



The Safety Association for Canada's  
Upstream Oil and Gas Industry

# Paths to Safety Success: Seven Characteristics to Successful Worksite and Wellsite Safety

Whitepaper

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By industry, for industry



**Paths to Safety Success**, the culmination of the literature review to identify the key characteristics, proven strategies and theories that result in successful safety performance.

**Enform**, the safety association for Canada's upstream oil and gas industry, is the advocate and leading resource for the continuous improvement of industry's safety performance. Established by industry for industry, Enform helps companies achieve their safety goals by promoting shared safety practices and providing effective training, expert audit services and professional advice. Our vision is no work-related incidents or injuries in the Canadian upstream oil and gas industry.

## **Paths to Safety Success: Seven Characteristics for Successful Worksite and Wellsite Safety**

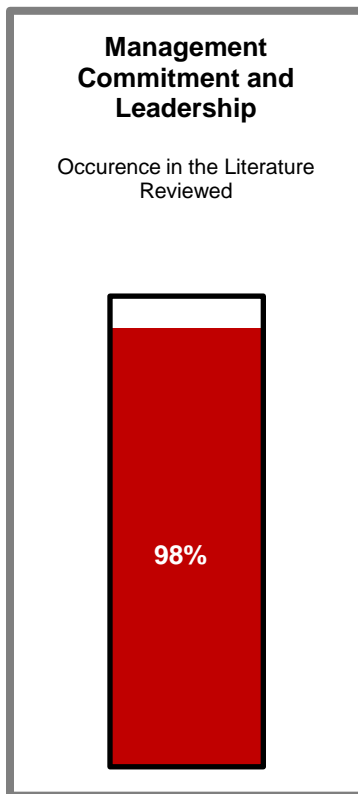
Worksite and wellsite safety must be a value held by everyone involved in the petroleum industry. Creating and maintaining safe worksites requires identifying the key characteristics for successful safety performance and integrating those at all levels to ensure businesses achieve success in a safe and responsible way. What makes one organization or contractor's safety performance more successful than another's?

To answer this question, Enform undertook an extensive literature review to identify key characteristics, proven strategies and theories that resulted in successful safety performance. While more than 100 articles, journals, research papers and reports were reviewed and analyzed, those relating to the following topics were used as references for this white paper:

- Best practices, recommended practices, good practices
- Key characteristics
- Safety performance
- Health performance
- Industry guidelines
- Case studies
- Health and safety issues

This research resulted in the identification of seven distinct characteristics that were consistent throughout the literature, and have a direct correlation with the Certificate of Recognition (COR) Audit Standards and the Canadian Standards Association (CSA) CAN/CSA-Z1000-06 Occupational Health and Safety Management. This Standard specifies requirements for an occupational health and safety management system (OHSMS). The direct correlations are highlighted throughout the paper.

*It's about how an organization actually implements and maintains its safety values.*



**Management, Leadership and Organizational Commitment** has a direct correlation to the COR Audit Standards, accounting for 15 per cent of the total score, and to CAN/CSA-Z1000-06 (section 4.2.2).

### Seven Characteristics of Successful Worksite and Wellsite Safety

The seven key characteristics of organizations with successful safe operations and the frequency they occurred in the literature are as follows:

- Management commitment and leadership to health and safety – 98 per cent.
- Competence and training – 89 per cent.
- Risk assessment and reporting systems – 87 per cent.
- Worker participation – 84 per cent.
- Communication and awareness – 78 per cent.
- Management/H&S systems development – 75 per cent.
- Having a set H&S policy and/or common goal – 68 per cent.

While these common characteristics are known in the oil and gas industry, it is the act of fully integrating them into the operations that is critical to safety performance. The depth of involvement and level of commitment is far greater and substantially more important to those organizations that have proven safety systems.

#### **Management Commitment and Leadership**

An organization's leadership is the most important **asset** a company possesses. Staff **perceptions** of managements' commitment to safety influence the organizations' overall safety performance. If management walks the talk, staff will follow.

Visible leadership is essential to the success of organizations. Those with a proven track record of safe operations have management that demonstrate leadership and emphasize the importance of safety as a **value** to the company.

