ENVIRONMENTAL, HEALTH AND SAFETY MANAGEMENT SYSTEM GUIDE

BOART LONGYEAR™

CEO MESSAGE

We take great pleasure in introducing you to our revised Environmental, Health and Safety (EHS) Management System Guide. The guide provides a practical overview of how we address EHS risks in our business, describes our primary approaches to mitigate those risks and how the programs and processes we use protect our workforce, local communities and the environment.

Boart Longyear has an enviable record with regard to EHS performance, arguably the best in the business. Our goal has been and remains to provide the highest value services and products to our clients and customers while at the same time keeping our workforce safe. We have continuously held internationally-recognized certifications for ISO-14001 and OHSAS-18001 since 2005; these certifications apply to all of our global operations.

While we constantly strive to reduce injuries to our employees, we also routinely adapt our programs to improve operational efficiency, embrace new technologies and apply best practices. We believe that our innovative and proactive approach and continual improvement in EHS represents a competitive advantage in a highly competitive industry.

Boart Longyear's culture has withstood more than 125 years of global operations and that success demands that each of us strives to bring our best efforts to our workplace every day. We have a long history of setting the bar very high for safety in our industry; join us in embracing these important practices and processes, and in making the management of Environment, Health and Safety your own priority.

Together we can: ***Make it Safe, Make it Personal, and Make it Home***.

Jeff Olsen

CEO and President

EHS MANAGEMENT SYSTEM SUMMARY

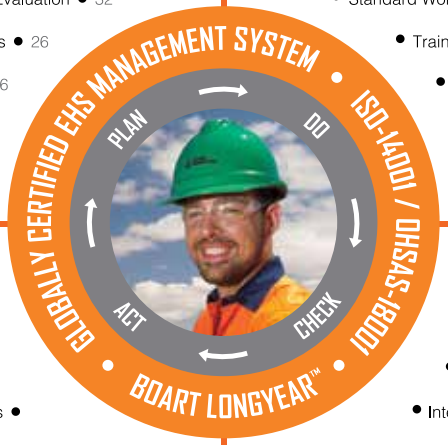
Boart Longyear's Environmental, Health and Safety Management System follows a robust process of risk assessment and controls which limit harm to employees, the public and environmental resources. Our process is modelled after the classic Deming Cycle of "Plan-Do-Check-Act," and mandates continual improvement in our EHS performance.

Our primary EHS focus is on risk reduction. All field and shop activities are incorporated in site/business unit risk registers, as are fatal/critical risks from across our global operations. A comprehensive set of controls is then applied, ranging from our own in-house engineering and manufacturing expertise to field level risk assessment (THINK), and Job Safety and Environmental Analysis (JSEAs).

- EHS Policy ● 09
- Corporate EHS Goals, Objectives and Strategy ● 24
- Facility and Business Unit Risk Assessment and Risk Registers ● 30
- Environmental Aspects and Impacts, and Sustainability ● 52
- Critical Risk Evaluation ● 32
- Facility and Business Unit EHS Management Plans ● 26
- EHS Evaluation of Drilling Services Contracts ● 36
- Crisis Planning and Emergency Preparedness ● 37
- Training Needs Assessment and Global Training Plan ● 25

Our teams take the time to identify hazards and risks inherent in the daily tasks they undertake and they apply the necessary controls to mitigate or eliminate potential harm. Our ***Make It Safe, Make it Personal, Make It Home*** program engages each employee and keeps safety at the core of their daily activities.

- THINK (Field Level Risk Assessment) 20
- Golden Rules of Safety 21
- Rules of the Road 22
- EHS Standards 46
- Standard Work Procedures and JSEAs 31
- Training and Competency Evaluation 25
- Toolbox Safety Meetings 15
- Incident Reporting 39
- Risk-based Training 25



- Stop Work Authority ● 23
- Corrective Actions ● 19
- Management of Change ● 34
- Global Flash and Hazard Alerts ●
- Make it Personal Stories ●
- Global ISO 14001 & OHSAS 18001 Certification ● 16
- EHS Client Recognition and Awards ●
- Revise EHS Standards, Programs and Training ●

- EHS Metrics (leading and lagging indicators) 24
- EHS Inspections 46
- Legal Compliance Reviews 10
- Internal and External EHS Audits 16
- Incident Investigations & Root Cause Analysis 43
- Corporate EHS Committees and Management Interactions 45
- Stakeholder engagement and input 07
- Training Competency Assessment 25

Continual improvement is a key driver of our EHS Management System. Employee empowerment, effective use of ***Stop Work Authority***, and proactive feedback from our field teams drives innovation in our processes, procedures and equipment. We also employ a comprehensive ***Management of Change*** process in order to control new risks. These continual improvement processes make our facilities and job sites safer than ever.

A full suite of EHS metrics and active management review of our EHS performance is coupled with routine inspections and both internal and third-party EHS auditing. We have maintained global certification for both ISO-14001 and OHSAS-18001 for more than a decade, and our EHS statistics document our progress as an industry leader.

BOART LONGYEAR™

TABLE OF CONTENTS

EHSMS OVERVIEW

A. **Purpose** – The purpose of the EHSMS and the various EHS program elements is to mitigate risk, property damage, personnel injury, or environmental consequences, and achieve the EHS goals and objectives of Boart Longyear, our clients, customers or other stakeholders.

B. **Ownership** – The EHS Policy and EHSMS are owned by the Board of Directors, and are managed and implemented by the Vice President, EHS and the management of the Corporation.

C. **Scope**

1. **Employees** – The EHS Policy, the EHSMS and associated programs, standards and guidance documents apply to all employees during the course of their work while on company business.

2. **Contractors, subcontractors and visitors** - The EHS Policy, the EHSMS and associated EHS programs and standards apply to all contractors, subcontractors and visitors during the course of their work or visitation to facilities and/or workplaces. All visitors and contractors shall be provided with a formal EHS induction prior to entry to any workplace or jobsite.

3. **Boart Longyear Operations** – The EHS Policy and EHSMS applies at all Boart Longyear operated facilities and also for workplaces controlled by Boart Longyear.

4. **Client sites** – Employees must comply with client requirements while working on client properties. However, client requirements do not supersede this EHSMS. Boart Longyear's EHSMS applies to all employees, visitors and contractors any time they are performing work on behalf of Boart Longyear or occurring on Boart Longyear controlled jobsites.

5. **Transportation** – The EHSMS and its requirements apply to all company-provided vehicles and mobile equipment, whether Boart Longyear owned, leased or rented.

D. **Goals and Objectives** – The Board of Directors EHS Committee established the EHS Policy and annually determines corporate EHS goals and objectives to further the long-term objectives of the Corporation. Appropriate performance indicators and metrics are developed and validated to document EHS performance and to ensure continual improvement. An overview of EHS performance is included in the Corporation's annual report.

E. **Roles and Responsibilities** – Corporate EHS expectations for various roles and associated responsibilities are defined in formal job descriptions and are communicated through risk assessment, standard work procedures and EHS Training processes. Annual management review of EHS programs, audits and key documents is mandated to ensure the identification and mitigation of EHS risk by business unit leaders. Communication of EHS related roles and responsibilities is provided to external stakeholders through visitor and contractor inductions and contract provisions.

F. **Life Cycle Approach** – All operations evaluate environmental sustainability and human health and safety as fundamental components of the EHS risk management process. Corporate goals, programs and practices minimize environmental impacts and embrace environmental opportunities through the entire life cycle of products and services. Environmental, Health and Safety requirements are incorporated in product development, service contracts, and in the consideration of other stakeholders. EHS Management Plans and risk registers document these program elements so as to maximize EHS opportunities while reducing risk and impacts to people, property or the environment.

G. **Performance Monitoring and Auditing** – The Board of Directors establishes EHS performance goals annually. A suite of key performance indicators (KPIs) is employed to document and track progress toward those goals. Additionally, a robust program of both internal and external EHS audits is conducted to maintain our EHSMS global certifications for ISO-14001 and OHSAS-18001, and to track the continual improvement of our EHS programs and processes.

H. **Accountability** – All employees are responsible and held accountable for the identification and mitigation of EHS hazards and risk within their workplace. Additionally, employees are empowered with Stop Work Authority as their obligation and authority to control situations in which they perceive that there is imminent potential harm to life, significant property damage or environmental impact. Management is fully accountable for implementation of all EHS programs, management reviews of key documents and metrics, in addition to overall EHS performance within their respective business units. Visitors and contractors are also subject to specific EHS requirements contained in contract language and/or commitments documented and agreed to in our visitor and contractor inductions.

I. **Stakeholders** – Stakeholder input is received via various mechanisms such as shareholder and client meetings, trade conferences and corporate participation in public forums, and via internet inquiries. Stakeholder input with regard to EHS issues is vetted by the Vice President, EHS and forwarded to the corporate General Counsel and Executive Committee and/or the Board of Directors as appropriate.

We welcome any stakeholder input regarding this document or its content via email at: EHSMSv2@boartlongyear.com

CORPORATE VALUES

OUR VALUES

Our company has evolved significantly over the last century, but our commitment to our values remains unchanged. We look to our values to inspire us and guide our daily actions:

- **Safety First**
  Safety comes first in all activities. We follow all local regulatory safety requirements and always live by the Boart Longyear Golden Rules of Safety.

- **Ethics and Good Citizenship**
  We uphold the highest standards of behavior, complying with legal obligations and operating ethically and responsibly in the communities where we operate.

- **Exceptional Results**
  We go beyond delivering on our promises, striving to achieve exceptional results for customers and shareholders through superior execution and dedication to innovation.

- **Dedication to Our Clients' Success**
  We are passionate about providing the products, services and support our clients need to succeed.

- **Mutual Trust and Respect**
  Our people are our most important asset. We value their diverse backgrounds, opinions and perspectives and always show trust and respect for one another.

EHS POLICY

This Environmental, Health and Safety policy applies to, and governs the conduct of all employees, officers and directors of the Boart Longyear group of companies.

Boart Longyear commits to protecting the health and safety of our employees, contractors and visitors at all of our sites and facilities. We also commit to protect the environment and the communities in which we operate. Our goal is to deliver continual improvement in the pursuit of Environmental, Health and Safety (EHS) performance excellence.

To sustain EHS excellence Boart Longyear will:

- Comply with, or exceed, all applicable EHS laws, regulations, company policies and industry standards.
- Utilize and maintain standards, procedures, controls and management systems to ensure that injury prevention, prevention of pollution and sustainable development practices are incorporated into all aspects of our business.
- Properly train all employees and contractors to understand their roles and responsibilities under our EHS programs. **Employees and contractors under our control are required to:**
    - Apply the THINK process to ensure no harm to people, property or environment.
    - Correctly use required safety equipment, PPE and follow Standard Work Procedures.
    - Comply with the Golden Rules of Safety and the Rules of the Road.
    - Use Stop Work Authority to control unsafe conditions and stop unsafe acts.
    - Report all incidents.
- Hold our leadership accountable for the success of our EHS programs and provide the necessary resources to achieve EHS excellence.
- Implement improvement plans with key performance indicators that allow us to measure, track and continuously improve performance.
- Conduct regular audits to determine compliance with this policy and applicable regulations and standards.
- Communicate openly with employees, clients, regulatory agencies, our communities and other stakeholders on key EHS issues.
- Actively consult with, and involve, our employees in the development and implementation of our EHS programs and initiatives.
- Recognize and celebrate notable achievements, milestones or behaviors that promote EHS excellence.
- Review EHS technologies, industry practices and achievements to seek continual improvement and promote best practices.
- Provide regular and comprehensive reporting to the Board of Directors so that the Board can effectively monitor our EHS performance and confirm Boart Longyear's compliance with these principles and all statutory requirements.

LEGAL COMPLIANCE AND OTHER REQUIREMENTS

Boart Longyear incorporates laws, regulations, and client requirements in its risk review process. Each business unit or territory evaluates EHS aspects and associated legal requirements. Each business unit's risk register identifies the applicable controlling law, regulation, standard or stakeholder requirement, which define the acceptable limits and potential legal consequences for the business activities.

EHS Management reviews the risk register and information is updated annually and communicated to employees. Additional input from other interested parties are tracked and evaluated by the Vice President, EHS and the Executive Committee (EXCO). Annual updates to ensure compliance include:

- Citation of applicable regulations or requirements
- Annual review of revised and pending regulations
- Update to corporate guidance and business unit risk registers
- Any activity found to be non-compliant with applicable regulations

Legal Review

A. **Laws, Regulations and other requirements**

Regulatory review of EHS requirements is conducted by the Territory EHS Managers to ensure compliance with the following requirements:

1. Federal, state, provincial laws and regulations
2. Local and municipal ordinances or regulations
3. Review of facility permits, and compliance with permit conditions
4. Client site requirements
5. Industry association standards
6. Other requirements where applicable

B. **Contracts Review**

All contracts for client services shall be reviewed for project-related safety and health hazards, environmental compliance, and compatibility with Boart Longyear EHS Policy and EHSMS. If a client's EHS requirement does not meet Boart Longyear's EHS policies or EHSM standards, one or more of the following is to occur:

- The EHS requirement will be reviewed and modified by the client to meet Boart Longyear's EHS Policy and Standards.
- The Territory EHS and Operations Managers, in consultation with Vice President, EHS, will review the requirement and only agree to complete it after ensuring no adverse safety, health, or environment effect.

C. **Critical Risk Reviews**

Reviews of critical incidents and high-potential near miss events are conducted by EHS staff and management, and where there is a question of legal compliance shall involve the Territory General Counsel. Additional legal review may be required to ensure compliance:

- Where incidents, inspections or agency interactions lead to potential citation or other enforcement action, legal counsel reviews existing processes and advises on modifications to those processes in order to ensure future compliance.
- Incident classification under the processes established by US OSHA and MSHA have significant impact on worker's compensation claims and medical case management. Boart Longyear's Legal Department reviews incident classification and injury classifications to ensure compliance with applicable regulations.

COMPLIANCE HELPLINE

The Corporation maintains a 24-hour, multilingual Compliance Helpline through which any interested party may report workplace violations or concerns.

US & Canada: 1.800.461.9330

Australia, New Zealand, the UK, Ireland and South Africa: +800.1777.9999

Any Other Location: +1.720.514.4400

www.mysafeworkplace.com

The Boart Longyear Confidential Compliance Helpline is a confidential and anonymous system to report workplace concerns or violations such as:

- Fraud
- Threats or Harassment
- Discrimination
- Theft
- Workplace Substance Abuse
- Unsafe Workplace Conditions
- Conflicts of Interest
- Financial or Auditing Concerns

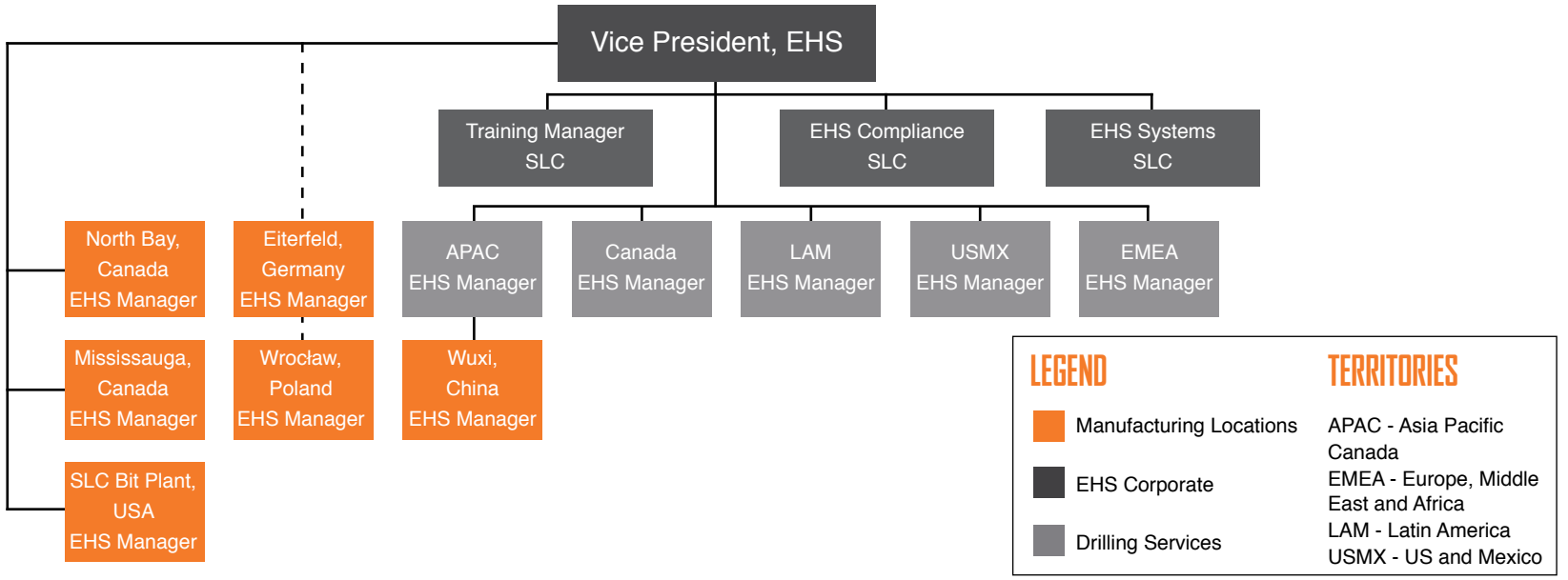
EHS ORGANIZATION

EHS Management

The Corporate General Counsel appoints a Vice President, EHS who has the responsibility and authority to develop the EHSMS and all EHS program elements and associated training requirements. Operations management ensures that field and facility personnel comply with applicable regulations and EHS requirements. The Vice President reports on EHSMS performance to senior management and also to the Board of Directors.

EHS Staff

EHS Territory Managers (EHSTM) lead the EHS function for Drilling Services in the five global territories. Most EHS staff within those territories report directly to the EHSTM. Manufacturing locations are supported by dedicated EHS staff which report directly to the Vice President, EHS. Global supply chain facilities are supported by Corporate/Plant/Territory EHS staff on a shared-services basis. In some instances there is a matrix reporting relationship with EHS staff reporting to a Plant Manager. EHS staff retain an important degree of autonomy by reporting outside of the Operations hierarchy and within the Legal Department.



ROLES AND RESPONSIBILITIES

Executive Management

Corporate leadership includes the Board of Directors, Corporate Officers, and Vice Presidents. Boart Longyear is a listed company on the Australian Stock Exchange (ASX). Australian Law (the *Model Work Health and Safety Act* (hereafter "the Act")) imposes certain duties upon company officers, directors, and senior management. These duties include exercise of "due diligence" to ensure that the business or undertaking complies with its health and safety duties. In exercising due diligence, an officer must take reasonable steps to:

A. Acquire and keep up-to-date knowledge of work health and safety matters.
B. Gain an understanding of the hazards and risks associated with the nature of the operations.
C. Ensure that the business or undertaking has appropriate resources and processes to enable risks to health and safety arising from work carried out as part of the business or undertaking to be eliminated or minimized.
D. Ensure that the business or undertaking has appropriate processes for receiving and considering information about incidents, hazards and risks and responding in a timely way.
E. Ensure that the business or undertaking implements processes for complying with its duties and obligations.
F. Verify the provision and use of the resources and processes referred to in steps A to E.

