

# ONTARIO MINE RESCUE PROGRAM

3<sup>rd</sup> International Mines Rescue Conference

Nashville Tennessee

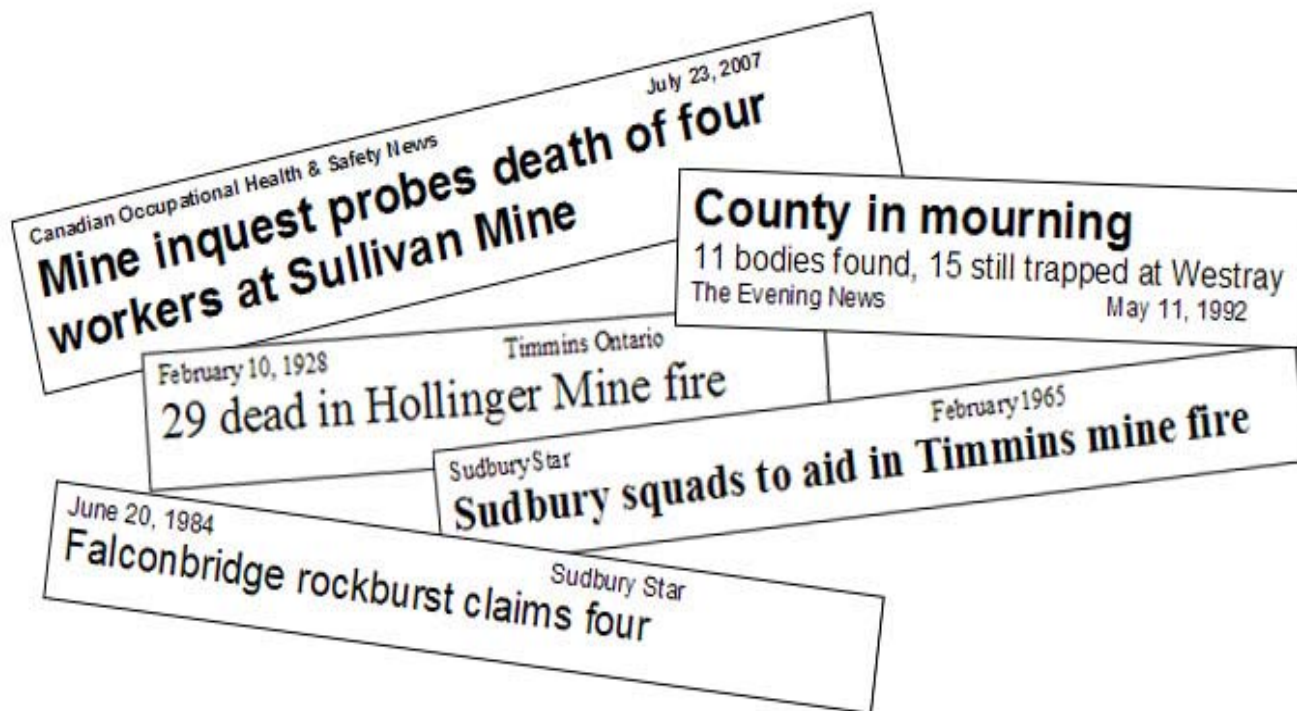
August 26 to September 1, 2007



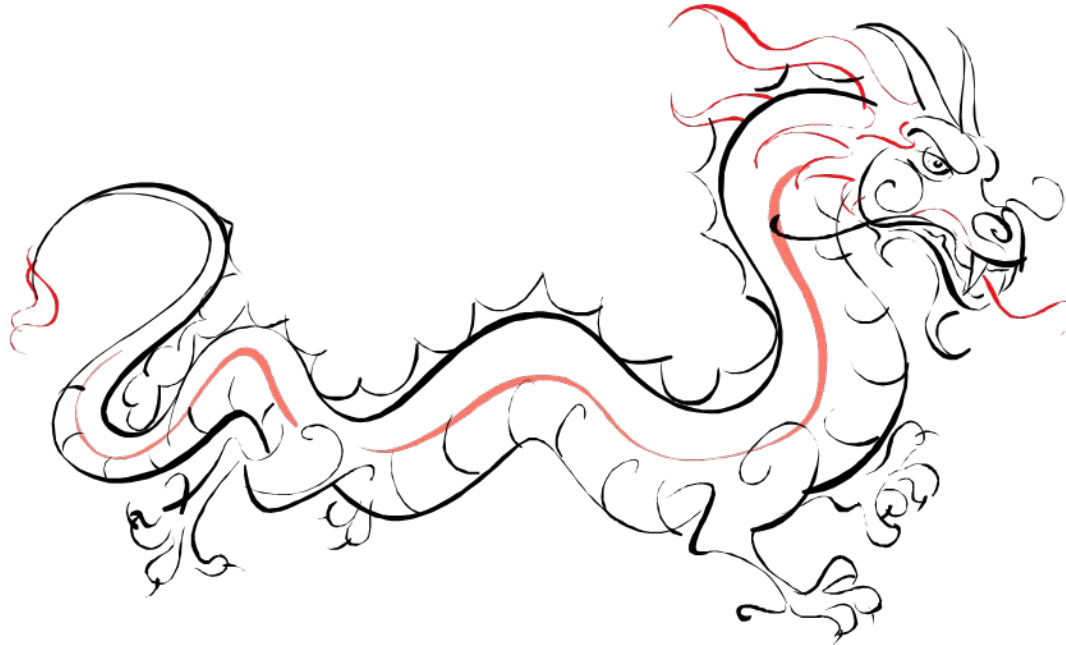
# “EMERGENCY PREPAREDNESS IN THE 21<sup>ST</sup> CENTURY”



