



Irish Mine Rescue Standard



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CONTENTS

PAGE

1.	Introduction	4
2.	Mine Rescue Organisation	5
3.	Rescue Member, selection process	5
4.	Mine Rescue Medical Examination	6
5.	Criteria for a Qualified Member	6
6.	Availability and Reporting	7
7.	Annual Training Programme	7
8.	Database, Team Members and Equipment.....	8
9.	Mine Rescue Station, Mine Rescue Equipment	8
10.	Rescue Plans and Sections	10
11.	Call Out Procedures	10
12.	Mutual Assistance	11
13.	Support from the Irish Air Corps	11
14.	Command Communication at an Incident	11
15.	Remuneration/Allowances	12
16.	Budget	13
17.	All Ireland & UK Mine Rescue Competition	13

APPENDICES

1.	Recommended Mine Rescue Organisation Structure.....	14
2.	Recommended Mine Rescue Medical Examination Report	15
3.	Legal Training Requirements.....	16
4.	Components of Irish Mine Rescue Training Matrix.....	17
5.	Irish Mine Rescue Competency Certificate.....	18
6.	Recommended Mine Rescue Equipment Register.....	18
7.	Guidelines for Running the All Ireland and UK Mine Rescue Competition.....	19



1. Introduction

The Irish Mine Rescue Committee (IMRC) was established as a co-operative body to co-ordinate mine rescue resources in Ireland enabling mutual assistance in the event of emergency at one of the participating mines.

All Mine Rescue Organisations in Ireland are affiliated to the IMRC.

The IMRC acts as a liaison and consultative group to the Health & Safety Authority (HSA) on matters relating to mine rescue in Ireland.

The IMRC co-ordinates mutual assistance programmes to allow mine rescue teams to become familiar with the methods of operation and layout of the participating mines, and for the teams to practice working together in simulated emergency conditions.

The IMRC runs the All Ireland & UK Mine Rescue Competition. The competition allows teams to come together and test their skills against each other in a series of pre-set tests.

The IMRC promotes continuous improvement in mine rescue organisations by developing standards and establishing links with mine rescue organisations in the UK and other countries.

The purpose of the Irish Mine Rescue Standard is to:

- Provide guidance for the establishment, training, maintenance and organisation of Mine Rescue teams in Ireland.
- Ensure minimum standards to facilitate inter mine co-operation and assistance.
- Assist mine operators meet their statutory obligations.

It is acknowledged that participating mines from different jurisdictions are subject to and must conform to the statutory regulations pertaining in their jurisdiction.

Every effort has been made to ensure that this standard provides accurate and expert guidance; it is not possible to predict all circumstances in which it may be used. Accordingly the IMRC, its committees and members shall not be liable to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by omissions or content contained in this standard.



The Irish Mine Rescue Standard is based on, Statutory Instrument No. 226/1972, the Mines (Fire and Rescue) Regulations of 1972 and proposed amending legislation.

This Standard has to be read and signed by all members of each Mine's Rescue Organisation as well as all line managers involved in any way within the Mine Department, all Mine Managers and all acting Mine Managers.

2. Mine Rescue Organisation

Legal responsibility for the Mine Rescue Organisation rests with the Statutory Mine Manager.

The Statutory Mine Manager will ensure a Mine Rescue Officer is appointed.

The Mine Rescue Officer represents each mine on the IMEG Irish Mine Rescue Committee.

The number of rescue teams required at a mine in the Irish jurisdiction is determined by, Statutory Instrument No. 226/1972, the Mines (Fire and Rescue) Regulations of 1972.

Mine Rescue Captains will, on proposal from the Mine Rescue Officer, be appointed by the Statutory Mine Manager.

Mine Rescue members will, as far as practical, be evenly distributed amongst all shift crews for the mine.

Mine Rescue is organised as a parallel organisation to the line organisation within each company.

For recommended Mine Rescue Organisation Structure, see **Appendix 1**.

3. Mine Rescue Member, selection procedure

Mine Rescue Members are selected by a selection procedure controlled by the Mine Rescue Officer, reporting to each mine's Mine Rescue Steering Group.

The Mine Rescue Officer can, as long as an employee has passed the Mine Rescue medical and has at least two years of underground experience in a mine or comparable, select the employee to be a member of a Mine Rescue team.



Exception to the selection criteria regarding underground experience has to be approved by the Mine Manager.

