



Incident Details	Plan No:	Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown
Incident No (s):				Incident Name:	Latrobe Valley Coal Mine Fire		



INCIDENT SHIFT PLAN – 24hr PLAN 2000hrs14/02/14 to 2000hrs 15/02/14

CONTENTS



PAGE

1	Incident Shift Plan	
	▪ Situation	2
	▪ Mission	4
	▪ Execution (Sector Deployment Orders)	4
	▪ Administration & Logistics	6
	▪ Command & Communications (IMT)	7
	▪ Command & Communications (Fireground)	7
	▪ Command & Communications (Mobile Phone)	8
	○ IMS Structure	9
	▪ Safety	10
2	Medical / Evacuation Plans	11
3	Weather	12
4	Shift Debrief / Feedback Form	15
5	Strategies for Driving in Open Cut Mines	16
6	Public Information Planning Sheet	17
7	SMEACS Briefing 13/2/2014	18
8	Process on handling CO	24
9	CO Fire Ground Safety	25
10	Map – Overview	Attachment 1

INCIDENT CONTROLLER	Nick Brown I/C
SIGNATURE	
DATE	14/02/2014

Key Messages:

- IMT is in control of Yallourn and Hazelwood mines
- 24hr ISP planning
- These fires are of State significance
- Potential to escalate over next two days to aid in achievable objectives
- Carbon Monoxide is critical and must be monitored at all times
- Crew Safety is paramount
- No tag no exit
- No smoking direction
- Appliances shall not be released from the Open Cut Mine until fully inspected and cleared by a DMO.

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SITUATION

Current Situation:

Hazelwood Mine Division

Fire continues to burn along 3 levels of batter on the Northern, Eastern and Southern sides of the mine for an estimated area of 3km. There is a large quantity of overburden with vegetation fires burning on the floor of the mine, approximately 154ha. Note: these are all non-working sections of the mine. Wet lines have been put in place between the active fire area and the working sections of the mine to prevent the spread of the fire. Contingency plans have been made for fall back lines in the event of increased fire behaviour or loss of control.

Sectors now known as Alpha - Northern Batters, Bravo - North Eastern Batters, Charlie - South Eastern Batters, Delta - Upper Southern Batters & Lower Southern Batters & Mine Floor.

MFB UAV has gathered intelligence using thermal imaging capability. Survey of both Northern and Southern Batters now complete. This has provided valuable intelligence identifying key risks being impacted by fire.

Alpha Sector Northern Batters:

Crews continuing to work on mineral earthing the area in the SW corner at ground level. Power poles have now been cleared and stabilised with sand. Mine crews will continue to monitor this area. Vegetation on the Northern Batters is being progressively pull down and chipped with waste being removed from site. Work is also continuing on the 300mm water pipe into the NE corner. Fire Service Crews operating in the NE corner (305 Ramp) have completed a full batter pass (approx. 500m suppression) and will be moving to the next level batter this afternoon. Two mineral earth breaks have been established around the M690 Conveyor to allow fire crews to gain access for fire suppression.

4000-24000L/min monitor has been deployed to the Northern Batters.

Teleboom operating in Northern Sector and making good progress.

800m main is currently being layed to boost water supply & we anticipate it will be at the eastern most corner of Alpha by 1600hrs. Approx 600m has currently been welded & needs to be dragged into place.

Bravo Sector North Eastern Batters

T10 corner adjacent to Charlie sector, trees are being removed by excavators due to surface growth & active fire within subsurface growth and coal mixture. Crews are being withdrawn while this is being under taken. Currently being layed is an 8inch layflat hose above ground main.

Charlie Sector South Eastern Batters:



Currently one Teleboom in operation making good progress, as well as ring mains with ground monitors.

Delta Sector Southern Batters & mine floor:

Telebooms are having significant impact and have made approximately 700 metres progress in the South Ramp area (South corner of the section) in the last 24 hours.

A North / South Mineral earth break in the over burden and wet lines forming fall back line between Working Face have been completed. Dozer work within the overburden dump is almost complete with blacking out of hotspots still being undertaken. The purpose of which is to protect the Eastern working face of the mine & conveyors

There is currently no fire fighting activity in the Working Face Sector. Ground monitors are in place on the Northern side to provide fall back line.

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Yallourn Mine Division

There is fire burning in the scrubland in the south east corner outside the mine proper. The fire has now extended approximately 30 hectares onto the disused mine floor. This area is inaccessible due to terrain. Sit Rep as of 1430hrs from Yallourn Div Comm suggests that progress has slowed & more resources are required. This is being actioned.

MFB UAV is on scene & doing aerial thermal imaging of both mine sites.

Activity continues to focus on suppression activities and maintaining current containment lines.

Two (2) Sectors are currently operating

Sector East Field Extension Mine

Not resourced by La Trobe Valley Coal Mines ICC. Patrol and Black out external of the mine adjacent to this sector currently being managed by Traralgon ICC as part of Hernes Oak fire.

Sector Township Batters

Mine Services working North West area extinguishing batters with gravel, sand and rock. Active firefighting now underway in this sector using two CFA aerial pumpers with significant success.

A Third Division being introduced – HAZMAT Division to be operational. DivCom Andrew O’Connell.

Critical Factors:

- Cold, warm & hot zones determined based on CO readings not geographical locations. Appropriate PPE is being applied based on location of fire crews.
- Female personnel who may be pregnant & heavy smokers with history of cardiovascular or respiratory conditions operating within high CO environment.
- It is imperative that crew leaders maintain monitoring, recording and reporting of their readings to the atmospheric monitoring crew via radio (219). All crews returning from work need to go through the Health Observation Station for assessment and clearance for work.
- Low humidity and high winds, particularly anything from the North East, East or South East.
- Loss of infrastructure to provide power to onsite pumps. (Hazelwood Division)
- Fire spread into the operating coal face. (both mines)
- Management of vehicles and appliances prior to returning home.

Asset Loss currently is:

Hazelwood - Some damage has previously occurred to onsite power lines and pumping stations. Power lines have been partially restored. Damage has also occurred to the conveyor to Energy Bricks



Yallourn – No recorded asset loss

Assets and Values at Risk:

Onsite electrical power lines and pumping equipment

Other critical mine control facilities

Water mains are currently being extended.

	Incident Details	Plan No:	Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown	 Department of Sustainability and Environment
	Incident No (s):				Incident Name:	Latrobe Valley Coal Mine Fire			

MISSION

(OBJECTIVE for Incident/Section/Division/Sector Specific, Measurable, Achievable, Relevant to policy, Time framed)

INCIDENT OBJECTIVE(S):

To contain the fires and secure the batters by Saturday 15 February at 1900hrs and extinguish within 14 days.