# “PREVENTABLE INCIDENTS!”



# “ANCIENT CHINESE PROVERB”



“If you plan for a year, plant rice.”

“If you plan for 10 years, plant trees.”

“If you plan for 100 years, educate mankind.”

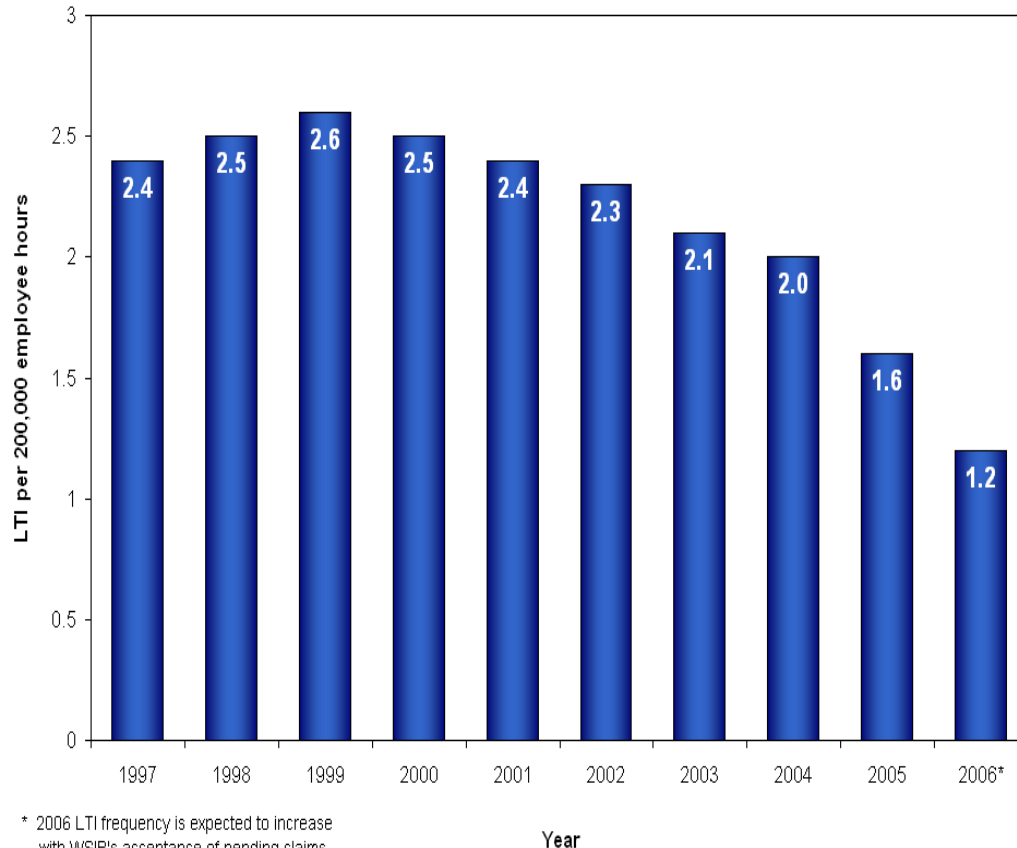
“OUR HEALTH AND SAFETY  
MISSION IN ONTARIO IS TO ...”