It is a condition of becoming a member of a Mine Rescue Team that the member's shift pattern may change depending on the needs of the Mine Rescue Organisation, the member must also accept that the change of shift pattern may be at short notice.

4. Mine Rescue Medical Examination

The Mine Rescue medical examination is shown in **Appendix 2**, and establishes whether a person is medically fit to commence mine rescue training, and once qualified to remain as a mine rescue member. This is the minimum standard required and a mine can raise this standard if it decides to do so.

The medical examination is performed by the Company Doctor, who also certifies the employee to be fit to undertake rescue work. The examination checks general health and physical condition, and also a person's fitness.

The Mine Rescue Medical has to be renewed every 12 months or at more frequent intervals if required by the Mine Rescue Officer.

5. Requirements for a qualified Mine Rescue member

A qualified member of a Mine Rescue team has to:

- Be certified medically fit to undertake rescue activities.
- Be in possession of a **Mine Rescue Competency Certificate**.
- Participate in 6 training blocks/practices, and at least one per quarter, in any year.
- Have a recognised certificate of proficiency in occupational first aid.



The Mine Rescue Officer is responsible for making sure all members have a valid certificate for first aid as well as a valid medical test.

6. Availability and Reporting

A qualified member should be available for Mine Rescue 24 hours a day, 7 days a week, and 365 days a year.

Exceptions to this rule apply where the individual has informed the Mine Rescue Officer or the Mine Rescue Instructor of his unavailability due to annual leave, sickness, business or social commitments.

If a member is unable to report to the Mine due to any circumstances after being contacted he must telephone the Mine Rescue Officer or their designate.

7. Annual Training Programme

The Irish Mine Rescue training programme consists of training blocks covering all demands derived from the legislation. See **Appendix 3**.

Routine training will take place 10 times per annum and will follow an annual programme set up by the Mine Rescue Officer.

The routine training should include refresher training according to the legislation in place.

It is up to the Mine Rescue member to make sure they participate in at least 6 training practises in any year. A member, who has not participated in at least 6 training practices and at least one in any quarter, may be excluded from the Mine Rescue Team by the Mine Rescue Officer.

Training for the annual Mine Rescue Competition is additional to the standard training requirement for Mine Rescue Team Membership. It does not fulfil the requirement to participate in 6 training practices in any year.

Training Matrix, see **Appendix 4**.

External training courses have to be approved in each mine's annual budget.



On completion of initial training a **Mine Rescue Competency Certificate** will be awarded by the Mine and the IMRC. See **Appendix 5**.

8. Database, team members and equipment.

Each Mine will maintain a database of its Mine Rescue Team members and will also register it on the IMRC Mine Rescue database.

The database for each individual will include:

- personal details
- record of initial and ongoing training
- date qualified and accepted as fully operational member
- record of regular training sessions
- record of courses attended
- record of call-outs and rescue work performed

The database will be administered by the Mine Rescue Officer or Mine Rescue Instructor. A Mine Rescue team member can at any time receive a copy of his own file. The Mine Rescue Officer is responsible for maintaining the database.

Access to the database is limited to: The Statutory Mine Manager, any acting Mine Manager, members of the Mine Rescue Steering Group, HR personnel and Inspectors of the Health and Safety Authority.

9. Mine Rescue Station, Mine Rescue Equipment

Each mine will have a dedicated Mine Rescue Station, Stores, Garages and other training facilities. The facilities can only be used for Mine Rescue activities.

The Mine Rescue Officer is in charge of the Mine Rescue facilities and is responsible for making sure that all Mine Rescue equipment is kept in the Mine Rescue Station or in the Stores and Garages and other facilities and is kept in good order.



The Mine Rescue Station should be equipped with:

- breathing apparatus and test equipment
- sufficient oxygen for these apparatus
- two sets of reviving apparatus
- one first aid box
- miners lamps
- suitable devices for making immediate determinations of gases
- means of communication including 1 stand-alone communication device

All equipment belonging to the Mine Rescue organisation should be registered in the Mine Rescue database. The Mine Rescue Officer is responsible for keeping the register up to date.

See **Appendix 6**.

The Mine Rescue Officer or designate and the team members are responsible for the care, maintenance and inspections of any third party equipment.

The Mine Rescue Officer is responsible for performing inspections of the Mine Rescue Station and the equipment on at least a six monthly basis. Any defect or deficiency disclosed by the inspection has to be recorded and reported to the Mine Manager. The Mine Rescue Officer should carry out spot checks of equipment in addition to the regular inspections. The outcomes of inspections and Audits should be logged on the database.