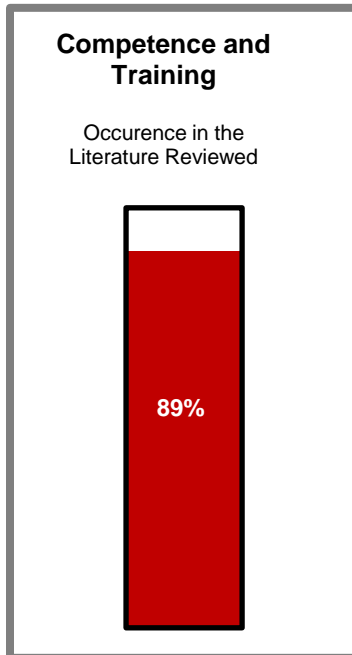
To ensure safety is owned throughout the organization and that everyone understands their roles and responsibilities in providing a safe workplace, director and board level leadership is **essential**.

This value supports the functional leaders as they work to build the organizational culture necessary for excellent safety performance.

*Staff perceptions of managements' commitment to safety influence the organizations' overall safety performance.*

Specifically, COR evaluates the following competencies and requirements:

1. Knowledge and awareness of applicable legislation.
2. Occupational Health and Safety Policy signed by the current CEO.
3. Employees are aware of the health and safety policy.
4. Health and safety roles and responsibilities have been assigned to all levels of the organization (senior management, middle management, and worker).
5. A system for accountability of safety roles and responsibilities at all levels of the organization.
6. Awareness of individual roles and responsibilities at all levels of the organization.
7. Commitment to safety programs as measured by:
  - a. The level of senior management involvement in the program, e.g. communication, inspections, etc.
  - b. The level of middle management involvement in the program.
  - c. The level of worker involvement in the program.
  - d. The allocation of sufficient resources to occupational safety, e.g. dedicated occupational safety professional, management and worker training, occupational safety budget, etc.



**Competence and training** have a direct correlation to between five and 15 per cent of the COR Audit Standards total score and to CAN/CSA Z1000-06 requirements for qualifications, orientation and training (section 4.4.4).

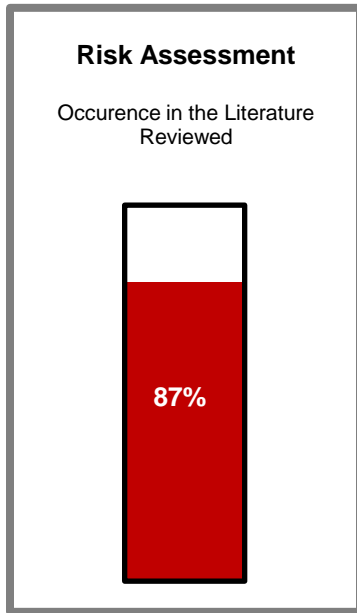
### **Competence and Training**

Businesses with a proven track record for safe operations have a culture of **continuous** learning, value competence and operate with integrity.

Successful organizations provide their staff with the information and the training required to **develop the skills** they need to work safely and efficiently. Ensuring employees' knowledge of safety issues continues to grow and is **refreshed** on a regular basis is **crucial**. These organizations also operate with integrity – honesty, honour and reliability – and invest in recruiting people with similar safety related values.

Specifically, COR evaluates an organization on the following:

1. Systems for ensuring workers have the appropriate qualifications for their job.
2. New employee orientation that:
  - a. Addresses critical issues, e.g. emergency procedures, alarm systems, hazard reporting, etc.
  - b. Occurs within a specified timeframe.
  - c. Covers safety policies and procedures.
3. Job specific training that covers:
  - a. Job specific hazards.
  - b. Work procedures and practices.
4. Orientation of reassigned employees.
5. Visitor/contractor orientation.
6. Refresher training.