... achieve a state of zero harm

# “MINE RESCUE IS AN IMPORTANT PART OF OUR HEALTH AND SAFETY INFRASTRUCTURE”

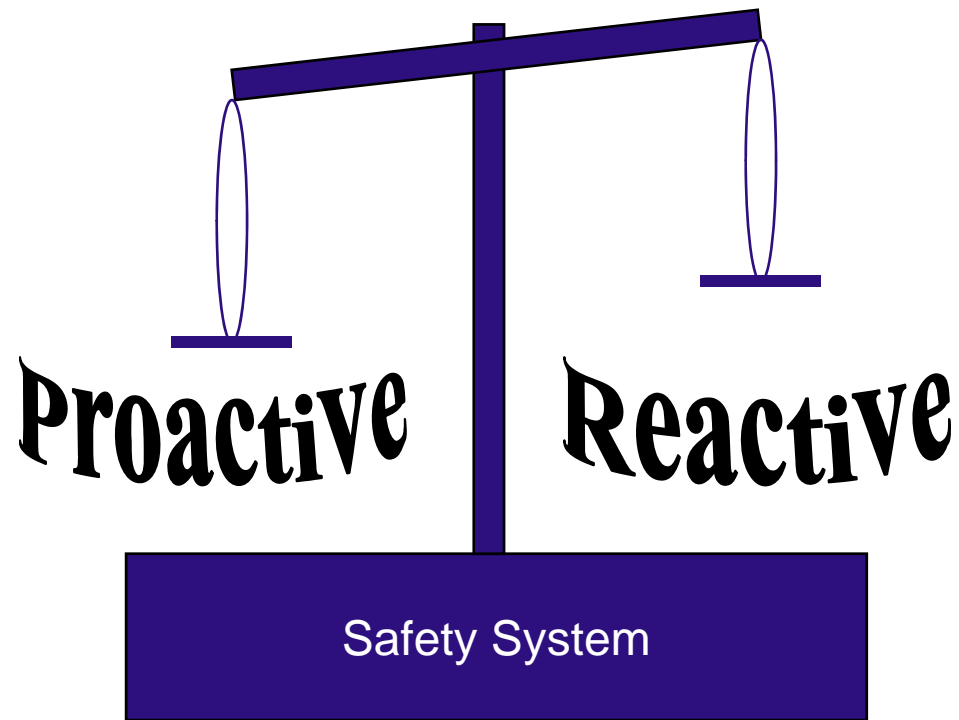
Ontario Mining and Aggregates Industries  
Lost Time Injury Frequencies 1997 - 2006



Source: MASHA Association Profiles, Dec. 31/03 and Jan. 31/07.