All necessary personal equipment for each rescue team member should be kept in the Mine Rescue Station. On callout a team should assemble at the Mine Rescue Station and get fully changed and ready for rescue work without having to leave the Station.

Each member, on acceptance as a qualified team member, will be issued with:

- an efficient and reliable means of communication for call out
- 1 self-contained closed circuit breathing apparatus
- suitable coveralls
- 1 pair of boots
- 1 miners helmet



- 1 safety belt
- 1 waterproof note book
- 1 link line
- 1 self rescuer
- 1 miner's cap lamp

10. Rescue Plans

The Mine Rescue Officer, in conjunction with the Chief Mine Surveyor, at 3 monthly intervals or more frequently when exceptions arise, is responsible for keeping the following up to date Plans in the Mine Rescue Station, Mine Emergency Control Room and other designated locations:

- Fire and Rescue Plans
- Ventilation Plans
- Surface Plans

The plans should be in a form suitable for use by rescue workers and include the:

- ventilation circuit
- escape routes
- location of refuge stations
- electricity distribution
- location of telephones
- location of fire fighting equipment

11. Call out Procedures

Each mine's Mine Rescue Teams will be called out by that mine's approved call out system.

Team members on site, and on surface, will report immediately to the Mine Rescue Station.

Team members on site and underground will report to the nearest or designated location and follow procedure.

Team members arriving from off site will report directly to the Mine Rescue Station.



12. Mutual Assistance

Mines affiliated to IMRC operate a Mutual Assistance Programme whereby all mines will provide rescue assistance to affiliated mines, as and when required.

The organisation of training to support the Mutual Assistance Programme is the responsibility of the IMRC.

The maintenance of up-to-date contact numbers between each mine is the responsibility of each Mine Rescue Officer in conjunction with the IMRC.

13. Support from the Irish Air Corps

The Air Corps Helicopter Wing provides support to the IMRC. Helicopter transport for rescue teams is provided through the Gardai as an Aid to the Civil Power.

14. Command and Communication at an Incident

When an emergency incident occurs that results in Mine Rescue Teams being called out to a mine, there are two posts that must be filled at that mine site:

- Incident Controller
- Briefing Officer

The Incident Controller will be the highest ranking line manager on site, and will stay in this role until relieved by a superior.

The Briefing Officer is appointed by the Incident Controller.

The Incident Controller is in charge of the whole emergency, but is not permitted to dispatch Rescue Teams except through the Briefing Officer.



The Briefing Officer is in charge of the preparation and dispatch of Mine Rescue Teams from the Mine Rescue Station and from established Fresh Air Base(s), taking his instructions from the Incident Controller.

The Briefing Officer is responsible for:

- preparation of the Mine Rescue Teams
- preparation of the Mine Rescue Plan, in liaison with the Incident Controller
- facilitating the gathering of equipment and support personnel
- ensuring all necessary tests are performed by the Rescue Teams on their breathing sets and other equipment
- establishing the location of the Fresh Air Base(s)
- regulating and facilitating the rescue operation

Records of the course of events, with time reported by the minute, should be written down by a person(s) appointed by the Briefing Officer and Incident Controller.

15. Remuneration/Allowances

Mine Rescue Team members are entitled to remuneration according to each mines internal procedures. The following is suggested:

- An annual retainer, based on €x a month, paid in December each year. This is paid according to attendance at training versus the minimum standard. Six training practices in the year and at least one in any quarter will qualify a member for the retainer of €y. Members who do not attend the minimum number of training practices will forfeit the full amount – there are no pro-rata payments.
- Mobile telephone rental.
- €p for each attended weekend training practice (based on 8 hours work).
- €q for each attended week-day training practice (based on 8 hours work outside normal rostered working hours).
- Normal and/or overtime pay for call-outs
- Gym membership.

All remuneration linked to Mine Rescue is treated as income and will be reported on the P60 form.



16. Budget

All costs relating to the Mine Rescue Organisation, including extra costs incurred responding to incidents should be allocated to a separate scheme of accounts. The Mine Rescue Officer is responsible for the budget and the follow up of costs, and will report to each Mine Rescue Steering Group meeting.