Hazelwood

- Contain fires burning on the batters on the coal face
- Establish lines to prevent further spread of the fire into current coal removal area
- Control and extinguish spot fires and flare ups as they occur
- Asset protection of power and critical infrastructure, pumping units, coal production including dredges and conveyors etc. and 66 KV Lines on North side of mine
- Protection of West side of mine from Diffield fire
- Protection of Morwell Sub-Station
- Protect clean water pumping station
- Extinguishment of batters

Yallourn

- Contain fires burning within the Yallourn mine perimeter
- Maintain containment lines and continue blacking out within containment lines
- Control and extinguish fires and flare ups as they occur.

STATEWIDE INCIDENT CONTROL PRIORITIES:

The incident objectives in this document have been developed in line with the following Statewide Incident Control Priorities:

- Apply the State Control priorities to set strategic direction.
- Focus on firefighter safety and fatigue.
- Continue to suppress and secure any current fires.
- Attack all reported fires rapidly and aggressively.
- Ensure that the provision of public information, and access to it, remains timely and effective (utilise good fire ground intelligence as needed).

EXECUTION – DAY SHIFT SECTOR DEPLOYMENT ORDERS

INCIDENT RESOURCE SUMMARY

Element	Personnel	Tanker	SOU	Vehicle	Plant	Aircraft	Notes
Fireline (Divisions/Sectors)	175	16		41	2		
Incident Management Team	20						
Ambulance / Health Monitoring	9						
Total:	204						

Division: Hazelwood	Phone	Trunk	Command	Fireground	Fallback	Other		
Divisional Commander: Peter Barr (Day), A Worcester (Night)	0429 226 784		219	6				
Resource ID	Leader	Shift Times	Crew	Tanker	SOU	Vehicle	Plant	Notes
Mt Martha Staging		0700-1900	5			1		
Hazmat Detection Crew		0700-1900	2			2		
Total:			7			3		

Sector: Northern Batters	Phone	Trunk	Command	Fireground	Fallback	Other		
Sector Commander:								
Resource ID	Leader	Shift Times	Crew	Tanker	SOU	Vehicle	Plant	Notes
Sector Northern Batters MFB P/T		0700-1900	20	5		1		
Total:			20					

Strategies:



- Incident Control: Prevent fire spread into working coal face
- Assets and Values Protection: Power Lines and water pumps

Progress / Work to do:

- Establish new water main to provide permanent water. Commenced build in Northern Sector
- Evaluate threat to slot bunker
- Asset protection of thickened ash line, mine crews to construct mineral earth break

Other Instructions:

- Changeover with:
- Other:

	Incident Details	Plan No:	Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown	 Department of Sustainability and Environment
	Incident No (s):	Incident Name:			Latrobe Valley Coal Mine Fire				

Sector: Southern Batters		Phone		Trunk		Command		Fireground		Fallback		Other	
Sector Commander:													
Resource ID	Leader	Shift Times	Crew	Tanker	SOU	Vehicle	Plant	Notes					
Scoresby Hose Layer		0700-1900	2			1							
Teleboom 44		0700-1900	4			1							
Task Force 1508		0700-1900	16			5							
Task Force 0806		0700-1900	26			5							
Frankston TB, KB P/T, Mt Eliza Pumper, LW Pumper													
Industry		0700-1900	40										
Total:			133										

Strategies:

- Incident Control: Prevent fire spread into working coal face
- Assets and Values Protection: Power Lines and water pumps

Progress / Work to do:

- Establish new water main to provide permanent water. Commenced build in Northern Sector

Other Instructions:

- Changeover with:
- Other:

Sector: Mine Floor		Phone		Trunk		Command		Fireground		Fallback		Other	
Sector Commander: Industry													
Resource ID	Leader	Shift Times	Crew	Tanker	SOU	Vehicle	Plant	Notes					
Hazelwood personnel ONLY		0700-1900	40			10	2						
Total:			40										

Strategies:

- Incident Control: Prevent fire spread into working coal face
- Assets and Values Protection: Power Lines and water pumps

Progress / Work to do:

- Establish new water main to provide permanent water. Commenced build in Northern Sector

Other Instructions:

- Changeover with:
- Other:

Division: Yallourn		Phone		Trunk		Command		Fireground		Fallback		Other	
Divisional Commander: R Taylor		5128 2268				219		69					
Resource ID	Leader	Shift Times	Crew	Tanker	SOU	Vehicle	Plant	Notes					
MCV (SMR CFA)		0700-1900	2			1							
Total:			3										

Sector: Township Mine		Phone		Trunk		Command		Fireground		Fallback		Other	
Sector Commander:													
Resource ID	Leader	Shift Times	Crew	Tanker	SOU	Vehicle	Plant	Notes					
Aerial Pumper		0700-1900	8			2							
Total:			8										

Strategies:



- Incident Control: Prevent fire spread to coal face.
- Assets and Values Protection:

Progress / Work to do:

- Blacking out within containment lines
- Patrol of containment lines and suppression of flare ups and spotting

Other Instructions:

- Changeover with:
- Other:

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ADMINISTRATION AND LOGISTICS

Briefings

- Times / Locations | Start of shift 0700-1900 Crews, 0800-2000 IMT

Meals and Drinks

- Meals | All meals at the Hazelwood Div Comm
ICC catering at Hazelwood
Yallourn Div Comm to collect meals – local arrangements
- Other Details | Water and Gatorade at the Div Comms

Vehicles

- Fuelling | Appliances fuel at main bowser on site
- Water Points | Throughout Site
- Mechanics | Via ICC (Not on Site). From Fleet Services, vehicles should not be released from the Open Cut Mine until fully inspected and cleared by a DMO/MFB Fleet Services.

Accommodation

- Location | As advised through the ICC
- Other Details |



Timekeeping

- How and Where |

Other

- Feedback | Please provide feedback by hrs via your chain of command for any alterations to the Shift Plan.

NOTE: Additional information can be obtained through your Chain of Command.