# “EMERGENCY RESPONSE”

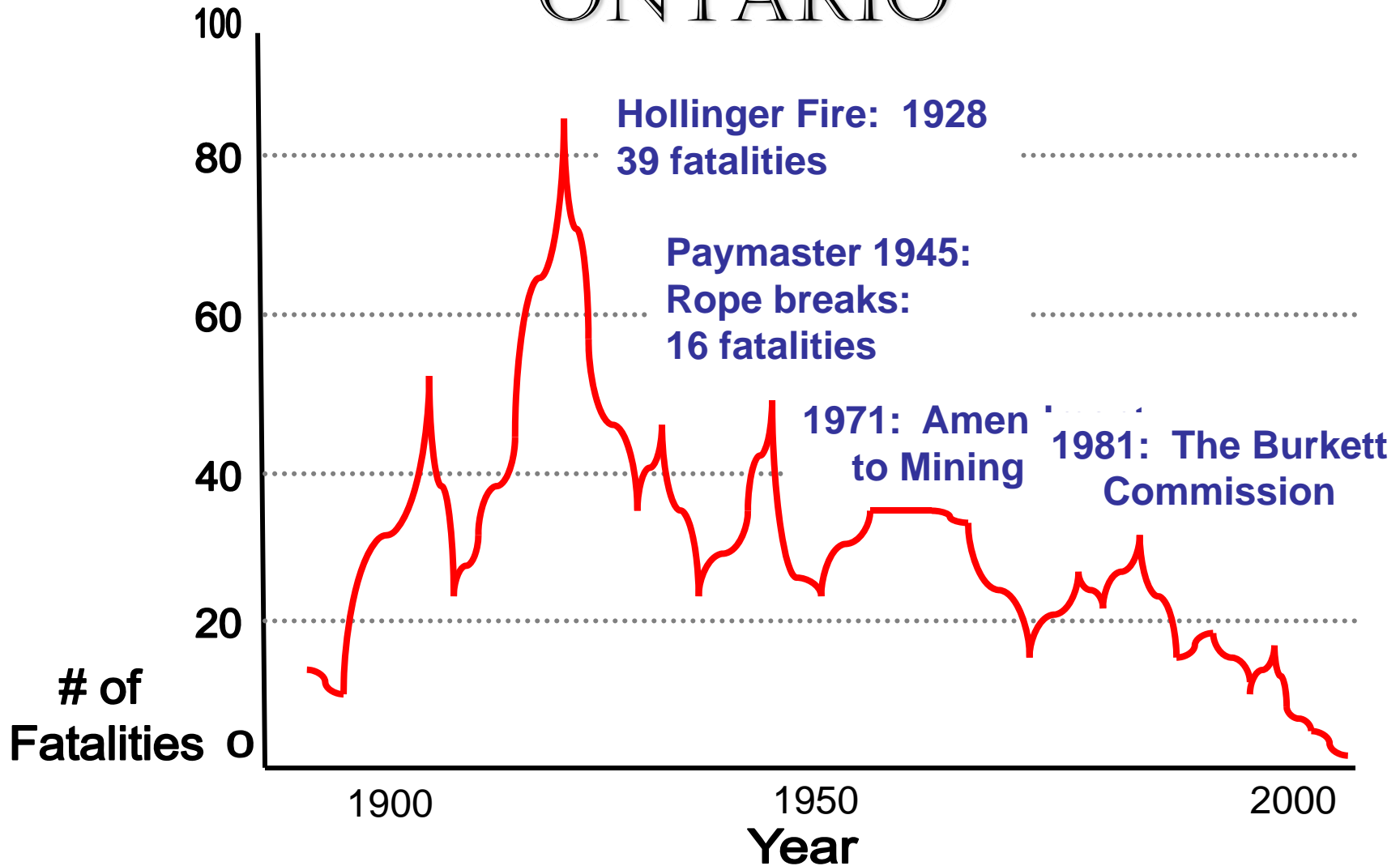


# “MINE RESCUE”



Every jurisdiction has legislated requirements  
Vary according to types of mining  
Based on best practices that have evolved over  
time