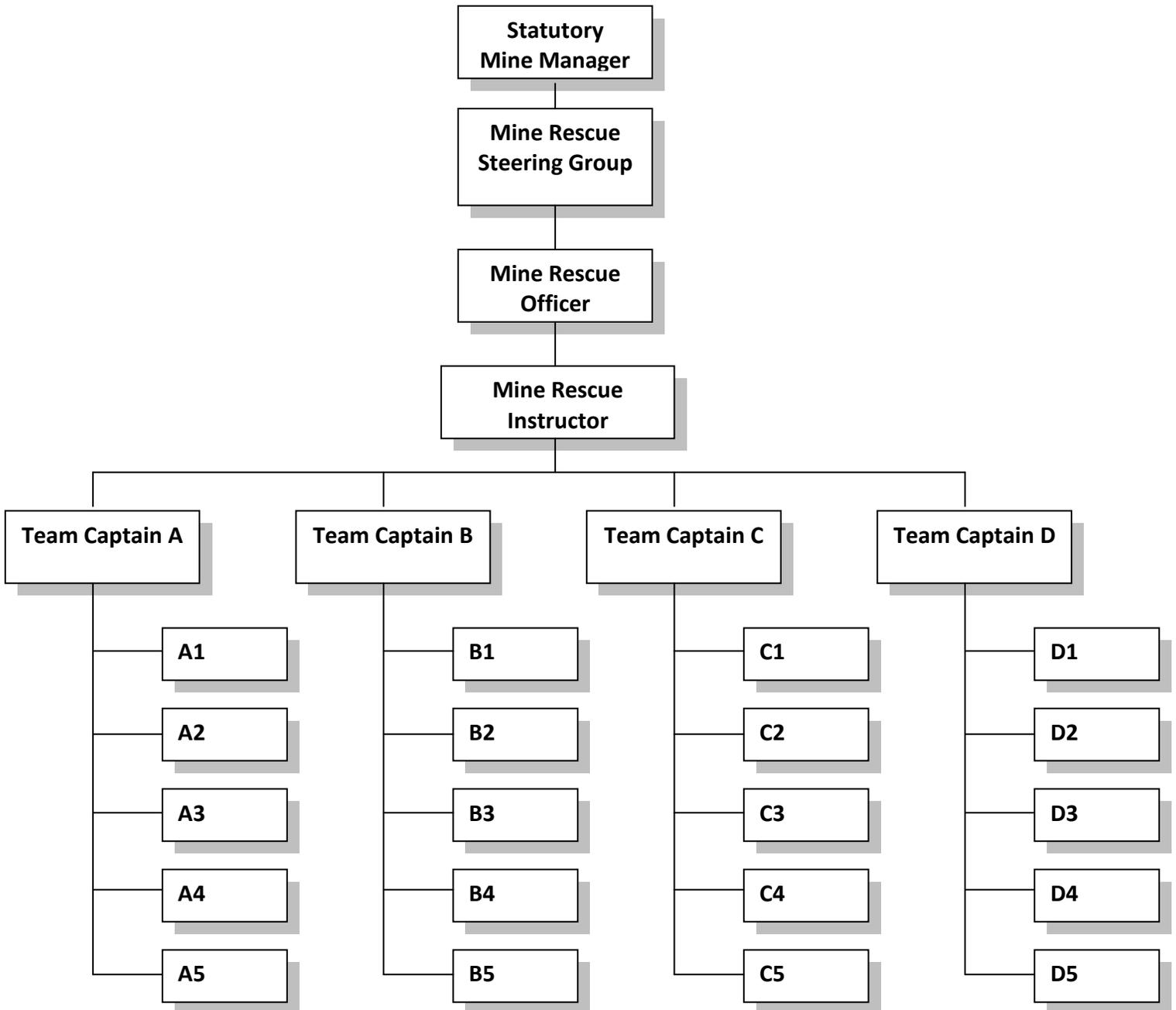
17. All Ireland and UK Mine Rescue Competition

The IMRC controls the annual All Ireland and UK Mine Rescue Competition, under the auspices of the Irish Health and Safety Authority (HSA). The Guidelines for running the Competition are attached as **Appendix 7**.



