

# IMRC



**CANADA 2016**

**Sudbury, Ontario, Canada  
August 19 - 26, 2016**

## **Rules Governing IMRC 2016**

### **Version 1.0**



**International Mine Rescue Competition  
Since 1999**



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## General Rules

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**Questions regarding these rules may be directed to [rules@IMRC2016.ca](mailto:rules@IMRC2016.ca)**



**International Mines Rescue Competition  
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## 1.0 Introduction

### 1.1 Mission Statement

The International Mines Rescue Competition (IMRC) is a biennial event. The purpose of the IMRC is to present realistic simulations that will allow organizers to:

1. Evaluate skills required to perform rescue operations in a mining environment.
2. Judge participants in an open and transparent manner.
3. Provide feedback to all participants.
4. Promote Mine Rescue through improved communication, co-operation and knowledge transfer between responders, mine operators, suppliers, regulators and educators.

### 1.2 Notice of Rules Revisions

The 2016 International Mine Rescue Competition Organizing Committee may be required to revise or update the rules found in this or other pre-competition documents. Registered competing teams will be given notice of any revisions or updates to this or other rules documents. The current, standing rules documents will remain posted on the IMRC 2016 website prior to the competition. All scheduled future publications will be listed within this document and on the IMRC 2016 website.

## 2.0 Roles and Responsibilities

### 2.1 Chief Judge

- 2.1.1 The Chief Judge is responsible for the drafting, preparation and execution of all aspects of the IMRC. All Simulation Lead Judges, volunteers and support personnel are under the direction of the Chief Judge or his designated alternate. All scoring sheets are to be submitted by the Simulation Lead Judge to the Chief Judge for final review and scorekeeping. Any scoring disagreements that cannot be resolved amongst the Simulation Judges in their area of responsibility shall be presented to the Chief Judge for final decision.
- 2.1.2 For the 2016 International Mine Rescue Competition (IMRC 2016), the role and responsibilities of Chief Judge shall be carried out by the General Manager of Ontario Mine Rescue.

### 2.2 Simulation Lead Judge

- 2.2.1 Reporting to the Chief Judge, the Simulation Lead Judge is responsible for coordinating all Simulation Judges in their area of responsibility, and assisting in the interpretation of the Rules Governing the IMRC 2016. The Simulation Lead Judge will guide each competing team through their area of responsibility and ensure understanding of the given scenario by the team and/or Technical Translator. The Simulation Lead Judge is also responsible for ensuring that the field layout of their area of responsibility is reset after each team has competed, so that it is identical for each team.
- 2.2.2 For IMRC 2016, the role and responsibilities of Simulation Lead Judge shall be carried out by the individuals appointed by the Chief Judge prior to the event.

### 2.3 Simulation Judge

- 2.3.1 Reporting to the Simulation Lead Judge for each competition task, the Simulation Judges will be responsible for observing the actions of competing teams and scoring each team according to pre-determined requirements. Simulation Judges must attend the official judges meeting prior to the competition, where they will be provided with information on their duties and scoring areas of the competition.
- 2.3.2 Simulation Judges will be selected and assigned by the Chief Judge from the list of qualified individuals that submit an Online Judge Application via the IMRC 2016 website before the listed deadline.

## 2.4 Scorekeepers

- 2.4.1 Scorekeepers will be responsible for collecting and compiling the official scoring documents completed by Simulation Judges for each competing team at each competition event or task. The Scorekeepers will be stationed in an area of seclusion and will be in contact with the Simulation Lead Judges and Chief Judge only.
- 2.4.2 For the IMRC 2016, the role and responsibilities of Scorekeepers shall be carried out by the individual(s) appointed by the Chief Judge.

## 2.5 Scribe

- 2.5.1 The Scribe will follow each competing team through each competition task and shall be responsible for transcribing time specific actions of each competing team in English. Annotation of team actions will be made from the beginning of each scenario until the Simulation Lead Judge calls the problem “complete”. The notes compiled by the Scribe shall be used by Simulation Lead Judges as well as the Chief Judge to confirm the validity of competition scoring and eliminate judging errors.
- 2.5.2 For IMRC 2016, the role and responsibilities of Scribe shall be carried out by the individual appointed by the Chief Judge.