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COMMAND AND COMMUNICATION (IMT)

INCIDENT CONTROL CENTRE		LOCATION: Hazelwood Power Station Control Centre, Brodribb Road, Morwell				
		PHONE: 5135 5877		FAX: 5135 5977		Other:
AIIMS Position	Name	Phone	Trunk	Conventional	Other	
CONTROL						
DAY Incident Controller	Nick Brown	0428 942 493				
DAY Deputy Incident Controller	Costa Katsikis	0409 861 834				
DAY Deputy Incident Controller	Simon Bloink	0428 940 129				
NIGHT Deputy Incident Controller	Ron Young	0427 036 141				
DAY Medical Officer	Tina Marchington	0427 502 490				
DAY Health Commander	Roger Chitty	0429 176 559				
PLANNING						
DAY Planning Officer	Mick McGuinness	0429 212 872				
NIGHT Planning Officer	Richard Grant	0417 054 311				
DAY Deputy Planning Officer	John Cranston	0429 102 889				
NIGHT Dep. Planning Officer	Neil Thompson	0429 102 889				
DAY Planning Assist	Briody Walker	0429 212 872				
DAY Situation Officer	Gavin Fitzgerald	0427 533 015				
NIGHT Situation Officer	Wayne Nagorcka	0427 533 015				
DAY Resources Officer	Warren MacKay	0428 956 478				
NIGHT Resources Officer	Carmen Peters	0428 956 478				
DAY Deputy Resources Officer	Annie Heritage	0429 216 770				
DAY Scientific Officer	Warren Glover	0407 857 532				
DAY MFESB Liaison	Ken Campbell	0411 259 946				
INFORMATION						
DAY Information Officer	James Haley	0429 233 491			icchaz.pubinf@icc.vic.gov.au	
NIGHT Information Officer	David Goldfinch	0429 233 491				
DAY Warnings & Advice Officer	Sharon Linke	0429 218 365			icchaz.warnings@icc.vic.gov.au	
DAY Media Officer	Evan Thomas	0429 358 957			icchaz.media@icc.vic.gov.au	
LOGISTICS						
DAY Logistics Officer	Ken Dickie	0427 262 078				
NIGHT Logistics Officer	Marisha Pattern	0427 262 078				
DAY Deputy Logistics Officer	Paul Cockrell	0427 871 812				
DAY Logistics Officer Div Comm	Peter Watt	0427 608 052				
OPERATIONS						
DAY Operations Officer	Dean Manson	0447 587 797				
NIGHT Operations Officer	Lou Mele	0418 335 171				
DAY Deputy Operations Officer	Graeme Grant	0418 307 517				
NIGHT Deputy Operations Officer	Shane Mynard	0408 037 399				



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COMMAND AND COMMUNICATION (FIREGROUND)

DIVISIONS / SECTORS

Division / Sector	Commander	Phone	Trunk	Command	Fireground	Fallback	Other
Hazelwood	DAY Pete Barr NIGHT A. Worcester NIGHT M. Tisbury	0408991507 Tba tba		219	6		Fax 51355977
Yallourn	Rohan Taylor	5128 2263		219	69		0422697165
Hazmat Division	Andy O'Connell	0418 497 106					
Mine Liaison Hazelwood	Geoff Chrisp	0407857532					
Mine Liaison Yallourn	Bernie Hyde (manager)	0419 364 756					
Ambulance Response Retrieval and Rescue		0408 052 062					

STAGING AREAS / BASE CAMPS

Staging Area / Base Camp	Manager Name	Phone	Trunk	Command	Fireground	Fallback	Other
Hazelwood ICC		0417 123 620		219	6		

NOTE: Feedback on Communications Plans should be directed through the chain of command to the Communications Planner.



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Incident No (s):				Incident Name:	Latrobe Valley Coal Mine Fire		



COMMAND & COMMUNICATIONS (MOBILE PHONE)

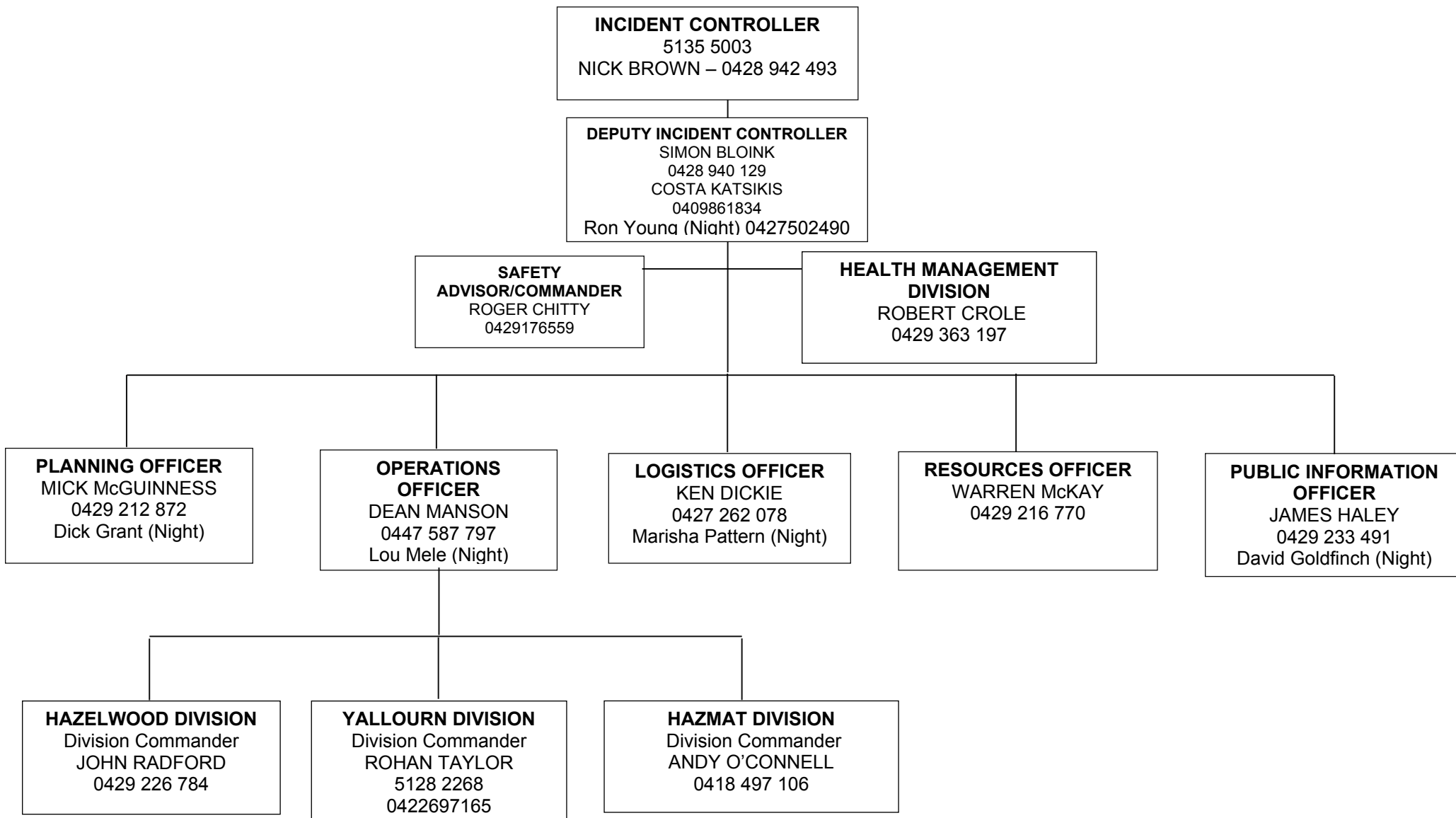
MOBILE NO.	POSITION
0428 942 493	INCIDENT CONTROLLER
0429 071 765	INCIDENT CONTROLLER
0429 046 798	EO
0428 940 129	DEPUTY INCIDENT CONTROLLER
0429 154 210	DEPUTY INCIDENT CONTROLLER
0428 907 573	OPERATIONS
0428 908 670	OPERATIONS
0429 066 433	DEPUTY OPERATIONS
0429 161 071	DEPUTY OPERATIONS
0429 212 872	PLANNING
0429 086 209	PLANNING
0429 102 889	DEPUTY PLANNING
0429 461 117	DEPUTY PLANNING
0429 216 770	RESOURCES
0428 956 478	RESOURCES
0427 562 414	SITUATION
0427 533 015	SITUATION
0427 262 078	LOGISTICS
0427 608 052	LOGISTICS
0427 700 991	LOGISTICS - CATERING
0427 665 968	LOGISTICS - CATERING
0428 209 381	LOGISTICS - ACCOM.
0428 226 734	LOGISTICS - ACCOM.
0429 118 018	GROUND SUPPORT
0427 871 812	GROUND SUPPORT
0428 397 619	SUPPLY
0428 590 329	SUPPLY
0429 233 491	PIO
0429 267 272	PIO
0429 218 365	MEDIA
0429 358 957	MEDIA
0429 226 784	DIVISION COMMAND
0429 371 301	DIVISION COMMAND
0429 337 699	DIVISION COMMAND
0429 325 213	DIVISION COMMAND
0429 363 197	AMBULANCE VICTORIA
0429 417 680	AMBULANCE VICTORIA
0429 340 047	AMBULANCE VICTORIA
0429 423 291	AMBULANCE VICTORIA
0429 378 320	AMBULANCE VICTORIA
0429 374 840	MFB
0429 391 894	MFB
0429 376 437	SAFETY
0429 386 319	SAFETY
0429 502 833	HEALTH MONITORING
0429 440 713	HEALTH MONITORING
0429 444 720	STAGING AREA
0429 479 587	STAGING AREA





