

# **INTERNATIONAL POWER HAZELWOOD MINE**

## **FIRE INSTRUCTIONS**

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## 1 INTRODUCTION

These instructions apply to all personnel working in the International Power Hazelwood's Mine. All personnel should familiarise themselves with the contents of this document to ensure that they are aware of their responsibilities in relation to the prevention, reporting and fighting of Fires in or near the Mine.

## 2 DANGER OF FIRES

All employees should be kept aware of the danger of Fires in the Hazelwood Mine. Inflammable material exists all around the area.

Examples of inflammable materials are:

- Loose dry coal;
- Conveyor belts;
- Grease, oil, distillate and petrol; and
- Electrical wiring.

These materials can be ignited in many ways, for example:

- Burning coal falling from vehicle exhausts;
- Coal coming into contact with vehicle disc brakes;
- Sparks from hot idlers;
- Sparks from grinding activities
- Sparks from welding activities;
- Switchboards Fires;
- Lighted cigarette butts;
- Air-borne burning embers from bushfires;
- Faulty electrical cables and/or wires;
- Clashing power lines;
- Friction from conveyor belts or idlers on spilled coal;
- Friction from conveyor belts on dislodged or broken idlers;

If a Fire occurs, act to extinguish it quickly before it becomes uncontrollable.

Fire fighting equipment is distributed throughout the operating area. It must be maintained in good working condition so that it is ready for use when an emergency occurs. An **Annual Audit** check list is available in Paradigm (Paradigm Group 3 H&S - Fire Instructions–Mine) for auditing the availability and serviceability of Mine fire fighting and dust suppression equipment. The Mine Fire Services Officer is responsible for the maintenance of this Audit check list and is also responsible for the Annual Audit to be carried out before the start of the fire season. A **Preliminary Audit** is conducted to ascertain the state of all fire prevention and fire fighting equipment, the **Follow up Audit** is carried out after corrective action has been completed and must be completed within two months of the Preliminary Audit. A summary of the **Preliminary Audit** will be circulated for corrective action.

All personnel are to be trained in Fire fighting so that the correct equipment and methods are used. Using the wrong Fire fighting methods can spread fire and personnel may be injured.

### 3 FIRE PREVENTION ORGANISATIONAL RESPONSIBILITIES

#### 3.1 Director of Mining

The **Director of Mining** is responsible for all Fire protection activities for the Mine and defined surrounds.

#### 3.2 Production Manager Mining Operations

The **Production Manager** is responsible to the Director of Mining for:

- The detailed implementation of these instructions; and
- The management of the 1x7 Services Group.

#### 3.3 Mine Production Superintendent

The **Mine Production Superintendent** is responsible to the **Production Manager** for the operation and maintenance of the Fire protection procedures, installations and related services in the Hazelwood Mine. This includes arranging the pumping and operation of major control valves to ensure adequate water supply and pressure and to direct or ensure:

- Fire fighting operations;
- Reporting all serious Fires and Fire risk to the Production Manager;
- Inspection of all Fire fighting equipment;
- Training of all personnel in Fire fighting methods;
- Approval/recording the access of vehicles and plant to coal surfaces on Fire Alert days; and
- Declaration of Fire Alert after consultation with Director of Mining or Production Manager; and
- Issuing Hot Works Permits.

#### 3.4 Shift Production Manager

The Shift Production Manager is responsible for:

- Fire fighting until such time as a more senior officer takes control;
- **Reporting all Fires to the Mine Production Superintendent or the 1x7 Services Team Leader on duty;**
- Ensuring that all unmanned plant is inspected at least once per shift and non-operating conveyors once per shift. These details are to be recorded on the Shift Manager's report. Conveyors which are shut down after a period of operation should be patrolled within one hour of the shutdown;
- Ensuring that all locations where welding and/or burning have taken place are inspected before the end of the shift, and then at least twice per shift for the following shift. These details are to be recorded on Shift Manager's report; and
- The duties and responsibilities of the Fire Service Officer outside of normal hours (0700 hours to 1742 hours) until a designated Emergency Commander attends and takes control of the situation.