This casts a positive duty on officers to be proactive and continuously ensure that the business or undertaking complies with the relevant duties and obligations under the Act. The scope of an officer's duty is directly related to the influential nature of their position. A high standard requires persistent examination and care to ensure that the resources and systems of the business or undertaking are adequate to comply with the duty of care required under the Act. Where the officer relies on the expertise of a manager or other person, that expertise must be verified and the reliance must be reasonable.

ROLES AND RESPONSIBILITIES (CONTINUED)

Line Management

Line management includes all positions of authority between field/plant supervisors and Executive Management. Managers within each business division, facility or plant are responsible and accountable for the overall EHS program for all activities and processes directly under their control.

To accomplish this, Line Managers shall:

- Implement the EHS Program, offer constructive feedback regarding all aspects of the program and take active measures to ensure its effective implementation and continual improvement.
- Ensure that employees are properly trained and competent in their job assignments, and maintain records to substantiate all training.
- Review and document all EHS incidents and also ensure that all corrective actions are closed so as to prevent the recurrence of incidents and injuries.
- Require that all employees meet established regional licensing and certification requirements for job performance.
- Conduct EHS inspections, review work procedures, perform job safety analyses and implement any changes necessary to improve safety.
- Give total support to a drug and alcohol free work place. This includes assuring that drug screens are conducted, and that employees are made aware of company-provided self-help programs.
- Ensure that all job sites or work areas are in total compliance with Boart Longyear policy and applicable governmental requirements.
- Promote and communicate the Boart Longyear Golden Rules to ensure that employees perform their jobs in a safe and reasonable manner.
- Establish a routine for management review of current and future project and facility risk evaluation and control.
- Establish and chair local EHS committees.
- Implement and monitor continual improvement plans to achieve EHS objectives and targets.

Supervisors

Supervisors provide leadership, guidance, and oversight to field and shop floor workers. Through the Global EHS Information Management System (GEMS), Supervisors receive and disseminate global EHS notices such as incident summaries, Hazard Alerts and Flash Alerts to immediate staff. These communications allow the supervisor and their team(s) to learn from incidents at other locations, and apply appropriate control measures to continually improve their EHS performance.

Supervisors are expected to actively participate and support:

- Continuous inspection for unsafe or unsound practices or conditions that may exist around their rigs or work areas.
- Prompt implementation of corrective action to eliminate unsafe practices or conditions which could result in injury, property damage or environmental impact.
- Thorough investigation of all incidents with prompt and complete reporting to their Managers.
- Demand an effective program of good housekeeping and the maintenance of high standards of personal and operational cleanliness throughout the operation.
- Ensure new employees are trained to recognize, evaluate and control the hazards and risks on the job.
- Ensure that all needed safety and response equipment, including personal protective equipment and spill response materials, are provided for each job site and facility workplace.
- Make recommendations to management on how to improve equipment and procedures to enhance EHS performance.
- Ensure that “Tool Box” safety meetings are conducted daily and are properly documented.
- Consistently require that employees practice safe procedures and not take shortcuts that could prove unsafe or have environmental consequences.
- Utilize the EHS risk evaluation and/or THINK process to review new jobs or tasks carefully to recognize, eliminate and control associated hazards or environmental impacts.
- Communicate and live each day by Boart Longyear’s Golden Rules of Safety.
- Ensure that all transportation risk is evaluated and appropriate controls, such as Journey Management Plans, are applied

Employees

The employee has the ultimate responsibility for his/her own safety, but also has a responsibility to their families, coworkers, and their employer. Each employee is required to comply with all applicable EHS laws and regulations. An employee having knowledge or suspicion of any condition that is or may be in violation of an EHS law or regulation must immediately report this to a supervisor. An employee who feels inadequately trained regarding a certain task must immediately discuss the concern with a supervisor.

Employees must:

- Always use the ***THINK*** process before starting any task or activity.
- Always follow the ***Golden Rules of Safety*** when performing work tasks.
- Always follow the ***Rules of the Road*** when travelling in a company vehicle.
- Always use their ***Stop Work Authority*** to control unsafe conditions and stop unsafe acts.

Additionally, employees shall:

- Comply with the instructions of supervisors.
- Refuse to perform any job or operate any equipment which they do not fully understand and/or have not been trained to safely perform (See Stop Work Authority).
- Request instruction on any task they are requested to perform, but for which they do not fully understand all associated safety or environmental aspects.
- Report all incidents, injuries and near misses immediately.
- Submit recommendations for the improvement and efficiency of EHS processes to their supervisor.

EHSMS CERTIFICATIONS AND AUDITING

Purpose:

Global certification and auditing of the EHS Management System and associated programs and standards provides clients, customers, employees and other stakeholders with assurance that we conform to internationally-accepted standards for safety and the protection of human health and environmental resources.

References:

EHS Guidance Document ***EHSMS Certifications and Auditing***

Key requirements:

Boart Longyear has been globally certified to the ISO-14001 and OHSAS-18001 standards since 2005. The certification applies to all Manufacturing and Drilling Services maintenance facilities, as well as to all drilling services operations on client sites. While all Global Supply Chain (GSC) distribution centers and forward stocking locations are subject to the EHS requirements, only larger GSC facilities have been listed on the ISO/OHSAS certificates. Additionally, Boart Longyear's manufacturing locations are each individually certified to the ISO-9001 standard for product quality which incorporates many parallel EHS requirements.

A. **ISO-14001**

The International Standards Organization (ISO) revised the ISO-14001 standard for environmental management in 2015. ISO-14001:2015 incorporates significant structural changes which are reflected in this revised EHS Management System. The new standard allows for a three-year transition period and requires certification under the revised standard no later than 2018. Details on these changes and the transition to the new standard are incorporated in the table "Conformance with the ISO-14001:2015 Standard," which is included within the EHSMS Certifications and Auditing Guidance Document.

B. **OHSAS-18001**

The most recent version of the British Standard - Occupational Health and Safety Assessment Series (OHSAS)-18001 was adopted in 2007. This standard has been applied globally as a primary EHS management system evaluation tool and closely follows the 2004 version of the ISO-9001 and ISO-14001 standards for quality systems and environmental management. It is anticipated that the proposed ISO-45001 standard will effectively supersede the OHSAS-18001 standard in the near future. Boart Longyear will recertify under the existing OHSAS-18001:2007 standard in 2016 and then transition to the ISO-45001 standard.

C. **Transition to the proposed ISO-45001 Standard**

The International Standards Organization (ISO) plans to publish a new standard for occupational health and safety management systems in 2016 with a three-year implementation process similar to that described above for ISO-14001:2015. It is anticipated that Boart Longyear's global certification to the new standard will probably be achieved in 2017-2018 and at that time the company would no longer hold OHSAS-18001 certification. EHS programs and guidance documents will be modified as necessary to reflect the new standard following publication of the ISO-45001 standard.

D. **External Audits**

Boart Longyear retains an external EHS auditor who evaluates the conformance of our corporate EHS Management System with international standards. Audits are performed annually on a sampling of locations reflecting employee numbers and/or hours worked. External audits include a cross-section of the corporation's global facilities and also include one or more drilling sites for each drilling service facility audited. A summary of all annual findings from external audits is reviewed as part of the annual corporate audit.

E. **Internal Audits**

1. Boart Longyear has established an internal audit program to supplement external (third party) audits. Internal EHS audits are conducted on a sample basis and incorporate Boart Longyear's global operations at Drilling Services and Global Supply Chain facilities. Manufacturing facilities conduct an internal audit every year. The Vice President, EHS annually publishes an audit calendar and milestones for the completion of the audit process, including any corrective actions. Due to logistical constraints, internal audits shall generally be completed by local staff. However, in order to retain objectivity in these audits, operations management will participate in the audit process and the results will be reviewed and validated by Territory EHS Managers and/or Corporate EHS and/or Legal Audit staff.

2. The scope and criteria of audits is established to document conformity with the EHSMS and International Standards. The internal audit process incorporates the use of detailed questionnaires or checklists which follow the content of the EHSMS and are documented in the GEMS system. These checklists are used to complete comprehensive internal audits; layered or focused audits may omit those portions of the audit checklists which are not applicable to the scope of the inquiries.

EHSMS CERTIFICATIONS AND AUDITING (CONTINUED)

F. **Audit Teams and Training**

1. The Vice President, EHS determines the required scope of EHS training for internal auditors and shall ensure that auditor independence is maintained through oversight and management review. All internal auditors shall have completed annual EHS internal auditor training. Lead auditors shall have external certification or possess equivalent qualifications and shall be approved by the Vice President, EHS.
2. The auditor shall document all findings raised during the audit and shall promptly notify the Territory EHS Manager, and Territory Operations and/or Plant Manager and Territory General Counsel of any possible regulatory non-compliance.

G. **Nonconformance and Corrective Action**

Nonconformance is a failure to meet the requirements or standards of the EHS Management System or international standard, while noncompliance is a failure to comply with a legal requirement. Nonconformities are further subdivided as follows:

1. **Major Nonconformity** – an audit finding which determines noncompliance with a government regulation or corporate EHS Standard, such that an agency would likely cite such violation, or which in the absence of government regulation has significant potential to result in personal injury, property damage or environmental impact. Also, a programmatic failure of the EHSMS at one or more facilities or jobsites.
2. **Minor Nonconformity** – an audit finding which determines noncompliance with a corporate EHS standard or regulation, but which does not have the likelihood to result in a regulatory citation or significant potential to result in personal injury or environmental impact. Also, a finding which documents a localized failure to address EHSMS requirements.
3. In addition to nonconformities, audit findings may also include:
   Opportunity for Improvement – an audit finding which allows for continual improvement of the management system, but which is unlikely to result in regulatory citation, personal injury or environmental impact.

When non-conformances or non-compliances are identified, the Territory EHS and/or Plant EHS Manager is responsible for:

- Identifying the root cause(s).
- Planning, implementing, and close-out of corrective actions.
- Verifying the close-out and effectiveness of corrective actions in the GEMS system.
- A review and update of the risk register will be performed as necessary on all corrective actions.

Nonconformities raised in external audits and any open corrective actions are reviewed as part of the annual corporate EHS audit. Findings arising at facilities or jobsites may then be elevated to the corporate audit and require programmatic global corrective actions.

H. **Corrective Actions**

1. After the internal audit is complete the auditor shall communicate the findings to the territory operations manager or facility/plant manager, and to the Vice President, EHS. The auditor will then complete a corrective action within the GEMS system for each non-conformance identified.
2. The status of outstanding corrective actions will be managed and reported in GEMS by the responsible EHS Manager and closure of corrective actions shall constitute a key indicator of the effectiveness of the EHS program.
3. Territory EHS and/or Plant EHS Managers are responsible for identifying the cause of any non-conformances, corrective and preventative actions to be taken, and the time frame in which these actions will be completed. They are also responsible for close-out of the corrective actions.
4. All nonconformities for both internal and external audits must be entered in the GEMS system.
5. Past-due corrective actions will be reported to senior management monthly via GEMS reports and/or inclusion in the agendas of Corporate EHS Committees.

Boart Longyear records any changes in the EHSMS procedures resulting from corrective and preventive actions, including incorporation of revised annual corporate goals or new programs. EHS procedures, work instructions, and/or EHS Training programs shall be modified and/or created where necessary to establish adequate controls for avoiding repetition of non-conformances and non-compliances.

All audit findings, for both internal and external audits, and associated corrective actions must be entered and closed within the GEMS systems.

PRIMARY EHS PROGRAMS

THINK PROGRAM

Boart Longyear's **THINK** campaign increases employee engagement in the process of field-level risk assessment. The **THINK** program instills in staff to never make any task menial and to always "**THINK**" before they act.

IF YOU ARE UNSURE OF WHAT TO DO, STOP AND THINK IT THROUGH:

Take the time
- Stop, take the time, think it through.
- Do I need permits and authorizations?
- Do I have the right equipment and tools?
- Do I need help or advice?

Hazard recognition
- Look up, look down, look all around.
- Inspect equipment and tools.
- Am I rushed, tired, distracted or impaired?

Identify the risk
- Could someone get injured?
- If an injury occurs, how serious could it be?
- Would there be additional consequences?
- Is the risk high, medium, or low?

Necessary controls applied
- Elimination, substitution, engineering, administrative, PPE.
- Will the controls reduce risk?
  Yes - apply controls and continue.
  No - start over.

Keep safety first
- Does everyone understand the risks and controls?
- Does everyone understand their roles and responsibilities?
- If the situation changes, reassess the risk, start over.
- Never walk past an unsafe work practice or condition.

THINK

ABOUT GOING HOME TO YOUR FAMILY. SAFE AND SOUND.

TAKE THE TIME
HAZARD RECOGNITION
IDENTIFY THE RISK
NECESSARY CONTROLS APPLIED
KEEP SAFETY FIRST

BOART LONGYEAR™

GOLDEN RULES OF SAFETY

Boart Longyear's Golden Rules of Safety could save your life or the life of someone you work with and are a condition of your employment. Following these Golden Rules of Safety are how you **Make It Safe, Make It Personal, and Make It Home.**

1 FITNESS FOR DUTY

I will never perform tasks if impaired, unfit or distracted, with no exceptions.

2 COMPETENCY AND TRAINING

I will never perform tasks for which I am not capable, competent or authorized.

3 SAFETY CONTROLS

I will never bypass, modify or remove safety controls.

4 PERSONAL PROTECTIVE EQUIPMENT (PPE)

I will never perform tasks without appropriate and approved PPE.

5 CORRECT TOOLS AND EQUIPMENT FOR THE JOB

I will never misuse tools or equipment or modify their design without the Engineering Department's approval.

6 FALL RISKS

I will never work at heights without using appropriate fall prevention or fall protection controls.

7 ENERGY HAZARDS

I will never work on energized equipment without appropriate controls and will never use an unrestrained wrench under power.

8 RESPONSIBILITY FOR OTHERS

I will never knowingly allow others to violate these Golden Rules and will use my Stop Work Authority when I see them violated.

PRIMARY EHS PROGRAMS (CONTINUED)

RULES OF THE ROAD

The most significant fatal risk you will encounter is as a driver or passenger in a vehicle. Boart Longyear's Rules of the Road define driving-related behaviors which could save your life or the lives of others. You will be held accountable for compliance with these rules when on company business. Following these rules are how you **Make it Safe, Make it Personal, and Make it Home.**

1 AUTHORITY TO OPERATE

I will never drive a vehicle without training and authorization.

2 JOURNEY RISKS

I will never drive without first assessing and controlling the risks of the journey. Including appropriate load restraint.

3 VEHICLE ROAD-WORTHINESS

I will never drive a vehicle without first ensuring it is in safe operating condition.

4 SEATBELTS

I will never travel without wearing a seatbelt or allow passengers to do so.

5 OBEY TRAFFIC LAWS AND DRIVE TO CONDITIONS

I will never disobey traffic laws, including posted speed limits, or drive too fast for conditions.

6 IMPAIRMENT OR DISTRACTION

I will never drive while impaired, fatigued or distracted.

7 MOBILE PHONES

I will never talk or text while driving unless in hands-free mode.

8 SECURING THE VEHICLE

I will never leave a vehicle unsecured, or unrestrained against movement.

9 RESPONSIBILITY FOR OTHERS

I will never knowingly allow others to violate these Rules of the Road and will use my Stop Work Authority when I see them violated.

STOP WORK AUTHORITY

All Boart Longyear employees are empowered with Stop Work Authority as a mechanism to allow them to immediately suspend operations where they perceive imminent harm to people, property or to environmental resources. This authority is an obligation to constantly evaluate risk in the workplace and apply the necessary controls to eliminate or mitigate those risks. The intent of Stop Work Authority is to engage every employee in the risk assessment process, and to provide them with the power to ensure their safety, as well as the safety of others.

MAKE IT SAFE STOP WORK AUTHORITY

It is your **responsibility** - and you have the **authority.**

As a Boart Longyear employee, you are responsible and authorized to stop any work that does not comply with the Golden Rules of Safety, Rules of the Road, or any other unsafe act. Stopping unsafe work is authorized and you will not be punished for doing so. That is our commitment to you, and we personally stand behind it.

MAKE IT SAFE, MAKE IT PERSONAL, MAKE IT HOME CAMPAIGN

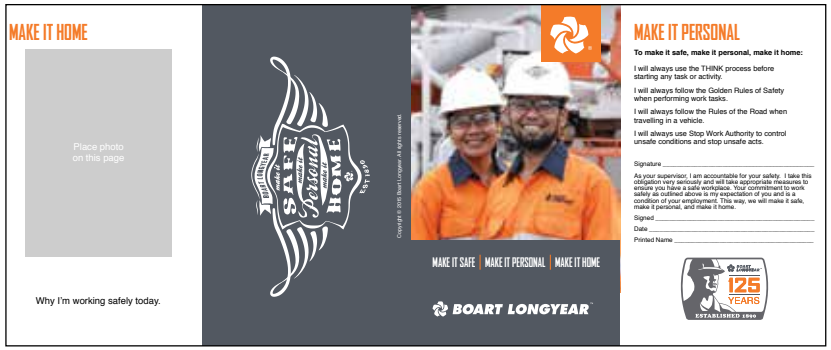
All employees are issued a “Make it Personal” wallet card to remind them of who or what matters in their lives: their families, their friends, their home, or a favorite pastime or possession. Regardless of their motivation, these are the reasons that we go to work each day. The cards are available in twelve languages and visually demonstrate the many diverse cultures that make up Boart Longyear.

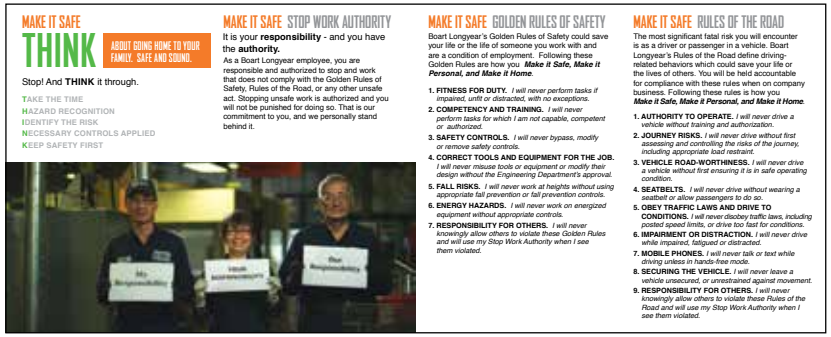
The MIP cards focus on Boart Longyear’s primary safety programs:

- **Golden Rules of Safety**
- **Rules of the Road**
- **The THINK process**
- **Stop Work Authority**

It also affirms each employee and their supervisor’s commitment to safety and provides a space for a personal photo of what matters most to them. This is a daily reminder of why they want to:

MAKE IT SAFE, MAKE IT PERSONAL, and MAKE IT HOME





EHS GOALS, OBJECTIVES, AND TARGETS

A. EHS Strategic Plan

The Board of Directors annually reviews the previous year's EHS performance and approves the following year's EHS goals and objectives. These goals and objectives are recorded in the EHS Department Strategic Plan. The goals and objectives are developed from regulatory requirements and obligations, EHS hazards and risks, engineering improvements, financial obligations, operational and business requirements, and input from clients and other stakeholders.

