| | Brian Malcolmson | Rod Fleming | |
| | Bruce McAllister | Trevor Berryman | |
| | Jon Sestoskas | Kevin Lovett | |
| | Tom Shaw | | |
| Receptionists | Pina McCafferty | Belinda Haberl | Maree Zajac Judy Vary Amanda Mackay |
| Fire Service Officers | Chris Salter | John O'Bryan Bill Pedder | |
| Services Manager | | Stuart Stiles | |
| Compliance Manager | | David Eves | |
| Noise Officers | Kevin Speairs | Stan Kemsley | |
| | | Les Ryan | |
| Chemical & Environment Manager | David Froud | | |
| Duty Officers | Alistair Tompkin | Steve Rieniets | |
| | Glenn Schumacher | Ian Quail | |
| | Ian Wilcox | Richard Polmear | |
| | Tony Innocenzi | David Eves | |
| | David Froud | | |
| ESLO | Ron Whyte Ian Wilcox | David Eves Stuart Stiles | Mike Sheldon |

HAZELWOOD POWER
EMS Complaints Procedure – Mine Current

APPENDIX 2
COMPLAINTS DETAILS PROFORMA

Date.....

Time.....

QUESTIONS TO ASK TO DETERMINE COMPLAINTS

1. What is the problem or the complaint about?

2. When did the incident occur?

3. How long did the incident last?

4. Do you wish to leave your name or contact number so that we can let you know the details of the problem and how and when it was rectified?

5. Would you like a representative of Hazelwood Power to visit you or ring you back to discuss our findings with you.

YES / NO

HAZELWOOD POWER
EMS Complaints Procedure – Mine Current

**APPENDIX 3
CHECKLIST PROFORMA FOR INVESTIGATING COMPLAINT**

1. Check the Shift Manager for any logged incidents that could relate to the complaint.

2. What is the type and source of the problem?

Noise

Dust

Other

3. When and for how long did it occur?

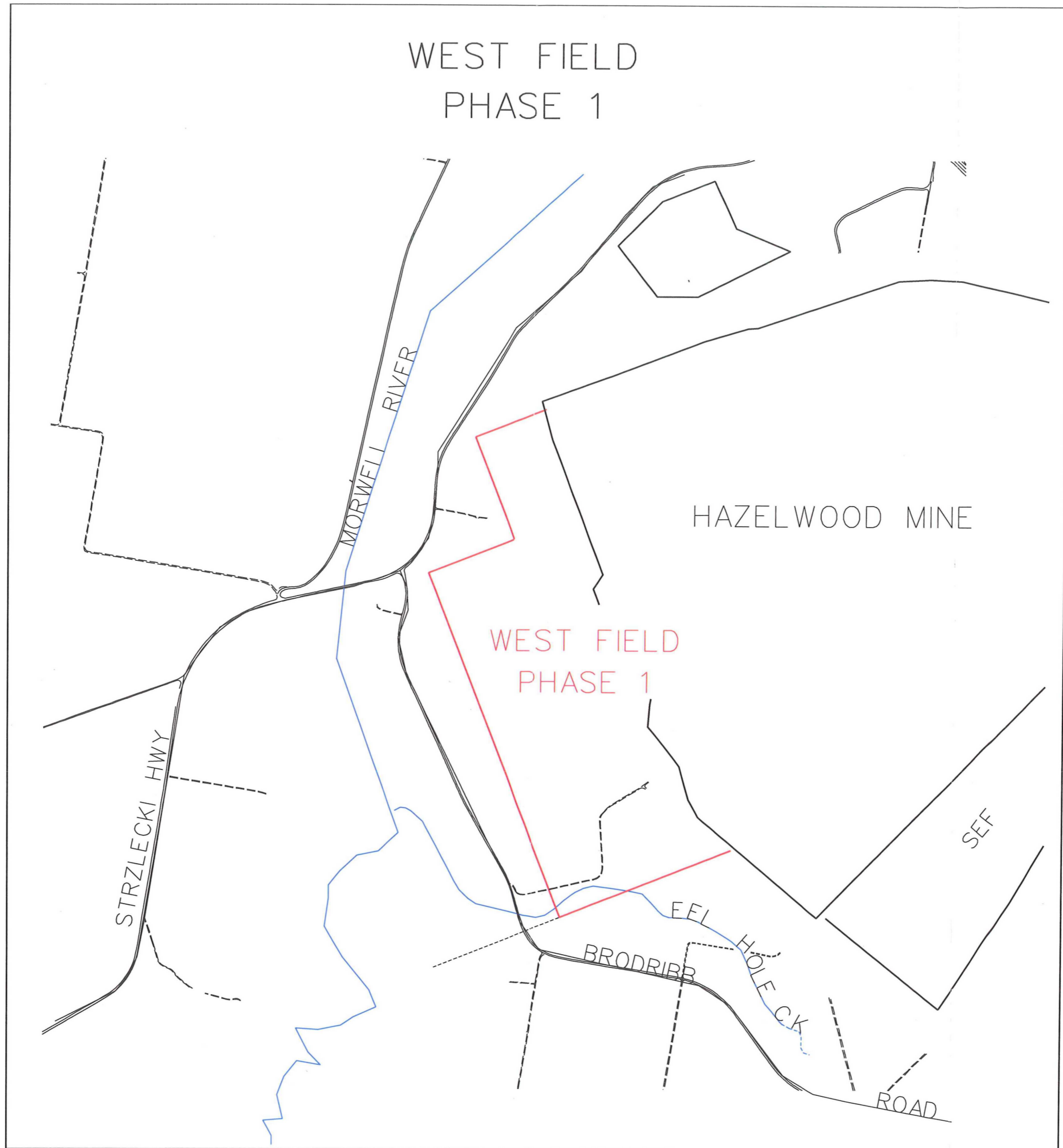
4. Where is the location of the problem?