### 3 FIRE PREVENTION ORGANISATIONAL RESPONSIBILITIES (cont')

#### 3.5 1x7 Services Team Leader

After normal hours the 1x7 Services Team Leader is responsible for:

- The operation and maintenance of the Fire protection procedures, installations and related services in the International Power Hazelwood Mine area. This includes arranging the pumping and operation of major control valves to ensure adequate water capacity and pressure; and
- Assist with Fire fighting operations

#### 3.6 Operations Shift Team Leaders

The Operations Shift Team Leaders are responsible for:

- Fire fighting operations until such time as a more senior officer takes control;
- Reporting all Fires to the Shift Production Manager; and
- Inspecting all unmanned Dredgers, overburden disposal units and mobile slewing conveyors at least once per shift and non-operating conveyors under his control once per shift. These details are to be recorded on Shift Manager's report.

#### 3.7 Operators of Dredgers, Travelling Stackers, Conveyors, Mobile Slewing Conveyors, Mobile Plant and Motor Vehicles

Each of these personnel is responsible for:

- Following the Fire precautions appropriate to the plant item or vehicle they are operating (see Fire Instruction 4.3);
- Ensuring that the Fire fighting equipment on the plant or vehicle is available and ready for use; and
- Reporting any faults, problems or risks.

#### 3.8 All Personnel

All Personnel are Responsible for the following:

- To be alert and on watch for any outbreak of Fire;
- To take action to extinguish any Fire immediately it is observed;
- To report the Fire to the **Mine Control Centre (extension 3333)** as soon as possible and provide details (**location, size, type of fire, any nearby plant in danger**);
- To assist other personnel already fire fighting;
- To advise the 1x7 Services Team Leader of any Fire hoses, Fire extinguishers or any other Fire fighting equipment that have been used, is missing or has been damaged so that replacements can be arranged; and
- **Not to use Fire fighting equipment for purposes other than fire fighting.**

## 4 FIRE PREVENTION

### 4.1 No Smoking Area

Smoking & carrying of cigarettes is totally banned in the following locations.

- Areas delineated by **NO SMOKING** signs;
- All areas below grass level
- In vehicles, crib rooms and any building;
- In the Mine. – Below Grass Level & Cigarettes Must Not Be Carried Below Grass Level.
- Within **10 metres** of any conveyor;
- Within **10 metres** of any oil or petrol store;
- Within **10 metres** of any belt vulcanising building or facility;
- Within **30 metres** of exposed coal surfaces;
- Within and around the Hazelwood Slot Bunker (HSB); and
- On any Dredger, mobile slewing conveyor or travelling stacker.

Personnel smoking in any of these locations render themselves liable to disciplinary action under the International Power Hazelwood's Disciplinary Policy.

### 4.2 Burning and Welding

There are two (2) categories of burning and welding permits, which each will only be issued on a daily basis. The **Category A Permit** is issued for the **Hazelwood Slot Bunker**, and the **Category B Permit** is issued for the **Hazelwood Mine**. All qualified **Fire Persons** must have completed their respective **Permit** training in accordance with the **Fire Persons Duties Training Manual** (Refer to **Paradigm Document Id: 39769**) which describes the training requirements of each of these two **Permit Categories**.

Unless the **1x7 Services Team Leader or Planner** (*day work*) or the **Shift Production Manager** (*night shift*) has issued a **Category A** or **Category B Permit**, then the following activities must not be carried out:

- Welding, cutting, burning or grinding;
- Use of open flame for maintenance of cables;
- Use of open flame appliances in caravans; and/or
- Use of portable internal combustion engines.