B. EHS Management Plan

The goals and objectives are communicated to the management team and each business unit, which are then incorporated into their EHS Management Plans. Along with the goals and objectives, key program elements of the EHSMS are incorporated into each business units EHS Management Plan. Ongoing conformance is managed through EHS staff interaction, management reviews, and EHS audits. Metrics and performance indicators are recorded in the EHS Management Plans.

C. Key Metrics and Performance Indicators

A set of EHS Key Performance Indicators (KPIs) has been developed to evaluate the ongoing performance and continual improvement of the EHS program. These metrics are not necessarily released to the public, but trending analysis is developed by the corporate EHS staff and reported to management and the Board of Directors. A summary of EHS performance is included in the Corporation's annual report.

Environmental Metrics

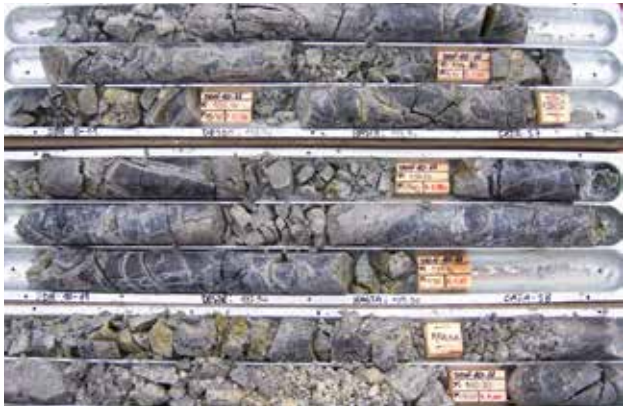
1. Reportable Spills
2. Sustainability Metrics

Industrial Hygiene Metrics

1. Work place illness awareness training (risk based)
    A. Malaria cases
    B. Ebola cases
2. Hearing Conservation
    A. Baseline and annual audiometry (risk based)
    B. Occupational hearing case rates
    C. Work place and equipment noise mapping

Safety Metrics

1. TCIR (Total Case Incident Rate)
2. LTIR (Lost Time Incident Rate)
3. Severity Rate
4. Near Miss Tracking
5. EHS and Drill Rig Inspections
6. Critical Risk Reviews
7. Management Interactions
8. In-Vehicle Monitoring System (IVMS) Driver/Driving Statistics
9. Open corrective actions
10. EHS Scorecard



BOART LONGYEAR INTEGRATED TRAINING SYSTEM (BITS)

Boart Longyear's training system focuses on the operational risks facing shop and field-level employees. The programs develop and deliver training and competency assessment in order to ensure employee knowledge, skills and abilities meet global standards, and in turn minimize risk.

Training program and EHS elements are conducted in classroom settings, practical field workshops or may be outsourced to third-party providers. Competency development and assurance standards, based on job-specific tasks, have been developed to identify and track the training needs and accomplishments of all employees. BITS provides a systematic approach to host and deliver training, evaluate competency and document training history.

BITS addresses:

- Onboarding programs.
- Global EHS programs and standards.
- Emergency preparedness, first aid and life-saving skills.
- Professional development.
- Technical skills development.
- Competency evaluation and documentation.
- Recordkeeping of operating licenses (i.e., Department of Transportation (DOT), forklifts, etc.), including training, verification of competence, renewal dates, medical approvals.
- Recordkeeping of certifications (drillers, blasters, welders, etc.), as well as professional certifications (CSP, PE, etc.).
- Training compliance tracking (training obligations established by regulation or permit : i.e., MSHA annual refreshers, or SPCC permit training).
- Recordkeeping for all EHS training as required by law.

PLANNING AND RISK ASSESSMENT

Purpose:

Boart Longyear's approach to risk management focuses on proactive identification of hazards and associated risks. The EHS Management Plan* and the Risk Register are the primary planning tools employed to evaluate the risk aspects of all operational activities. The risk assessment process ensures that consistent risk evaluation and control processes are applied to all facilities and business units.

Reference:

- Internal guidance document: ***EHS Risk Assessment***
- EHS Management Plan Template
- Boart Longyear ***Facility Risk Control Manual***

Key Requirements:

Hazard – The potential of any machine, equipment, process, material (including biological and chemical) or physical factor that may cause harm to people, or damage to property or the environment. A hazard represents a static situation, as opposed to an incident where energy has been transferred. Hazards are reported through hazard identification field documents which are submitted for EHS review and are entered into the GEMS system for trending purposes. (See also definitions of incident and near miss at page 39, or within the comprehensive Boart Longyear EHS Glossary on the EHS Intranet website.)

Risk – The probability of a worker suffering an injury or health problem, or of damage occurring to property or the environment as a result of exposure to or contact with a hazard. Probability is defined by the frequency of exposure, frequency of the activity or the likelihood of various consequences. ***A Risk Rating*** is assigned based on the combination of likelihood of occurrence or exposure and the probable consequences.

Once a potential hazard has been identified, a risk assessment shall be conducted and a plan shall be established to implement appropriate control measures in order to mitigate risks to a practical extent (see also ***Management of Change*** at page 34). Where the risk rating is still at a significant or extreme level after the application of controls, it will be necessary to obtain senior management approval to proceed with the activity.

** Note: Environmental impacts and controls are generally incorporated in an integrated EHS Management Plan. Where regulation or client requirements mandate a stand-alone Environmental Management Plan (EMP), a project-specific EMP will be prepared.*

EHS RISK ASSESSMENT PROCESS

The risk evaluation process analyzes activities or procedures for their potential EHS consequences and applies the necessary controls to minimize risk. Job site hazards and controls are evaluated and documented in a business unit Risk Register.

Completed Risk Registers shall be maintained and posted (or otherwise made available to employees, visitors or contractors) at all permanent shop, distribution center, maintenance and manufacturing facilities. Drilling Services job sites shall maintain a file of Job Safety and Environmental Analyses on site at all times. Changes in risk are to be addressed via the ***Management of Change*** process, which is covered at page 34.

Terms for frequency, likelihood, and consequences have been chosen to align with our insurance and corporate risk processes. Likelihood is based on the frequency of occurrence where:

Matrix Location	Frequency	Likelihood
1	<1 x per year	Rare
2	At least annually	Unlikely
3	Monthly	Possible
4	Weekly	Likely
5	Daily	Almost Certain

These guidelines are used in all Field Level Risk Assessments, Standard Work Procedures (SWPs), and Job Safety and Environmental Analyses (JSEAs).

EHS RISK ASSESSMENT TOOL

Severity of Consequences			Likelihood of Occurrence or Exposure →				
			1	2	3	4	5
			Rare	Unlikely	Possible	Likely	Almost Certain
	1	Insignificant	1	2	4	7	11
	2	Minor	3	5	8	12	16
	3	Moderate	6	9	13	17	20
	4	Major	10	14	18	21	23
	5	Catastrophic	15	19	22	24	25

Score	Risk Rating	Action
1-6	Low	Warn supervisor and crews. Continue to monitor and control.
7-14	Moderate	Follow procedures and employ engineering and operational controls as necessary.
15-19	Significant	Stop work as needed. Mandatory use of engineering and operational controls.
20-25	EXTREME	Stop work. Proceed only with Territory and/or facility/plant manager approval, strict operational and engineering controls. Government or internal EHS permit may be required.

HAZARD IDENTIFICATION

TABLE OF EHS CONSEQUENCES

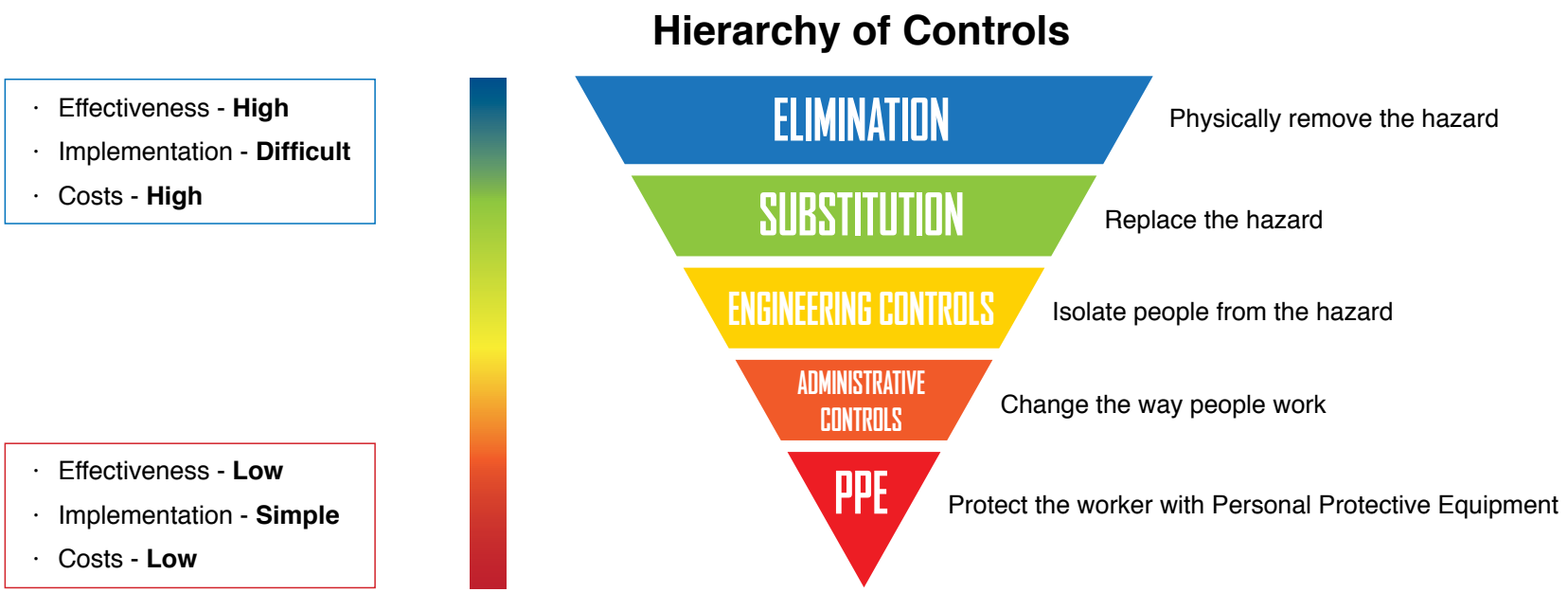
		Environmental	Health	Safety	Property damage	Costs	Business Impact	Corp. Impact	Legal Ramifications
1	Insignificant	Localized impacts (e.g., soil impact to <1 m^2 area), no long-term damage, site remediation not required	No known health effects	First Aid Treatment (may include diagnostics such as X-ray, CT Scan or MRI)	Negligible damage to property, system or equipment	**<$10k**	None, unless requiring GEMS notification, or agency notification per local regulations	None	Usually, none. Rare issuance of citation and minor penalty, or more likely notice to comply order
2	Minor	Localized impact (e.g., to <10 m^3 of soils), limited voluntary remediation or controls required to meet government standards	Reversible health effects of little concern, to one or more employees	Requires medical treatment, lost time injury of < 7 days	Minor damage to property, system or equipment. No work interruption.	**$10k to $50k**	GEMS reportable incident, report to client and/or agencies as required	GEMS reportable incident	Citation and moderate penalty possible.
3	Moderate	Measurable impact (e.g., to <100 m^3 soils), local ecosystems and/or ground water resources. Remediation of limited duration and scope	Reversible health effects of serious concern to one or more employees	Serious bodily trauma to one or more employees, lost time injury of 7 to 180 days. All issues of short-term disability.	Substantial damage to property, system or equipment; short-term job interruption	**$50k to $500k**	Incident response managed in cooperation with client; notice to agencies	Corporate investigation and/or follow up	Citation and moderate to large penalty possible; retention of specialty outside counsel.
4	Major	Significant impact to local or regional ecosystems and/or ground water. Long-term remediation mandated by agency	Life threatening and/or irreversible and disabling illness to one or two employees, or public.	Permanent disability to one or two employees, and/or one employee, or related public fatality	Extensive damage to high value property, system or equipment	**$500k to $2 million**	Incident response controlled by client. Job site or project BLY operations suspended and/or closed by client	Impact on multiple project sites. Potential loss of single client's current and future contract(s); possible ASX disclosure	Large penalty and civil lawsuit likely, possible ASX disclosure required.
5	Catastrophic	Regional impact, serious long-term effects requiring complex remediation. Potential named Responsible Party status in Superfund (or equiv.) clean up, agency oversight	Life threatening or disabling illness to multiple employees, and/or entire site workforce, or public.	Permanent disability to three or more employees, or 2+ employee, or related public fatalities.	Loss of major or business-critical property, system or equipment	**>$2 million**	Incident response controlled by client or government agency. Mandatory job site, facility, or Business Unit closure ordered by government	Negative media coverage & investor relations impact. Contract loss extends to other clients.	Substantial penalty and civil lawsuits likely, criminal prosecution possible. Potential loss of operating license, ASX disclosure required.

Risk may include consequences which are limited to a single category, or may have multiple components (e.g., a vehicle accident may result in only property damage, or might also include injuries and environmental damages, or might have impacts on client relations or result in legal ramifications).

HIERARCHY OF EHS CONTROLS

The hierarchy of controls provides a spectrum of options with which risk may be mitigated. Control strategies generally incorporate a combination of measures appropriate to the type of risk and operations.

- **Elimination** – Avoidance of the proposed task or activity. For example: Engineered rod handling systems eliminate manual rod handling; safety tools such as split tube plugs eliminate manual contact with split tubes.
- **Substitution** – Using a less hazardous process, equipment or substance in place of something more hazardous. For example: Using a non-chlorinated degreaser in place of a chlorinated variety; or using a non-flammable, citrus based solvent with low volatile organic compounds in place of a traditional, petroleum-based, flammable solvent.
- **Engineering Controls** – Using barriers or equipment to isolate employees from a hazard. For example: guarding; isolation barriers; automated rod presenters; hydraulic breakout tools; safety bypass valves; or remote driller control interfaces.
- **Administrative Controls** – Changing the way employees work to reduce exposure to a hazard. For example: rotating employee schedules when there is exposure to hazardous noise levels or chemicals; employee training; warning signs and labels; or reviewing and revising job safety and environmental analysis and standard work procedures.
- **Personal Protective Equipment** (PPE) – An article worn by an employee to guard against a hazard. For example: safety glasses; hard hats; gloves; high visibility uniforms; and steel-toe boots.



RISK REGISTER

Each business unit maintains and annually reviews and updates their risk evaluations. The Risk Register documents this process. The EHS guidance document, “Risk Assessment” instructs employees and management in the Boart Longyear risk assessment process and evaluation of legal compliance.

Activity #	Description of Service, Process or Product	Activity	Potential Risk (Impact) E: Environmental H: Health S: Safety	Before controls			Controls A: Traning; B: Procedure; C: Operation control; D: Objectives,targets,program; E: Emergency response; F: PPE	After controls			Effectiveness of Control A (90-100%) B (80-90%) C (70-80%) F(<70%)	Comments	Follow-up Activity	Controlling Regulation or Requirement	Review	Complies with all applicable laws, regulations or corporate standards
				Likelihood or Frequency	Severity of Consequences	RISK Rating		Likelihood or Frequency	Severity of Consequences	RISK Rating						
5	Reamer Fabrication	Welding	E: Air quality - welding fume emissions	3	1	4	Use of non-NESHAP metal content welding rods. A, B, C, D	3	1	4	A	Hot work permit required if not in welding area. Ventilation/filtration required outside permanent fume hoods	Annual review of welding rod SDS	Utah Air Conservation Act, Utah Code Ann. §§ 19-2-101 to -127 (implementing regulations at Utah Admin. Code R307-101 to -840)	2016	YES
			E: Slag and welding rod disposal	3	1	4	Appropriate storage and disposal. A, B, C, D	3	1	4	A	Welding slag and rod remnants require waste characterization and potential Haz. Waste Disposal	Annual review of welding rod SDS	Utah Solid and Hazardous Waste Act, utah Code Ann. §§ 19-6-101 to -123 (implementing regulations at Utah Admin. Code R315-1 to -50)	2016	YES
			H: Fume Inhalation	3	3	13	Ventilation/filtration system in place. A, B, C, D, F	3	1	4	A	Welding ventilation system in use.	Annual review of welding rod SDS	29 CFR Subpart Q §1910.252 29 CFR 1910.253 29 CFR 1910.254 29 CFR 1910.255	2016	YES
			S: Arc flash exposure	3	3	13	Welding curtains required. A, B, C, E, F	3	1	4	A	Hot work permit required if not in welding area. Safety curtains mandatory in all other locations.			2016	YES
			S: Burns to personnel	3	3	13	A, B, C, E, F	3	2	8	B	Appropriate clothing and PPE required			2016	YES
			S: Property damage (fire)	3	3	13	A, B, C, E, F	3	2	8	A	Welding curtains and extinguisher and hot work permit if away from welding station			2016	YES
			S: Propane Storage	5	2	16	A, B, C, E, F	3	2	8	B	Properly chained and stored.		29 CFR 1901.101	2016	YES

STANDARD WORK PROCEDURES (SWPs) AND JOB SAFETY AND ENVIRONMENTAL ANALYSIS (JSEAs)

Purpose:

Standard Work Procedures (SWPs) provide safe, efficient and Boart Longyear standardized procedures to perform tasks. Job Safety and Environmental Analysis (JSEAs) are prepared to analyze risks associated with any variation in the SWP.

Reference:

EHS Guidance Document: ***Standard Work Procedures and Job Safety and Environmental Analyses***.

Key Requirements:

Scope:

An SWP is written for tasks that meet one or more of the following criteria:

- Frequently repeated.
- Technical tasks that do not involve high levels of risk, but where guidance is appropriate.
- Involves operation, maintenance, mobilization, and inspection of equipment.
- Are not for administrative and general work instructions.
- Are not sufficiently outlined in an operator's instruction manual or training manuals.
- The safety analysis of the task rates 7 or higher (moderate to extreme risk) on the Boart Longyear Risk Matrix.

Content:

SWPs document specific tasks so that the procedures can be applied to a wide range of situations and include:

- The scope of the task and associated hazards.
- The steps of the task detailed in both text and photos.
- Appropriate control measures for each hazard identified, including specific personal protective equipment.
- Necessary tools, and equipment.

Training and Assessment:

SWPs serve as benchmark behaviors for all employees. Instruction, demonstration, and assessment of all tasks use SWPs as reference/training documents.

An employee performs the procedure under direct instruction and supervision of a competent employee, until he/she has been assessed as competent on the task.

