

Underground Mines Emergency Protocol

*A MULTI-AGENCY POLICY FOR
MANAGING UNDERGROUND MINE
EMERGENCIES IN NEW ZEALAND*

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CONTENTS

Background	1
Purpose	1
Scope	1
Policy	2

appendices

Appendix 1: Protocol map	5
Appendix 2: Roles, responsibilities and accountability	6
Appendix 3: Related documents and legislation	9
Appendix 4: Glossary	10

table

1 Description of mines emergencies level 1 to level 3	2
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Background

Recommendation 14 of the Royal Commission on the Pike River Coal Mine Tragedy states:

The implementation of the Coordinated Incident Management System (CIMS) in underground coal mine emergencies should be reviewed urgently:

- The implementation of CIMS should be reviewed to ensure that emergencies in underground coal mines are well managed.
- The review team should include the mining industry, police, emergency services, Mines Rescue Service and the regulator.
- The CIMS framework should be rigorously tested by regular practical exercises at underground coal mines.
- The incident controller at an underground coal mine emergency must have mining expertise and together with the incident management team, must be responsible for co-ordinating the emergency effort and approving key decisions. This does not prevent a government agency such as the police from being lead agency or from maintaining its command structure.

In response to this recommendation, the Ministry of Business, Innovation and Employment undertook a consultation with the Pike River Expert Reference Group and a group of senior officials from across emergency services. The result was an agreement to establish an underground mines emergency protocol (the protocol) comprising an agreed set of processes and procedures, which could be used by stakeholders to manage a level 3 underground mines in New Zealand. No guidance will be issued for level 1 and 2 incidents.

Purpose

The purpose of the protocol is to provide direction on managing a level 3 underground mines or tunnel emergency in New Zealand. This includes establishing the roles and responsibilities of stakeholders under the protocol and the lines of authority for decision-making and communication.

Scope

The protocol applies to all level 3 underground mine emergencies in New Zealand including emergencies that occur in construction tunnels covered by mining regulations.

The protocol begins when the following four steps have occurred:

- any of the stakeholders under this protocol declare the incident is a level 3 and the MIC, CIE and Police are notified of this declaration
- the CIE appoints a MIC
- an ECC is established, and
- the LC contacts the MIC to inform them that the ECC is operational.

The protocol ends when the MIC informs the LC that the incident has been downgraded to a level 2 incident.

The protocol does not provide guidance on how to administer tasks within the protocol. This guidance is provided in operational documentation (ie operating manuals and standard operating procedures) developed by each stakeholder and reflecting each stakeholder's chain of command and organisational processes.

The protocol does not provide guidance on how to manage interactions between stakeholders in a level 2 incident.

Policy

Emergency services management

The protocol is aligned with CIMS principles, but takes as its starting point, the Royal Commission's directions on management of technical emergencies. Any changes to CIMS will require the protocol to be reviewed and operational documentation linked to the protocol.

The MIC who is responsible for leading the incident response in the IMT has mining expertise and is qualified to undertake level 3 MIC duties.

Incident levels

The protocol only applies to level 3 incidents. However, it should be assumed that all level 3 incidents have transitioned from a level 1 to a level 2 incident before being upgraded to a level 3 incident. This process may occur over an extended period of time or may happen immediately depending on the nature of the incident. Each level is activated by a trigger action response plan (TARP) through a mine's emergency management plan (EMP).

The line between a level 2 and a level 3 incident is a subjective one and discretion needs to be applied. Table 1 provides further guidance on the distinction.

Any stakeholder under the protocol may upgrade an incident from a level 1 or level 2 incident to a level 3 incident. However, when doing so they must ensure both the MIC and the CIE have been notified.

A mine operator will appoint a qualified MIC on their staff list for a level 2 incident where possible. This will support the transition to a level 3 incident if the incident is upgraded.

LEVEL	DESCRIPTION
Level 1 (Incident level)	<ul style="list-style-type: none">- A minor level incident that is managed/contained onsite by a MIC who is typically the most senior mining representative at the time of the incident.- Is managed through the mine operator's EMP and associated TARPs.
Level 2 (Local level)	<ul style="list-style-type: none">- A medium level incident that may result in a fatality or significant injury.- Requires the establishment of an onsite IMT to provide additional resources to the MIC.- Potential duration of operation is below 2-3 hours.- External support (eg WorkSafe, MRS or Police) may be brought into the IMT to assist the MIC.- May result in the MIC being replaced by the mine operator by someone with more experience and/or is qualified as a level 3 MIC.- Will require the CIE to monitor the incident and to consider whether it needs to be upgraded to a level 3 operation.- Is managed through the mine operator's EMP and associated TARPs.
Level 3 (Major incident)	<ul style="list-style-type: none">- A major level incident that may result in multiple fatalities and/or trigger significant public interest.- Potential duration of operation is beyond 2-3 hours.- Need for strategic advice and potential for additional resources beyond the capacity of the mine operator.- Requires the CIE to appoint a MIC (who may or may not be the same MIC under the level 2).- Is managed under this protocol.