***Risk Assessment** has a direct correlation to the COR Audit Standards, accounting for up to 15 per cent of the total audit score, and to CAN/CSA-Z1000-06 (section 4.3.4).*

### ***Risk Assessment and Reporting Systems***

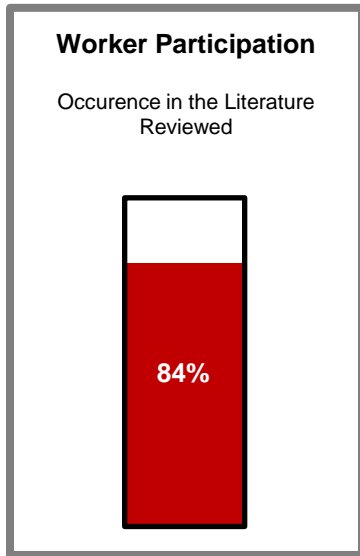
Management behaviors towards safe operations and **clarity** on company expectations for risk assessment and safe operating procedures are key characteristics of safe companies. Companies that refocus management's attention from reacting to incidents to being **proactive** in their consideration of potential incidents have better safety performance. Responding promptly to identified hazards and taking **immediate action** to eliminate the hazard is crucial. Other keys to success include the manner in which incidents are reported and investigated, and having a system for **feedback and action**.

Organizations with safe operations have the following:

- A commitment to continuous improvement.
- Data systems for the monitoring of incident and illness trends and developing the appropriate actions for improvement.
- A commitment to sharing **lessons learned** across the company and industry.

Specifically, COR evaluates the following hazard identification and assessment criteria:

1. Analysis of jobs and operations for hazards.
2. A mechanism to evaluate hazards according to risk and determine order of importance to implement controls.
3. Review of hazard assessment when changes are made to operations.



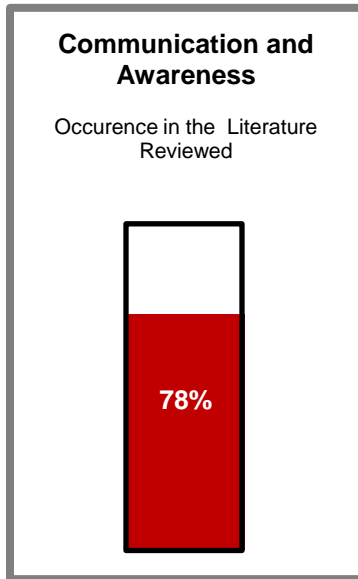
***Worker Participation** has a direct correlation to the COR Audit Standards requirements for management, leadership and organizational commitment, which account for up to 15 per cent of the total audit score, and to CAN/CSA-Z1000-06 (section 4.2.2).*

### **Worker Participation**

Providing an environment that enables **all employees** to participate and work collaboratively in developing, promoting and improving safety at work is a key characteristic of safe companies.

**Actively engaging** the workforce in safety encourages involvement and ownership and may boost morale, which results in staff taking responsibility for themselves, their peers and the work environment as a whole. When the workforce is **empowered**, they show initiative and take more responsibility for managing their own safety. It is also the most **powerful** way to embed safety values and build action on safety.

While regulation drives compliance, management's **focus** on employee engagement in safety drives excellence.



**Communication and Awareness, part of Program Administration, makes up between five per cent and 15 per cent of the COR Audit Standards score.**

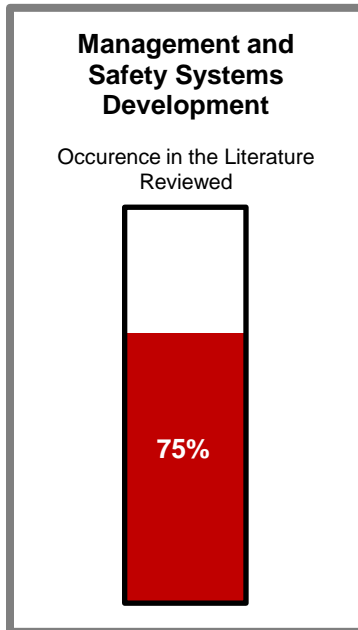
### **Communication and Awareness**

Organizations with proven safety success communicate regularly with their staff and **reinforce** the organization's commitment to safe operations and provide updates on system changes and issue resolutions. The safety culture in these organizations is sustained by effective communication and the promotion of competence which allows all employees and contractors to make responsible and **informed contributions** to the safety efforts. Better communication and **collaboration** among the workforce is emphasized. For those organizations with global operations, safety resources are made available to their operations **worldwide** to increase effectiveness of their safety programs.