Incident Details		Plan No:	Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown
Incident No (s):					Incident Name:	Latrobe Valley Coal Mine Fire		



LATROBE VALLEY COAL MINE ICC



	Incident Details	Plan No:	Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown	 Department of Sustainability and Environment
	Incident No (s):				Incident Name:	Latrobe Valley Coal Mine Fire			

SAFETY

NEW MESSAGES:

1. Until further notice personnel are only permitted to operate on the mine batters when the following conditions are adhered to-
 - Must wear breathing apparatus outside the vehicle in the mine, may be reviewed tonight due to risk assessment currently being conducted by a range of medical and scientific experts.
 - Must have a personal Carbon Monoxide Detector (CO) with the crew
 - Report CO readings every hour on channel 219
 - Vehicle must exit the mine once task has been completed or when breathing apparatus is no longer in use
2. All personnel undertaking fire suppression at ground level, must:
 - wear P2 Masks
 - Must have a personal Carbon Monoxide Detector (CO) with the crew
 - Report CO readings every 15 minutes
3. All personnel entering the site are prohibited from smoking for the duration of their shift. (Refer to No-Smoking Direction document)
4. All crews entering the mine will wear BA and only to protect critical infrastructure. (Refer to Interim Operation Order document)
5. Hazelwood and Yallourn Division personnel are to undertake health monitoring for CO prior to entering the mine and immediately prior to exiting the mine. Personnel are not to leave the site until health monitoring has been completed. The COHb reading must be below 5% before any work can be undertaken – see Carbon Monoxide Exposure Management (Refer to Medical Plan and CO Mitigation Cycle Flow Chart). Any person with a COHb reading above 5% must be treated and not returned to work in the mine.
6. Crews are to monitor for CO and report back readings via radio (Channel 219) every hour. **If a peak reading of 75ppm is indicated withdraw to a clean area immediately**, may be reviewed tonight due to risk assessment currently being conducted by a range of medical and scientific experts. .
7. "Any members with Respiratory disorders, Asthma, Cardiac conditions, Diabetes, High blood pressure, or if pregnant, are **NOT** to be tasked to Latrobe Valley Coal Mine Fires.
8. Female Firefighters – State emergency agencies have received medical advice from the MFB and CFA Medical Officers and the Deputy Regional Health Commander at the Incident Management Team at Hazelwood that there is a risk to the foetus of pregnant women exposed to high levels of concentrations of Carbon Monoxide potentially present at this incident. Health and Safety is the State emergency agencies highest priority and because of this risk any female fire-fighter who is pregnant or there is any chance that they may be pregnant, should not attend this incident due to the increased potential exposure to carbon monoxide. Female firefighters should seriously consider this advice.
9. Adhere to safe driving practices. (attached)
10. Crews to be aware of where they are working. DO NOT work under power lines and consider everything as live.
11. Be aware of poor visibility and increased risk of plant / pedestrian interaction
12. ON arrival at staging / catering areas ensure transition into clean areas via cleaning stations before presenting for health observation.
13. Headlights and flashing roof lights to be used at all times.
14. Nights shifts beware of inversion layers trapping smoke and CO within the mine.



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MEDICAL PLAN / EVACUATION PROCEDURES

AT THE START OF EACH SHIFT:

1. Qualified First Aiders to be identified in each crew.
2. Ensure First Aid kits are in each vehicle and all personnel have appropriate PPE and consumables.
3. All Hazards, Incidents and Near Misses must be reported.
4. Fire OH&S Incident Report Cards are available from the ICC
5. Review the information below.

FOR MINOR INJURIES:

1. Report all injuries to your Crew Leader / Supervisor immediately, including completion of a Fire OH&S Incident Report Card.
2. Fire OH&S Incident Report Cards are to be passed up the chain of command to the Logistics Officer / Medical Unit Leader ASAP.
3. The Crew Leader / Supervisor and a qualified First Aider should assess the injury and decide how it should be managed.
4. First Aid providers are on hand at the ICC for minor treatments 24 hours. Arrangements made for rescue and retrieval with Mines Rescue Crews if required.
5. EMR responders on site at Yallourn providing First Aid coverage

FOR MAJOR INJURIES:

IN AN EMERGENCY CALL: OPERATIONS Channel 219 (AS PER COMMS PLAN)

1. Assess the situation and ensure all personnel are safe from further injury.
2. First Aider to provide assistance as necessary.
3. Contact your Crew Leader / Supervisor and provide them with the details of the incident.
4. Critical information required:
 - The nature of the injury
 - The condition of the patient (Conscious / Unconscious)
 - The location (Track Name / Grid Reference)
 - The name of the person coordinating at the scene
 - *Do Not Use the Name of the Injured Person on Conventional Radio*
5. Crew Leader / Supervisor to inform Sector Commander, who passes information up the chain of command to Operations Officer.
6. As the Coordinator of the response to all major injuries, Ambulance Victoria will arrange for the transportation and treatment of the patient with the assistance of the Operations and Medical Units.
7. All injuries are to be reported to your crew leader immediately, including completion of a Fire OH&S Incident Report Card.