## 2.6 Competing Teams – Member Roles

### 2.6.1 Briefing Officer

- 2.6.1.1 The team Briefing Officer (Incident Commander) is ultimately responsible for oversight of teams while they work through simulated underground emergency tasks.
- 2.6.1.2 The actions of the team Briefing Officer as it relates to team competition events shall be judged and scored in conjunction with the team score.

### 2.6.2 Captain

- 2.6.2.1 The team Captain shall take charge of, and be responsible for, the discipline; general safety and work performed by his/her team; and should take orders only from the Briefing Officer.
- 2.6.2.2 The actions of the Captain as it relates to team competition events shall be judged and scored in conjunction with the team score.

### 2.6.3 Team Member

- 2.6.3.1 Each Team Member shall operate under the direction of the Captain at all times during all competition tasks.
- 2.6.3.2 The actions of the Team Members as it relates to team competition events shall be judged and scored in conjunction with the team score.

## 2.7 Technician

- 2.7.1.1 Competing Technicians will be responsible for diagnosing and repairing multiple pieces of emergency equipment during a separate Technician competition.
- 2.7.1.2 The Technician will not participate in any team task, exercise or event and will not contribute towards team scoring in any manner.

## 2.8 Technical Translator

- 2.8.1.1 For IMRC 2016, the role of the Technical Translator shall be carried out by an individual appointed in advance of arrival by the competing team. The Technical Translator will be responsible for following the team and converting both spoken language and written competition materials into the working language of the competing team. The goal of the Technical Translator role is to have the team hear the interpretation as if it were the original. Therefore, the Technical Translator must be an individual proficient in technical mining and emergency response terminology.

## 3.0 Honesty, Transparency and Integrity

### 3.1 Isolation

- 3.1.1 In the spirit of fairness and equality, teams taking part in the competition must not seek or share information in advance of participation pertaining to simulation events, exercises, tasks or test. Before the start of the contest all teams scheduled to participate in competition tasks on that day will be placed in isolation.
- 3.1.2 All members of the team including technical translators and other accompanying persons will also be isolated.
- 3.1.3 No other personnel will be allowed into the isolation area other than those approved by the Chief Judge.
- 3.1.4 The time and location of the isolation area will be announced prior to the competition date.
- 3.1.5 Teams in isolation will not be allowed to communicate with personnel outside of competition organizers by any means: visually, by means of phones, cells, radio, electronic devices, and social media. Posting news or information to social media or other online information sites (eg. Facebook, Twitter) prior to the completion of all competition field events is prohibited. In case of violation or intention to violate these rules, the team will be assigned demerits (penalty points) and may be subject to disqualification.
- 3.1.6 Personnel who leave the isolation area will not be allowed to re-enter.
- 3.1.7 Teams that have completed competition field events are not permitted to communicate with any teams that have not yet completed the event.
- 3.1.8 Team members may take reference material into the isolation area. The team member may not use any of this reference material during competition tasks or while completing the theory exam. Contestants will not carry personal notebooks into the contest area.
- 3.1.9 Simulation Lead Judges, Simulation Judges and other competition officials are not allowed to be in contact with any competing team members, in particular to discuss issues related to the competition.



## 3.2 Competition Task Areas

- 3.2.1 A separate area will be provided for spectators to observe the teams during the competition. Only officially escorted spectators, photographers or news media will be permitted closer to the field exercise as approved by the Chief Judge.
- 3.2.2 All photographs of competition events and tasks will be taken by the designated event photographers. Photographs will be distributed to teams upon completion of the IMRC. Team photographers are permitted, however must stay within the assigned spectator's area.
- 3.2.3 All judges and officials shall be provided with a visible means of identification. No person except designated officials will be permitted to communicate with the teams performing or waiting their turn to do so.
- 3.2.4 Simulation Lead Judges, Simulation Judges or competition officials may not communicate with the competing team members or interfere with tasks unless a health & safety risk is identified.
- 3.2.5 Only Simulation Lead Judges, Simulation Judges or competition officials assigned to each particular competition task are allowed on the competition field for each specific event.
- 3.2.6 Following the field exercise, a brief Simulation Judges meeting will be held to ensure consistency between all of the Simulation Judges of that specific competition task or event.
- 3.2.7 Simulation Judges will complete their respective scorecards.
- 3.2.8 Simulation Judges will provide a written explanation of the demerits (penalty points) assigned.
- 3.2.9 After signing the scorecard, a Simulation Judge is not allowed to make any changes to it without consensus with the other Simulation Judges and the Chief Judge.
- 3.2.10 Simulation Lead Judges will collect the scorecards for their specific competition task or event and submit them to the Chief Judge.
- 3.2.11 Simulation Judges will judge in their assigned area only.