**NOTE:** Before any burning and/or welding, use of naked flame etc can take place in the **Hazelwood Mine** or the **Hazelwood Slot Bunker** the following is to apply:

- **All Hot Works** within the **Mine** or the **Hazelwood Slot Bunker**, is not to be undertaken unless a suitably qualified **Fire Person** is in attendance;
- Only personnel who have been trained in the **Mines Hot Work Procedures** are to act as suitably qualified **Fire Person**;
- All combustible material must be washed down or if impracticable thoroughly dampened down, around the job site to a distance of 5 metres in all directions. Frequent redampening down of the job site area is to be carried out to ensure job does not dry out; and/or
- The **Shift Production Manager** will ensure that all locations where these activities have been carried out are inspected before completion of his shift, and then at least twice in the following shift.



#### 4 FIRE PREVENTION (cont')

##### 4.3 Safety Precautions on Plant

###### 4.3.1 Major Machines and Conveyors

Each shift, the operator will inspect the Fire fighting equipment on the machine, or conveyor, they are operating and ensure that it is in place. Report any unusable equipment immediately to the Fire Services.

At all times, each operator shall be thoroughly conversant with the procedures to adopt in the event of Fire in relation to the following:

- Where to park the machine they are operating;
- What sprays are required to be operated;
- What hoses and hydrants are available; and/or
- What extinguishers are available.

The **Mine Production Superintendent** will periodically review the above mentioned with supervision and operators.

Wherever possible, machine cables are to be laid on clayed areas, along spray headers, in drains or in other positions of maximum protection.

It is the responsibility of the Shift **Production Manager** to ensure that when a machine is parked for extended periods for maintenance or other reasons, special arrangements are made to provide additional spray protection to form a saturated island for the machine to stand on.

During any period when high Fire danger exists in the Hazelwood Mine, provision must be made to completely saturate the area in the vicinity of machines by supplementing normal level and machine sprays by portable sprays

When any Dredger, mobile slew conveyor or travelling stacker, is to be left unmanned, then all coal must be run off the machine belts. It must then be parked adjacent to a hydrant manifold, with no part of the machine over-hanging the conveyor. The operator shall ensure that the spray system is connected to the water main, and that any intermediate hoses in the spray system are also connected. After a machine has been remanned, the Dredger fire system hook up hoses are to be disconnected from the pipeline & placed on the Dredger hose rack for future use.

The percolating hoses must be charged with water, and then the hydrant shut. When the machine is next manned it is the operator's responsibility to ensure that the Fire service water storage tank on the machine is full.

Machines are to be kept clean and as free as possible from coal build up. No lubricant containers are to be left open or oily waste left on machines. When a Dredger is to be out of service for a major overhaul, special arrangements must be made to clean down the machine and to provide additional spray protection.

When special work is to be done on a Machine which may require parking away from the approved parking area, permission to park there is to be obtained from the **Director of Mining or Production Manager** and special precautions as arranged at the time shall be taken.



#### 4 FIRE PREVENTION (cont')

##### 4.3 Safety Precautions on Plant (cont')

##### 4.3.2 Dozers and Other Mobile Plant Items

To avoid the danger of Fires being started by plant operating on coal, drivers are to carry out the following procedures when stopping work during the day:

- Wherever possible, move plant clear of any loose coal and shut down in a safe place such as on sand or clay, in shallow water, close to sprays, etc;
- Check the work area for any Fires which may have started due to plant operations. In the event of Fire any plant left on the coal may be endangered. Therefore, at the end of the day or shift, plant not required for operation during the next shift, must be parked off the coal. Machines will be parked at least 10 metres apart and not placed **within 10 metres of a conveyor**. If a tractor or auxiliary machine breaks down on a coal level and cannot be travelled, a portable spray connected to a Fire service main will be installed at the machine;
- A 9 litre foam extinguisher or a 16 litre knapsack fully charged, and a minimum of 2.3 kg dry powder extinguisher must be carried on each machine, ready for use on small Fires at all times;
- In addition to Fire suppression equipment required under the Mine Fire Service Policy and Code of Practice, there will also be a "Wash Down Hose" for mobile plant comprising 1-off 30 m x 38 mm Percolating Fire Hose fitted with a 64 mm female C.F.A. coupling;
- Spark arresters must be fitted to all internal combustion engines (mobile plant) when operating on grass or coal levels;
- Dust accumulation is to be removed from near exhausts. When operating on coal, engine and exhaust systems must be inspected at **two-hourly intervals or sooner** if working in dry dusty conditions, and washed down where necessary. Care is to be taken to avoid water entering electrical equipment.