WELFARE:

For any support required – including emergency counselling, contact the Logistics Officer or Medical Unit Leader.

DSE/NEO: Employee Assistance Program (24hr Support Line) - 1300 360 364; 24hr Peer Support - 0408006764.

CFA: Critical Incident Stress and Health Support Team (24hr Support Line) - (03) 9262 8701.

MFB: Contact Peer Support – (03) 9665 4405, 0407 665 174

Carbon Monoxide Exposure Management

Background

To support the site health surveillance program, continuous monitoring of Carbon monoxide levels is being undertaken.

One member of each operational Fire Appliance is wearing a CO monitor. Members of Hazelwood mining and power station employees are also monitoring CO in their work areas. Results are being recorded by DIVCOMM and Hazelwood OHS respectively.

In addition, positional monitors (AreaRAEs) are continuously monitoring CO, Oxygen, Volatile Organic Compounds, Flammability and Hydrogen sulphide levels throughout the site, including administration areas. These monitors are deployed in areas of concern and results are transmitted wirelessly to the HazMat Team in the Staging Area for continuous surveillance and risk assessment. The Scientific Advisor will advise the HazMat Sector Commander when and where zone classifications need to be changed.



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HazMat Technicians are also monitoring CO throughout the Morwell community.

Table 1: Safety Zones and Action Levels – Operational Areas

The purpose of the following zones is to minimise the risk of personnel exceeding the biological exposure limit of 5% Carboxyhaemoglobin.

Zone	CO Concentration (ppm)	Exposure Management
Cold - Offsite	9	DoH and EPA should be consulted for guidance
Warm - Unrestricted	<30	At this level firefighters/workers are permitted to work in standard PPE, including P2 respirator, standard work hours, and undergo health surveillance as per site procedure.
Warm – Protective Action	30-50	As per site SCBA, crew rotation procedure
Hot - Restricted	>50	As per site procedure for essential works

Reference: SafeWork Australia Occupational Exposure Standards, Health and Safety Information System.

Cold Zone - Community Health Limits

Government of Australia, Department of Environment and Heritage recommend the ambient air CO level be kept below 9 ppm and persons not exceed this level for more than 8-hours in one year. DoH and EPA should be consulted for guidance.

EXPOSURE TO CARBON MONOXIDE

Smoke and the production of other toxic products are inherent in bush and other types of fires. The current fire at the Morwell open cut coal mine is producing smoke and also Carbon Monoxide due to the incomplete burning of the coal. Agencies are to ensure that appropriate mitigation measures are employed to address this risk.

Exposure to Carbon Monoxide can pose higher levels of risk to specific personnel and the following advice has been provided by the SCC OHS advisor.

General Health Issues

Individuals who have a history of cardiovascular or respiratory conditions should not be deployed to this incident. This is due to the increased sensitivities that might be attributable from increased carbon monoxide levels in the open cut fire.

Female Firefighters

State emergency agencies have received medical advice from the MFB and CFA Medical Officers and the Deputy Regional Health Commander at the Incident Management Team at Hazelwood that there is a risk to the foetus of pregnant women exposed to the high concentrations of carbon monoxide potentially present at this incident.

Health and safety is the State emergency agencies highest priority and because of this risk any female fire-fighter who is pregnant or there is any chance that they may be pregnant, should not attend this incident due to the increased potential exposure to carbon monoxide. Female firefighter should seriously consider this advice.

Pre Deployment



Crews planning to be deployed for a shift in the open cut fires should have 24hrs of "clear time" away from smoke logged incidents (e.g. prior deployments).

This information should be made available to all personnel within all agencies who are deploying staff to the coal mine fire

Weather today:

Friday 14 February

Partly cloudy. Patchy fog early in the morning. The chance of showers in the east, extending throughout from the late morning. Areas of smoke haze. Light winds becoming easterly 15 to 20 km/h in the early afternoon. Overnight temperatures falling to between 14 and 17 with daytime temperatures reaching 24 to 29.

	Incident Details	Plan No:	Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown	 Department of Sustainability and Environment
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UV Alert from 9:30 am to 5:30 pm, UV Index predicted to reach 12 [Extreme]

Weather Outlook (up to Three days):

Saturday 15 February

Partly cloudy. Isolated showers increasing to scattered during the afternoon. Areas of smoke haze. The chance of thunderstorms from the early afternoon. Light winds. Overnight temperatures falling to between 15 and 18 with daytime temperatures reaching 24 to 30.

Sunday 16 February

Cloudy. Scattered showers until evening. Winds southwesterly 25 to 35 km/h becoming light during the evening. Overnight temperatures falling to between 12 and 15 with daytime temperatures reaching 20 to 25.

Monday 17 February

Mostly sunny. Winds west to southwesterly 15 to 20 km/h shifting east to southeasterly during the afternoon. Overnight temperatures falling to between 8 and 12 with daytime temperatures reaching 24 to 29.

Weather Warnings: Thunderstorm warning for the afternoon of Friday 14th February. Chance

Variables	Location: Morwell – Hernes Oak			Location:				
	Forecast <input checked="" type="checkbox"/> Observations <input type="checkbox"/>			Forecast <input type="checkbox"/> Observations <input type="checkbox"/>				
	1200hrs	1600hrs	2000hrs	0500hrs	1700hrs	hrs	hrs	hrs
Temp(°c)	26	28	22	17	29			
R.H. (%)	56	42	65	94	43			
Wind Speed (km/hr)	11	19	10	5	15			
Wind Direction	ESE	SE	E	VRB	SW			
Forest FDI	6	12	3	1	11			
Grassland FDI	3	9	1	0	3			
Overall Fuel Hazard								
Flame Height (m)	NA	NA	NA	NA	NA			
Forest FROS (km/hr)	NA	NA	NA	NA	NA			
Grassland FROS (km/hr)	NA	NA	NA	NA	NA			
Spotting (km)								



Incident Details	Plan No:	Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown
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Australian Government
Bureau of Meteorology

IDV31250
Australian Government Bureau of Meteorology
Victoria

Spot Fire Weather Forecast for Morwell - Hazelwood

Issued at 3:52 am EDT on Friday 14 February 2014.