# “MINING FATALITIES IN ONTARIO”





**Fewer incidents results in increased need for emergency response capability**

# “ONTARIO’S MINE RESCUE MODEL”



Equipment



Procedures



Response Capability

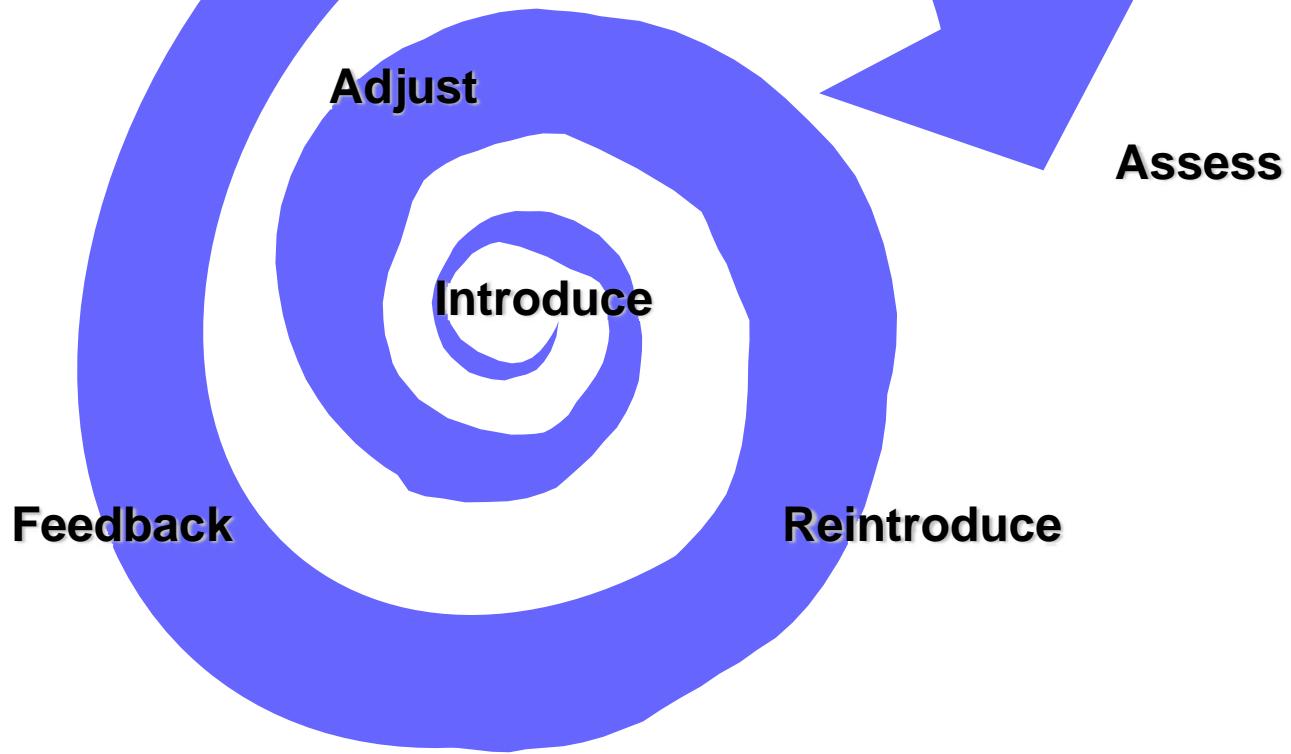


Training

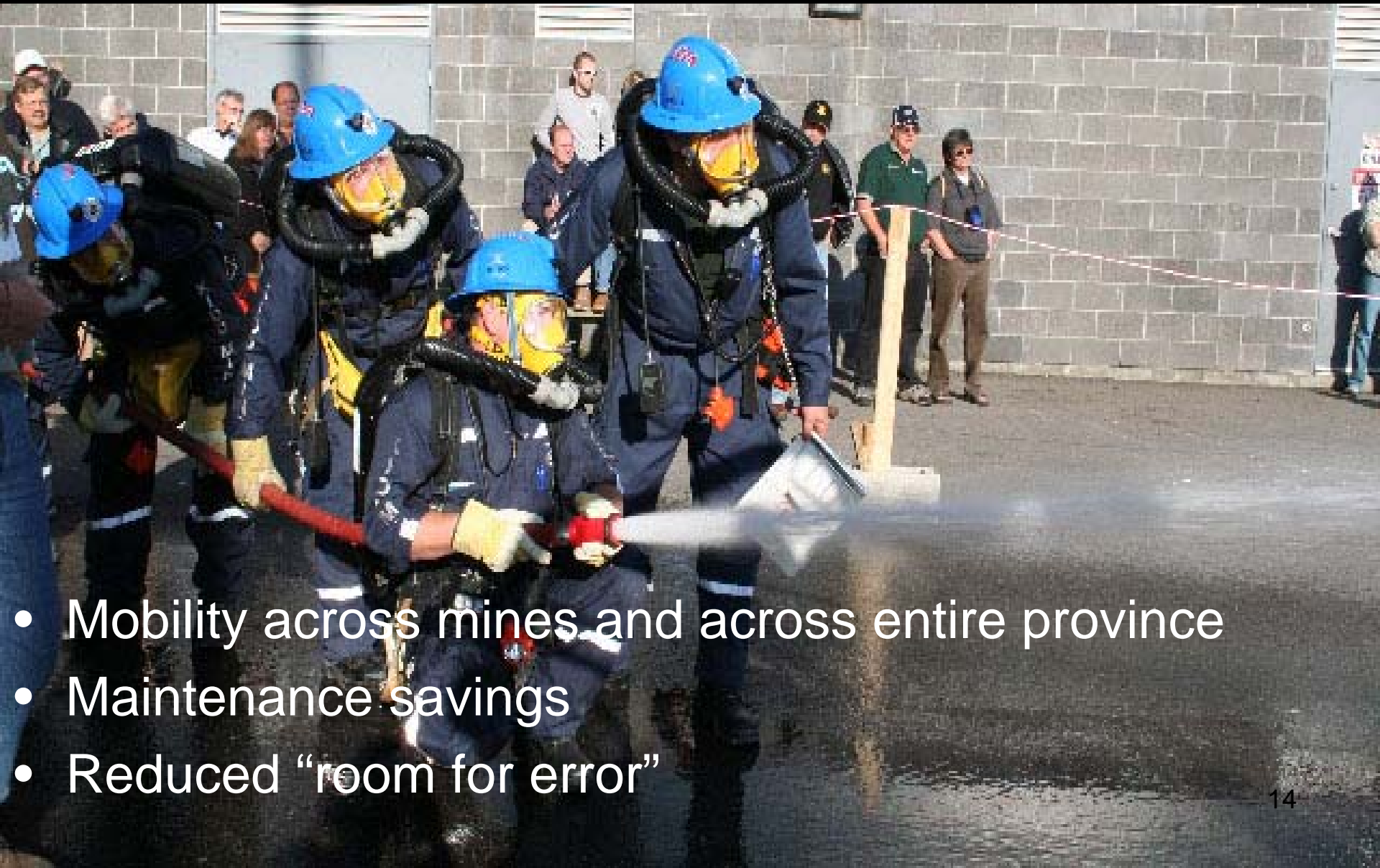


- Strategically located “Volunteers”
- Standardized equipment, procedures, and training
- Strategically located stations and substations
- Mutual aid and cross mine training
- Continuous improvement process – assessment, adjustment, reintroduction, and feedback