TABLE 1:
Description of mines emergencies level 1 to level 3

Decision-making

The protocol establishes the lines of authority for decision-making between the different divisions and units within the protocol, and the stakeholder groups who operate within those divisions and units.

All personnel operating within units of the protocol are free to consult with personnel from other units and divisions within the protocol. However, decisions can only be made by:

- the MIC in relation to rescue or recovery, or
- the LC in relation to requests by the MIC for additional resources beyond the capacity of the mine operator or decisions related to issues outside of the IMT's scope (ie decisions not directly related to rescue or recovery).

Each stakeholder group operating under the protocol is responsible for the command of its own personnel. The chain of control is otherwise vertical amongst stakeholder groups and based on consultation and consent. Whilst the MIC makes the final decisions in relation to rescue and recovery, it is expected that decisions are likely to be made by consensus through a multi-stakeholder consultation process.

The MIC's decisions will inform the action plan which is developed by the IMT to implement the MIC's decisions.

The MIC is ultimately accountable for all decisions related to the action plan.

The MIC is supported by an emergency services expert appointed by the LC. The person in this role will provide support and advice to the MIC in relation to emergency services management but has no responsibility for decision-making in the IMT.

All decisions and key actions in the IMT and ECC made under the protocol must be recorded in a log as per standard CIMS procedure.

Power of veto over the MIC's decisions

No stakeholder has power of veto over the MIC's decisions relating to rescue or recovery. However, through a delegation from WorkSafe under legislation, the CIE may replace the MIC if there is concern about the MIC's overall performance.

To engage its legislative powers to replace the MIC, the CIE must first appoint a MIC to a level 3 incident. The CIE may choose not to replace a MIC from a level 2 incident, but must acknowledge this decision by recording it in the CIE log and advising the MIC verbally.

The CIE must appoint a MIC who is registered as qualified on the MIC register, which is maintained by WorkSafe in consultation with MRS.

The government will make final decisions in relation to the approval of resources beyond the capacity of the mine operator as requested by the MIC.

Communication

Decisions made by the MIC or LC must be communicated within and between the IMT and ECC in accordance with operational procedure linked to this protocol.

Decisions must be communicated in a timely manner that ensures all aspects of the protocol can be fulfilled including briefings to government, families, media and the community.

The MIC or LC may delegate the communication of a decision to another person, but this must be done in accordance with procedure linked to this protocol.

The Police will manage the government interface process. This will include responsibility for providing briefings and requests for additional resources to the Minister of Police and coordinating technical inputs from the CIE and MRS as required. The Minister of Police will liaise with the Minister of Workplace Relations and Safety in relation to relevant aspects of these briefings and requests for resources.

The MIC and the CIE will maintain its own line of communication to the Minister of Workplace Relations and safety in all matters relating to the Minister's statutory functions. This will be undertaken in parallel to the government interface process.

The Police will manage all communication to external stakeholder groups including the families of mining employees involved in an incident, the media and community.

Operational documentation

Operational documentation including standard operating procedures and duty cards, which provide further guidance to stakeholders under this protocol, must be consistent with the protocol policy and CIMS.

Operational documentation should be reviewed following a review of the protocol and/or changes to CIMS.

Stakeholders will have responsibility for reviewing their own operational documentation.