Job Safety & Environmental Analysis (JSEA)

The performance of a task can be affected by variables such as changes in environmental conditions, equipment model, and site set-up. The employee reviews the task to be performed prior to undertaking in order to ensure that the SWP can be followed without variation. Where any variation to this procedure is required, a JSEA must be completed.

GLOBAL CRITICAL RISK REGISTER

Purpose:

A record of critical risks is maintained by the Corporation and updated annually. This record is communicated throughout the organization in order to ensure that annual reviews of business unit risk registers reflect the collective experience of the Corporation. All business unit risk registers shall include an annual update which incorporates these risks.

Reference:

- Corporate Fatal/Critical Risk Register
- EHS Guidance Document: ***Risk Assessment and Management of Change***

Key Requirements:

The following risk categories shall be included in the business unit risk registers*:

- **Transportation**
  - Vehicle rollovers and collisions
  - Proximity to heavy equipment
  - Unplanned movement of equipment or vehicles
  - Material handling via forklift
  - Helicopter/aviation support of drilling operations
- **Line-of-Fire Hazards**
  - Rotating or actuated machinery
  - Wirelines
  - Drill rod connections
  - Wrenches under power
- **Ground Conditions and Drill Rig Stability**
  - Ice and barge work
  - Unexploded ordinance
  - Borehole piping
  - Underground mine workings
  - Surface ground conditions
- **Overhead Hazards**
  - Drill mast raising in proximity to power lines
  - Suspended loads
  - Dropped or falling overhead objects
- **Toxic/Explosive Gas and Dust exposure**
- **Underground Mines**
  - Blast protocols
  - Drill breakthroughs
  - Drill intercepts
  - Underground mobile mine equipment
  - Up-hole drilling: mis-latched core tubes
- **Extreme Weather Conditions**
- **Security Hazards**
- **Workplace Illnesses**
  - Pandemic outbreak (e.g., Ebola, Asian Bird Flu, Zika Virus, etc.)
  - Malaria, or other diseases as locally appropriate

* Note: As applicable to the business unit

EHS GLOBAL CRITICAL RISK REGISTER

Fatal Risk Type #	ACTIVITY	Potential EHS RISK E= ENVIRONMENTAL; H= OCCUPATIONAL HEALTH; S= SAFETY	Before controls: Frequency	Before controls: Severity	Before controls: Risk Rating	"Controls A: Training; B: Procedure; C: Operation control; D:Objectives,targets, programs; E:Emergency response; F: PPE; G: Engineering Controls"	After controls: Frequency	After controls: Severity	After controls: Risk Rating	EHS Programs & Best Practices
1	TRANSPORTATION - Road and Mine Operations	**S:VEHICLE/EQUIPMENT ACCIDENTS** (Personnel trauma, damage to equipment/private property during crew transport or mine site operations) - i.e., light vehicle-heavy mine equipment collisions, highway and iceroad transportation accidents (including vehicle-wildlife collision)	5	4	23	A,B,C,D,G	3	3	13	IVMS monitors, CDL/DOT training, roll cages, mandatory seat belt use, pretrip planning, winterization, radio communications and non-verbal signaling, etc.
2	MINING and DRILL SITE OPERATIONS	**S: EXTREME ENVIRONMENT OPERATIONS** (Working over water/ice, extreme cold/heat, high altitude)	5	5	25	A,B,C,D,E,F,G	2	1	2	Job specific engineering review Fitness for Duty Strategies
3	MATERIAL HANDLING	**S: FORKLIFT/CRANE OR OTHER MATERIAL-HANDLING HEAVY EQUIPMENT** (Personnel trauma by impact of mobile lifting equipment and/or elevated or suspended loads)	5	4	23	A,B,C,D,G	2	2	5	Forklift training and traffic management, crane certification
4	MINING and DRILL SITE OPERATIONS	**S: GROUND FAILURE & ROCK FALL** (Personnel trauma and/or equipment wreckage due to catastrophic mine or jobsite structural failure and/or borehole piping)	5	4	23	A,B,C,D	3	2	8	Safety berms, JSEAs, THINK FLRA Process
5	MATERIAL HANDLING	**S: HOT METAL WORK** (Personnel burns, fire, property damage from superheated materials (workplace furnaces, friction welding, etc.))	5	4	23	A,B,C,D,F,G	2	1	2	Hot Work Area exclusion barriers, flame/heat-resistant PPE
6	MACHINE & TOOL OPERATION	**S: LINE-OF-FIRE INCIDENTS** (Personnel trauma (including hand injury) from tools and equipment (stored energy in hydraulics, pnuematic systems, motor rotation, tool-related lacerations, etc.)	5	4	23	A,B,C,D,F,G	3	2	8	Machine guarding, Safety Tools, JSEAs, prohibition on wrenches under power, THINK FLRA Process
7	MATERIAL HANDLING	**S: OVERHEAD, FALLING or ROLLING HAZARDS** (Personnel trauma from overhead hazards (power lines, falling objects; or release of stored energy (e.g., gravity, mechanical, pnuematic or hydraulic systems))	5	4	23	A,B,C,D,F,G	3	2	8	Material racks, storage containers, rod handlers, JSEAs, THINK FLRA Process
8	VIOLENCE	**S: SECURITY HAZARDS** (Violence in workplace, kidnap, terrorism, etc.)	5	4	23	A,B,C,D,E,G	2	1	2	Building security, travel alerts
9	MINING and DRILL SITE OPERATIONS	**S: TOXIC/EXPLOSIVE GAS or DUST EXPOSURES** (CO, H_2S, methane, uranium ores, etc.)	5	4	23	A,B,C,D,E,F,G	3	2	8	Mine-provided ventilation, gas detection monitors, self rescuers, respiratory protection strategies, dust controls
10	MINING and DRILL SITE OPERATIONS	**H: WORKPLACE ILLNESSES** (Avian Flu, Hantavirus, Legionnaire's Disease, Malaria, West Nile Virus, etc.)	5	3	20	A,B,C,D,G	3	1	4	Workplace Illness Prevention programs, housekeeping inspections, camp fumigation, rodent control, etc.
11	HAZARDOUS MATERIAL HANDLING	**E: SPILLS** (Significant environmental release of fuels, lubricants or other hazardous materials)	5	3	20	A,B,C,D,E,G	3	1	4	Hazardous materials inventories and risk controls; SPCC plans; double-walled storage tanks; mandatory secondary containment for 200 Liter drums and larger containers; Corporate prohibition on unattended fuelling; chlorinated solvent ban.

MANAGEMENT OF CHANGE

Purpose:

Risk assessment must incorporate a mechanism to capture additional or new risks which are imposed by changes in the workplace which were not evaluated previously.

Reference:

EHS Guidance Document: ***Management of Change***

Key requirements:

EHS process mandating risk assessment and application of appropriate controls to the following changes* in operations:

- Any modification of manufactured products.
- Any change in project scope.
- Any changes to processes or procedures.
- Any use of new tools or materials.
- Any new chemical product.
- Any change in situation or site conditions.

Management of change has been incorporated in Boart Longyear's Job Safety and Environmental Analysis template, as well as within a rigorous management review process:

1. Implementation of the Management of Change process starts with field/facility level supervisors and flows to their direct management for validation.
2. A validated Management of Change request then proceeds to either EHS or Engineering reviewers for action and follow through.
3. Accountability for implementation of the Management of Change process has been assured through CRR Review and review of Management of Change statistics by the Vice President, EHS and the Corporate EHS Committees.

*Changes in this context present a significant actual or potential risk including injury, property damage or environmental impact or a combination thereof. Significance is determined by a risk rating greater than or equal to 15.

VISITOR INDUCTIONS

Purpose:

Ensure that all visitors to Boart Longyear facilities and job sites receive appropriate site safety induction, understand site hazards and associated risks, and that appropriate risk controls, including PPE, are applied.

Reference:

- EHS Guidance Document: ***Facility Visitor Inductions***
- EHS Guidance Document: ***Drill Site Set-up and Visitor Inductions***
- Visitor Site Induction Forms

Key requirements:

All visitors at Boart Longyear facilities or job sites must:

- Follow all laws and regulations and client requirements governing the workplace.
- Be advised of, and agree to follow Boart Longyear's EHS requirements, including any safety-related instruction from a Boart Longyear employee.
- Sign in, and be escorted at all times.
- Wear appropriate clothing and personal protective equipment (PPE) as defined by Boart Longyear or client-site standards.
- Receive a site induction before entering any facility or job site so that they are advised of any site-specific hazards.
- Agree to report any injury or EHS incidents.

Where site security does not prohibit the general public from access to Boart Longyear facilities or job sites, signage and/or physical barriers shall advise of site hazards and request any visitor to notify a Boart Longyear employee of their presence immediately upon arrival.

Operations shall remain in a stand-by or shut-down mode until all visitors have completed the site induction, understand site hazards and are equipped with appropriate PPE.

CONTRACTS AND CONTRACTORS

Purpose:

Limit risk to contractors and subcontractors at Boart Longyear facilities and job sites through risk assessment, site induction, EHS training and oversight, and application of Boart Longyear-approved EHS controls and systems.

Reference:

- EHS Guidance Document: ***Drilling Services Contract Review***
- EHS Guidance Document: ***Contractors and Subcontractors***

Key requirements:

Drilling Services Contracts

- All new contracts and contract renewals for Drilling Services shall be reviewed by the Territory EHS Manager or his/her delegate, and EHS approval must be obtained prior to mobilization.
- All Drilling Services contracts shall contain appropriate EHS terms and conditions as approved by the General Counsel.
- Client contracts which do not conform to approved Boart Longyear EHS terms and conditions, or which appear to conflict with the intent and substance of Boart Longyear's EHS Management System and Standards, shall be forwarded to the Vice President, EHS. (see also Legal Compliance at *page 10*.)

Contractors and Subcontractors on Boart Longyear Facilities and Job Sites

- All contractors and subcontractors shall receive site hazard training appropriate for the scope and risk of their proposed work. Associated training documents shall be retained for the life of the facility.
- EHS staff shall conduct a risk assessment for all proposed tasks within the contractors' scope of work.
- All contractors and subcontractors shall agree to abide by Boart Longyear's EHS requirements as a condition of gaining access to the site.
- All contractors and subcontractors shall agree to immediately report any injury or EHS incident.

CRISIS COMMUNICATIONS

Purpose:
Define standard communication procedures in the event of an emergency which requires or has already triggered media attention or other corporate obligation. Ensure that Crisis Management Team members have the decision-making processes and tools to effectively manage crisis communications.

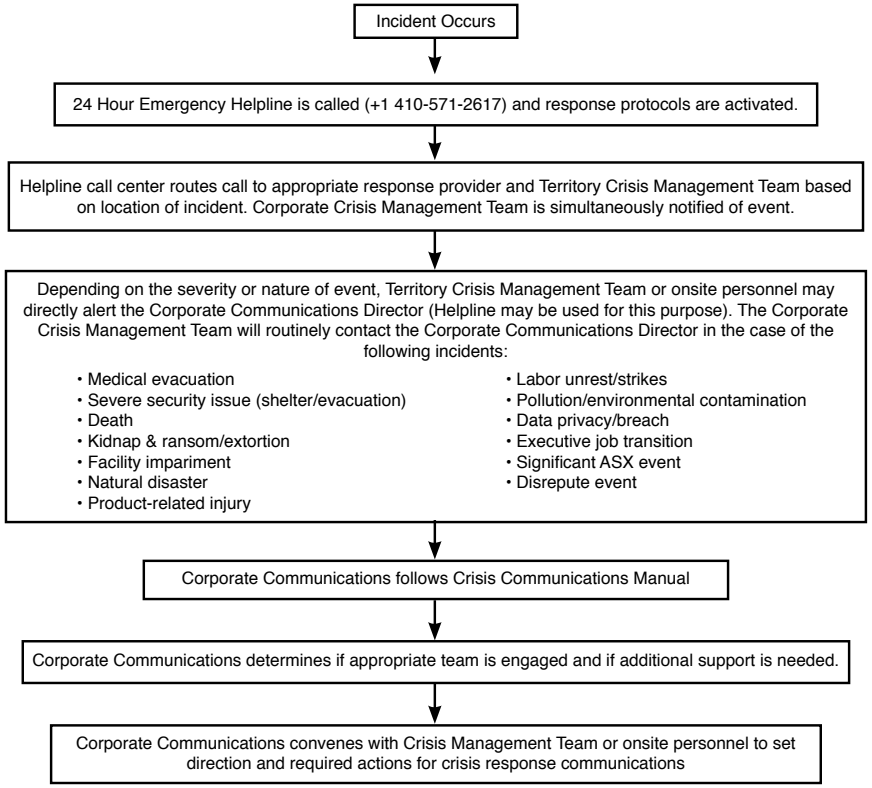
References:
- Boart Longyear ***Corporate Crisis Communications Manual***
- ***Emergency Action Plan templates***

Key Requirements:

1. Crisis Management Process
   The Corporation manages crisis situations through the legal department and a 24-hour Emergency Helpline and also subscribes to external integrated risk management services (I-Jet®) to assist in various crisis situations.

2. Crisis Management Objectives
- Provide emergency resources to reduce risk to human health and safety, protect corporate assets and limit associated environmental impacts.
- Protect the reputation, credibility, and brand image of Boart Longyear.
- Maintain constructive, positive working relationships with key audiences by communicating quickly, accurately, and candidly.
- Ensure that all information disclosed, internally or externally, is managed through a corporate approval process.
- Take steps to support continuous improvement in future communications.
- Instruct personnel on who to contact and when.

CRISIS FLOW CHART



EMERGENCY HELPLINE: (+1 410-571-2617)

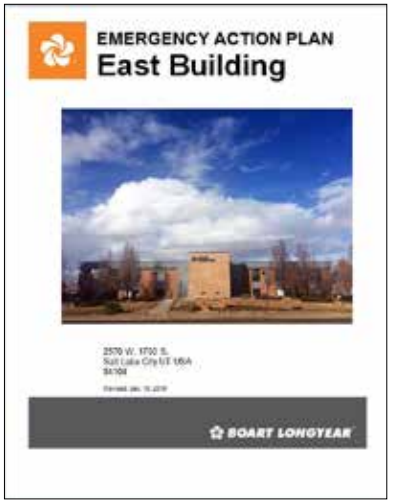
EMERGENCY PREPAREDNESS AND RESPONSE

An **emergency** is an unplanned incident which has caused, or has the potential to cause, serious injury, illness, property damage, or environmental harm. Each facility and business unit shall annually evaluate the potential for emergencies in the risk evaluation process, and document program elements within the EHS Management Plan.

An **Emergency Action Plan** template has been prepared to facilitate a consistent approach to emergency preparedness and response planning and is to be used by all business units.

The Emergency Action Plan template includes:

- Detailed considerations for an extensive list of potential events ranging from fire, to natural disasters and terrorism
- Planning and risk assessment
- Emergency preparedness inspections
- Training
- Communications
- Evacuation plans
- Provision of appropriate emergency response equipment and supplies



Each Territory Operations Manager and/or Facility/Plant Manager shall implement the Emergency Action Plan and shall include:

- Roles and responsibilities for communications and emergency duties within each facility or job site for obtaining outside support services shall be established and maintained within emergency plans.
- Job site personnel shall review the Boart Longyear or client provided emergency response plan for the client site prior to the commencement of drilling operations.
- The EHS emergency action plans at each facility or job site will be reviewed and tested at least annually or more frequently as required to reflect changes in operations or regulatory requirements.
- Each facility and/or job site shall maintain records of their reviews and tests of the Emergency Action Plan and associated training elements and drills in the GEMS system.
- Following an EHS emergency situation, the emergency response plan shall be reviewed and revised as necessary to reflect process improvements.
- Where applicable, appropriate regulatory agencies shall be notified of EHS incidents and/or drills.
- All personnel involved in emergency preparedness and response shall receive appropriate EHS training on an annual basis.

INCIDENT REPORTING AND INVESTIGATION

Purpose:
Diligent and transparent investigation, documentation and reporting of all incidents, near misses and events which have actual or potential impact on human health, and property or environmental resources.

References:
- EHS Guidance Document: ***EHS Incident Reporting and Investigation***
- Boart Longyear Incident Investigation Field Guide.

Key Requirements:

All reporting is to comply with the requirements defined below, in addition to compliance with regulatory requirements and contract provisions.

- An **Incident** is an unplanned work-related event which results in injuries, property damage or environmental impact or a combination thereof.
- A **Critical Risk Incident** – any incident with an actual or potential risk rating which is significant or extreme (risk rating >15) and shall include:
    1. Injuries (see OSHA/MSHA definitions at page 61 & page 65) risk rated as significant or extreme, including all recordable injuries
    2. Motor vehicle incidents risk rated as significant or extreme
    3. Property damage or property loss incidents risk rated as significant or extreme
    4. All agency-reportable environmental spills/releases
- A **Near Miss** is an unplanned work-related event which did not actually result in injury, property damage or environmental impact, but which might have under different circumstances.
- **High-Potential Near Miss** - a near-miss event with a potential risk rating which is significant or extreme (risk rating > 15.)
- A **Procedural Breach** is a work-related incident or event which violates regulations, standards or client requirements including Boart Longyear's Golden Rules of Safety, Rules of the Road and/or EHS Standards.
- **Critical Risk Review** (CRR) - a formal management review of Critical Risk Incidents and High-Potential Near-Miss Events.

An incident or near miss is differentiated from a hazard via action or the transfer of energy. [Example: a suspended load represents a hazard to those working nearby; if the suspended load accidently falls to the ground causing injury, property or environmental damage, the event is considered an incident. If the suspended load falls to the ground without injury, property damage or environmental impact, the event is considered a near miss.]

INCIDENT REPORTING AND INVESTIGATION (CONTINUED)

INCIDENT REPORTING:

Employees are responsible to report all incidents, near miss events, property damage, and procedural breaches to their supervisor immediately. The supervisor shall immediately report to local EHS staff and territory/plant operations management all of the following incidents or events:

- Injuries including those sustained in a vehicle or mobile equipment.
- Agency visits or inspections to Boart Longyear facilities or jobsites.
- Visitation to a workplace by a government agency which results in issuance of a citation, finding/order, or likely assessment of a penalty.
- Property damage.
- Spill which has a potential adverse impact on environment resources.
- High-Potential Near-Miss Events.
- Procedureal breach.
- Any incident or event which triggers an obligation to report to a government agency.

All incidents, near misses, property damage and procedural breach events shall be reported immediately.

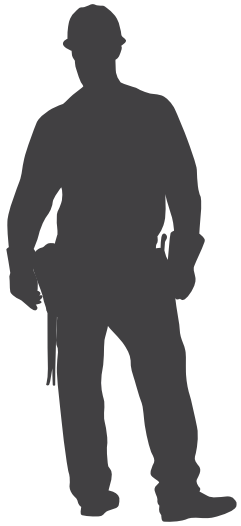
GLOBAL EHS INFORMATION MANAGEMENT SYSTEM (GEMS)

The EHS information management system provides a platform to store data related to incidents and events. These include: inspections and audit findings; management interactions; near miss events; injuries; motor vehicle incidents; equipment damage; and environmental impacts. This system provides Boart Longyear the ability to calculate key performance indicators, analyze trends and evaluate work-related incidents, events and processes throughout any given year.