- 3.2.12 Simulation Judges must attend the official judges meeting prior to the competition. Following the official judges meeting, Simulation Judges are prohibited from communicating with members or affiliates of the competing teams.

### **3.3 Competition Review/Debrief**

- 3.3.1 Debrief information sessions will be offered on the day following the awards ceremony. Debrief information sessions are for summary purposes only, not for the discussion of scoring or interpretation of actions. Following scoring of team actions by Simulation Judges there will be no appeal process.

## 4.0 Team Requirements

### 4.1 Fitness/Medical Suitability

- 4.1.1 All team members must have a medical assessment completed no more than 12 months prior to the competition. This assessment is to confirm a team member is physically fit, and capable of performing work while using breathing apparatus during Mine Rescue activities. This assessment is to be conducted and authorized by a medical professional.
- 4.1.2 Before the competition begins, medical professionals will confirm the fitness of each team member. No one will be permitted to participate in the team events without having been found physically fit by a medical professional. Personnel with severe colds or other ailments affecting normal breathing are not permitted to wear breathing apparatus upon direction of the medical professional.
- 4.1.3 All individuals participating in the competition must be self-insured in the event of an accident or illness. Each participant will take part in the competition at their own risk and responsibility.

### 4.2 Certificate of Qualifications

- 4.2.1 Each member of the team must be certified/qualified in Mine Rescue and recovery activities within their jurisdiction of work. In addition, team members must demonstrate the necessary physical and mental abilities to perform Mine Rescue work.
- 4.2.2 In jurisdictions where there is a certifying organization to regulate training, team members must present a certificate of training.
- 4.2.3 In jurisdictions where there is no certifying organization to regulate training, the Mine General Manager (MGM) or equivalent authority will provide a letter of qualification for the participating team members to confirm their proficiency.

### 4.3 Personal Protective Equipment

- 4.3.1 Competing teams must be properly dressed for emergency response simulation exercises with personal protective equipment including protective headwear, chin straps, protective eyewear, high visibility apparel, protective footwear and hand protection.
- 4.3.2 Competing teams must have personal protective equipment (PPE) that meets the requirements specified as follows.

#### 4.3.3 Protective Headwear

Hard hats must have a fixture for a cap lamp and a chin strap. Reflective material for hard hats will be silver. Retro-reflective striping must be applied to the front, back and sides.

Hard hats must meet the requirements found in Ontario Regulation 854, Mines and Mining Plants and applicable test requirements for at least a Type 1 Class C approval – impact protective headwear that does not provide dielectric protection.

All hard hats must meet at least one of the following standards:

- a) Canadian Standards Association standard CAN/CSA – Z94.1-05, Industrial Protective Headwear – Performance, Selection, Care and Use.
- b) American National Standards Institute, standard ANSI – Z89.1-2003 Safety Requirement for Industrial Head Protection.
- c) ANSI/ISEA (International Safety Equipment Association) – Z89.1-2009

#### 4.3.4 Protective Eyewear

Protective eyewear must be safety spectacles and have permanently affixed side shields. Protective eyewear must fit properly and manufacturer’s recommendations for use must be followed. All eye protection must meet one of the following standards:

- a) Canadian Standards Association, standard CAN/CSA – Z94.3-07 Eye and Face Protectors.
- b) American National Standards Institute, standard ANSI – Z87.1-03 and/or Z87.1-10.

#### 4.3.5 High Visibility Safety Apparel

Safety apparel must be Class 3, Level 2 coveralls or pants and long sleeve shirt with the following features:

- a) Be made of fluorescent background material
- b) The apparel must have retro-reflective striping that measures 50 millimetres in width
- c) The striping must entirely circle each arm and each leg (at or just below the knee) as well as the waist
- d) The striping must be arranged in two vertical lines on the front extending over the shoulders and down to the waist and be arranged in an X on the back portion covering the upper body.



- e) Team members must have their team number attached to the left arm at the shoulder (starting with #1 for team captain, #5 for the vice-captain, #6 for the spare and finishing with #7 for the briefing officer)
- f) The apparel must be flame resistant and suitable for exposure to flash fires or short duration flame exposure.