Protocol governance

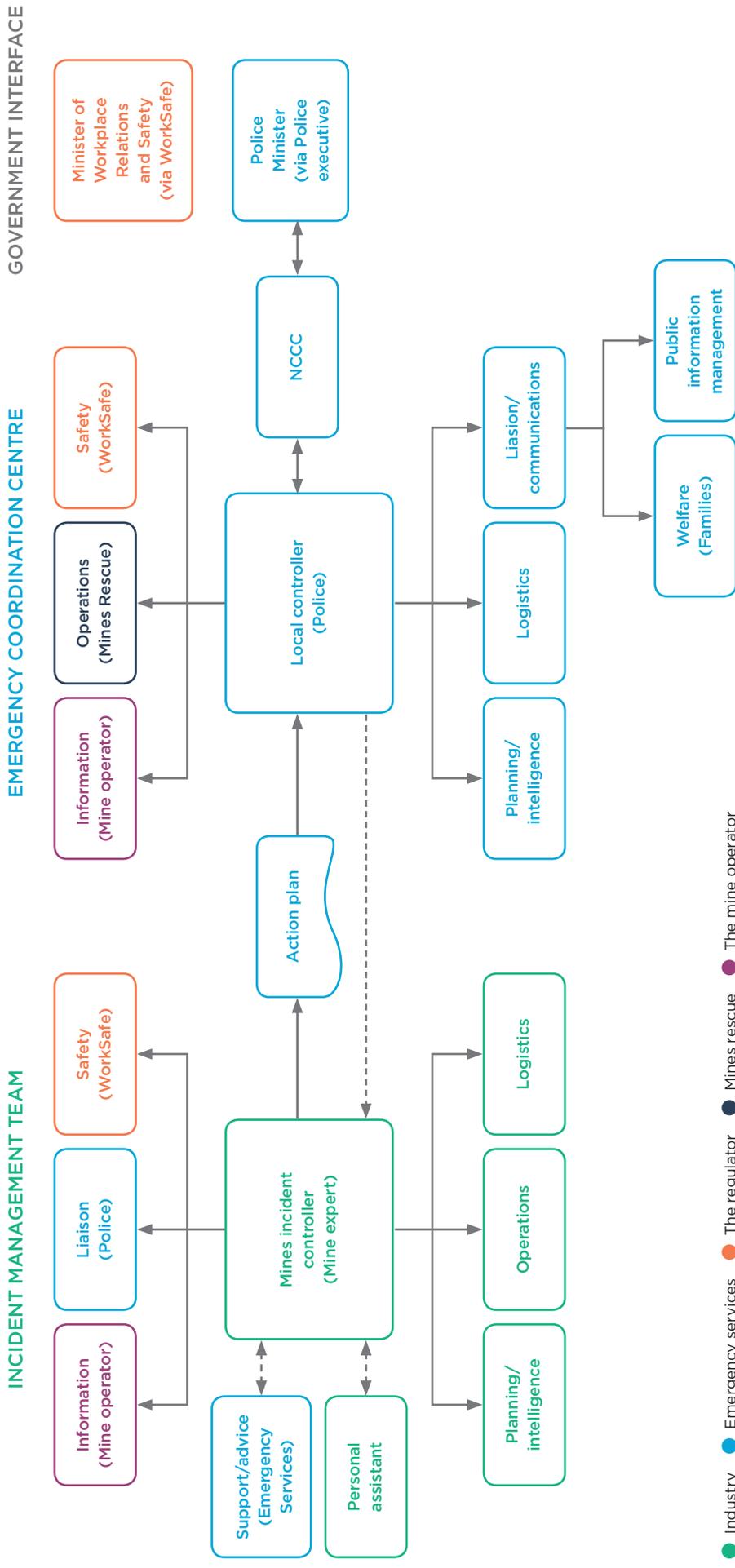
A protocol implementation group will provide operational oversight of the protocol on an ongoing basis. The group will consist of key stakeholder groups under the protocol - WorkSafe (protocol business owner), Police, MRS and Fire.

The terms of reference for the group will set out the group's functions, its membership and processes for decision-making and administration. All members within the group will have equal voting rights.

Key functions of the group will be to oversee annual testing/simulations of the protocol and to review operational processes and documents under the protocol. They will also make policy recommendations to government in relation to changes to the protocol.