GEMS Output Capabilities

- GEMS disseminates key EHS information to all users on a global scale. The system broadcasts instant notifications of events and incidents.
- Distributes a variety of customized daily, weekly, monthly and on-demand reports.
- Allows leadership, managers, and employees to recognize trends, limit hazards, and track corrective actions.
- Allows leadership and managers to “close the loop” on substandard performance and assists in achieving the goal of continual improvement in our EHS processes.

LEADING INJURIES



1	HAND/FINGER/THUMB	46.1%
2	HEAD/FACE	9.2%
3	KNEE	6.6%
4	BACK	6.6%
5	LEG	5.3%
6	ANKLE	5.3%
7	EYE	3.9%
8	ARM	3.9%
9	FOOT/TOE	3.9%
10	MULTIPLE	2.6%
11	SHOULDER	1.3%
12	NECK	1.3%
13	ABDOMEN	1.3%
14	CIRCULATORY SYSTEM	1.3%
15	ELBOW	1.3%

INCIDENT REPORTING AND INVESTIGATION (CONTINUED)

INCIDENT REPORTING REQUIREMENTS

An electronic record must be created in the GEMS system* within 24 hours for the following events:

- All injuries, including fatalities
- All agency issued (or likely) findings, citations, orders or notices of violation (and shall be classified as an agency interaction)
- All property damage incidents, including any involving vehicles or mobile equipment
- All environmental spills
- All inspections or interactions with government agencies likely to result in citation or penalty
- All near miss incidents with a severity rating of Significant or Extreme
- All Management of Change requests with a severity rating of Significant or Extreme
- Any customer or third party complaints*

The following events must be entered into the GEMS System* within 14 days.

- Minor near miss events
- All other management interactions
- Any routine third party stakeholder inquiries or informational requests

**Note: or other appropriate data management system or tool depending on volume and severity.*

The following deadlines must be observed with regard to incident and near miss investigations:

- Critical incident (or near miss) investigations are to be entered into the GEMS system within 24 hours.
- Investigations, including root cause analysis, are to be completed with preliminary classification entered into the GEMS system within 7-14 days.
- Post investigation development of corrective actions shall be entered into the GEMS system within 7-14 days.
- Critical Risk Reviews (CRR) shall be conducted and shared with Corporate EHS within 45 days.
- Completion of corrective actions, with verification, shall be documented and action items closed in the GEMS system within 45 days.
- Open corrective actions shall be tracked by the Corporate EHS Committees monthly. Aging statistics on open corrective actions shall be evaluated and managed by the Corporate EHS Committees as a key performance indicator.

INCIDENT INVESTIGATION

When an incident occurs, apply incident command procedures:

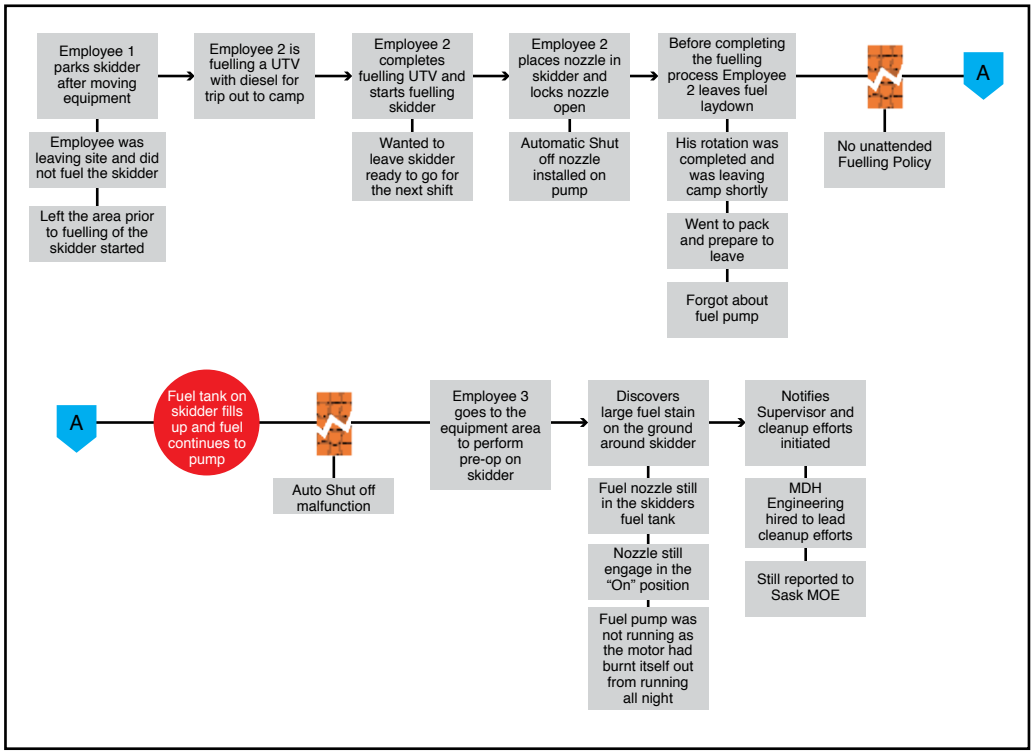
- Ensure all personnel are safe.
- Obtain medical treatment for the injured.
- Where a spill has occurred, implement appropriate spill response measures, including notice to authorities as required.
- Secure the incident scene.
- Begin investigation.
- Conduct interviews/obtain witness statements.
- Include citations, photos, drawings, police reports, etc.
- Complete incident report and enter into the GEMS System within 24 hours.
    - If the injury classification has not yet been finalized, select “Under Investigation” on the incident report form.
    - Upon completion of the investigation, generate a GEMS report update, including root cause analysis (all incidents resulting in any reportable,or high potential near miss, or any reportable environmental release).
    - Update the GEMS report with investigation details and all additional relevant information to close out the incident.
    - Include all costs related to the incident, including environmental response and indirect costs such as lost work.
    - Ensure the number of restricted and/or lost time days is current.
    - Ensure corrective actions have been assigned and are completed or are being tracked to closure.
    - Attach any correspondence to or from government agencies.

ROOT CAUSE ANALYSIS

Root Cause Analysis (RCA) is an investigation technique which attempts to systematically ascertain and relate the facts and contributing (causal) factors which led to an undesirable incident or near miss event. Operations personnel lead the RCA investigation and collaborate with EHS staff in the conduct of a balanced and impartial inquiry. For extreme or significant incidents or events (risk rating > 15), Boart Longyear has adopted the TapRoot® RCA process.

Documents supporting root cause analyses, such as: 5-Why analyses; fishbone diagrams; photographs; police reports; witness statements; TapRoot® Snapcharts™; and/or PowerPoint® slides are uploaded to the GEMS event record. Appropriate corrective actions can then be created and tracked in the GEMS system to eliminate or mitigate future recurrence.

ROOT CAUSE ANALYSIS FLOW CHART (EXAMPLE)



DOCUMENT AND DATA CONTROL AND RECORDKEEPING

Purpose:

Provide global consistency in the management of EHS data, documents and records.

References:

EHS Guidance Document: ***Documents and Records***

Key Requirements:

Data, documents and records are managed as critical components of the EHS Management System. This information is analyzed in order to track EHS performance, react to incidents and events, and develop program modifications to reduce risk and ensure continual improvement. A hierarchy of document authorities has been established to provide global continuity and structure in EHS processes.

Hierarchy of EHS Documents:

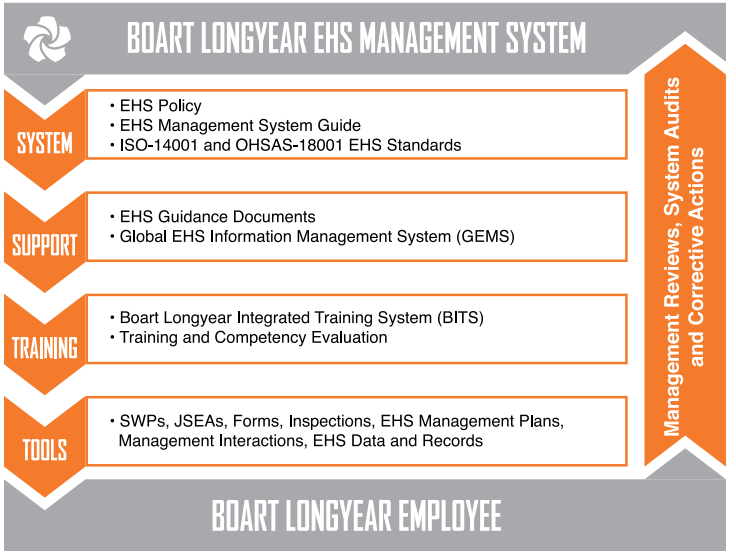
1. EHS Policy
2. EHS Management System, standards and programs
3. EHS Guidance Documents
4. Standard Work Procedures (SWPs) and training documents
5. Field-level documents (JSEA and Feild-level Risk Assessment)

Document Controls:

Boart Longyear maintains and controls EHS documents and records in accordance with the Corporation's Record Retention Policy or pursuant to applicable regulations, whichever retention period is longer. These records and data include: incident and investigation documents; evidence of training; inspections and maintenance records; audit results; and management reviews.

Boart Longyear has established, implemented and maintains procedures for the control of all relevant EHS documents, data and records to ensure that:

- They can be readily located.
- They are periodically reviewed, revised as necessary and approved for adequacy by competent and responsible personnel.
- Current versions of relevant documents and data are available at all locations where operations essential to the effective functioning of the EHSMS are performed.
- Obsolete documents are promptly replaced with revised documents as necessary and older versions are collected and destroyed, and/or filed as obsolete.



MANAGEMENT REVIEW

Purpose:

Provide global consistency in the application of EHS policy, programs and standards through regular and recurring management review of EHS data, documents and processes.

References:

- EHS Guidance Document: ***Management Review of EHS Documents and Processes***
- Corporate EHS Scorecard

Key Requirements:

1. Board of Directors and EXCO

   The Corporate Board of Directors has an EHS committee to which the Vice President, EHS reports at least quarterly. These reviews include a digest of any major incidents, general EHS performance and trending. Additionally, the Vice President, EHS routinely presents key EHS issues to the Executive Committee (EXCO) either personally or via the General Counsel.

2. Corporate EHS Committees

   EHS Corporate committees meet monthly for both the Drilling Services and Products divisions. These forums allow global participation by senior management, operations management, and EHS staff to review a standard agenda of EHS issues and to develop, assign and follow up on corrective actions. A key element of the Corporate Committees is the EHS Scorecard, which provides indicators of global EHS performance at all permanent facilities and business units, and tracks:

   - EHS corporate goals and objectives
   - Global Critical Risk Register
   - Tracking and management of critical risk incident/events
   - Open corrective actions

3. Territory and local operations management

   Territory and business unit leaders meet routinely with EHS staff to collaborate on EHS performance issues and the implementation of EHS program elements. Key milestones for EHSMS conformance are provided to the EHS staff and operations management: managers are required to annually review key EHSMS documents such as:

   - EHS Scorecard
   - Territory or facility risk register
   - Internal and external EHS audit findings and corrective actions
   - EHS key performance indicators
   - Critical Risk Reviews
   - Closure of corrective actions

EHS STANDARDS

All Boart Longyear sites, facilities, offices and plants shall implement and/or develop EHS programs and plans, and shall comply with the following standards. A number of EHS Guidance documents are incorporated by reference in these standards are available electronically via the main EHS Intranet website.

EHS-GENERAL-01 – WORKER ACCOMMODATIONS AND CAMPS

Purpose:

Company provided worker accommodations and camps shall be operated in a manner which ensures the provision of safe, clean and restful boarding and a reasonable degree of privacy for employees while off-shift. Accommodation rules shall be developed and posted and employees shall abide by such rules as a condition of the use of those facilities.

References:

- EHS Guidance document: ***Worker Accommodations and Camps***
- Camp Maintenance and Inspection Report Form
- Camp Rules Template

Key Requirements:

A. Employee conduct

B. Inspections

C. Safety

D. Hygiene and sanitation

E. Maintenance

F. Potable water supply

G. Waste management

EHS-GENERAL-02 – EHS INSPECTIONS

Purpose:

Various types of EHS inspections shall be conducted in accordance with applicable requirements such as regulations, contract provisions, or best management practices.

References:

- Boart Longyear guidance document: ***EHS Inspections***
- EHS Inspection Form Templates

Key Requirements:

The following types of routine inspections have been developed in order to reduce workplace risk and provide a mechanism for documenting site and equipment conditions and compliance:

A. Pre-shift, pre-use inspection of vehicles, tools, equipment and workplace
B. Emergency preparedness response
C. Environmental
D. Rig, job site and permanent facility
E. Behavior based safety observations
F. Plant and facility equipment
G. Others, as required by permit or plan
H. Monitoring devices

Calibration and Maintenance of EHS Monitoring Equipment

All EHS monitoring and measuring equipment shall be calibrated in accordance with the manufacturer's recommendations, or at least annually if those recommendations are unavailable or otherwise unknown. Each facility shall maintain a detailed record of all such EHS equipment requiring calibration and the corresponding calibration frequency, calibration process and outcomes.

EHS-GENERAL-03 – HAZARD COMMUNICATION (HAZCOM)

Purpose:

Various national and international regulations and treaties set requirements for the handling, labelling, storage, and shipment of dangerous goods (aka "hazardous materials.") Specific requirements also apply to hazard identification, communication and training of employees working with, or exposed to hazardous materials. These requirements and communication systems are collectively referred to as "Hazard Communications," abbreviated to "HazCom."

References:

- United Nations Purple Book - Guide to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)
- EHS Hazard Communication Plan Template

Key Requirements:

A. **Hazard Communication Plan**

All business units, facilities and operations shall incorporate Hazard Communications and compliance with applicable regulations within their EHS Management Plan. Mandatory elements of hazard communications applied to all chemicals and hazardous materials shall include the following:

- Listing of all chemicals, hazardous materials or dangerous goods
- Appropriate labeling and storage of all hazardous material containers
- Ready access to Safety Data Sheets (SDS) or Material Safety Data Sheets (MSDS)
- Employee training in the safe storage, handling and use of all chemicals and hazardous materials

SDS replaces MSDS under the Globally Harmonized System

B. **Safety Data Sheets** (SDS) **formerly Material Safety Data Sheets** (MSDS)

All facilities where hazardous materials are stored or used shall maintain compliance with applicable GHS-conforming Hazardous Communication (HazCom) requirements.

A Safety Data Sheet (SDS) shall be maintained for all products in the hazardous material inventory and shall be provided to any employee or stakeholder upon request. SDS information may be stored in either paper or electronic form in accordance with local regulations, but must be readily available.

EHS STANDARDS (CONTINUED)

EHS-GENERAL-04 – HAZARDOUS MATERIALS (HAZMAT)

Purpose:

Elimination or reduction in risk associated with the storage and use of hazardous materials.

References:

- EHS Guidance Document: ***Hazardous Materials Management***
- United Nations Purple Book - Guide to the Globally Harmonized System (GHS) of the Classification and Labelling of Chemicals

Key Requirements:

All hazardous materials and hazardous waste shall be stored and labelled in accordance with applicable regulations. All sites and facilities storing hazardous materials and/or wastes shall incorporate associated risks in the facility risk register and EHS Management Plan.

Hazardous material use, storage and handling shall incorporate the following:

A. Appropriate training for all personnel handling, or potentially exposed to hazardous materials.

B. Labelling and storage of all hazardous materials and hazardous wastes, and associated storage facilities in compliance with local regulations and/or internationally-accepted guidance.

C. Accurate HazMat inventories, risk minimization strategy, and risk minimization performance.

D. Evidence of appropriate and effective secondary containment.

E. Complete ban on any chlorinated solvents.

F. Paints and solvents.
   i. Aerosol can product minimization strategy and consumption metrics.
   ii. Volatile organic compounds (VOC's) minimization strategy for all paints and petroleum based solvents.
   iii. Paint booth permit requirements evaluation, and maintenance documentation.

G. Parts washers-reduction in solvent flammability and VOC content.

H. Spill prevention and response (SPCC) planning, and spill reporting.

I. HazMat, solid and hazardous waste storage.
   i. Closed waste containers.
   ii. Rated fire-proof containers for oily rag storage, with self-closing lids for day-use containers.

United Nations GHS Pictograms

EHS-GENERAL-05 – MATERIAL HANDLING AND STORAGE

Purpose:

Elimination or reduction of risk associated with the handling and storage of materials.

References:

- EHS Guidance Document: ***Material Storage and Handling***
- Boart Longyear ***Pallet Racking/Cantilever Rack Inspection Form***
- Boart Longyear ***Facility Risk Control Manual***

Key Requirements:

All Boart Longyear permanent facilities and drilling services laydown yards shall incorporate material storage and handling in their risk registers and EHS Management Plans. Risk assessments shall be conducted for the storage of all chemical and petroleum products, hazardous materials and also for the storage and handling of materials at ground level and/or on high-bay shelving and racking including provisions for seismic disturbance pursuant to the *Facility Risk Control Manual*.

All material storage systems and material handling practices shall incorporate controls to limit potential harm to the workforce, property damage or environmental resources; The following considerations and practices shall be applied:

A. Traffic Management
   1. Facility traffic management plan
   2. Forklifts and mobile equipment restrictions/requirements
   3. Truck delivery, loading, and unloading

B. Material Handling
   1. Ground Level
      i. Load securement
      ii. Crate banding/strapping practices
      iii. Manual lifting
   2. Overhead
      i. Picking and storage to or from overhead shelving and racks
      ii. Establishment of pedestrian exclusion zones in proximity to high bay shelving or overhead hazards
      iii. Crane operation and suspended load restrictions

C. Overhead Shelving and Cantilever Racking
   1. Physical requirements, including exclusion zones
   2. Storage practices
   3. Load securement
   4. Inspections

EHS-GENERAL-06 – FORKLIFTS, CRANES AND LIFTING EQUIPMENT

Purpose:

Elimination or mitigation of risk associated with the use of forklifts, cranes and other lifting equipment.

References:

- EHS Guidance Document: ***Forklifts, Cranes and Lifting Equipment***
- Boart Longyear ***Lifting Equipment Register***
- EHS Instructional Video ***Forklift Safety***

Key Requirements:

All business units, facilities and operations utilizing lift trucks and/or cranes shall develop and implement a Forklift/Crane Plan to ensure that appropriate procedures, inspections and EHS training are in place to safeguard all employees and to comply with all applicable regulations. Other lifting devices and equipment shall also be addressed in the Plan, including any winches, davits, and both powered and manual lifting devices (e.g. chain blocks and mechanical hoists).