##### 4.3.3 Hazelwood Slot Bunker (HSB)

Due to the dusty conditions that prevail in the Hazelwood Slot Bunkers, it is important that good house keeping is constantly under taken to keep coal build up to a minimum. Also regular inspections by the **Mine Production Superintendent** and the **Shift Production Manager** need to be undertaken, to ensure that coal dust build up on the Hazelwood Slot Bunker's structure is kept to a minimum.

Greater emphasis on cleaning of the spill conveyors located at the West Wall entry of the Hazelwood Slot Bunker with a more concentrated effort in the removal of accumulated pulverised fuel deposits. This includes **Operations & 1x7 Services**. Regular planned Hazelwood Slot Bunker wash downs are to be carried out every 6 to 8 weeks or earlier if required. Refer to the **Check List For Hazelwood Slot Bunker Fires Services Wash Down Routine Inspection** – Paradigm Document Id **39540**.

#### 4 FIRE PREVENTION (cont')

##### 4.3 Safety Precautions on Plant (cont')

##### 4.3.4 Motor Vehicles

Motor vehicles are not permitted to travel on coal surfaces unless they are fitted with an approved exhaust system and must carry a "**Fire Suppression Pack**" as per the Mine Fire Service Policy & Code of Practice.

The **Fire Suppression Pack** will comprise:

- 2-off 30 metre x 38 mm high percolation Fire hose with C.F.A. couplings; and
- Hose director and a 16 mm open ended nozzle; and
- Knapsack Spray with the container fully charged with water ready for use on small Fires.

**NOTE:** Vehicles should travel in such a manner as to reduce wet coal being splashed on to their exhaust or motor. After having driven through deep holes in coal areas or having had a vehicle bogged, drivers will, before travelling on coal levels, again examine the exhaust system and manifold and wash coal build-ups from these areas.

Vehicles equipped with disc brakes should be driven on coal levels in such a way as to avoid heavy braking, which could cause overheating of brake components.

When operating on coal, engine and exhaust systems must be inspected at two-hourly intervals and washed down where necessary.

##### 4.4 Abnormal Hazard Precautions

When an abnormal level of hazard exists in a specific area of the mine or the need exists for a specific restriction, the **Director of Mining/Production Manager** may stipulate special precautions to be observed. The **Director of Mining** may delegate this authority to the **Mine Production Superintendent** or the **Shift Production Manager** when the latter is acting as **Mine Production Superintendent** in accordance with Fire Instruction 3.4.

**5 DECLARATION OF THE START OF THE FIRE SEASON****5.1 Season and Period Specific Fire Preparedness and Mitigation Planning**

Appropriate Response Level strategies have been detailed in the **Guidelines for Season & Period Specific Fire Preparedness and Mitigation Planning**.  
Refer to Paradigm Document Id. **36546**.

**5.1.1 Season Specific Fire Preparedness and Mitigation Planning**

The **Guidelines for Season Specific Fire Preparedness and Mitigation Planning** are to be followed to gather monthly data to enable **Response Level 2** awareness to be monitored to determine when to the declare of the annual fire season.  
Refer to Paradigm Document Id. **36547**.

**5.1.2 Period Specific Fire Preparedness and Mitigation Planning**

Once the Declaration of the Fire Season has been made and the Annual Equipment Audit & Inspections have been carried out, then the daily monitoring of the data to enable **Response Level 3** awareness is to be monitored and if deemed imminent for a high fire alert then a **Period Specific Fire Preparedness and Mitigation Plan or Plans** are issued to all personnel.