5. Written Response to Complainant? Yes / No

6. Was complaint justified? Yes / No

7. If complaint was not justified, did it relate to the Station? Yes / No

8. If yes, has the complaint been passed on to the Station? Yes / No





Env. Work Instructions List Draft

ENVIRONMENTAL WORK INSTRUCTION LIST

The following is a list of the Environmental Work Instructions located in Document **Group 04 Work Instructions.**

This list shall be circulated to HP Personnel and Contractors, to ensure people are aware of what Work Instructions exist.

Work Instructions cover:-

- Application for EPA Works Approval
- Business Plan Environmental Approval Procedure
- Completion of EPA Transport Certificates
- Disposal of Asbestos & SMF
- Disposal of Ash & Clinker
- Disposal of Clean Fill
- Disposal of Chrome Contaminated Refractory.
- Disposal of Empty Oil/Grease Drums
- Disposal of Fluorescent & Vapor Lamps
- Disposal Hard Rubbish
- Disposal of Lead Acid Batteries
- Disposal of Office Paper
- Disposal of Other Wastes
- Disposal of PCB Contaminants
- Disposal of Re-chargeable Batteries
- Disposal of Scrap Steel
- Disposal of Waste Oil & Degreaser
- Eastern O/B Dump Inspections
- Hydrocarbon Spill Clean-up Major (greater than 200 L)
- Hydrocarbon Spill Clean-up Minor (less than 200 L)
- Laboratory Methods Manual
- Land Management for HP Leased Land
- Management and Maintenance of P/S Oil Separation Pits
- Management and Disposal of WEP sludge
- Management of Acid Clean Discharges
- Management of Blue/ Green Algae (BGA)
- Management of Leachate from Ash Ponds
- Management of Leachate from Overburden Dump
- Minimise Dust from Conveyors
- Minimise Dust from Mine
- Minimise Dust from P/S Ash Ponds
- Noise Guidelines for Return to Service of Boiler & Turbine Plant
- Overburden Dump Shaping
- Preparation of Dust Monitor Calibration Curve



Env. Work Instructions List Draft

Raising an Environmental Concern
Reduce Generation Due to Excess Dust Emissions from Stacks
Rehabilitation - Positioning of Vegetation
Rehabilitation of Disturbed Land
Rehabilitation Success Criteria
Routine Effluent Sampling
Routine Mine Fuel Depot Inspection
Routine Mine Environmental Due Diligence Inspections
Routine P/S Environmental Due Diligence Inspections
Sample dispatch to Environmental Contractor
Secondary Containment for Bulk Storage Tanks (Bunds)
Secondary Containment of Full 200 litre Drums & Disposal of Empty Drums
Service Provider Non-Conformance Response
Unauthorised Dumping
Verification of Contractor EPA Licences.