Specifically, COR evaluates organizations on the following criteria:

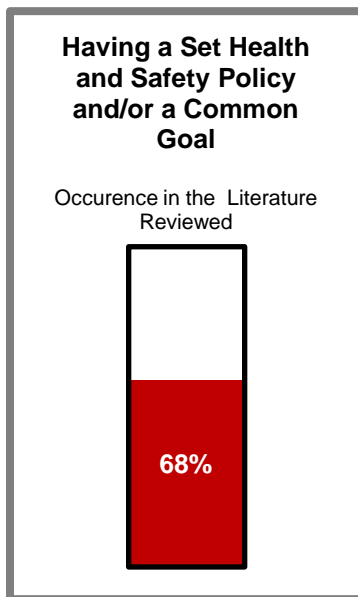
1. Two-way communications, e.g. safety meetings, newsletters, etc.
2. Records management.
3. Analysis of statistics, e.g. frequency, severity, type of injury, etc.
4. System for program evaluation, e.g. auditing, developing plans to correct deficiencies, implementation of plan, etc.





**Management and Safety Systems Development**

Systems and practices are **meticulously implemented** and continuously improved in organizations with a proven commitment to safety. Organizations committed to safety excellence have a **broad array** of safety systems and practices, and have developed a strong safety culture. Safety management is **consistently** integrated with standardized monitoring procedures across the organization.



**Having a Set Health and Safety Policy and/or a Common Goal**

Developing, implementing and continuously improving on the health and safety policy to ensure **clarity** in roles and responsibilities is another characteristic of organizations with proven safety performance. Having a health and safety policy in place and communicating it to all employees **reinforces** the values and management's commitment to safe operations.

Organizations that **demonstrate compliance** and integrate a safety policy and practices into business strategies, processes and performance measures, recognize that excellent safety performance supports good business results. These organizations **fundamentally** believe that safety performance has a direct correlation to business success.

Specifically, COR evaluates the occupational health and safety policy requirement for the establishment and maintenance of an organization's OHS policy.

**Occupational Health and Safety Policy** has a direct correlation to the COR Audit Standards, accounting for between five and 15 per cent of the total score, and to CAN/CSA-Z1000-06 (section 4.2.4).

*It's about **how an organization actually implements and maintains its safety values.***

**Conclusion**

Traditional safety programs have placed an emphasis on having a solid safety policy and management system as the key components of their safety effort. This research demonstrates that the **way** to fully integrate the safety management systems and policies into an organization is by ensuring the key characteristics are present and receive the highest level of commitment and engagement.

The bottom line is it's not about what an organization has, but more about **how** an organization actually implements and maintains its safety values, from management's commitment and leadership to competence and training, risk assessment, worker participation, communication and awareness, safety system development and safety policy.

## **Enform Resources Linked to Paths to Safety Success**

**Enform's** guidelines and training help achieve **proven safety standards**.

For more information on **Enform's Certificate of Recognition (COR) program**, go to [www.enform.ca](http://www.enform.ca)

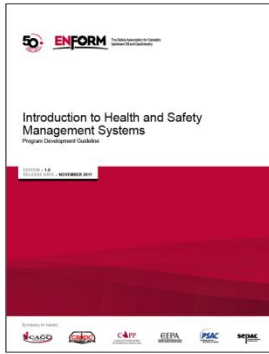
### **Helping the Canadian Petroleum Industry Achieve Proven Safety Standards**

As the safety association for Canada's upstream oil and gas industry, **Enform** provides the petroleum industry with guidelines and training services that help organizations to develop and sustain the skills and competencies required for proven safety performance.

### **Certificate of Recognition**

Enform is steadfast in its dedication to the health and safety of the oil and gas industry through the Certificate of Recognition (COR) program. COR is a proven way for employers to improve their health and safety performance, create a culture of proactive workplace health and safety, and reduce the risk and costs associated with workplace incidents. The COR program is built on the belief that injury and illness reduction is best achieved through the development and implementation of effective health and safety management systems. The COR process supports systems and evaluates them against provincially recognized standards.

Enform COR program offerings are designed through a consultative process with oil and gas industry employers with the specific needs and risks of the industry in mind. Enform adds significant value to the COR, with a comprehensive, world-class package of COR program services. Enform's COR audit process provides external verification that a company's health and safety management system meets the requirements set in the COR program standards. It also provides critical feedback for improving that system. Enform COR audit protocol was developed with the seven key characteristics of high safety performers in mind.