Appendix 1

Recommended Mine Rescue Organisation Structure





Appendix 2

Recommended Mine Rescue Medical Examination Report

Name:			
Date of Birth		Age:	
Address			
Occupation		Employee No:	
Height	Weight:	BMI:	
Vision	Left Eye	Right Eye	
Hearing	Left Ear	Right Ear	
Nose			
Teeth			
Throat			
Respiration			
Chest	Full Expansion	Full Deflation	
Heart	Normal:	After Exercise:	After 2-3 min rest:
Blood Pressure			
Abdomen		Hernia:	
Other Tests			
Physical Stature:		Fitness:	
General Disposition:			
Other Notes			
<i>Based on the above examination the applicant is in my opinion physically fit and in good health and should be suitable for mine rescue training and work and the wearing of breathing apparatus.</i>			
Name:	Examining Doctor:		
Address:			
Signature:		Date:	



Appendix 3

Legal Training Requirements

(Schedule 1, Mines (Fire and Rescue) Regulations 1972)

A. Course of initial instruction

- general methods of dealing with underground fires
- construction, use, repair, maintenance and testing of the breathing apparatus
- the use of methods and apparatus for reviving persons
- the properties and detection of the noxious and flammable gases
- the taking of gas samples in irrespirable atmospheres
- the reading of mine plans
- the conduct of rescue work

B Practices

- not less than 12 practices with breathing apparatus shall be provided for each member
 - Repeated raising and lowering of a weight, 25kgs to and from a height of 1.8ms by means of a rope.
 - walking continuously at a fair pace for 0.5 hours
 - building and removing temporary stoppings
 - removing debris in confined spaces
 - setting timber or other roof supports
 - carrying, pushing or pulling on a stretcher a live person or a dummy
 - rapid establishment of communication
- practises to be carried out at the same time with all team members
- practices should initially be carried out in ordinary air and progress gradually into an irrespirable atmosphere

C Instruction after initial training

- Revision of all subjects included in the course of instruction and practise as above.

D Practices after initial training

- With breathing apparatus at least six times annually



Appendix 4

Components of Irish Mine Rescue Training Matrix:

First Aid

Fire Fighting

Rope Work

Ladder Work

Establishing FAB

Mine Gases

Testing for Gases

Communications

Map Work

Field Equipment Operation and Testing

Rescue Procedures

Constructions

Jaws of Life



Appendix 5

Irish Mine Rescue Competency Certificate

Currently in development, contact IMRC for details.

Appendix 6

Recommended Mine Rescue Equipment Register:

Item description

Year of manufacture

Date of initial test

Date of Calibration

Declaration of Conformity

Supplier

Category

Serial number

Stored location

Internal testing

- Last tested
- Test results
- Next test date

External testing

- Last tested
- Test results
- Next test date

Calibration required

- Last calibrated
- Next calibration

Calibration result



Appendix 7

Guidelines for Running the Annual All Ireland and UK Mine Rescue Competition

History of the Competition

The competition has its roots in the Irish base metal mines of the 1960s and 1970s. Famous mines such as Tynagh and Silvermines competed for the annual trophy. As the industry contracted and the old mines closed, Tara kept the flag flying by holding Celtic mine rescue competitions with South Crofty and Wheal Jane in Cornwall. Neves Corvo from Portugal competed in 1996.

With a new phase of mining in Ireland in the 1990s, Galmooy and Lisheen entered the fray. The format of the competition was expanded at Lisheen in 2001, and Winsford Mine competed for the first time. In 2002 British Gypsum entered a team, and in 2004 the modern competition was hosted in the UK for the first time, by Winsford Mine in Cheshire. Kilroot Mine from Carrickfergus also initially competed that year.

Kilroot hosted the competition for the first time in 2006. Galmooy were the hosts in 2007, and Tara in 2008. Having initially competed in 2007, Boulby Mine hosted the event in 2009, where Maltby Colliery competed for the first time. Lisheen held the competition in 2010, Winsford hosted in 2011, Kilroot in 2012 and Tara in 2013. Boulby Mine (CPL) are running the event in 2014.

Name of Competition

The official name of the competition is: **'The All Ireland and UK Mine Rescue Competition'**.

Controlling Authority

The controlling authority is the Irish Mine Rescue Committee (IMRC), under the auspices of the Irish Health and Safety Authority (HSA).

Date of Competition

The exact date of the competition is to be set by the host mine, but the event is to be held over a weekend after Easter and before the end of June. The preferred weekend is mid-May.



Location of Competition

The location of the competition is decided one year in advance, and is controlled by the IMRC.

Number of competing teams

To a certain extent this is determined by the format of the competition.

In the present format the practical maximum number of teams is six, but this can be adjusted after approval from the IMRC.