EHS STANDARDS (CONTINUED)

All business units shall establish a lifting equipment register. The following shall be incorporated:

- An inventory of all cranes, forklifts and lifting equipment, including weight restrictions or other mandatory restrictions or limitations
- Any certifications and renewal dates
- Any operator certifications required for operation
- Inspection criteria
- Inspection log

EHS-GENERAL-07 – PROHIBITED BEHAVIORS, ITEMS, AND SUBSTANCES

Purpose:

Elimination of risk associated with undesirable behaviors, items or substances.

References:

- EHS Guidance Document: ***Prohibited behaviors, items and substances***
- Golden Rules
- Rules of the Road

Key Requirements:

Boart Longyear has established policies and other guidance which prohibits certain behaviors, items and substances from Boart Longyear facilities and/or job sites. Compliance with these requirements is a condition of employment.

A. **Prohibited Apparel**

Personal attire - Where a risk assessment determines that workers are exposed to rotating equipment which presents a “caught-in” hazard to personnel, the following shall be prohibited:

1. Unrestrained long hair, and/or beards.

2. Loose clothing such as open shirt tails, unbuttoned shirt sleeves, hoods or laces.
3. Wearing of any jewelry, chains, rings, etc. which represent a potential “caught-in” hazard.

B. **Prohibited Behaviors**

In addition to the Boart Longyear Golden Rules and Rules of the Road, the following behaviors shall be prohibited at all sites, and will be deemed grounds for disciplinary action:

1. Welding on any drill mast or structural member without engineering approval.
2. Smoking on company property or project sites, except in designated areas.
3. Secondary use of any food or beverage container to hold any chemical or petroleum product or waste material.
4. Any open container of hazardous materials. All containers shall be kept closed except during the actual transfer of materials.
5. Unattended fueling of any vehicle or equipment.
6. Purposely disabling or bypassing a safety device, including locks, guards, IVMS devices (including entering a generic or false i.d. code) without authorization.
7. Unauthorized modification of PPE.
8. Use of a wrench under power. See standard at page 75

C. **Prohibited items and substances**

The following items, materials, and substances shall be prohibited at all Boart Longyear facilities and jobsites, in company-provided accommodations, or company vehicles. Possession or use will be deemed grounds for disciplinary action:

1. Firearms (limited exceptions may be approved in writing by the VP EHS, for sites subject to extremely dangerous wildlife (polar bears, etc.).
2. Weapons, including personal knives shall not be carried on company property or on job sites.
3. Use of unauthorized equipment, items or substances including:
    i. Non-OEM wrench extensions (improvised “cheater” bars).
    ii. Lever style binders.
    iii. Open flame heating units.
    iv. Fires or burn pits.
    v. Chlorinated solvents (containing any chemical compound incorporating the term “chloro” or similar indicator of chlorinated compounds (i.e., Tri-chloro-ethylene).
    vi. Others as determined by Corporate EHS Committees and/or the General Counsel.

ENVIRONMENTAL STANDARDS

The **Corporate Environmental Sustainability Plan** and annual corporate EHS goals detail the environmental program elements which eliminate, minimize or otherwise mitigate negative environmental impacts, and capitalize on environmental opportunities. Each business unit shall manage environmental aspects and impacts and the utilization of environmental resources so as to enhance the efficiency of operations while generally reducing impacts where practical.

Environmental aspects, impacts, controls and strategies shall be detailed for all activities documented in the business unit Risk Register and the EHS Management Plan. Key performance indicators shall document the performance of those program elements, mandatory environmental strategies shall be incorporated within the local EHS Management Plan. Outcomes shall be documented in the GEMS Sustainability Module.

Reporting on the overall status of environmental goals and objectives shall be periodically documented and reviewed as a component of the EHS Corporate Committees' agenda as well as the VP EHS, Territory EHS Managers' and operations management personal performance evaluations.

The following shall be evaluated and documented annually by each territory and/or facilities as necessary to mitigate and control unacceptable environmental impacts:

EHS-ENVIRONMENTAL-01 – ENVIRONMENTAL SUSTAINABILITY

Purpose:

Ensure achievement of the Corporation's environmental sustainability goals and objectives via a comprehensive evaluation of environmental risks and opportunities.

References:

- Corporate Environmental Sustainability Plan
- Annual environmental goals and objectives

Key Requirements:

All facilities and business units shall develop and implement processes to mitigate or eliminate environmental impacts while maximizing environmental opportunities such as the reduction in resource utilization, increased recycling or reducing waste generation. Sustainability efforts shall document the following:

A. Environmental aspects and impacts evaluation (risk register).

B. Environmental permits recordkeeping and reporting requirements.

C. Environmental objectives and performance.

   1. Environmental impact reduction.
   2. Conservation of environmental resources.
   3. Opportunities for positive environmental stewardship.

EHS-ENVIRONMENTAL-02 – AIR AND NOISE

Purpose:

Reduce impacts to air quality and noise impacts to sensitive receptors such as the work force, the general public, or wildlife.

References:

- Corporate Environmental Sustainability Plan
- Annual environmental goals and objectives

Key Requirements:

A. Engine idling (minimization strategies).

B. Summary of fleet engine inventory, including engine types, horsepower (hp or kW) engine class (i.e., Tier III) and emission factors.

C. Compliance program elements to document process stack, vehicle, and equipment emissions.

D. Reduction or elimination of noise impacts to sensitive receptors (where applicable and incorporated in EHS Management Plans).

EHS-ENVIRONMENTAL-03 – ENERGY AND FUELS

Purpose:

Reduce impacts to air quality through conservation strategies to limit energy and fuel consumption

References:

- Corporate Environmental Sustainability Plan
- Annual environmental goals and objectives

Key Requirements:

A. Energy and Fuel Consumption.

B. Vehicle mileage (km).

C. Energy conservation strategy and performance.

EHS-ENVIRONMENTAL-04 – WASTE

Purpose:

Reduce impacts to environmental resources through waste management and waste minimization strategies.

References:

- Corporate Environmental Sustainability Plan.
- Annual environmental goals and objectives.

Key Requirements:

A. Waste minimization strategy and performance.

B. Waste generation documentation.

C. Aerosol container minimization, management and disposal.

D. Hazardous waste compliance.

EHS-ENVIRONMENTAL-05 – WATER

Purpose:

Reduce impacts to environmental resources through the reduction of water consumption and impacts to water quality.

References:

- Corporate Environmental Sustainability Plan.
- Annual environmental goals and objectives.

Key Requirements:

A. Water consumption documentation.

B. Water use, and minimization strategy.

C. Reduction in impacts to surface and ground water quality.

D. Water conservation strategy and performance.

E. Storm Water Management.

OCCUPATIONAL HEALTH (INDUSTRIAL HYGIENE) STANDARDS

EHS-HEALTH-01 – FITNESS FOR DUTY

Purpose:

Reduce health and safety impacts to the workforce by implementation of processes which eliminate or mitigate risk to employees.

References:

EHS Guidance Document: ***Fitness for Duty.***

Key Requirements:

All employees are subject to the Corporate Fitness for Duty Standard, as determined by Corporate EHS and Human Resources Policies, applicable laws, regulations and collective bargaining agreements. Where not otherwise prohibited, all business units shall address fitness for duty as an integral component of the EHS Management Plan and shall include the following components:

A. Drugs and Alcohol

Provision and implementation of a random drug and alcohol testing programs for all employees.

B. Fatigue Management

Where a risk assessment indicates the potential for excessive worker fatigue, or where a Critical Risk Review or root cause analysis determines excessive fatigue as a causal factor, a documented fatigue management program shall be established such that:

1. Employee work hours and schedules are controlled to mitigate worker fatigue.
2. Commute time to/from job sites is minimized.
3. Incorporation of fatigue issues within a comprehensive Journey Management Plan.
   - Individual drivers shall be limited in night driving to no more than 2-consecutive hours.
   - Following a combined transit and workday duration of 12 hours, drivers shall change hourly.
   - Single drivers, following a combined transit and workday duration of 12 hours, shall take mandatory 10-minute rests from driving on an hourly basis.
4. Operations Management shall take active measures to reduce risks associated with worker fatigue through application of controls such as employee scheduling, rest breaks and comprehensive evaluation of workplace conditions to mitigate fatigue issues.

C. Thermal Stress & Hydration

Where a risk assessment indicates a significant risk related to thermal stress and/or dehydration, a site-specific program shall be developed and documented such that:

- Workplace thermal stress levels and employee hydration are identified, controlled and documented.
- Activities and conditions with potential to impact thermal stress effects are controlled.
- Hot areas or activities at or during which employees have experienced heat stress are appropriately controlled.
- Cold areas or activities where employees have experienced pain or loss of feeling, frostbite or other symptoms of cold stress have been appropriately controlled.
- Control measures, including training, hydration monitoring and rest procedures are in place to minimize thermal stress and/or maintain hydration levels and protect employees from adverse exposure.
- Medical examinations are required and must evaluate each employee's ability to work in thermal stress areas. The employees' physiological and biomedical aspects, as well as overall job fitness must be addressed and documented in the EHS Management Plan.

EHS-HEALTH-02 – HEARING CONSERVATION

Purpose:

Reduce hearing-related impacts to employees through the implementation of a comprehensive program of baseline monitoring, routine assessment and controls.

References:

- EHS Guidance Document: ***Hearing Conservation***
- Boart Longyear ***Occupational Health Monitoring Methods Manual***

Key Requirements:

Where a risk assessment indicates potential for excessive noise exposure or impacts to employees' hearing capacity, a comprehensive hearing conservation program shall be established. The program shall detail the following program elements:

A. Workplace noise mapping

B. Workplace noise abatement

C. Audiometric Testing Program

D. Control measures

Where required, there must be a documented hearing protection device (HPD) program based on suitable standards that provides EHS Training in the recognition of signs and symptoms of hazardous noise exposures, emergency procedures, and preventative measures. HPDs must be selected with regard to the potential type and level of noise, comfort and compatibility with work tasks.

EHS-HEALTH-03 – ERGONOMICS

Purpose:

Reduce ergonomic-related impacts to employees through the implementation of a comprehensive program of ergonomic evaluations, process and/or equipment improvements, and controls.

References:

EHS Guidance Document: ***Ergonomics***

Where indicated by a risk assessment, employees shall be provided with workplaces and procedures which incorporate standardized ergonomic factors and best practices. This shall generally be accomplished for permanent facilities through the design work of professional architects, commercially designed furniture and fixtures and/or installations in accordance with applicable regulations. All facility, shop and field activities shall be risk assessed for ergonomic considerations in Standard Work Procedures (and/or JSEAs) and shall consider:

A. Adequate workplace lighting

B. Workplace obstacles

C. Work surface height, configuration and stability

D. Travel surfaces (walkways, stairs, ladders, doors, etc.)

E. Neutral workplace postures and positioning

F. Avoidance of excessive:

1. Application of manual force
2. Range of motion
3. Manual lifting
4. Vibration

Where a risk assessment or Critical Risk Review determines that ergonomic factors present an unreasonable risk to worker health and safety, appropriate ergonomic controls shall be identified in the business unit risk register and shall be implemented as corrective actions.

OCCUPATIONAL HEALTH (INDUSTRIAL HYGIENE) STANDARDS (CONTINUED)

EHS-HEALTH-04 – HAZARDOUS DUST, GASES AND VAPORS

Purpose:

Evaluate and control respiratory and dermal exposure impacts to employees through the implementation of a comprehensive program of baseline monitoring and routine assessment and controls.

References:

- EHS Guidance Document: ***Hazardous Dust, Vapors and Gases***
- Boart Longyear ***Occupational Health Monitoring Methods Manual***

Key Requirements:

Where a risk assessment determines potential respiratory or dermal exposure to particulates, harmful gases, or fumes, a management strategy shall be developed to:

- Provide adequate workplace controls to limit employee exposure.
- Train employees in specific hazards and their role in limiting excessive exposures.
- The risk assessment shall address the following hazards and controls as appropriate to the particular facility or job site conditions:

A. Dusts and fibers
   1. Asbestos-form minerals
   2. Crystalline silica
   3. Coal dust
   4. Toxic dusts (arsenic, mercury, uranium, etc.)
   5. Fecal debris (bird and bat guano, rodent droppings, etc.)
   6. Toxic plants, mold, bacteria, etc.

B. Fumes and vapors
   1. Welding fumes
   2. Volatile Organic Compounds (VOCs)

C. Gases
   1. Methane.
   2. Hydrogen sulphide
   3. Carbon monoxide and/or dioxide
   4. Nitrous oxide
   5. Diesel Exhaust & Particulates

D. Ventilation controls

E. Employee health monitoring

EHS-HEALTH-05 – RESPIRATORY PROTECTION

Purpose:

Evaluate and control respiratory health impacts to employees through the provision of appropriate respiratory protection.

References:

- EHS Guidance Document: ***Respiratory Protection***
- Boart Longyear ***Occupational Health Monitoring Methods Manual***

Key Requirements:

Where a risk assessment indicates an exposure to respiratory irritants or toxics, a respiratory protection program shall be established to incorporate:

1. Respiratory Protection Devices (RPDs) shall be selected with regard to:
    A. Particle size, gas/vapor types, contaminant toxicity, and likely concentration.
    B. Compatibility with work tasks.
    C. Comfort and ability to communicate while wearing the RPD.
2. Air purifying respirators must not be used where:
    A. Oxygen concentration is < 19.5%
    B. Atmosphere is Immediately Dangerous to Life or Health (IDLH).
    C. Concentrations of contaminants exceed the respirator's protection factor.
3. Medical Clearance
    A. Employees must be medically cleared to wear respirators.
    B. Baseline and periodic respiratory function tests (e.g., spirometry) may be incorporated as part of a medical clearance program.
4. Respirator Fit Test
    A. Employees must be fit tested to ensure proper size, fit, and seal.
    B. Employees must be clean shaven when using a negative pressure half-mask or full face cartridge respirator.
5. Respiratory Protection Training
    A. Every employee who may have to wear a respirator must be instructed in the proper selection, use, and maintenance of the respirator.
    B. Respiratory protection training must be repeated at least annually for all affected employees.

EHS-HEALTH-06 – POTABLE WATER SUPPLIES

Purpose:

Ensure provision of clean and safe drinking water, and potable water supplies.

References:

- EHS Guidance Document: ***Potable Water Supplies***
- World Health Organization ***Guidelines for Drinking Water Quality***

Key Requirements:

All Boart Longyear facilities and jobsites shall provide potable and/or sanitary water supplies so as to ensure the good health of employees and visitors. Where municipal or private water supplies are not potable, bottled or bulk water containers and/or chemical toilets shall be provided.

A. Permanent facilities

Water supplies at permanent facilities shall generally be provided via the local municipal water provider. Where municipal water supplies are unpotable, or where alternative supplies such as private water wells are employed for provision of potable water, this fact shall be raised in the business unit risk register and a program of routine potable water testing shall be established and documented within the EHS Management Plan.

Where water supplies do not conform to generally accepted standards for potable water quality, a treatment system shall be installed. All such installations shall be performed by a competent professional engineer, industrial hygienist or water supply specialist.

Appropriate signage shall be posted in immediate proximity to all water supply fixtures to indicate unpotable water. Signage shall incorporate bilingual and/or graphic symbols as necessary. Appropriate training and/or induction with regard to water supply status shall be provided to all employees, visitors and contractors.

OCCUPATIONAL HEALTH (INDUSTRIAL HYGIENE) STANDARDS (CONTINUED)

B. Accommodations

The standard described for permanent facilities shall also apply to company-provided accommodations and camps.

C. Jobsites

i. Water supplies at all client sites are to be considered non-potable unless indicated otherwise by signage and site induction training.

ii. Where water supplies are unpotable, bottled drinking water (or bulk alternative) shall be provided. Reuse of any company-provided drinking water containers shall require a regimen of routine daily cleaning, disinfection and inspection.

iii. EHS jobsite inspections shall document the condition of such potable water vessels and issue corrective actions as appropriate.

Any unlabeled hose, pipe or spigot should be considered an unpotable water source.

EHS-HEALTH-07 – WORK PLACE DISEASES AND PUBLIC/ ENVIRONMENTAL HEALTH ISSUES

Purpose:

Evaluate and control health impacts to employees due to exposure to workplace illnesses.

References:

- EHS Guidance Document: ***Workplace Diseases and Public Health Issues***
- Boart Longyear ***Ebola Control Manual***
- Boart Longyear ***Malaria Control Manual***

Key Requirements:

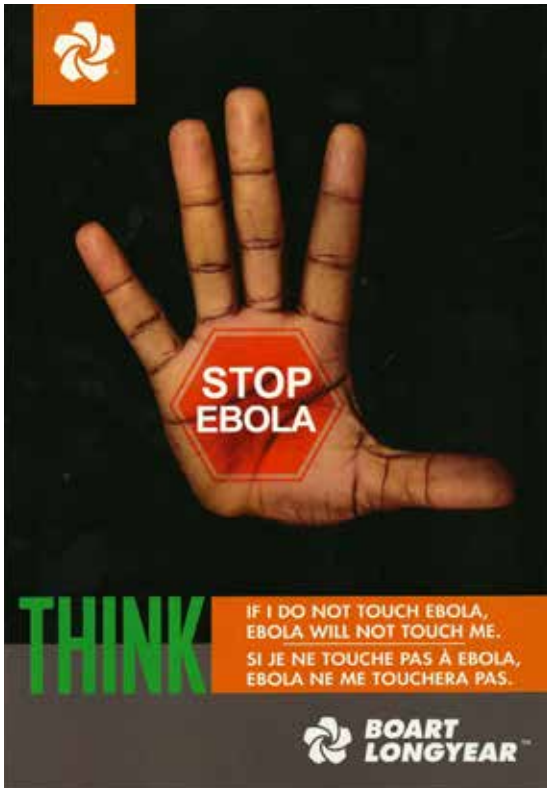
Where a risk evaluation has determined that there is an unacceptable workplace disease and/or public health risk to employees, contractors or visitors, the business unit shall implement a comprehensive program to evaluate, control or mitigate the risk. EHS staff are expected to communicate with local public health officials and organizations in order to develop appropriate programs and implement effective controls.

Work Place Illness Prevention Programs must contain the following elements:

A. Awareness training.
B. Prevention and control measures.
C. Emergency response procedures.
D. Reporting

The following shall be evaluated in the business unit EHS Management plan where applicable:

A. Pandemic considerations
B. Communicable diseases
C. Vector-borne illnesses (note: vectors include various animal, insect and air-borne modes of contamination or transmission)
D. Vector control
E. Vermin and other pests



EHS-HEALTH-08 – VENTILATION

Purpose:

Ensure that workplace environments have adequate ventilation to provide worker comfort and breathing air quality.

References:

- EHS Guidance Document: ***Ventilation***
- Boart Longyear ***Occupational Health Monitoring Methods Manual***

Key Requirements:

Risk assessments shall evaluate ventilation risk to human health. Where the risk assessment indicates a ventilation risk, a documented ventilation strategy shall be developed and implemented for all appropriate workplaces.

