

***MAJOR***  
***Drilling***

# Safety Systems Overview



**USA**

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# Risk Management

At Major Drilling, risk is evaluated and controlled. We conduct site/equipment-specific risk assessments and job safety environment analyses (JSEAs) from which appropriate controls are implemented and safe work procedures are developed. All workers are trained on conducting Take 5s, a field-level risk assessment.

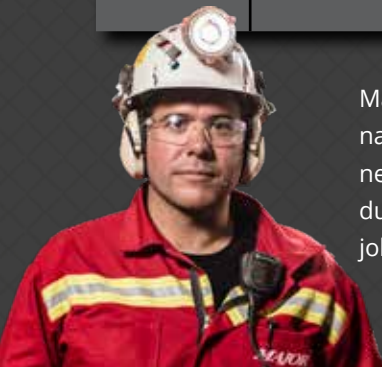
# Training

Every new hire, regardless of position or experience, is subject to qualification screening. Employees are familiarized on the company’s policies and procedures through the mandatory orientation training program. Field employees also follow a vigorous task training program as part of the on-boarding process and beyond. Skill development of new employees is monitored closely and evaluations completed leading to accreditation in recognized training standards appropriate to their position. Retraining is provided where deemed beneficial. Our planned training programs are primarily structured by organizational level and job function. The content of these programs largely focuses on matters of health and safety and the internal responsibility system.

New Hire Qualification	<ul style="list-style-type: none"><li>• Medical and hearing test</li><li>• Drug test</li><li>• Fit for duty</li><li>• DOT Medical Card</li><li>• Company orientation</li><li>• PPE</li></ul>
Training	<ul style="list-style-type: none"><li>• PPE</li><li>• Intelix</li><li>• HAZCOM</li><li>• Confined Space</li><li>• Incident Reporting</li><li>• Workplace and Equipment inspections</li><li>• Defensive driving and road test</li><li>• First-aid, CPR and AED</li><li>• MSHA Surface and Underground (40-hour and 24-hour)</li><li>• OSHA 10-hour</li><li>• LOTO</li><li>• Stop Work Authority</li><li>• Every 1 to 3 years depending on training course</li></ul>

## These training programs include:

	New Hire Induction	Supervisory Program	Department or Function Orientation	Work-Environment or Job-Site Orientation
Objective	Know the organization and the procedures applicable to the entire organization as well as those particular to their level of responsibility with the organization and the internal responsibility system	Acquire the knowledge, skills and attitudes generic to all employees filling positions in a supervisory capacity	Fulfills a new or transferred employee’s need to know the policies and procedures specific to that unit	Fulfills the need for employees, contractors and visitors who are either new to an immediate work environment or job site, or returning from an extended absence from that area or site, to become acquainted with the area/site, to know the procedures and work methods to be used, become aware of area/site-specific hazards and constraints and know response measures to follow in the event of an emergency
Audience	New hires	Supervisors and managers	Department employees	Employees, contractors, visitors



Major has formal job-level training programs for positions performing its core business activities, namely surface and underground drilling supervisors, operators and helpers. These programs fulfill new, promoted or transferred employees’ needs to know and internalize the roles, responsibilities, duties, applicable policies and procedures and critical tasks to be performed that are unique to the job. Employee skills and knowledge are continually updated through annual refresher training.

## Intelix HSEC and Training Database

Major Drilling tracks the details of each incident globally in our Intelix database. By entering details of incidents regardless of severity of loss, we build an ongoing picture of risk that helps identify emerging trends and track the effectiveness of our efforts.

Intelix generates reports of upcoming training requirements so refresher training can be scheduled without disrupting projects. Copies can be accessed and provided on demand.

## Supervisor Competency

A competent supervisor is key to a successful health and safety program, and expectations placed on a supervisor are always high. Our supervisor training program aligns with the fundamental requirements outlined in occupational health and safety legislation and directly relates to the application of our safety programs and processes, ensuring the health and safety of the workers they supervise.