Hydrocarbon Spill Clean-up(Major) Draft

HAZELWOOD POWER

ENVIRONMENTAL WORK INSTRUCTION

HYDROCARBON SPILL CLEAN-UP (MAJOR SPILLS)

1. PURPOSE

The purpose of this work instruction is to describe the method by which Hazelwood Power cleans-up major spills of oil or diesel (Hydrocarbons) which could result in serious environmental pollution of land or water bodies.

2. SCOPE

This work instruction applies to Operations personnel or Contractors handling or transporting oil or diesel as part of their normal duties.

Note: This work instruction does not apply to known toxic substances or unidentified substances (which must be assumed as toxic).

3. DEFINITIONS

Major Spills:

- 1. Contained** - Spillages of oil or diesel (greater than 205 litres) from drums or overhead storage tanks into a properly bunded area that requires prompt action, but not the declaration of an Emergency.
- 2. Un-contained** - Spillages of oil or diesel (greater than 205 litres) from drums or road tankers onto roads or other exposed areas where it presents an environmental hazard that requires immediate action to prevent serious contamination, **including the declaration of an Emergency.**



Hydrocarbon Spill Clean-up(Major) Draft

4. WORK INSTRUCTION

If a major uncontained spill of oil or diesel occurs, or is discovered, it must be dealt with **immediately**.

Both the Power Station and the Mine have Emergency Response Plan documents found under **Document Group 03 - Emergency**:

- Emergency Response Plan - HPS.
- Emergency Response Plan - HP Mine.

The following procedure is lifted directly from the *HP Mine Emergency Response Plan Year 2001, page 19, item 5.4 - "Spills Other Than Hazardous (Non-Toxic) Response"*:

- Close valves, secure leaking fittings, etc.
- Contain the spillage and prevent it entering drains, dams, etc.
- If necessary shut down the Dewatering Pumps (spills in the Mine).
- In the Mine Notify Control Centre (ext. 3333).
- In the Power Station ring the Emergency Number (ext. 5522).
- Notify the following external authorities:
CFA (0 000)
EPA (0 5176 1744 or after hours Pager 016030 - Call 344388)
Work Cover Authority (0 5174 8900).
- Notify the Mine Environmental Officer (ext. 5812) or the Station Environmental Officer (ext.5078) or the Chemical & Environmental Manager (ext. 5595).
- Notify the Mine / Station **ESLO** (refer to availability sheet).
- Assist the Combat Agency if requested with mobile plant, "kitty litter", clay, sand bags, etc.
- Cordon-off/Paraweb the affected area.
- Arrange, in consultation with the relevant Environmental Officer, for a site clean-up and disposal of contaminated materials as soon as possible (Gardner Perrott 0 5135 3939 / Dasma 0 5134 1455).

If a major spill of oil or diesel occurs, or is discovered, and it is contained within a **bunded enclosure**, it must be dealt with within the same shift as follows:

- Close valves, secure leaking fittings, etc.
- In the Mine Notify Control Centre (ext. 3333).
- Notify the Mine Environmental Officer (ext.5812) or the Station Environmental Officer (ext.5078).
- Where applicable, under the direction of the relevant Environmental Officer, open the bund drain valve and drain off the bulk of any rainwater trapped (but not floating oil) to the Triple Interceptor Pit. Lock the drain valve in the



HAZELWOOD
POWER

Hydrocarbon Spill Clean-up(Major) Draft

- CLOSED position immediately after draining off the stormwater.
Arrange, in consultation with the relevant Environmental Officer, for a site clean-up and disposal of contaminated materials as soon as possible (Gardner Perrott 0 5135 3939 / Dasma 0 5134 1455).