**5.2 Check List for Season Specific Fire Preparedness and Mitigation Planning**

The **Check List for Season Specific Fire Preparedness and Mitigation Planning** captures the monthly data which will assist is determining the start of the annual fire season.  
Refer to Paradigm Document Id. **36549**.

**5.3 Check List for Fire Fighting Equipment Annual Audit & Inspection**

When the start of the annual fire season has been determined, then the Preliminary Annual Audit and Inspection of Fire Fighting Equipment can be carried out, to determine the state of all Fire Fighting equipment. Followed up remedial action is then carried prior to the final Annual Audit and Inspection of Fire Fighting Equipment.  
Refer to Paradigm Document Id. **36548**.

## 6 DECLARATION OF FIRE ALERT

During hot, dry or windy conditions, there is a high risk of Fire rapidly spreading in the Mine. When such conditions are expected, the **Director of Mining, the Production Manager or the Mine Production Superintendent will declare a Fire Alert.**

A Fire Alert may or may not be proclaimed for the Hazelwood Mine on a C.F.A. or Works Area Only 'Day of Total Fire Ban' depending on the severity of the weather conditions in the Hazelwood Mine area. The duration of the Fire Alert will be confined to the period of severe conditions.

### 6.1 Communication to Personnel of Fire Alert

- When a Fire Alert has been declared, the following communication procedure will be initiated to warn all personnel entering or working near the Hazelwood Mine;
- A prepared radio message broadcast on Hazelwood Mine radio frequencies informing personnel of action required;
- Flashing red lights activated on all Dredgers and TS2 and at the Control Centre, Fire Service Office and No 3 Transfer House. (Contacts: Mecrus [REDACTED] – Energy Brix Australia ([REDACTED] or [REDACTED]))
- The Fire Alert button activated on CITECT, which enacts an sms alert to designated staff and alerts those using CITECT
- When a Fire Alert has been declared, the **Director of Mining**, the **Mine Production Superintendent** or the **1x7 Services Team Leader** will inform other officers within the business that a Fire Alert has been implemented within the Hazelwood Mine.

When a Fire danger has passed, a prepared radio message broadcast from the Hazelwood Mine radio frequencies will inform all personnel that the Fire Alert has been formally cancelled. The flashing red lights, mentioned above, will be turned off.

### 6.2 Action Required of Personnel when a Fire Alert has been declared

- The **Mine Production Superintendent** will consult with the **Director of Mining/Production Manager**, concerning action to be taken during the Fire Alert. A 1x7 Services member shall continuously man the **Fire Service Office**.
- Shift Operations staff member shall continuously man the Control Centre Office. The 1x7 Services Group shall ensure that cable protection sprays are turned on for initial wetting down and that wetting down is carried out on coal surfaces, conveyors and transfer points to provide Fire protection and to check the spread of any Fire. All water tankers shall be full of water, manned and under the control of the Mine Production Superintendent. A comprehensive log of events is to be maintained during every Fire Alert.
- Boilermakers - all welding and burning activities are banned, unless special dispensation has been granted from the **Director of Mining**.
- Boilermakers are to immediately check that their work area is safe from Fire, leave coal levels and report to their Supervisor.
- Their normal Supervisor shall make Boiler making personnel and their vehicles available for mobile Fire prevention & suppression duties as required by the Fire Service Section and as directed.
- Mobile Plant Operators - unless otherwise directed all mobile plant, including cranes on coal levels, are to be moved off the levels and operators are to await directions from their Supervisor as to their duties.

**6 DECLARATION OF FIRE ALERT (cont')****6.2 Action Required of Personnel when a Fire Alert has been declared (cont')**

- Dredger and TS2 crews shall turn on machine Fire alert lights on all manned dredgers. Manned non-operational machines are to have machine Fire hoses connected to hydrants and machine sprays operated to wet down machine and coal area in immediate vicinity.
- The **Shift Production Manager** shall arrange for each unmanned machine (coal and overburden) to be manned by two operations shift personnel (on each machine) and that the above mentioned instruction for dredger and TS2 crews is followed.
- Motor Vehicle Drivers and vehicle access to coal levels is restricted to only vehicles with permission from the **Mine Production Superintendent** or the **1x7 Services Team Leader** may enter coal levels. Vehicle speed on coal levels at all times is not to exceed 15 km an hour.