### The supervisory training program addresses:

- The basic principles of safety and the internal responsibility system
- Incident reporting, investigation and management of incidents
- Effectively communicating with clients
- Field-level risk management
- How to handle disciplinary actions
- Hazard recognition, workplace inspections and observations
- Prepare for emergencies (covered on page 5 for emergency preparedness)
- Follow health and hygiene procedures and guidelines
- How to follow and implement company safety programs
- How to effectively communicate with various workplace parties
- How to manage work area activities
- Leadership and coaching skills

*Supervisor competency is monitored and evaluated in accordance with a recognized training standard.*

## Inspection and Observation

Inspection and observation programs play a central role in the monitoring of our safety programs. A series of focused inspection forms and checklists assist in ensuring that the basis for safe equipment and workplace conditions are monitored for specific details at a pre-determined frequency. Operating surface and underground drill sites and shop areas are inspected by the supervisor on a weekly basis. Where the inspection is for a drill operation, it covers the various areas of the job site including the access route and drill site, pump site, dry facility and storage area and/or container, as applicable.

Observation programs ensure that workers adopt and use correct work methods, which minimize their exposure. Substandard conditions, work methods or hazards identified during an inspection or observation are evaluated and corrective actions prioritized and completed in accordance with the risk rating assigned. Outstanding corrective actions are tracked through the database system until documentation demonstrating that the issue has been resolved is entered.

### Pre-Op Checks

- Drilling equipment
- Mobile equipment
- Ancillary equipment
- Vehicles

### Inspections

- Pre-start inspections
- Weekly inspections
- Monthly tower inspections

### Observations

- Movement
- Hand and fingers
- Hazard observations
- Task observations

## Safety Communication

Communication is fundamental to the successful implementation of our safety programs. It is by design that Major has many communication tools and programs to transmit information at various levels within the company. Each of these programs or tools flow one into another to create a continual flow of information for the ultimate benefit of the worker.

	Daily Talks	Toolbox Meetings	Supervisor Conference Calls	Managers Meetings
Purpose	<ul style="list-style-type: none"> <li>Develop/maintain a safety culture</li> <li>Promote positive safety attitude</li> <li>Promote safe work practices and behaviors</li> <li>Learn from co-workers</li> </ul>	<ul style="list-style-type: none"> <li>Increase awareness of potential hazards through HSEC topic of the week</li> <li>Share safety alerts</li> <li>Address site-specific concerns</li> </ul>	<ul style="list-style-type: none"> <li>Develop supervisor's safety leadership</li> <li>Follow-up on daily safety talks</li> <li>Share best practices and disseminate information</li> </ul>	<ul style="list-style-type: none"> <li>Share best practices</li> <li>Discuss safety concerns</li> <li>Learn from other operations</li> </ul>
Led By	Foreman	Foreman	Manager	General Manager
Attendees	Workers	Workers	1st & 2nd Line Supervisors	Area Managers & HSEC Managers
Duration / Frequency	5-10 minutes / at shift change	10-20 minutes weekly	30-45 minutes weekly	30-45 minutes weekly

General safety meetings, typically led in collaboration with an HSEC team member, are held on occasion to communicate new safety initiatives and safety performance results, and address safety issues as the situation requires.

## WorkSafe Program

The WorkSafe program is a straightforward and comprehensive process implemented at the field level. This program entails the systematic 3-step process of:

- Identifying hazards
- Assessing their risks, and then
- Acting to control them

Following the Neil George 5-Point Safety System, this program is centered on the WorkSafe Card, which must be completed by the crew and the supervisor (with some exceptions) for every shift worked, even if there is no drilling activity during that shift.

### WorkSafe Card

#### What is it?

**Daily tool used by the drill crew and supervisor to systematically:**

- Identify hazards
- Assess the risks involved, and
- Act to control them

**Following the 5-point safety system:**

- Check entrance & travel way
- Check workplace condition
- Plan for task to be completed
- Do an act of safety
- Can & will work continue safely?