# “CONTINUOUS IMPROVEMENT PROCESS”



# “STANDARDIZED EQUIPMENT”

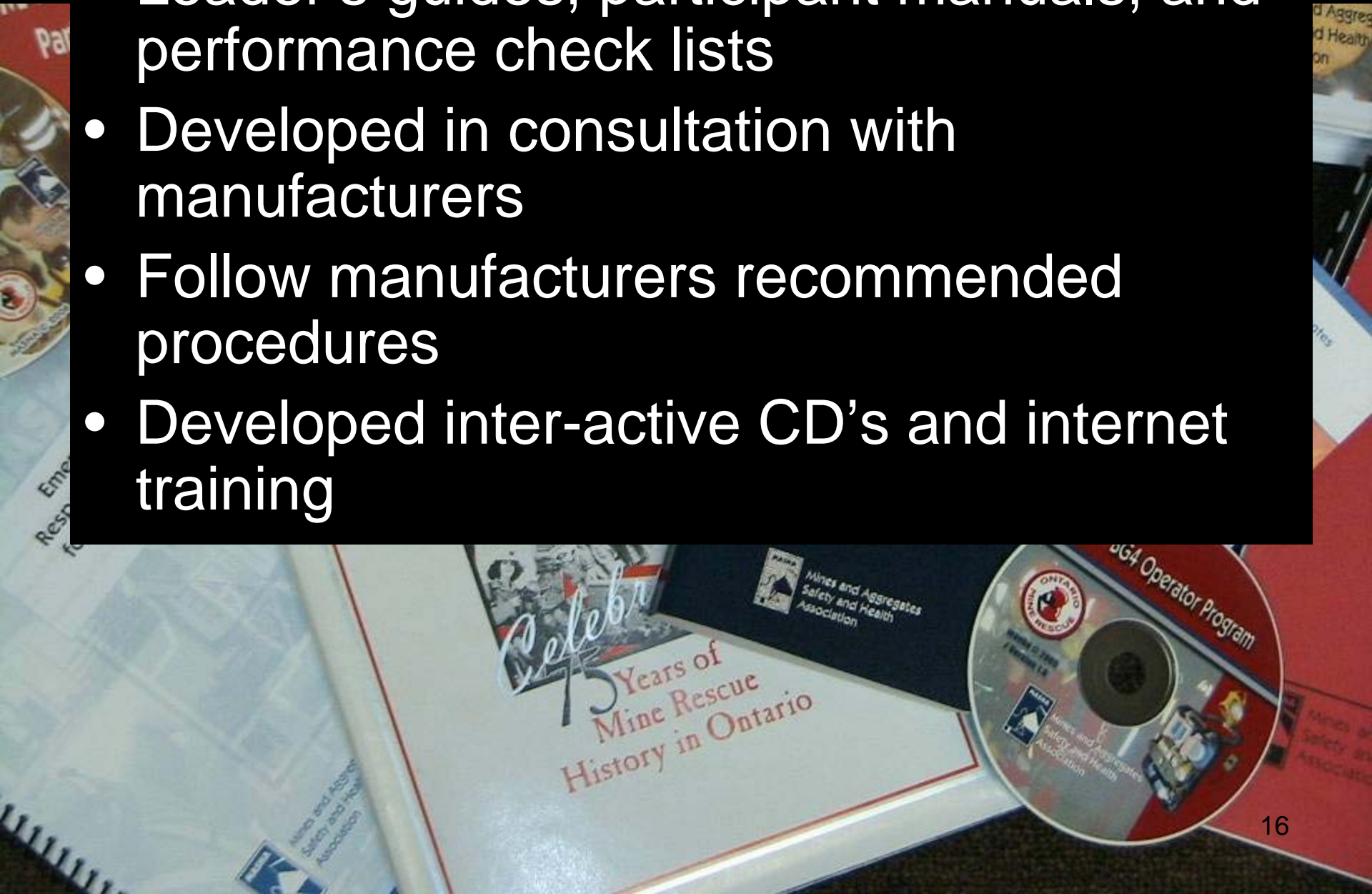


- Mobility across mines and across entire province
- Maintenance savings
- Reduced “room for error”

# “STANDARDIZED PROCEDURES”

- Developed from incident review (both internal and external)
- Practiced during training competitions, and simulations
- Continually reviewed and updated as necessary

- Standardized and performance based
- Leader's guides, participant manuals, and performance check lists
- Developed in consultation with manufacturers
- Follow manufacturers recommended procedures
- Developed inter-active CD's and internet training