Appendix 1: Protocol map

Underground mines emergency protocol



Appendix 2: Roles, responsibilities and accountability

ROLE	RESPONSIBILITIES	ACCOUNTABILITY
<p>Mines Incident Controller Mines expert</p> <p>Note: may have already been acting as the MIC during the level 2 incident phase.</p>	<p>Oversight of the IMT, the development and implementation of the action plan and all decisions relating to a rescue and recovery operation. This includes:</p> <ul style="list-style-type: none"> - consulting with units within the IMT during the development and implementation of the action plan. Includes making key decisions related to the rescue and recovery of trapped mine workers - communicating decisions to the IMT and the LC - responding to LC enquiries including briefings where possible, and - downgrading the level 3 incident to a level 2 at its conclusion. 	<p>Appointed by the CIE.</p> <p>All decisions made by the MIC must be documented.</p> <p>Can be replaced by the CIE if there are concerns about the MIC's performance.</p>
<p>Incident Management Team Mines personnel</p> <p>Includes three core units:</p> <ul style="list-style-type: none"> - Planning/intelligence (mines personnel and experts) - Operations (mines personnel and MRS) - Logistics 	<p>Responsible for developing and implementing the action plan. This includes:</p> <ul style="list-style-type: none"> - consulting with other units and support personnel as relevant to develop, integrate, deploy and monitor unit plans - briefing and providing advice to the MIC as required. 	<p>IMT personnel and experts appointed by the MIC Each core unit is led by a unit manager appointed by the MIC.</p> <p>Personnel from other stakeholder groups Appointed by, and responsible to, the relevant unit command from their organisation.</p>
<p>Emergency services support/advisor to the MIC</p>	<p>Provides support and advice to the MIC in relation to emergency services procedure.</p> <p>May consult with other units of the IMT as needed.</p> <p>Has no decision-making power.</p> <p>Is not required to provide support/advice in relation to technical matters.</p>	<p>Appointed by the LC.</p> <p>Responsible to the MIC.</p>
<p>Personal assistant to the Mines Incident Controller</p>	<p>Provides administrative support to the MIC. Includes administering the official log of the incident.</p>	<p>Appointed by the MIC.</p> <p>Responsible to the MIC.</p>
<p>Incident Management Team specialist roles</p> <p>Core IMT units supported by:</p> <ul style="list-style-type: none"> - Information (Mine operator) - Liaison/public information management (Police) - Safety (WorkSafe) - Other technical experts from emergency services and industry as relevant 	<p>Information Provides technical information on mine operation and resources and facilitates decisions in relation to them.</p> <p>Liaison Ensures compliance with legal requirements in the emergency of a recovery operation and provides information through the ECC for the purpose of updating the public.</p> <p>Safety Provides technical support on safety considerations.</p> <p>Technical experts Assists units within the IMT with technical expertise.</p>	<p>Information Appointed by the mine operator.</p> <p>Liaison Appointed by the Police.</p> <p>Safety Appointed by WorkSafe.</p> <p>Technical experts Technical experts appointed by MIC or IMT heads and responsible to those managers accordingly.</p>

ROLE	RESPONSIBILITIES	ACCOUNTABILITY
Local Controller (Police)	<p>Oversight of the ECC and the support and coordination function it provides to the rescue and recovery operation. This includes:</p> <ul style="list-style-type: none"> - consulting with the MIC in relation to the MIC's decisions - oversight of communication with: <ul style="list-style-type: none"> - families - media - community, and - the government. - liaison with: <ul style="list-style-type: none"> - mine operator in relation to mine resources and administration, and - stakeholders within the ECC including the CIE and MRS. 	Appointed by the Police under Police protocol and responsible to the relevant Police command.
Emergency Coordination Centre	<p>Responsible for consulting with the LC, and where relevant, implementing ECC support and coordination operations as instructed (for those under Police command) or agreed to (for external personnel consulting with the LC under this protocol).</p> <p>Where a mine operator has formed a crisis management team the representative from the mine operator should act as a key link of communication between the ECC and their crisis management team.</p>	<p>ECC Police personnel and experts appointed by the Police Appointed by the LC or the relevant ECC unit command as per Police protocol and responsible to that command accordingly.</p> <p>Personnel from other stakeholder groups Appointed by, and responsible to, the relevant ECC command from their organisation.</p>
Chief Inspector - Extractives WorkSafe	<p>Oversight of the MIC from within the ECC. This includes:</p> <ul style="list-style-type: none"> - appointing the MIC when an incident is escalated from a level 2 to a level 3 - monitoring the development and implementation of the action plan - liaising with mines inspectors in the IMT - liaising with the LC and providing technical input into briefings to the Police Minister as requested by the LC - replacing the MIC if there are concerns about the MIC's performance. <p>Is a member of the protocol governance group.</p>	<p>Appointed by WorkSafe.</p> <p>Powers to appoint and replace the MIC under legislation.</p> <p>Is held accountable to powers through a process that requires decisions to be based on performance and documented in the LC log.</p> <p>Is held accountable to the governance group through an annual protocol review process.</p>
National Operations Manager Mines Rescue Service	<p>Provides MRS oversight of a level 3 incident from the ECC. This includes:</p> <ul style="list-style-type: none"> - liaising with MRS personnel in the IMT as needed, and - providing technical input into government briefings as requested by the LC. 	Responsible to the Board of the Mines Rescue Trust.