Incident Type: Wildfire	Website Form No: 003
Spot Forecast Location: 1 km S of Morwell	Request No: 4
Latitude/Longitude: -38.255067 146.375948	Fax Number: 51773295
Elevation (metres ASL): 90	Contact Ph: 0427562414 042862123
Fuel Type: Other	Contact Name: Wayne Nagorula
	iochaz@icc.vic.gov.au/Bryan Wills
	(ictra.plan@icc.vic.gov.au)

Weather Forecast starting 0500 hours Friday 14 February 2014

Light winds expected this forecast period, mainly from the east. Early fog patches possible this morning and again near the end of the period. The day will be fairly cloudy with smoke haze from other fires as well as the incident present and poor visibility. Mixing height less than 100m AGL at first, increasing to around 1200m AGL Friday afternoon before decreasing again to around 100m AGL Friday evening. A combination of little sunlight and light winds will mean that the incident is poorly ventilated and accumulated carbon monoxide may pool near the fire. There is a risk of showers developing during the afternoon and into the evening hours. There is a slight chance of thunderstorms in the afternoon or early evening.



Assumptions and uncertainties associated with the forecast

- Fire site is in the open cut, wind forecasts are biased to 10m AGL near the open cut.
- Although winds will likely be predominantly easterly, any showers or thunderstorms which do occur could produce wind gusts to 40 km/hr from various directions as outflow winds.
- Up to 10mm of rain may fall if heavier showers or thunderstorms affect the region.

24 Hour Forecast										
Drought factor: 10 Curing value (%): 80										
Local Time	Temp (C)	Dewpt (C)	RH (%)	10m Wind (km/h)			1000m AGL Wind (km/h)		FFDI	GFDI
				Dir	Speed	Gust	Dir	Speed		
0500	16	16	100	ENE	5	10	SW	10	1	0
0800	17	16	94	SE	5	10	E	10	1	0
1100	24	16	61	E	10	15	ENE	15	4	1
1400	28	15	45	E	10	20	E	5	9	2
1700	29	16	45	ESE	15	25	ESE	10	10	2
2000	23	17	69	ESE	10	20	ENE	15	3	1
2300	19	17	88	E	5	10	ENE	25	1	0
0200	17	17	100	E	5	10	NE	25	1	0
0500	17	17	100	E	5	10	NNW	15	1	0

AGL - Above Ground Level, RH - Relative Humidity, Dir - Direction, Dewpt - Dew Point

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FOR DISTRIBUTION TO ALL CREWS

Strategies for Driving in Open Cut Mines

- ❖ When driving in open cut mines, most drivers will be confronted with conditions and issues never before experienced and great care needs to be taken to avoid being involved in a dangerous situation. Only vehicles with 4 Wheel Drive (4WD) or All Wheel Drive (AWD) capability will be permitted into the mine area. It is most important for the safety of the crew and the vehicle that all personnel listen closely to briefings that are given and to assist whilst operating in this environment
- ❖ Before entering the open cut, all drivers must engage the vehicles 4WD/AWD systems and ensure that the correct engagement has been followed. The surface may be soft so it is therefore important to ensure 4WD is engaged and functioning. Seatbelts shall be worn at all times, except when directly involved in pump and roll fire-fighting operations
- ❖ A traffic management plan may be in place and needs to be adhered to. This will ensure a co-ordinated traffic flow of vehicles in the mine. Deviating from the traffic plan could endanger both crews and vehicles and shall not be tolerated. These plans are put in place to ensure the safety of the vehicles and crews. All vehicles must follow and remain on existing tracks, even when laying hose to extinguish areas that are away from the track unless otherwise directed. Under no circumstances is the vehicle to leave the track for even the smallest of distances.
- ❖ Because of the nature of the operation, the vehicles will be working hard and the driver needs to constantly monitor the vehicles condition by checking the gauges and listening for tell-tale warning sounds of any problem developing in the vehicle. Drivers must be aware of areas where the clearances are reduced, both to the sides and overhead. If there is a situation with reduced clearances, then a guide must be used to ensure that no damage is caused to the vehicle or the structure.
- ❖ As the area the vehicle is operating in, is a flammable area, all sources of ignition must be left in a safe location and not carried by personnel into the open cut. This includes any matches, cigarette lighters or like equipment used by fire fighters or carried on the vehicle.
- ❖ Strike Team Leaders and crew leaders must ensure that the Incident Action Plan is followed and only those operations set out in the plan are carried out.
- ❖ Prior to the vehicles being released from the staging area and returning to their home location, it is essential that the District Mechanical Officer (DMO) is consulted. The vehicle has been working hard and the mechanics may need to check the vehicle to ensure that there are no mechanical issues with the vehicle.
- ❖ As there are many vehicles operating in a confined area it is essential to follow the speed limits relevant for the area operating in or the speed limits set out in the traffic management plan. Great care must be taken by drivers to ensure a safe operations area for everyone. If unsure about the appropriate speed, seek clarification or use the suggested speed limit of 15 kph.
- ❖ In the event that a vehicle becomes disabled, notify the Incident Controller who will comply with CFA SOP's and/or local mine arrangements.



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Public Information Planning Sheet v3

(For internal use only)
Action Plan)