# “EMERGENCY PREPAREDNESS TRIANGLE”

Command Centre

Problem Solving

Briefing Officers

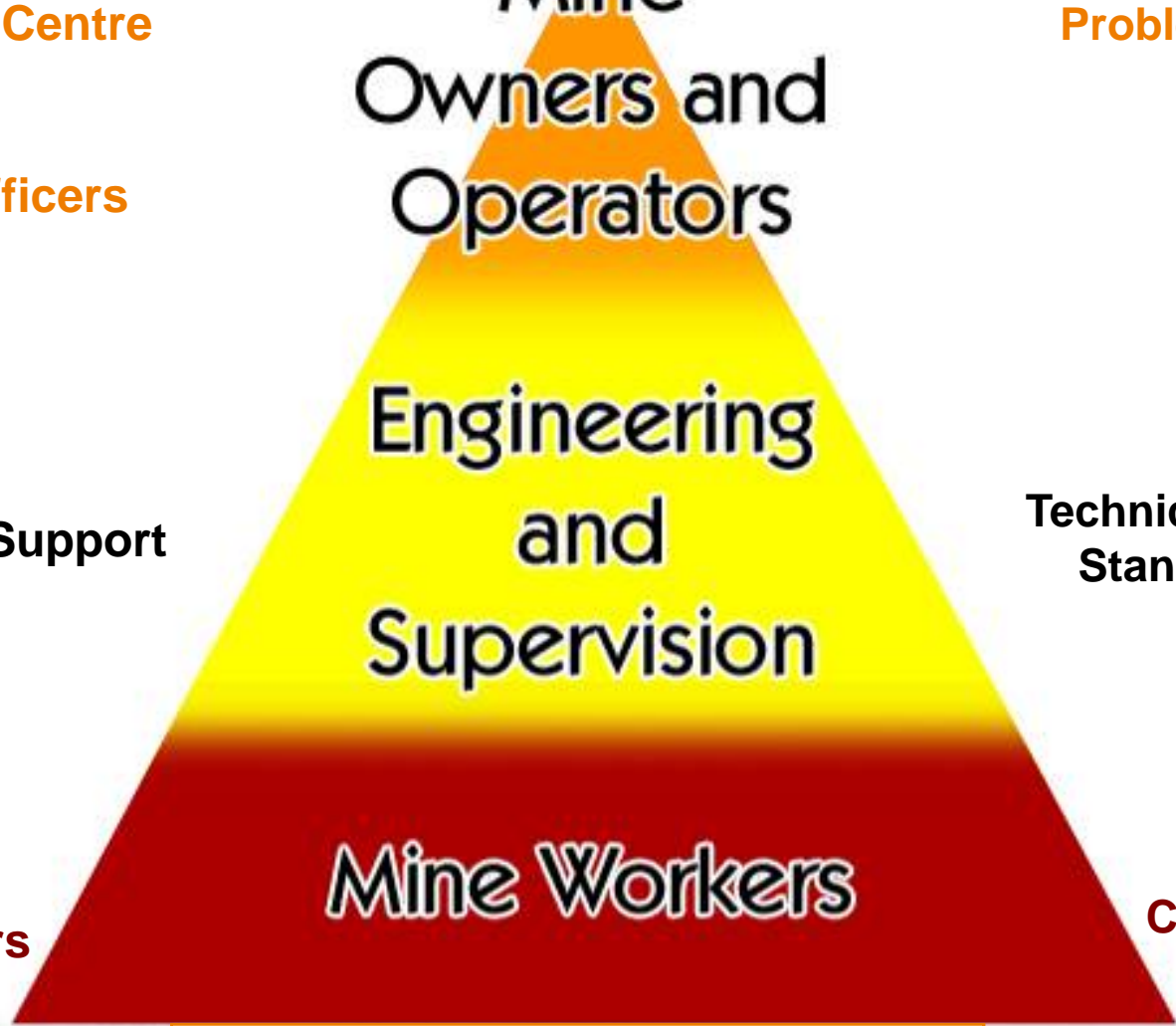
Mutual Aid

Technical Support

Technical Support  
Standardization

First  
Responders

Technical  
Competency



Communication

**Systems Audit**

**Emergency Preparedness Organization**

# “TRAINING RECORDS”

- Electronic data base
- Data shared with employers for record keeping
- Information captured
  - Personal information
  - Levels of training
  - Oxygen time
  - Special certification (first aid, relief man)
  - Competency demonstration