**6.3 Action Required of Supervisory Staff**

- Check that vehicles under their control have the knapsack spray charged with water and a Fire suppression pack;
- Be prepared to group their gang to move into Fire fighting or Fire protection activity at the request of the **Mine Production Superintendent** or the **1x7 Services Team Leader**;
- Remain in telephone or radio contact wherever possible;
- Arrange for staggering of meal breaks so that all services provided to the 1x7 Services Group can be continuous and telephone or radio contact maintained;
- Radio - personnel shall keep radio usage to a minimum to allow for urgent communication;
- Fire Spotting - all personnel must be on the lookout for Fire and report any outbreak and must attempt to extinguish or contain any Fire immediately.

Following consultation between the **Production Manager** and the **Mine Production Superintendent**, the following additional action may also be necessary:

- Supplement Fire Service personnel by diversion of labour as required by the **Mine Production Superintendent**;
- Call upon the assistance of Contractors employed at the Hazelwood Mine to provide support of water tankers for mobile patrol and/or other Fire prevention duties;
- Stop operation of overburden and coal machines to provide support labour on Fire prevention activities under the direction of their normal supervision and as required by the **Mine Production Superintendent**. Call in Operations Availability Officers.

**6.4 Dispensations**

- If during the **Fire Alert**, the urgent need arises to perform burning or welding, the **Director of Mining** may give a dispensation and stipulate special precautions to be observed which will allow the work to proceed.
- If during a **Total Fire Ban** day, the urgent need arises to perform burning or welding, a special dispensation will be required from the C.F.A. via a section 40 permit.

## 7 REPORTING FIRES

All Fires in the International Power Hazelwood Mine area shall be reported to the Mine Control Centre (telephone extension 3333) or by using the radio/emergency button.

All fires and Emergencies calls are to provide the following information to the operator:

- Name and section of person making call.
- Size and type of incident: (burning belt or coal, electrical equipment, etc) and any nearby plant in danger
- Location of incident.
- Number of injured. (*Do not give patient's name over radio*).
- What assistance is required?
- If any Rescue Service is required.
- Any other relevant information as requested by the Control Centre.

### 7.1 Protocol in Reporting of Fires to the C.F.A.

All calls to the C.F.A. are to be via Telstra's 000 phone number.

All fires shall be reported to the C.F.A. on days of declared Total Fire Bans for the Victorian Eastern Total Fire Ban District or at anytime that the Hazelwood Mine has declared a Fire Alert.

At all other times, the C.F.A. response is to be requested immediately when:

- The fire becomes beyond the capability of the mine fire crews in attendance; or
- The initial response has exceeded 30 minutes.

### 7.2 Monthly reporting of all Fires to the C.F.A.

Reports of all fires will be forwarded to the C.F.A. on the appropriate **International Power Hazelwood Standard Fire Report Form** on a monthly basis. This three part form is to be filled out by the **Control Centre Attendant** and the **original** is kept as the Fire Service record, the **green** duplicate is forwarded to the **Hazelwood Mine Production Superintendent**, and the **pink** triplicate is mailed to the C.F.A.

## 8 FIRE SUPPRESSION

### 8.1 General Instructions Relating to any Fire

If a Fire occurs, the person or persons **FIRST OBSERVING THE FIRE** and/or in the vicinity of it must do the following:

- Take immediate action to commence extinguishing it, using the best method available immediately at hand. Care must be taken not to use water on electrical Fires;
- Notify the **Mine Control Centre** (extension 3333). If this report indicates that the Fire is not under control, the **Fire Service Officer** or **Supervisor** (on day work) or the **Shift Production Manager** (after normal day work hours) will attend the scene of the Fire and take charge if necessary;
- The **Control Centre Attendant** will notify the C.F.A. via **000** in accordance with clause 7.1;
- Notify the operators on any endangered machine or plant; and
- Report to the **1x7 Services Team Leader** if any percolating hose or extinguisher has been used, so that the percolating hose(s) can be inspected and replaced if damaged, and any used extinguisher recharged.
- Refer to the Emergency Response Plan