(For Public Information Section of the Incident

Hazelwood Coal Mine Fire Latrobe Valley Coal Mines ICC

Date: 14/02/2014

Shift (Day/Night): Day

Sheet No: 5

Developed by: Sharon Linke

Time: 1800hrs



Incident type (eg grass, forest, structure, hazmat, etc)	Coal Mine Fire	Estimated size (in hectares)	Hectares	Terrain (eg hilly, flat, etc)	
Location Town name - Then actual incident location (eg: Somewhere - Where Road)	Hazelwood - Hazelwood Coal Mine, Brodribb Rd				
Situation - Which direction is it heading in? - Is it spotting? If so how far?	The Hazelwood mine fire is currently burning on 3 levels of batter within the mine travelling approx. 3kms. Vegetation fires are currently burning on the mine floor at approx. 154ha in size. Burning within containment lines. The Yallourn mine fire is burning on the mine floor & Southern Batters.				
Public Information Shift Objectives (eg: Disseminate Timely, Relevant and Tailored community messages to the Communities of)	Produce & disseminate media releases once a day. Update OSOM messages as required or by review times. To manage media requests coming in. Co-ordinate VIP visits. Liaise with Industry Media Officers (GDF Suez & Energy Australia), SCC and Traralgon ICC/Traralgon RCC Inform Community of fire status and any public safety issues.				
Strategies (What dissemination methods can we use eg: OSOM/EA, Live interviews, Community Meetings, Bulletins.	<ol style="list-style-type: none"> 1. Releases via email distribution lists 2. Co-ordinate radio interviews with State & Regional Media Units 3. Email & phone 4. Determine need and establish community information points. 				
Communities impacted (potential and/or current) <i>Note: When using OSOM you must disseminate to 'State Mandatory' and 'Local Regional' distribution lists.</i>	OSOM Message Type				
	(please tick the appropriate box)				(Indicate times)
	Advice Message	Watch & Act Message	Emergency Warning Message	All Clear Message	Planned time to Issue Message
1. Churchill, Driffield, Hazelwood, Hazelwood North, Hazelwood South, Hernes Oak, Maryvale, Moe, Morwell, Morwell Bridge, Morwell North, Morwell West, Newborough, Yallourn, Yallourn Heights, Yallourn North	X				Review & reissue @ 1000hrs 15/02/2014
Localised Area Under Imminent Threat (eg: Description of Campaign boundaries)	Emergency Alert Message Type				
	(please tick the appropriate box)				(Indicate times)
	Advice Message	Watch & Act Message	Warning Message	Planned Time to Issue Message	
1. Nil					
2.					
Road closures (eg: Identify main road closures, if not know advise to check VicRoads website)	No full road closures currently but there may be restricted speed limits in some areas.				
Relief centres	Nil				
Critical Issues: (eg: Places of assembly, major infrastructure, fire potential etc)	Health of fire fighters due to increased levels of carbon monoxide. Fire has potential to burn for 2 weeks creating issues with smoke constantly in the area. Community awareness and engagement of effects of smoke Community gas & dust monitoring in Morwell				

Public Information Officer: Sharon Linke

Signature: _____

Incident Controller:

Signature: _____

	Incident Details	Plan No:	Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown	 Department of Sustainability and Environment
	Incident No (s):				Incident Name:	Latrobe Valley Coal Mine Fire			

SMEACS BRIEFING - 14/02/14 1800hrs

SITUATION

Health Management

This Division incorporates all health monitoring and ambulance response resources. All health monitoring activities remain effective. E.g. Present for testing prior to the commencement of shift and at the conclusion of shift.

Hazelwood

Fire continues to burn along 3 levels of batter on the Northern, Eastern and Southern sides of the mine for an estimated area of 2.5km in width, 60m in height. There is a large quantity of “overburned” with vegetation fires burning on the floor of the mine, approximately 154ha. **Note:** These are all non-working sections of the mine. Wet lines have been put in place between the active fire area and the working sections of the mine to prevent the spread of the fire. Fall back lines in the event of increased fire behaviour or loss of control. Dozers working on mine floor.

Four (4) sectors currently operating-

Alpha & Bravo Sectors: Northern Batters

Suppression work is being undertaken on all 3 levels progressing in an easterly direction. Monitors have been better positioned today to protect power lines. Mine staff have been continuing work on reinstating a 300mm water main along this section and construction of a new water main to provide fixed fire suppression on the batters. Crews have created a mineral earth break between the power lines and batters. Vegetation around power poles is being cleared and surrounding areas further secured with sand.



Charlie & Delta Sectors: Southern Batters

Operations concentrating on containment and asset protection. Lay flat hose and Telebooms, cranes with monitors and ground monitors are in place to provide containment and suppression on the southern batters. Air crane working late afternoon to provide water bombing on the sector.

Mine Floor: North/South Mineral Earth Break

This is in the over burden and wet lines forming fall back line between Working Face have been completed. Only crews undertaking vital asset protection duties are now working in this sector. Crews working on the mine floor will require Breathing Apparatus. Pumps, Monitors and lay flat hose have been installed to provide asset protection for the central pumping station. RTL Contractors are patrolling the mine floor and adhering to the Carbon Monoxide Management Plan.

There is currently no fire fighting activity in the Working Face Sector. Industry has unmanned wetting systems installed.

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	Incident No (s):				Incident Name:	Latrobe Valley Coal Mine Fire				

Yallourn Mine Division

The fire to the North East of the Mine is controlled. The fire outside of the mine is being managed by Traralgon ICC.

The size of the fire in the old Yallourn township batters are approximately 60m high x 1.5 km long, fire has spread onto the floor of the mine and is approximately 30 hectare. Water bombing has been conducted on this section and will be monitored for effectiveness.

Two (2) Sectors are currently operating-

Sector Township Batters

There has been some fire extension into the floor of the mine; this area is inaccessible due to terrain and Mine Services working North West area extinguishing batters with gravel, sand and rock. 2 x Aerial pumpers have been working on the south batters and have made good progress on two levels of the batters. CO readings have been continually monitored throughout the day with low level to 0 level being experienced.

Critical Factors:

- It is imperative that crew leaders maintain monitoring, recording and reporting of their readings to the atmospheric monitoring crew via radio(219). All crews returning from work need to go through the Health Observation Station for assessment and clearance for work.
- Low humidity and high winds, particularly anything from the North East, East or South East.
- Loss of infrastructure to provide power to onsite pumps. (Hazelwood Division)
- Fire spread into the operation coal face.
-



Asset Loss currently is:

Hazelwood – Some damage has previously occurred to onsite power lines and pumping stations. Power lines have been partially restored. Damage has also occurred to the conveyor to Energy Bricks.

Yallourn– No recorded asset loss

Assets and Values at Risk:

Onsite electrical power lines and pumping equipment.

	Incident Details	Plan No:		Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown	 Department of Sustainability and Environment
	Incident No (s):				Incident Name:	Latrobe Valley Coal Mine Fire				

MISSION

Incident Objective(s):

To contain the fires and secure the batters by Saturday 15th February at 1900hrs and extinguish within 14 days.

Hazelwood

Contain fires burning on the batters on the coal face.

Establish lines to prevent further spread of the fire into current coal removal area.

Control and extinguish spot fires and flare ups as they occur.

Asset protection of power and critical infrastructure, pumping units, coal production including dredges and conveyors etc. and 66KV lines on North side of mine.

Protection of West side of mine from Driffield Fire.

Protection of Morwell Sub-Station

Protect clean water pumping station.



Extinguishment of batters.

Yallourn

Maintain containment lines and continue blacking out within containment lines.

Control and extinguish fires and flare ups as they occur.

Ensure firefighter safety.

	Incident Details	Plan No:	Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown	 Department of Sustainability and Environment
	Incident No (s):				Incident Name:	Latrobe Valley Coal Mine Fire			

EXECUTION

Yallourn Division

This fire is currently being worked by two CFA aerial pumpers and 30,000L tankers supplied by the Mining Industry.