ROLE	RESPONSIBILITIES	ACCOUNTABILITY
<p>National Command and Coordination Centre (NCCC) Police Executive</p>	<p>Is the link between the level 3 incident and government decision makers on matters related to requests for additional resources beyond the capacity of the mine operator.</p> <p>This role is coordinated by the NCCC and involves consultation with the CIE and LC on matters relating to safety, and MRS on matters related to the deployment of MRS brigades.</p> <p>This responsibility includes:</p> <ul style="list-style-type: none"> - briefing the Minister of Police in relation to requests for additional resources. 	<p>The Minister of Police will consult with the Minister of Workplace Relations and Safety and make a joint decision in relation to requests for additional resources.</p> <p>The Minister of Workplace Relations and Safety will be briefed by the MIC and/or CIE parallel to this process.</p>
<p>Implementation group WorkSafe, MRS, Police, industry</p>	<p>Implementation oversight of the protocol on an annual basis. Reviews and makes protocol policy recommendations to the Minister of Workplace Relations and Safety and Minister of Police.</p>	<p>The group is appointed under terms of reference issued by and coordinated through a WorkSafe secretariat.</p> <p>The group is held accountable to the Minister of Workplace Relations and Safety and the Minister of Police through the Minister of Workplace Relations and Safety.</p>

Appendix 3: Related documents and legislation

WorkSafe New Zealand Act 2013

Mines Rescue Act 2013

Health and Safety Employment Amendment Act 2013

The New Zealand Coordinated Incident Management System (CIMS), 2nd Edition, Officials' Committee for Domestic and External Security Coordination Department of the Prime Minister and Cabinet, April 2014

Underground Mines Emergency Protocol Implementation Group Terms of Reference

Mines Rescue Service Emergency Management Plan Guidelines

Agency specific operational policies and procedures

Police district plans for mining operations

Appendix 4: Glossary

TERM	DEFINITION
Action plan	The plan developed in the IMT describing how the response will be managed, how response agencies will integrate their activities, to achieve the response objectives.
Coordinated Incident Management System (CIMS)	The principles used by New Zealand emergency services to manage emergency incidents.
Chief Inspector - Extractives (CIE)	Provides regulatory oversight of underground mining, open cast mining, quarries and construction tunnels in New Zealand through a legislative power prescribed to WorkSafe
Division	A geographically and functionally separate part of the protocol structure. Led by a division head (ie the IMT or the ECC).
Emergency Management Plan (EMP)	The plan developed by a mine to activate TARP's to manage a mine incident from level 1 to level 3.
Emergency Coordination Centre (ECC)	A division responsible for coordinating and supporting aspects of the emergency effort generally focussed on facilities management, stakeholder communication/liasion and emergency administration.
Governance group	Senior officials who are responsible for oversight of the protocol on an on-going basis.
Incident Management Team (IMT)	The division responsible for directly supporting the MIC. The IMT is established during a level 2 incident and comprises of the following core units - planning/intelligence, operations and logistics.
Level 1 (Incident level)	<ul style="list-style-type: none"> - A minor level incident that is managed/contained onsite by a MIC who is typically the most senior mining representative at the time of the incident. - Is managed through the mine operator's EMP and associated TARPs.
Level 2 incident (Local level incident)	A medium level emergency that results in the establishment of an onsite IMT to assist an MIC appointed by the mine operator. May involve multiple and external stakeholders. See Table 1.
Level 3 incident (Major incident)	A major level emergency that involves the establishment of an ECC to support the IMT and is implemented under this protocol. See Table 1.
Local Controller (LC)	Head of the ECC (a senior police officer) - see section on roles, responsibilities and accountabilities for information on specific functions and accountability.
Governance group	Senior officials who are responsible for oversight of the protocol on an on-going basis.
Mines Incident Controller (MIC)	Head of the IMT - see section on roles, responsibilities and accountabilities for more information.
National Command and Coordination Centre (NCCC)	Police executive - government liaison for Local Controller and through official channels for ECC. See roles and responsibilities.
Qualified level 3 MIC	Is listed on WorkSafe's MIC register as qualified and available to serve as a MIC. Qualified means that the MIC has undertaken level 3 MIC training and development.
Stakeholder groups	An organisation (government or non-government) that operates under this protocol. The principle stakeholders being WorkSafe, Police, MRS and industry.
Trigger Action Response Plans (TARP)	Provides a detailed mechanism to manage specific mine incidents that are activated through a mine's EMP.
Underground Mines Emergency Protocol (the protocol)	Provides high level guidance on how to manage a multi-stakeholder level 3 underground mines emergency in New Zealand.
Unit	Individual units within a division of the protocol i.e. the IMT division's logistics unit, or the MRS unit within the ECC.

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PO Box 165, Wellington 6140, New Zealand

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