- Such strategy shall employ documented calculations of air volumes and air exchange rates, as determined by a professional engineer or other qualified professional.
- Fans or blowers shall be appropriately sized to meet the specifications.
- Air exchange rates and/or pressure drop across filters shall be periodically verified and documented to ensure that fan/blower performance meets specifications.
- Gaseous and particulate contaminants shall be monitored in accordance with the risk register and/or EHS Management Plan.

SAFETY STANDARDS

EHS-SAFETY-01 – INJURY CLASSIFICATION & MEDICAL CASE MANAGEMENT

Purpose:

Evaluate and classify injuries in a systematic manner which complies with applicable regulations, and to implement best practices for injury case management.

References:

- EHS Guidance Document: ***Injury Classification & Medical Case Management***

Key Requirements:

Injury Classification Process

Boart Longyear utilizes both the OSHA and MSHA definitions to determine recordability of injuries with respect to first aid, medical treatment, lost time, and fatality cases. MSHA criteria will be used if the injury occurred on a mine site. OSHA criteria will be used for all non-mining related incidents.

All work-related injuries will be initially classified by the local EHS Team in accordance with the above definitions and the classification flowcharts. The preliminary determination will be communicated to the responsible Operations Manager, Plant Manager, or equivalent.

If the classification is unclear, the incident should be temporarily classified as “under investigation” and all details of the injury referred to Corporate EHS for review and classification. The Vice President, EHS will make the final determination of any injury classification in question.

Note: In all cases, injuries will be entered into GEMS, no later than 24-hours after the occurrence or of learning of the occurrence. If a classification cannot be made at the time the injury is entered into GEMS, it will be temporarily classified as “Under Investigation.”

OSHA DEFINITIONS

Recordable Injury

OSHA Regulation (1904.7(b)(1)(i-vi) injuries which result in the following are considered “Recordable:”

- Death.
- Days away from work (Lost Time Injury).
- Restricted work or transfer to another job (Restricted Duty Injury).
- Medical treatment beyond first aid (Medical Treatment Case).
- Loss of consciousness.
- Significant injury/illness diagnosed by a physician.

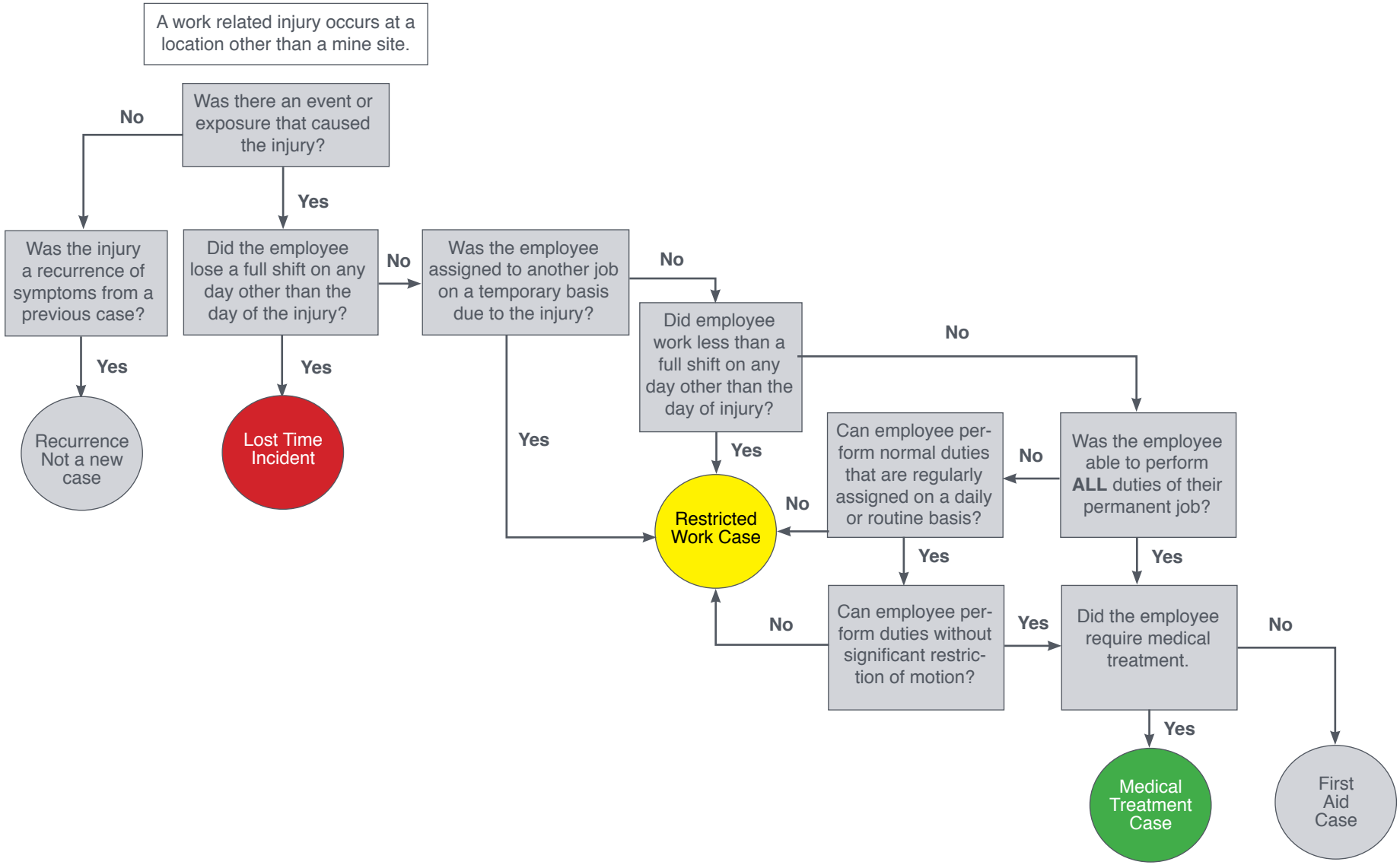
* *Note: Differences in definitions between MSHA and OSHA are detailed in the EHS Guidance document.*

First Aid Case

OSHA regulation (1904.7(b)(5)(ii)), first aid treatment is defined as:

- Using a non-prescription medication at nonprescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for record keeping purposes);
- Administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment);

OSHA INJURY CLASSIFICATION DECISION TREE



SAFETY STANDARDS (CONTINUED)

- Cleaning, flushing or soaking wounds on the surface of the skin.
- Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™ (other wound closing devices such as sutures, staples, medical adhesives, etc., are considered medical treatment).
- Using hot or cold therapy.
- Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for record keeping purposes).
- Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister.
- Using eye patches.
- Removing foreign bodies from the eye using only irrigation or a cotton swab.
- Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means.
- Using finger guards.
- Using massages (physical therapy or chiropractic treatment are considered medical treatment for record keeping purposes); or
- Drinking fluids for relief of heat stress.

Medical Treatment Case

- OSHA's definition of medical treatment: "Medical treatment" means the management and care of a patient to combat disease or disorder. Examples of medical treatment (Recordable) would include:
    - The application of sutures.
    - Injuries requiring surgical repair.
    - Removing a foreign body in the eye (steps taken above flushing).
    - The prescribing of prescription strength medications, such as antibiotics.
    - A fractured or cracked bone (whether it is treated or not).

OSHA Regulation 1904.7(b)(5)(i) medical treatment does not include:

- Visits to a physician or other licensed health care professional solely for observation or counseling;
- The conduct of diagnostic procedures, such as x-rays and blood tests, including the administration of prescription medications used solely for diagnostic purposes (e.g., eye drops to dilate pupils); or
- "First aid" as previously defined.

Restricted Duty Injury

OSHA regulation 1904.7(b)(4)(i) a work-related injury is considered to be restricted duty if:

- The employee is prohibited from performing one or more of the routine functions of his or her job, or from working the full workday that he or she would otherwise have been scheduled to work; or
- A physician or other licensed health care professional recommends that the employee not perform one or more of the routine functions of his or her job, or not work the full workday that he or she would otherwise have been scheduled to work.
- Routine functions are defined as those work activities the employee regularly performs at least once per week.

Lost Time Injury

OSHA regulation 1904.7(b)(3)(i) A work-related injury is considered to be lost time if the injured employee is medically unable to return to work, the day following the injury. Other considerations include:

- Scheduled time off, commencing the day after an injury, does not preclude the injury from possibly being classified as lost time. The question that must be answered is: Is the employee medically able to return to work the day following the injury?
- Occasionally an employee may wait for an examination of an injury or treatment. This time, in itself, does not constitute lost time.
- Occasionally an employee may travel great distances to be examined and/or treated. This time, in itself, does not constitute lost time.

Note: The definitions used for incident classification may be different from those used for worker's compensation.

MSHA DEFINITIONS

Recordable Injury

MSHA Regulation (30 CFR 50.2 (e)) injuries which result in the following are considered "Recordable:"

- Death
- Loss of consciousness
- Days Away from Work (Lost Time Injury)
- Restricted Work or Transfer to another job (Restricted Duty Injury)
- Medical Treatment beyond First Aid (Medical Treatment Case)

First Aid Case

MSHA Regulation (30 CFR 50) first aid treatment is defined as:

- Any one-time treatment, and follow-up visit for the purpose of observation, of minor injuries such as, cuts, scratches, first degree burns and splinters.
- Ointments, salves, antiseptics, and dressings to minor injuries are considered to be first aid.

Medical Treatment Case

MSHA's definition of Medical treatment includes, but is not limited to:

- Suturing of any wound.
- Treatment of fractures.
- Application of a cast or other professional means of immobilizing an injured part of the body.
- Treatment of infection arising out of an injury.
- Treatment of bruise by the drainage of blood.
- Surgical removal of dead or damaged skin (debridement).
- Amputation or permanent loss of use of any part of the body.
- Treatment of second and third degree burns.

Diagnostic Procedures

MSHA's definitions of procedures which are diagnostic in nature and are not considered by themselves to constitute medical treatment are:

- Visits to a physician.
- Physical examinations.
- X-ray examinations.
- Hospitalization for observations, where no evidence of injury or illness is found and no medical treatment is given.

Restricted Duty Injury:

Pursuant to MSHA regulations, a work-related injury is considered to be restricted duty if:

- The employee works at a permanently assigned job but cannot perform all the duties normally connected with the job.
- The employee works at a permanently assigned job less than full time.
- The employee is assigned to another job/position on a temporary basis.

Lost Time Injury:

Pursuant to MSHA regulations, a work-related injury is considered to be lost time if the injured employee is medically unable to return to work, on their next scheduled day of work. Other considerations include:

- Occasionally an employee may wait for an examination of an injury or treatment. This time, in itself, does not constitute lost time.
- Occasionally an employee may travel great distances to be examined and/or treated. This time, in itself, does not constitute lost time.

Notes:

1. *The definitions used for incident classification may be different from those used for worker's compensation.*
2. *Differences in definitions between MSHA and OSHA are detailed in the EHS Guidance Document.*

SAFETY STANDARDS (CONTINUED)

Medical consultation (WorkCare™)

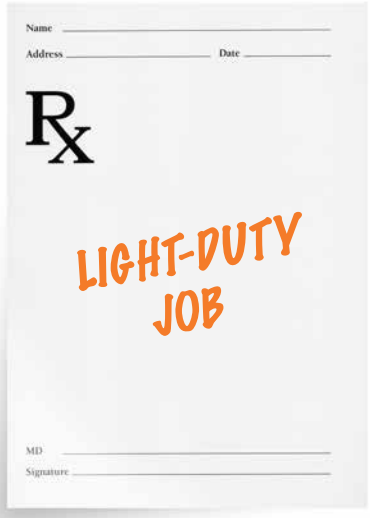
Where permitted by law, the company has engaged professional third party occupational health and safety consultants, such as WorkCare™ to interface with employees and medical professionals. These services, allow virtually instantaneous consultation with a comprehensive team of health care professionals who can assist in medical assessment and the evaluation of options for medical treatment or diagnostics.

Return to work clearance

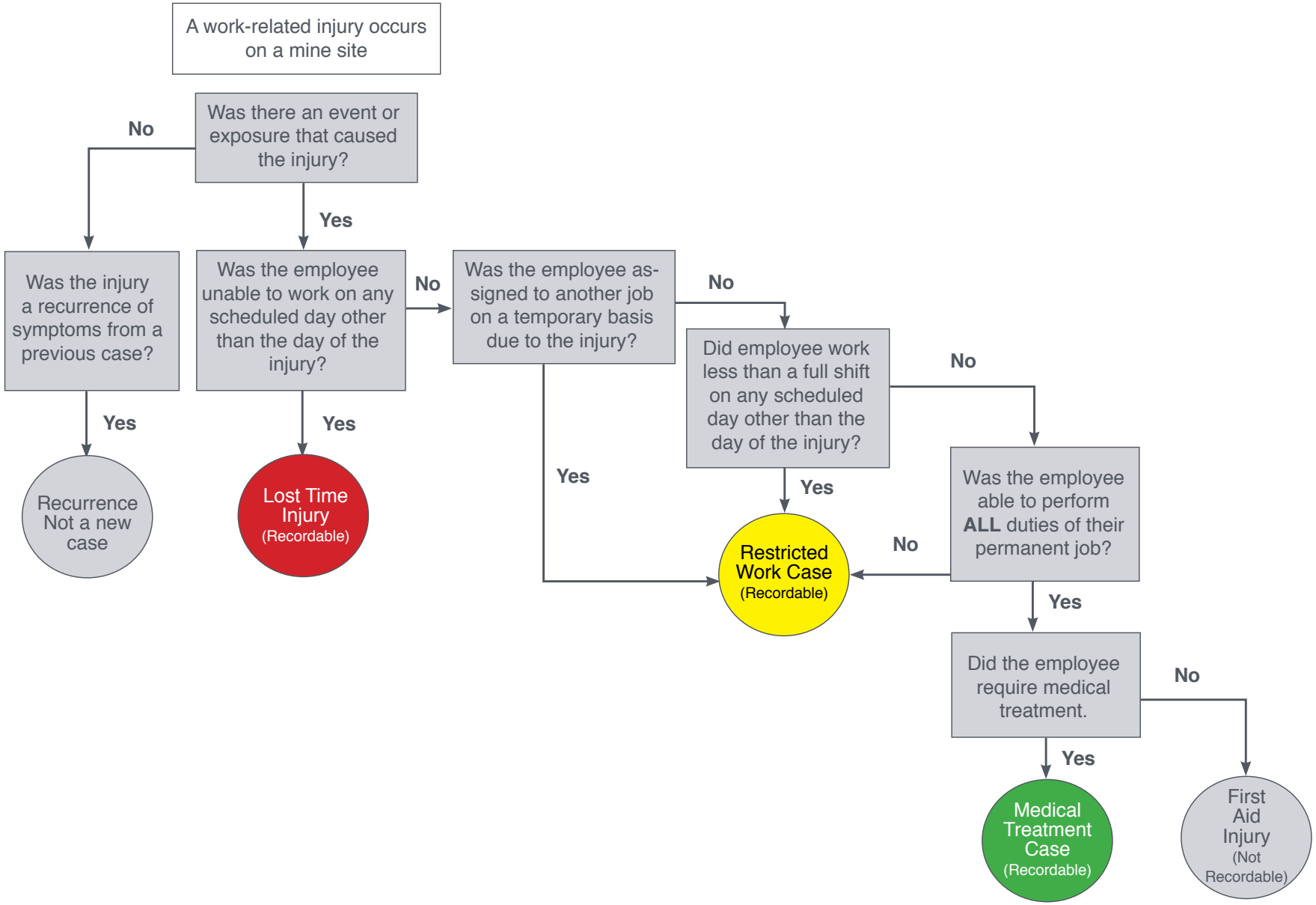
The company recognizes an injured employee's right to a reasonable recovery period which will not jeopardize the employee's health. Medical clearance is mandatory before an injured employee is allowed to return to regular work duties.

Restricted duty case management

Where permitted by law and in consultation with health care professionals, injured workers may be offered restricted-duty work. In many circumstances, this can allow an injured employee to perform useful tasks in the workplace which are feasible given any partial disability or limitations resulting from the employee's medical condition.



MSHA INJURY CLASSIFICATION DECISION TREE



SAFETY STANDARDS (CONTINUED)

EHS-SAFETY-02 – TRANSPORTATION AND JOURNEY MANAGEMENT

Purpose:

Mitigate risks associated with business-related journeys.

References:

- EHS Guidance Document: ***Transportation and Journey Management***
- Journey Management Plan Template and Risk Assessment Form

Key Requirements:

Transportation represents the most serious fatal risk faced by our employees and is incorporated in the Global Critical Risk Register. Each business unit and facility shall incorporate transportation and journey management in their risk registers and EHS Management Plans. Journey Management Plans shall follow the requirements described in the Golden Rules of Safety and Rules of the Road. Journey Management Plans shall be prepared, approved and implemented prior to the commencement of travel.

Note: this standard does not proscribe a set travel duration or distance to require a Journey Management Plan; local EHS staff and territory operations managers shall determine how controls and best practices are applied to reduce risk. Any Critical Risk Reviews involving transportation-related incidents or near misses shall determine the effectiveness of the risk controls in place and may establish appropriate threshold distances or travel times to require Journey Management Plans.

Journey Management Plans shall be required due to:

- Long distances and extended travel times.
- Nighttime travel.
- Isolated roadways, unavailability of accommodations, and/or poor telephone communications coverage.
- Poor road conditions.
- Extreme weather and/or limited visibility.
- Others, as appropriate.

IN-VEHICLE MONITORING SYSTEM (IVMS)

In-vehicle monitoring is a control which has been implemented for high risk applications where commute distances are long and/or where risk is elevated. IVMS is a global platform which employs telematics to monitor vehicle operation and driver behaviors in real time with instant coaching, communication, and analytics. All of these contribute to improve driver performance, efficiency, and safety. Boart Longyear has incorporated IVMS technology in a substantial portion of our global fleet and is working to expand coverage.

Features and Benefits:

- GPS vehicle tracking
- Remote connectivity via satellite and cellular networks
- In-cab verbal coaching
- Seatbelt use alerts
- Crash and rollover detection
- Road hazard awareness
- Emergency panic button
- Driver and fleet scoring
- Fleet fuel consumption and engine idle management
- Work alone timer
- Supervisor coaching reports

Note: Purposefully disabling an IVMS unit or entering a false I.D. code has been added to the Prohibited Behaviors standard at page 51 and will result in disciplinary action.

EHS-SAFETY-03 – MOBILE EQUIPMENT AND HEAVY MINE EQUIPMENT

Purpose:

Evaluate risks and apply appropriate controls to eliminate or mitigate employee risk associated with exposure to mobile equipment and heavy mine equipment

References:

- EHS Guidance Document: ***Mobile Equipment and Heavy Mine Equipment***
- EHS Guidance Document: ***Ground Control and Drill/Mine Site Hazards***

Key Requirements:

Boart Longyear has identified mobile equipment and heavy mine equipment to represent critical risks to employees, and has incorporated these in the corporate Critical Risk Register. Mobile equipment of particular concern includes: forklifts, loaders, cranes, shovels and trucks. Heavy mine equipment includes additional consideration for locomotives, scoop trams, boggers, and haul trucks.