All safety apparel must meet the following standards:

- a) Ontario Regulations 854 Sections 262 (2), 263 (2) and 263 (3)
- b) Canadian Standards Association standard CAN/CSA – Z96-09

#### 4.3.6 Hand Protection

Gloves should provide protection from friction, cuts and punctures. Gloves must be suitable for a variety of tasks that may include rope work, firefighting and the use of a variety of hand tools in underground and surface environments. Different types of gloves may be used in each simulation.

#### 4.3.7 Protective Footwear

Protective footwear must be rubber, leather or ballistic nylon. Rubber boots must have metatarsal protection, puncture resistant soles and meet CSA Grade 1 impact requirements. Leather or ballistic nylon boots must be omega rated, have puncture resistant and electric shock resistant soles, integral or external metatarsal protection and meet CSA Grade 1 impact requirements as shown below.

All safety footwear must meet the following standard:

- a) Canadian Standards Association standard – CAN/CSA – Z195-09 Protective Footwear



#### 4.3.8 Standard Personal Protective Equipment

The following items will be supplied during IMRC 2016 field tasks or events:

- a) Cap Lamps
- b) Mine Rescue travel restraint belt
- c) Cap lamp battery pouch (if required)
- d) Link line
- e) Medical examination gloves

#### 4.4 Team Equipment

##### 4.4.1 Team Supplied:

- a) PPE as per above

##### 4.4.2 IMRC 2016 Supplied:

- a) Miners belts
- b) Link lines
- c) Cap lamps (with pouch)
- d) Medical examination gloves
- e) All rescue equipment required for simulations

#### 4.5 Official Language

4.5.1 The official language for all of the events and communications will be English. Every effort will be made during competition task planning to minimize any disadvantage to competing teams due to a lack of proficiency in English or the use of a Technical Translator.

#### 4.6 Team Demographics

##### 4.6.1 Team Member Requirements – each candidate must be:

- a) A minimum age of 18 years old
- b) In good health and physically fit
- c) Clean shaven, with no facial hair to interfere with the facemask seal
- d) Calm and self-controlled in an emergency or a dangerous event
- e) Known to be of good judgment and initiative
- f) Capable of performing long, arduous and physical labour
- g) Familiar with underground mining conditions and practice
- h) Certified in first aid training
- i) An employee of a mining company/government agency.

## 5.0 Competition - General Rules & Requirements

### 5.1 General Rules

- 5.1.1 There will be a predetermined allotment of time, prior to the day of scheduled competition events, for each team to review the equipment that may be used in the competition(s). This equipment review period will be assigned by competition organizers to coincide with the IMRC 2016 schedule of events.
- 5.1.2 The IMRC 2016 Overall Team Competition will consist of five available scored events. Each team must participate in four of the five available team events to be entered in the Overall Team Competition rankings. Three team events are mandatory with the fourth team event being a choice between one of two events. All of the team events will have a weighted scoring value contributing to the Overall Team Competition scoring as follows:
- a) Team Mine Rescue Simulation (**Mandatory**) - 40%
  - b) Team Firefighting (**Mandatory**) – 30%
  - c) Team Theory Exam (**Mandatory**) – 10%
  - d) Team First Aid (**Option 1**) – 20%
  - e) Team High Angle Rope Rescue (**Option 2**) – 20%
- 5.1.3 Teams may choose to participate in all five events. Their fifth event will not count in the Overall Team Competition score, but will qualify for the awards associated with the individual event.
- 5.1.4 Teams electing not to participate in the Overall Team Competition are still eligible for the awards associated with the individual events in which they participate.
- 5.1.5 Each competing team will be comprised of seven team members:
1. One Briefing Officer
  2. One Captain
  3. One Vice Captain and
  4. Four team members.

Upon following registration and prior to the commencement of competition tasks, teams must clearly define the seven individuals selected to compete and those individuals in a non-competing spare or reserve role.

- 5.1.6 Teams may also include a Technician to compete in the individual Technician Competition. All other people travelling with the team will be considered spectators and will be restricted from the competition designated task area. All spectators will be guided to the competition task viewing area.
- 5.1.7 Technical Translators, for the purpose of assisting teams during competition tasks, will not be provided by the IMRC 2016 organizing committee. Technical Translators are in addition to the seven competing team members outlined above. Technical Translator duties are to provide translation only. They may not assist with competition tasks or discuss team actions with competing team members.
- 5.1.8 Technical Translators will have equivalent access to the designated task areas as the competing team members.