### 8.2 Serious Fires

If it becomes apparent that a Fire, being managed as set out in the previous section is likely to become a serious Fire, i.e. not being contained by the resources available or threatening plant, the senior member of the Fire Service or Shift Supervision in attendance will proceed as follows:

- Notify the **Fire Services Officer**;
- The **Fire Service Officer** will notify the C.F.A. via **000** in accordance with clause 7.1;
- Notify the **Production Manager** or the **Director of Mining**;
- Notify the **Emergency Services Liaison Officer (E.S.L.O)**;
- After normal working hours, notify the Fire Service and the **Shift Production Manager**; and
- Mobilise all readily available personnel to fight the Fire.

The **Fire Service Officer** will proceed as follows:

Notify the C.F.A. of the fire emergency in accordance with clause 7.1:

- The **Fire Service Officer** will notify the C.F.A. via **000** in accordance with clause 7.1;
- During periods of high fire danger, i.e. **Total Fire Ban** or days of **Mine Fire Alerts**, then the C.F.A. shall be notified of all fires – no matter what the size;
- Take charge of all Fire fighting activities until relieved by a more senior officer or the emergency has passed;
- Make certain that the pumping system is fully operational in a mode that will ensure adequate water supplies for the fire fighting; and
- Ensure that endangered machines are manned and protected from danger.

Upon receipt of information that a serious fire may develop, the **Production Manager** and/or **Director of Mining** as appropriate, will assess the situation and do the following if necessary:

- Assume control of all fire fighting activities; and/or
- If the fire is very serious the senior officer may declare a **STATE OF EMERGENCY** and then implement the emergency response plan.



## 9 PROCEDURES ON PLANT DURING FIRE

### 9.1 Dredgers, Mobile Slewing Conveyors and Travelling Stacker

When Fire threatens plant and a decision is made to take the plant out of service, the crews will take action as follows:

- Empty buckets and/or conveyors;
- Travel to and park close to a hydrant manifold;
- Use as many hoses as are necessary to connect spray system on the machine to water supply and turn on water. Thoroughly wet down coal surrounds using the rotating sprays on the machine and on the level;
- Hose all loose coal off outside of machine, including chute, conveyor belts and ledges and thoroughly wet down the machine, (Avoid damage to electrical equipment.);
- Close all doors, windows, manholes, etc.;
- Remove all inflammable material such as oils, grease and rags from the machine and if possible, transport them out of the Hazelwood Mine. If this is not possible, they should be placed on a sanded area or remote from the plant in close proximity to a water supply, on the lee side;
- Operators will remain with the machine until relieved, instructed to leave by their supervisor, or if they are in imminent danger.

### 9.2 Fire in the Hazelwood Slot Bunker (HSB)

If **any fire** is discovered within the **Hazelwood Slot Bunker**, carry out the fire instructions as per this document. If after hours, the **Shift Production Manager** is to attend, and ensure correct fire fighting procedures are carried out to extinguish the fire as soon as possible (follow up checks later in the shift are to be carried out by the **Shift Production Manager**). Also the relevant conveyor Birds mouth Spray line and roof Misting Sprays are to activate to suppress smoke and assist in containing the fire.

### 9.3 Dozers and Small Mobile Plant

- Where possible, mobile plant is to be travelled to sanded areas. Alternatively, if on top of coal, dig into overburden face and place material around machine.
- Park near a Fire service hydrant.
- Park back to the wind and close all doors and windows.
- Hose off loose coal from the machine without damaging electrical equipment. Using hoses and/or rotary sprays wet down the surrounding area.
- Remove all inflammable material away from the machine and place on the sanded area or wetted coal on the lee side.
- Operators will remain with the machine until relieved, or instructed to leave by their supervisor or if they are in imminent danger.