All facilities and business units with employees working in proximity to mobile equipment or heavy mine equipment shall evaluate these hazards in their business unit risk register and EHS Management Plan and shall provide appropriate controls and training to all at-risk employees.

All Boart Longyear facilities shall incorporate appropriate heavy equipment protocols within their traffic management plans. On client sites, employee induction and communications must conform with the clients' communication, signaling and right-of-way protocols.

The following mandatory content regarding mobile equipment and heavy mine equipment shall be provided in site inductions, new hire training and annual refresher training:

1. Pedestrian traffic in proximity to heavy equipment.
2. Light vehicle traffic in proximity to heavy equipment.
3. Railway crossings.
4. Special considerations for heavy mine equipment.
    A. Communications and signaling standard practices and site rules.
    B. Blind corners, cross-traffic, passing and limited visibility settings.
    C. Light vehicle parking.
    D. Right-of-way rules.

Boart Longyear employees will <u>always</u> yield right-of-way to heavy equipment until visually and/or verbally instructed otherwise by the heavy equipment operator.

SAFETY STANDARDS (CONTINUED)

EHS-SAFETY-04 – ELECTRICAL SAFETY

Purpose:

Evaluate and control electrical safety risk to employees and others

References:

- EHS Guidance Document: ***Electrical Safety***
- Journey Management Plan Template and Forms

Key Requirements:

When a risk assessment identifies potential electrical hazards, written procedures shall be developed for the workplace. Electrical access and service procedures, equipment standards and wiring connections shall comply with local country codes or national standards.

Where local standards do not provide adequate protection to employees, the Boart Longyear Territory EHS Manager shall designate an alternative unified electrical code (such as the US National Electrical code) as a reference for electrical installations and maintenance procedures. All high voltage connections and related operational tasks shall be performed only by qualified individuals as established by training, certification or license. The following shall be documented in the EHS Management Plan:

A. Minimum facility electrical equipment and wiring standard.

B. Routine electrical inspections, installation and maintenance by qualified personnel (i.e., licensed professional).

C. Qualified and/or competent persons as determined by Territory Management with regard to:

   1. High voltage.
   2. Limitations on tasks for non-qualified personnel.

D. Ground Fault Circuit Interruptor and earth grounding

   1. All electrical fixtures in proximity to water shall incorporate ground fault circuit interruptor or residual current device technologies.
   2. All electrical fixtures, systems and connections shall incorporate earth grounding.

E. Arc Flash Procedures

   1. Where a risk assessment indicates a potential for exposure to electrical arc flash, controls shall be established to eliminate or mitigate that exposure.

EHS-SAFETY-05 – FALL PREVENTION AND PROTECTION

Purpose:

Evaluate and control fall risk to employees and contractors via the implementation of fall prevention and fall protection practices.

References:

- EHS Guidance Document: ***Fall Prevention and Fall Protection***
- Corporate Fall Protection and Prevention Plan Template

Key Requirements:

The Corporation has identified working at heights to represent a critical risk and has incorporated these risks in the Global Critical Risk Register. All business unit risk registers shall address the risk of working at heights, and Fall Prevention and Protection (FPP) plans are mandatory at all facilities and job site locations.

FPP plans shall incorporate:

1. Site assessment and fall prevention controls

   Fall prevention controls, such as railings, shall be implemented in all cases where a risk assessment determines a potential for fall-related injury, regardless of fall distance.

2. FPP equipment selection

   Fall protection controls, such as the use of fall arrest lanyards and harnesses, shall apply to all workplaces and to all affected employees, visitors and contractors anytime there is a potential to fall more than 6 feet (1.6 meters) above the ground surface or above a work platform. Where local regulations are more restrictive, those standards shall apply.

3. FPP Inspection

   FPP equipment shall be routinely inspected prior to use and retirement shall comply with regulatory requirements or follow manufacturer's guidance. Any FPP equipment retired from service shall be destroyed so as to prevent future use.

4. FPP Training shall be incorporated in employee induction training and more specialized training shall be provided prior to any employee or contractor use of fall prevention equipment or systems.

5. FPP Safety Permit System

   A Safety Permit System shall be employed where employees or contractors ascend Drill masts, or are working more than 20 feet (5.3 meters) above ground level or work platform.

EHS-SAFETY-06 – DRILL SITE SET UP AND VISITOR INDUCTIONS

Purpose:

Eliminate or mitigate risk to employees, visitors or contractors through the establishment of globally consistent Drill Site Set Up protocols and standardized Site Visitor inductions

References:

- EHS Guidance Document: ***Drill Site Setup and Visitor Inductions***
- EHS Guidance Document: ***Ground Control and Drill/Mine Site Hazards***
- EHS Guidance Document: ***Hazardous Material Management***
- Standardized Drill Site Visitor Induction Form

Key Requirements:

Due to the inherent risk in drill site operations and the variability presented by mine and exploration site environments, each project location must accommodate a standardized drill site set up as a "best fit" and evaluate and control risks accordingly. Standard protocols have been established to ensure consistent consideration of EHS issues for all drill sites and drill equipment classes.

Site set up shall:

- Establish a stable and safe working environment.
- Provide for efficient equipment operation.

SAFETY STANDARDS (CONTINUED)

- provide for the storage and handling of supplies, hazardous materials and wastes.
- Include a risk evaluation at all new sites prior to the commencement. of drilling operations.
- Apply appropriate EHS controls.
- Provide a comprehensive site induction for all site workers.
- Provide a standardized site induction to all site visitors.

The following shall be documented for all drill sites:

A. Standardized site set up

1. Supervisor premobilization site inspection.
2. Pad acceptance criteria.
   i. Site size and condition.
      1. Adequacy of access roads.
      2. Stability of slopes, high walls and benches.
      3. Overhead hazards including rock fall, trees and powerlines.
      4. Trees and logging hazards.
      5. Buried utilities, mine workings, geologic hazards, and un-exploded ordinance clearance.
      6. Standardized pad size, equipment layout and vehicle parking.
      7. Drill fluid handling tanks or sumps, including provision of effective sump guarding, fall protection, emergency exit ramp or ladder, and rescue equipment.
      8. Material and waste storage needs.

   ii. Emergency communications, medical and evacuation services.

   iii. Environmental considerations including waste management and drilling fluid discharge prevention.

B. Drill Site Visitor Inductions

1. All site visitors shall be prohibited from site access until they have completed an approved site induction.
2. Physical exclusion barriers and signage shall instruct visitors regarding this requirement. Operations shall generally be idled while visitors are inside the exclusion barriers.
3. Drillers are responsible for the site safety induction and the safe conduct of visitors on their drill sites.
4. All visitors shall have or shall be provided with appropriate PPE.
5. Operations shall be suspended for the duration of the site visit where visitor PPE does not conform to Boart Longyear standards.

EHS-SAFETY-07 – GROUND CONTROL AND DRILL/MINE SITE HAZARDS

Purpose:

Eliminate or mitigate risk to employees, visitors or contractors through the establishment of globally consistent evaluation of drill site hazards and controls

References:

- EHS Guidance Document: ***Ground Control and Drill/Mine Site Hazards***
- EHS Guidance Document: ***Management of Change***

Key Requirements:

New Drilling Services (DS) projects and locations shall be comprehensively evaluated with regard to EHS risks. This evaluation shall be conducted as part of a new project review and as part of a routine EHS interaction on project sites. The following hazardous conditions shall be considered by all project DS risk registers and EHS Management Plans:

1. Explosives.
    A. Drill intercepts (underground).
    B. Blast radius and fly rock.
    C. Blast fumes.
    D. Blast protocols.
2. Lightning.
3. High wind conditions.
4. Seismic events including earthquakes and tsunamis.
5. Water hazards.
    A. Stream crossings.
    B. Ice roads and ice platforms.
    C. Barge work.
    D. Flooding.
6. Pad failure, rig instability and borehole piping.
7. Isolation berms and barriers.
8. Underground support issues.
9. Mine site highwalls, berms, and slopes.
10. Drill intercepts and well/borehole excursions.
    A. Gas pockets.
    B. Pressurized (artesian) water.
    C. High temperature flows.

EHS-SAFETY-08 – LOCK-OUT/TAG-OUT AND VERIFY PROCEDURES

Purpose:

Eliminate or mitigate risk to employees, visitors or contractors from stored energy via establishment of globally consistent Lock-Out/Tag-Out and Verify Process.

References:

EHS Guidance Document: ***Lock-Out/Tag-Out and Verify Safety Permit System***

Key Requirements:

All Business Units shall have and utilize a comprehensive Lockout/ Tag-out and Verify safety permit procedure whenever maintenance or servicing is performed on equipment. Equipment is to be stopped, isolated from all potential energy sources, and Lockout/Tag-out and Verify procedures are to be engaged prior to any servicing or maintenance. Mandatory verification procedures shall validate that all sources of stored energy have been dissipated.

The Lock-Out/Tag-Out and Verify Permit System shall consist of the following:

1. Definitions of authorized and affected employees
2. Risk assessment and LOTO and Verify Plan for the specific equipment
3. Approved LOTO Devices
3. Verification procedures for all stored energy sources
4. Lockout/Tag-out and Verify training plan
5. Unremoved lock protocol
6. Recordkeeping requirements

SAFETY STANDARDS (CONTINUED)

EHS-SAFETY-09 – PERSONAL PROTECTIVE EQUIPMENT AND SAFETY TOOLS

Purpose:

Eliminate or mitigate risk to employee, contractors and visitors through mandatory use of appropriate Personal Protective Equipment (PPE) and/or safety tools

Reference:

- EHS Guidance Document: ***Personal Protective Equipment and Safety Tools***
- EHS PPE Matrix Template

Key Requirements:

All Boart Longyear operations shall evaluate employee and jobsite risk and provide appropriate Personal Protective Equipment (PPE), and safety tools. Additionally:

- PPE may not be modified without authorization.
- Each business unit or facility/plant shall develop and post a PPE and safety tool matrix.
- All Critical Risk Reviews for workplace injuries or near misses shall evaluate the use/or lack of PPE and/or safety tools.

PPE RULES:

The following PPE rules apply to all Boart Longyear employees, and contractors working at any Boart Longyear property, facility or jobsite under Boart Longyear control:

1. **Gloves**

Where a risk assessment identifies significant hazards to worker/contractor hands, the following hand protection shall be worn at all times during exposure to those risks:

A. All employees engaged in heavy manual labor tasks such as the movement of drill rods or other heavy equipment/materials shall wear gloves with an EN388 rating of at least 3433.

B. Where the risk involves rotating or moving equipment or materials, including any transport of drill rods, gloves shall also provide high-visibility and crush/impact protection.

C. High dexterity tasks (such as the operation of drill rig controls, or tasks common to fitters or mechanics) shall require gloves which provide laceration protection of at least EN388 Level 4.

D. Applications requiring waterproofness, insulation or chemical resistance, shall also comply with the standards above.

E. Break-away glove clips shall be used by all Drilling Services personnel and gloves shall be maintained on their person at all times on job sites.

2. **Hard Hats**

Hard hats (helmets) shall be worn when working or visiting any area where there is a danger of head injury or where required by regulation or client requirements, and shall:

A. Meet local country industry standard, and shall be replaced when damaged or in accordance with manufacturer's guidance for expiration/mandatory replacement.

B. Not be modified in any manner, including the application of hard hat stickers or markings not conforming to the manufacturer's guidelines.

C. Be worn in the designed manner at all times, brim to the front.

D. Where permitted by regulation and/or in accordance with manufacturer's guidance, hard hats for night or underground operations shall incorporate reflective tape and/or reflective bandings.

3. **Hearing Protection**

Hearing protection must be worn when working or visiting any area where noise levels exceed thresholds established by regulation or client requirements.

A. Hearing protection or noise abatement must be worn or employed in all areas with noise levels exceeding 85db(A).

B. Hearing protection devices must be selected with regard to noise levels, comfort and compatibility with the work tasks.

C. Double hearing protection, comprised of ear plugs and ear muffs shall be worn by all personnel in areas with noise level exceeding 104 dB(A).

4. **Safety Boots and/or Protective Footwear**

Metatarsal safety boots must be worn when working at, or visiting*, any area where there is a potential danger of foot injuries due to: falling or rolling objects; objects piercing the sole; or in proximity to electrical hazards. Metatarsal safety boots must:

A. Be ANSI I/75 & C/75 (or equivalent international standard) approved.

B. May not be modified in any manner.

C. All field, plant and shop employees shall wear a metatarsal safety boot which provides complete ankle protection to a minimum height** of 15 cm (6-inches).

D. Where boots with internal metatarsal protection are not available, lace-on thermoplastic or non-conductive external aftermarket metatarsal guards shall be affixed to safety boots. Locations unable to source suitable metatarsal boots shall report this finding in their annual EHS Management Plan update and shall develop a corrective action plan to remedy the program gap.

** Note: Permanent facilities may designate walkways and exclusion areas where safety footwear is not required for visitors and employees who are not exposed to foot injury risk.*

*** Note: Permanent facilities may allow the use of low-cut safety shoes, or provide temporary overshoe or exterior protective devices for persons not exposed to foot injury risk. However, those persons may not leave defined exclusion zones at any time unless material transfer operations are suspended.*

5. **Safety Glasses**

Approved (ANSI Z-87, CSA Z94.3 or international equivalent) safety glasses shall be worn at all times, by all employees, visitors and contractors at all operational work places.

A. Users requiring corrective lenses may wear approved goggles over normal prescription eyewear if prescription safety glasses are not available unless otherwise prohibited.

B. Safety goggles that seal around the eye sockets/face must be worn when using abrasives, chemical cleaners or degreasers when washing equipment or parts.

C. Approved face shields shall be worn in addition to safety glasses where required by regulation, client requirements or where they are defined as a control applied to specific hazards (such as metal grinding, welding or hot-metal furnace operations.)

6. **Safety Hand Tools**

Where indicated by a risk assessment as a necessary control to mitigate or eliminate employee risk, the use of various safety tools may be mandated. Examples of safety tools include but are not limited to:

A. Drill rod lifters

B. Split-tube pushers

C. Core punch tools

D. Specialty safety box-cutter type knives

E. Safety cutters for metal strapping

SAFETY STANDARDS (CONTINUED)

7. **Specialty PPE**

   Where regulations, contract provisions or a risk assessment identifies specialty PPE as a control to particular hazards (e.g. from welding or chemical use), any employee, visitor or contractor exposed to those hazards shall be provided with and shall use appropriate specialty PPE.

8. **Uniforms and high visibility work wear**

   Uniforms and/or work wear shall be evaluated through a risk assessment process and incorporated in the PPE Matrix. Any issued clothing item shall be maintained in a reasonably clean and well maintained condition reflecting the employee's role as a representative of the Corporation.

   Uniforms and work wear shall also:

   A. Meet applicable client requirements or regulations such as for flame retardance, color or material specification or special features.
   B. Incorporate full-length sleeves and trousers, high visibility color, reflective striping and corporate branding.*
   C. Outerwear such as coats, safety vests or rainwear shall also incorporate high visibility color, reflective striping, and corporate branding.
   D. Not include any exterior drawstrings, straps or hoods which could potentially constitute a "caught-in" hazard in proximity to rotating equipment.

**Requirements for high visibility clothing, reflective striping and sleeve length may be waived for employees working in Manufacturing Plant settings on the basis of a risk assessment. However, any employee working with chemicals or hot metal processes shall wear long-sleeved shirts or equivalent protection in addition to specialty PPE.*

Note: All Critical Risk Reviews (CRRs) for workplace injuries shall evaluate the use/or lack of appropriate PPE, work wear and/or tools in the root cause analysis and in the development of corrective actions. The Vice President, EHS shall determine the applicability of those corrective actions with regard to implementation as global EHS standards.

EHS-SAFETY-10 – SAFETY PERMIT SYSTEMS

Purpose:

Eliminate or mitigate risk to employee, contractors and visitors from extremely hazardous activities through mandatory use of globally consistent Safety Permit Systems.

Reference:

- EHS Guidance Document: ***Safety Permit Systems***
- Safety Permit Templates

Key Requirements:

Boart Longyear has identified a number of high risk activities* which require specialized planning and controls to mitigate risks to acceptable levels.

The following activities and hazards** have been classified as requiring a Safety Permit, Job Safety and Environmental Analysis (JSEA) and specialized training:

A. Aviation and helicopter supported projects
B. Confined space entry.
C. Critical lifts.
D. Excavations.
E. Extreme conditions.
F. High voltage.
G. Hot work*, including all welding, torch cutting and furnace/heat treat operations.
H. Land and/or vegetation clearing (especially: chain saw use).
I. Working Alone.
J. Working at heights in excess of 5 meters off of the ground or above a work platform.

*Note: *Certain exemptions apply, such welding and cutting in designated hot work stations at permanent facilities.*

*Note: **See EHS Guidance Document and/or EHS Glossary for definition of terminology associated with Safety Permit Systems.*

EHS-SAFETY-11 – UNRESTRAINED WRENCHES UNDER POWER

Purpose:

Eliminate or mitigate risk to shop or field employees due to any use of wrenches under power

Reference:

EHS Guidance Document: ***Unrestrained Wrenches Under Power***

Key Requirements:

Boart Longyear has identified the use of an unrestrained wrench under power to tighten or separate joints in a drill rod string as a high risk activity with a high potential for severe injury or death. The use of an unrestrained wrench under power is therefore prohibited and will result in immediate termination of all employees participating in, and/or Supervisors overseeing the activity.

SUBJECT MATTER INDEX

SUBJECT MATTER INDEX (CONTINUED)

CONTACT INFORMATION

Boart Longyear Corporate and US/Mexico Headquarters
2570 W 1700 S
Salt Lake City, Utah 84104
Telephone +1 801 972 6430

Territory Headquarters

Asia-Pacific (APAC)
26 Butler Boulevard
Adelaide, 5950
Australia
Telephone +61 8 8375 8375

Canada
2442 South Sheridan Way
Mississauga, Ontario
Canada L5J 2M7
Telephone +1 905 822 7922

Europe, Middle East & Africa (EMEA)
12 Avenue des Morgines
CH1213 Petit-Lancy, Geneva
Switzerland
Telephone +41 22 709 0800

Latin America
Calle Los Libertadores 16.500
Bario Industrial Los Libertadores
Colina, Chile
Telephone +56 2 595 3300

COMPLIANCE HELPLINE

The Boart Longyear Confidential Compliance Hotline is a confidential and anonymous system to report workplace concerns or violations such as:

- Fraud
- Threats or Harassment
- Discrimination
- Theft
- Workplace Substance Abuse
- Unsafe Workplace Conditions
- Conflicts of Interest
- Financial or Auditing Concerns

US & Canada: 1.800.461.9330

Australia, New Zealand, the UK, Ireland and South Africa: +800.1777.9999

Any Other Location: +1.720.514.4400

www.mysafeworkplace.com

24 HOUR EMERGENCY HOTLINE: (+1 410-571-2617)

Collect calls accepted

www.BoartLongyear.com

BOART LONGYEAR™