Identity of competing teams

At the present time the established five competing teams, by length of history in the competition, are:

Tara

Lisheen

Winsford

Kilroot

Boulby

These teams have the right of first refusal to compete.

If any of these teams are unable to compete, or if the competition format changes significantly, then other teams can be invited to participate.

Previously invited teams who have competed are:

British Gypsum (2002).

Maltby Colliery (2009, 2010 and 2011).

Invitations to other teams outside of the established five competing teams must be routed through the IMRC.

Format of competition

The format has evolved into 4 separate events:

- Search and Rescue (the key event)
- First Aid
- Fitness
- Bench Test and Knowledge Test

This can be varied after approval from the IMRC.



It is usual that the competition is held over 2 days (Friday and Saturday), with the Bench & Knowledge Test on the afternoon of the first day and keeping the Fitness, First Aid and Search and Rescue tests on the second day. A pre-Competition Briefing and Draw must be held once all teams have assembled at the host mine, before the Saturday events begin.

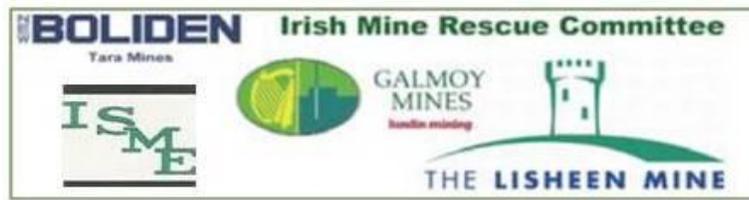
Isolation of Teams from Spectators

It is important that the host mine establishes a system whereby competing teams are kept isolated from all observers and spectators for the duration of all the events, to ensure a fair competition.

Marking of events

This has become complex, but must be event specific, clear and transparent to all concerned.

- The marking system for events will be approved by the IMRC.
- The number of judges/adjudicators must be stated in the pre-Competition Briefing.
- The jurisdiction of judges/adjudicators and their affiliation must be stated in the pre-Competition Briefing.
- All events and marking schemes should have a dry-run and be stress-tested in the weeks preceding the competition. The judges/adjudicators and the host should then cross-check a list of equipment and actions.
- The Search and Rescue event must have at least one mine inspector as one of the principal judges/adjudicators, but preferably two mine inspectors, one from the Irish HSA and one from the UK HSE.
- Judges/adjudicators need to be given adequate time to overview their marking at the end of the day to ensure that the allocated marks reflect performance; to be objective; and to score in a discretionary way for good practice (or poor practice) where necessary. Marking the quality of performance by the teams against the highest standards of international mine rescue is one of the key principles of the competition.



- Consultation between judges/adjudicators and any chief judge/adjudicator must be built into establishing overall outcomes.
- The score weighting for each event will have the approval of :
 - the IMRC
 - the host mine
 - the Irish HSA
 - the UK HSE

Currently the agreed weighting is 50% for Search and Rescue, 15% for Fitness, 15% for First Aid, 10% for Bench Test and 10% for Knowledge Test

(Agreed by IMRC, HSA, HSE, the host mine 2012 – Kilroot, and the host mine 2013 – Tara).

Pre-Competition Meeting

It is recommended that the host mine holds a pre-Competition Meeting approximately three months before the date of the Competition. This will allow consultation between the Irish and UK Mine Inspectorates, the IMRC, judges/adjudicators, and host mine officials, to streamline the planning process and assist the host mine's preparation.

A representative of the previous year's host mine should be invited to this meeting, with their own preparation and marking documents. It is recommended that a minimum core team of 6 persons is assembled by the host mine to organise the event.

Awards, Trophies and Sponsors

There are a number of Awards, Trophies and Sponsors that date back to the origins of the competition in the 1970's.

The host mine should refer to the IMRC regarding this list at an early stage in planning their event.



Dignitaries/Invitees

It is recommended that the following are invited to each year's competition.

- Mine Managers of all mines affiliated to the IMRC.
- Mine Managers of all UK Mines affiliated to the competition.
- Chief Mine Inspector HSA
- Chief Mine Inspector HSE
- Perpetual Sponsors
- Senior Officers of the Irish Air Corps
- Secretary and Chairman, IMRC

Judges/Adjudicators

The host mine should refer to the IMRC regarding judges/adjudicators who regularly attend the competition and their contact details.

Potential Competing Mines

The host mine should refer to the IMRC regarding potential competing mines, and their contact details.

This document is issued by the Irish Mine Rescue Committee.



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