Unmanned exposure protection resources deployed on mine floor the working face sector.

Numerous industry resources in all sectors, protecting critical exposures.

Hazelwood Division

Significant CFA & MFB resources commitment at this division.

Telebooms, Heavy pumpers, pumper tankers, tankers, numerous ground monitors in operation to provide large quantity water application to batters, along with 4wd tankers providing low level moping up and suppression of fires in overburden areas.

ADMINISTRATION

Latrobe Valley Coal Mine ICC located at Hazelwood, managing the fire in the open cut mine.

ICC at Hazelwood Training Centre. Hazelwood Div Com at Staging Area and Yallourn Div Com at Yallourn Mine Fire Station.

Vehicles

Wash down / decon of all vehicles must be completed prior to any vehicle operating throughout the mine leaving Hazelwood.

All fire fighting vehicles must be inspected by DMO prior to leaving the mine site at any stage.

COMMUNICATIONS



Incident Management Team - Hazelwood Control Centre

Divisional Command – Rohan Taylor (Day Shift) for Yallourn Power Station – 5128 2263

Divisional Command – Peter Barr (Day Shift) for Hazelwood Power Station- 0408 991 507

Divisional Command – A Worcester (Night Shift) for Hazelwood Power Station-

Fireground Radio Channels is 69

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SAFETY

Firefighter Safety is Paramount - Utilise all PPE as required including P1 Masks

Once established, all crews will report to the Medical Monitoring before deployment into the mine area and upon return

Observe 2 meter safety distance from batter edges

Do not drive appliances over power cables

Atmospheric Monitoring

All appliances to carry minimum of 1 air monitoring devise for crew protection CO levels.

Zone	CO Concentration (ppm)	Exposure Management
Cold - Offsite	9	DoH and EPA should be consulted for guidance
Warm - Unrestricted	<30	At this level firefighters/workers are permitted to work in standard PPE, including P2 respirator, standard work hours, and undergo health surveillance as per site procedure.
Warm – Protective Action	30-50	As per site SCBA, crew rotation procedure
Hot - Restricted	>50	As per site procedure for essential works

Avoid driving in areas where washouts have occurred and report any large cracks or fissures to the Divisional Commander.

Be alert to sliding rocks and hazards along batter lines

Do not place body parts over hydrants

Maintain hydration at all times whilst in the mine - take adequate rest breaks to maintain optimum health

Report all injuries



Clean and Dirty areas will be set up and universal precautions will be practiced prior to eating

Beware of driving on Coal Face - slippery surface

Interim Operational Order

Until further notice personnel are only permitted to operate on the mine batters when the following conditions re adhered to:-

- Must wear breathing apparatus outside the vehicle in the mine.
- Must have a personal Carbon Monoxide Detector (CO) with the crew
- Report CO readings every 15 minutes as per current practice
- Vehicle must exit the mine once task has been completed or when breathing apparatus is no longer in use.

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All personnel undertaking fire suppression at ground level, must

- Wear P2 Masks
- Must have a personal Carbon Monoxide Detector (CO) with the crew.
- Report CO readings every 15 minutes as per current practice
- Vehicle must exit the mine once task has been completed or when breathing apparatus is no longer in use.

Non-Smoking Direction

All personnel, who may be required to enter the mine area for fire & emergency operations are prohibited from smoking on site.

New Messages

1. All Hazelwood Division personnel are to undertake health monitoring for CO prior to entering the mine and immediately prior to exiting the mine. Personnel are not to leave the site until health monitoring has been completed. The COHb reading must be reduced below 5% before any work can be undertaken – See Carbon Monoxide Exposure Management (Below).
2. Whilst in the mine, all Hazelwood crews are to monitor for CO and report back readings via radio (Channel 219) every hour. **If a peak reading of 75ppm is indicated withdraw to a clean area immediately.**
3. “Any members with Respiratory disorders, Asthma, Cardiac Conditions, Diabetes, High Blood Pressure or if pregnant, are **NOT** to be tasked to Latrobe Valley Coal Mine Fires.
4. **Female Firefighters** - State emergency agencies have received medical advice from the MFB and CFA Medical Officers and the Deputy Regional Health Commander at the Incident Management Team at Hazelwood that there is a risk to the foetus of pregnant women exposed to the high concentrations of carbon monoxide potentially present at this incident. Health and safety is the State emergency agencies highest priority and because of this risk any female firefighter who is pregnant or there is any chance that they may be pregnant, should not attend this incident due to the increased potential exposure to carbon monoxide. Female firefighter should seriously consider this advice.
5. Adhere to safe driving practices (attached).
6. Crews to be aware of where they are working. DO NOT work under power lines and consider everything as live.
7. Be aware of poor visibility and increased risk of plant/pedestrian interaction.
8. ON arrival at staging/catering areas ensure transition into clean areas via cleaning stations before presenting for health observation.
9. Headlights and flashing roof lights to be used at all times.
10. Night Shifts beware of inversion layers trapping smoke and CO within the mine.

Refer to separate guides on Carbon Monoxide Exposure Management and Safe Driving Strategies in Open Cut Mines



Incident Details		Plan No:	Date:	14/2/2014	Shift:	Night/Day	Approved by:	Nick Brown
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Process on Handling CO
Before deployment

Provide an information fact sheet before deployment on COHb.

On Arrival

If the worker presents at pre work medical screening and the results are below 5 % COHb, the worker is able to start work, if over the results are over 5%, the worker doesn't start work where may be exposed to CO.

Work Shift

Over a 12 hour shift, allow for 4 by 2 hour work shifts. Includes break times and travel in and out of the mine. Provide two levels of monitoring, personal monitors for a crew member who is active outside the vehicle. Second level, provide remote monitoring and recording of CO plus H₂S, O₂ and VOC from 'Area Tee' remote monitors back to monitoring station.

Atmospheric Carbon monoxide (CO) action levels.

Crew member Carbon monoxide concentrations are to be recorded every fifteen minutes and results relayed every hour to the DIVCOM. If in this hour period, there are two measurements exceeding 50 ppm but less than 75 ppm, worker must withdraw or utilize CABAs. Any single measurement exceeding 75 ppm, CABA must be immediately used or workers must withdraw from the area. This result must be reported to the DIVCOM immediately.

Blood Carbon monoxide (COHb) action levels.

At any time during monitoring of COHb during a shift if the 5 % level is exceeded, the worker will not be allowed back to work in areas of CO contamination.

After Shift

Post work COHb monitoring and hygiene measures.

This document must be reviewed by the hazard commander with the review of previous days data relating to presentations of COHb of greater than 5%. Version 1, Feb 13, 2014.

Barry Foss
Incident Controller
13 February 2014



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