## 5.2 Team Member Substitution

- 5.2.1 If a medical professional determines that a team member is medically unfit to participate in the event, a substitution will be allowed. The unfit team member will be allowed to switch positions with their spare team member. All substitutions must be approved by the Chief Judge prior to the team leaving isolation.

## 5.3 Penalties

- 5.3.1 Prior to commencement of each competition problem, a check based on direct observations shall be made to determine whether any of the team members are unfit to participate in the competition task. Where there are reasonable grounds to believe any physical or mental factor renders a team member unfit to compete, the Chief Judge will investigate. If the Chief Judge agrees, the team member will be disqualified and the team may face further penalty up to and including disqualification.
- 5.3.2 The Chief Judge will investigate when there are reasonable grounds to believe that a person has attempted to assist/influence a team by providing information related to any part of the competition, prior to or during a competition problem. If the Chief Judge deems that such a transgression has occurred, the team may face penalties up to and including disqualification.
- 5.3.3 The Chief Judge will investigate when there are reasonable grounds to believe a team or member received information concerning a competition problem. If the Chief Judge deems that such a transgression has occurred, the team may face penalties up to and including disqualification.



- 5.3.4 Information or pictures about the competition cannot be posted to digital communication channels or social media outlets until the awards ceremonies are complete. The Chief Judge will investigate if any team, team member or team representative is found to have posted competition information to digital channels or social media prior to such a time. If the Chief Judge deems that such a transgression has occurred, the team may face penalties up to and including disqualification.
- 5.3.5 The Chief Judge will investigate if any team, team member or team representative causes disruption during the competition. If the Chief Judge deems that such a transgression has occurred, the team may face penalties up to and including disqualification.
- 5.3.6 Any penalty applied will be decided by the Chief Judge. Teams will not be allowed to appeal the decision or penalties assessed. All decisions will be final.

## 5.4 Scoring

- 5.4.1 Examples of performance checklists (scoresheets) with merit/demerit values (penalty scoring points) will be provided to registered teams in advance of IMRC 2016 for training purposes.
- 5.4.2 Interpretation and scoring in each competition event will be pre-determined by IMRC 2016 organizers and agreed upon by Simulation Lead Judges and Simulation Judges in advance of the event and at the judge's pre-competition meeting.
- 5.4.3 The Simulation Lead Judge and Simulation Judges for each competition event will discuss each competing team's performance and must reach consensus on the scoring of each task.
- 5.4.4 The Chief Judge will have final oversight on the interpretation and scoring of the actions of the teams. The decision of the Chief Judge may supersede the evaluation of the Simulation Lead Judge and Simulation Judge for that competition task and will be recognized as the final ruling in the event of a disagreement regarding the scoring.
- 5.4.5 Competing teams will not be permitted to appeal the scoring or decisions of the Simulation Judges, Simulation Lead Judges or Chief Judge.
- 5.4.6 The Chief Judge and Simulation Lead Judges shall be the only people in contact with the Scorekeepers.

## 5.5 Debriefing/Information Sessions

- 5.5.1 Competing teams and technicians will be provided with an opportunity for a debriefing information session on the day following completion of the competition awards ceremony.
- 5.5.2 The purpose of the debriefing information session is to provide feedback to all competing teams.
- 5.5.3 At the debriefing information session, competing teams will be provided with the following:
  - a) A scoresheet summarizing the scoring of all competing teams in all tasks
  - b) A copy of their own scoresheets including Simulation Judge written comments and Scribe notes
  - c) An opportunity to discuss their actions in the context of the intended competition task requirements

## 6.0 Competition Task Specific Rules and Guidelines

### NOTICE:

Competition Task-Specific Rules and Guidelines will be posted in a revised version of this document (Rules Governing IMRC 2016 Version 2.0) on December 31, 2015. Version 2.0 will include competition task-specific information pertaining to:

- Format
- Equipment
- Technical Standards
- Expected Team Procedures
- Evaluation Criteria

## 7.0 Competition Task Specific Scoring

### NOTICE:

Competition Task-Specific Scoring will be posted in a revised version of this document (Rules Governing IMRC 2016 Version 3.0) on March 31, 2016. Version 3.0 will include competition task-specific information pertaining to:

- Demerit/Merit Point Allocation Category Breakdown (Penalty/Bonus Scoring Points)
- Example Task Checklists
- List of Common Team & Competitor Errors with Associated Demerit (Penalty) Scoring for Reference

# APPENDIX