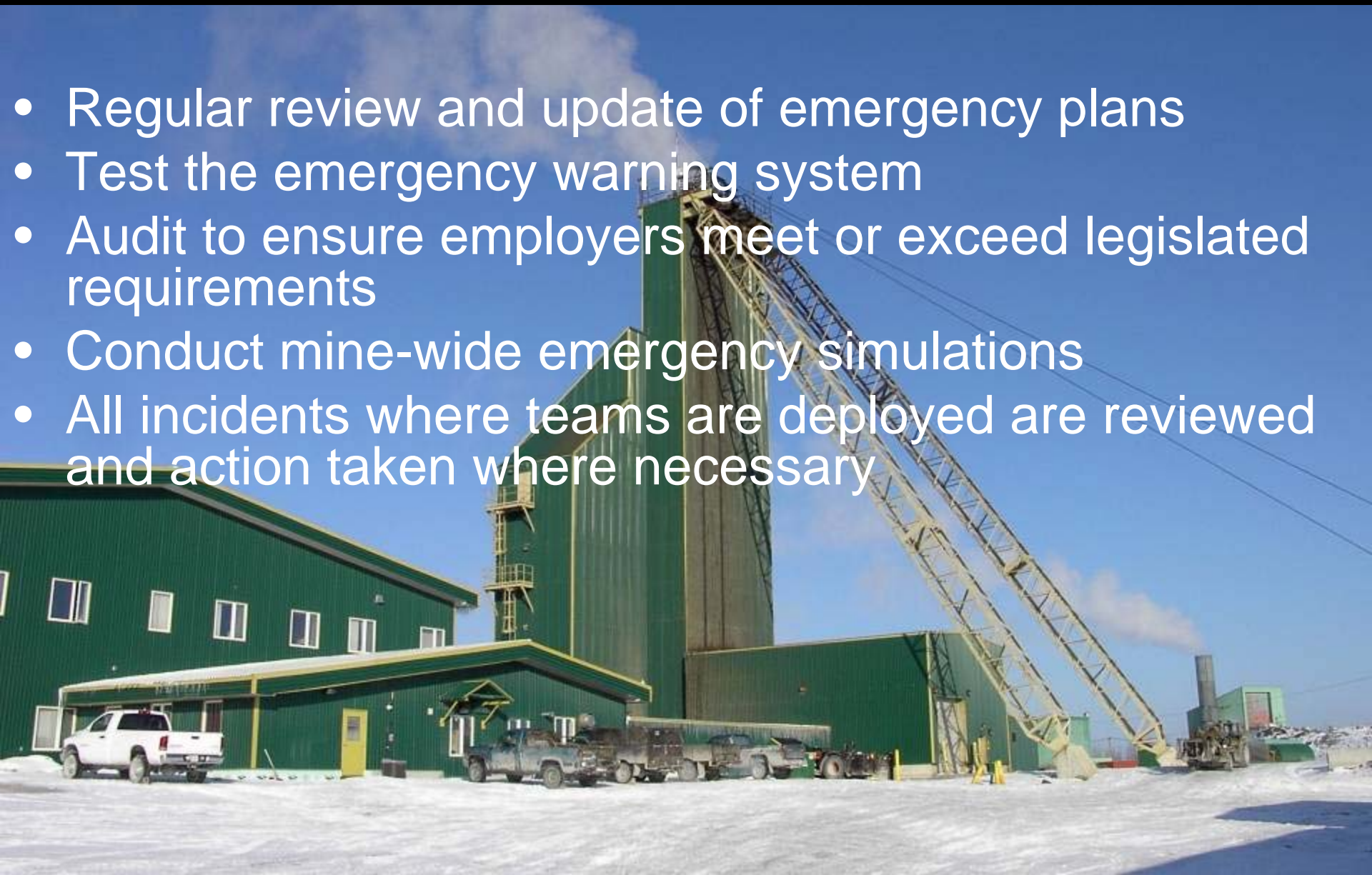
# “RESPONSE CAPABILITY”



- Ensure adequate resources to handle any foreseeable emergency
- Appropriate number of trained men
- “Point in Time” Evaluation tool used to assess response capability

# “EVALUATION”

- Regular review and update of emergency plans
- Test the emergency warning system
- Audit to ensure employers meet or exceed legislated requirements
- Conduct mine-wide emergency simulations
- All incidents where teams are deployed are reviewed and action taken where necessary



# “INCIDENT REVIEW INCLUDES”

- Equipment adequacy
- Procedures
- Availability of teams
- Response times

# “MINE RESCUE COMPETITIONS”



- Invaluable training tool
- Realistic and real time
- Teams are evaluated in the effectiveness and efficiency in working through complex problems

- **Representatives from industry, organized labour, government, and MASHA**
- **Mandate: make recommendations that will result in continual improvement of the mine rescue program**
  - **Accomplishments include program modernization (equipment and training support materials)**
  - **Standardized competency checklists**
- **Ensures relevancy and connection with industry**



**“TECHNICAL ADVISORY COMMITTEE”  
(TAC)**

# “RESEARCH”

03:35:58

- Projects are identified by TAC and must benefit mine rescue
- Funded by the Research Advisory Council
- Done in partnership with academia and our customer group
- MASHA acts as the liaison between industry and the primary investigator
- Current projects include:

Documentation

Briefing Officer Reporting

Fire located in east drift and identified as an H<sub>2</sub>O which was caught fire.

Click here to continue.

# VIRTUAL REALITY

02:49:52

Documentation

Options

## Briefing Officer Reporting

- Control group training

Fire located in east drift and identified as an LHD which has caught fire.

Emergency response in mine

[Click here to continue.](#)



# HEAT STRESS

- Deep mines increase heat exposure for mine rescue teams
- Coalition of mining companies, university research departments, government, MASHA
- Examining effect of heat exposure and controls



- **Vital to future improvement**
- **Information sharing**
- **Conduit for sharing research findings and learning from incidents**

“CONNECTION WITH IMRB”

“THANK YOU”



Mines and Aggregates  
Safety and Health  
Association