**9 PROCEDURES ON PLANT DURING FIRE (cont')****9.4 Coal Conveyors**

- The Control Centre Operator will ensure that the Dredger stops digging;
- Run coal off the conveyors where practicable, unless the coal is on Fire;
- Stop the conveyor, unless the Fire is located in a particular location, such as a hot idler bearing, or burning coal in a confined area. In this case allowing the belt to continue running may prevent Fire of the conveyor belting itself; and/or
- Turn on the spray curtains and thoroughly dampen down all belts and surroundings, being careful not to damage electrical equipment.

**9.5 Shovels Draglines, Loaders, etc, on Coal Levels**

- Empty buckets.
- Travel the machine away from the face.
- Park in previously selected area and connect the spray system on machine to the water supply and turn on water, wet down around the machine using hoses or rotary sprays.
- Parking areas should be a low spot where water would collect; block normal drainage to assist this.
- Park the back of the machine to the wind and close all doors, windows, manholes, etc.
- Hose off all loose coal from the outside of the machine.
- Wet down the inside of the machine without damaging electrical equipment.
- Remove all inflammable material from the machine and place on wet coal well away from the machine on lee side.
- When possible, mobile machines should be travelled to sanded areas.
- Cables should be laid along spray headers, in drains on a sanded area, or in an area, which may be flooded.

Crews will remain at the machine until relieved; instructed to leave by the Supervisor or if they are in imminent danger.

**9.6 Cables Over Batters**

Whenever possible, Electric cables over batters are to be protected by turning on rotary spray lines for initial wetting down, and then turned on again where threatened.

**9.7 Working in Impaired Visibility Conditions**

The conditions described in the previous clause can also result in impaired visibility of the ground and equipment where the fire potentially could be burning. The use of thermal imaging viewers can assist in the detection of hot spots to either assist with the fire fighting efforts, or to enable personnel to have the awareness of areas of high heat and potentially fire to keep away from. Demonstrations of the Thermal Imaging equipment can assist the user to better fight the potential of a brown coal fire. Refer to the Paradigm Procedure for the correct use and application of Thermal imaging tools.

**9 PROCEDURES ON PLANT DURING FIRE (cont')**

**9.8 Precautions for working in areas of the likelihood of Carbon Monoxide (CO)**

As brown coal can burn with a lot of smoke, then there is a high probability that low oxygen levels will persist in the fire zone, which in turn create high levels of carbon monoxide (CO) instead of carbon dioxide (CO<sub>2</sub>).

High levels of smoke will also make the environment for fighting a brown coal fire very hazardous.

The only way to manage personnel accessing areas of large-scale brown coal fire is to minimise the exposure to carbon monoxide environments, by restricting the maximum exposure time.

Maximum of 3 hours, in environments up to 200 ppm, or the use breathing apparatus (BA).

*The following table below presents the recommended durations when working in areas of CO exposure.*

**Carbon Monoxide (CO) Concentration Over Time and Health Effects**

PPM (Parts / Million) CO	Exposure Time	Exposure Symptoms and Medical Consequences
30	8 hours	Maximum exposure recommended over an eight hour period.
200	2-3 hours	Mild headache, fatigue, nausea and dizziness.

With Large scale the coal fires in an open cut mine, the lack of winds can cause high levels of carbon monoxide to form, and the gases can then hang around the fire creating additional hazard for fire fighters. On the other hand the fires within open cut mines can also create their own atmospheric conditions totally different to those experienced above the open cut mine. Fire fighters and observers should therefore limit their exposure of carbon monoxide rich environments in accordance with the above exposure times. It is therefore important to monitor the level of PPM of CO in the vicinity that the Fire Fighters and observers are carrying out their duties.

***If any personnel feel unwell during or after leaving an area of a brown coal fire, then they should report immediately to their supervisor and seek medical assistance.***