### Components of WorkSafe Card

PLAN	Task Planning - Take 5 Hazard reporting
DO	Daily supervisor contact communication tool between shifts LOTO and hot work documentation
CHECK	Pre-shift inspection of workplace Pre-ops for equipment



The program requires that crews inspect the condition of their equipment and work environment in order to identify and ultimately control hazards. It also requires that crews reflect on the work assigned and complete a TAKE 5 (a field level risk assessment) where tasks are either non-routine or present a certain level of risk.

#### Take 5 Requirements:

- New to an employee
- Non-routine task that has not been completed within the past 5 days
- Work conditions change
- Hazardous or anytime an employee feels the risk assessment is required
- Anytime a LOTO is performed

## Emergency Preparedness

Given the transient nature and remoteness of our work sites as well as challenging access, emergency preparedness continually remains in the forefront of our job planning activities. The preparation of emergency response plans entails:

<b>Equipment &amp; Supplies</b>	<ul style="list-style-type: none"> <li>• Evacuation vehicle</li> <li>• Communication devices</li> <li>• First-aid supplies</li> </ul>	<ul style="list-style-type: none"> <li>• The identification of possible types of emergencies;</li> <li>• The allocation of suitable equipment and supplies to facilitate an adequate response;</li> </ul>
<b>Procedures &amp; Training</b>	<ul style="list-style-type: none"> <li>• Protocols for emergency response</li> <li>• First-aid training</li> </ul>	<ul style="list-style-type: none"> <li>• Providing the workers with appropriate training and written instructions on how to respond in the event of emergencies, and</li> </ul>
<b>Emergency Contacts</b>	<ul style="list-style-type: none"> <li>• Emergency contact list</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring that a site-specific emergency contact list is readily available and that response efforts are coordinated with local emergency services prior to the start of the project.</li> </ul>

A site-specific emergency response plan is prepared for every site in which we operate.

## Incident Management

Employees are required to report all injuries and near-misses regardless of severity and seek first-aid and/or medical-aid as the situation requires. All high potential incidents are investigated and followed up with corrective actions and a post-incident review call. Lessons learned are drawn and corrective actions implemented to prevent re-occurrences.

We track the details of each incident in Intelx, our HSEC tracking database. The generation of various reports drawn from this database provides a picture of on-going risk, permits us to identify emerging trends as well as the effectiveness of our efforts.

## Job Management Audit

Job management audits are conducted by area managers, senior supervisors or HSEC team members on each project every month. This process serves to measure job management performance on two fronts:

- Quality Assurance – a proactive process where the focus is on the processes and programs used to execute the work. This process seeks to monitor compliance to the management system, job plan and applicable safety and environmental program requirements; and,
- Quality Control – a reactive quality process where the focus is on the job results. This process seeks to monitor compliance to the job and client requirements.

Audits are documented, entered in the database and corrective actions generated and tracked.



## 10 LIFE SAVING RULES

The **10 Lifesaving Rules** target high risk operations at work where it is proven that failure to comply has the highest potential for serious injury or fatality. By driving a simplified, standardized set of Lifesaving Rules across Major, we aim to achieve a culture of compliance throughout all operations.

## TAKE 5

Conducting a **Take 5** risk assessment helps workers identify the hazards associated with each job's steps, and apply the appropriate controls to do the job safely.



Major Drilling also implements a number of safety programs developed to address specific risks, including:

LOTO	Vehicles & Work-Related Travel	Working in Adverse Winter Conditions	Hot Work
Working from heights Fall Arrest	Return to Work	Drug & Alcohol	Industrial Hygiene Sampling
PPE	Confined Spaces	Stop Work Authority	Etc...



# Critical Risk Management

## Purpose:

Our critical risk management program serves as a key part to a critical incident prevention strategy.

It provides the controls deemed necessary to prevent potential fatalities, serious incidents and/or injuries that come from our most common hazards and risks encountered in our daily business tasks.

## Approach:

Every critical risk identified in this program has a set list of critical controls. Every shift, when the employee encounters a critical risk symbol they will need to stop and complete the corresponding critical control checklist.





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