Download a free electronic version of the **Introduction to Health and Safety Management Systems** from [www.enform.ca](http://www.enform.ca)

### ***Introduction to Health and Safety Management Systems – A Program Development Guideline***

A health and safety management system (HSMS) is a systematic approach put in place by an employer to minimize the risk of injury and illness. It involves identifying, assessing, and controlling risks to workers in all workplace operations. An effective HSMS is a key component of any business; its scope and complexity will vary according to the type of workplace and the nature of its operations.

This guideline describes to oil and gas employers what a health and safety management system is and why implementing one is not only beneficial but also essential. For guidance on how a health and safety management system is implemented, please refer to Enform's Safety Program Development course.

### ***Supervisor Competency Guideline***

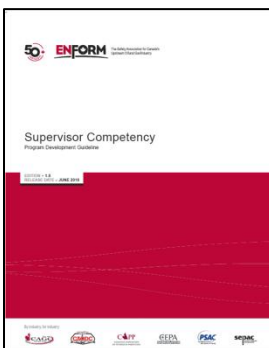
Whether we are talking about health, safety, the environment, operations or social responsibility, all worksites require competent supervisors.

That's why Enform led cross-industry representatives in developing a Supervisor Competency Guideline that meets industry's needs.

The guideline identifies and reviews the six elements of competent supervision:

1. **Leadership:** providing vision and direction over worksite operations.
2. **Communication:** behaviours, skills and abilities associated with effective communication.
3. **Planning:** operations, safety management, environmental management and emergency response management.
4. **Performance:** operations, incident management and investigation, and document and record keeping.
5. **Measurement:** assessment.
6. **Improvement:** continuous improvement cycle.

Based on these competencies, the guideline provides small, medium and large companies in the upstream oil and gas industry



Download a free electronic version of the **Supervisor Competency Guideline** from [www.enform.ca](http://www.enform.ca)

with a framework for developing, assessing and managing a supervisor's performance.

Since one solution does not fit all users and situations, the Supervisor Competency Guideline takes a broad view and presents accepted guiding principles that provide a useful starting point for employers seeking to establish supervisor competency. The guideline addresses, among other things, how to increase a supervisor's ability to:

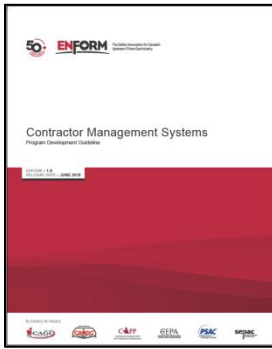
- Translate strategic direction into action.
- Clarify behaviours that support important values and principles.
- Establish standards of excellence that are shared across functions and boundaries.
- Focus learning and development on the achievement of business outcomes.

*A clear understanding of the **competencies required for superior site management** helps contractors and service providers deliver the right services, the right way. **It's a win-win.***

In addition to outlining the activities, knowledge and skills that are expected to enhance a supervisor's performance – and bringing them to life through the use of examples – the guideline also provides an outline to help build a company-specific training matrix.

Even if your organization already has a system in place, you can keep it up-to-date by reviewing the latest best practices and use the guideline for a process to benchmark against. The document also provides tools that can be used by any organization to augment their own performance management processes.

The Supervisor Competency Guideline was developed collaboratively by industry for industry, so all of Canada's leading oil and gas industry trade associations support its use to help companies of all sizes improve performance.



Download a **free electronic version** of the **Contractor Management Systems Guideline** from [www.enform.ca](http://www.enform.ca)

Contractor management systems **make good business sense**

The guideline provides a **template** for companies to **manage risk**.

### **Contractor Management System Guideline**

Many companies hire other companies and contractors to provide expertise or resources in order to get the work done. How the work is done can affect both the companies' and the suppliers' bottom line – costs, efficiency, reputation and performance.

The Contractor Management System Guideline identifies six key steps for the successful hiring and management of contractors and service providers, including:

1. Defining the scope of work.
2. Establishing contractor expectations.
3. Conducting contractor pre-qualification and selection.
4. Choosing and developing the appropriate agreement.
5. Managing the contractor.
6. Keeping records and exercising due diligence.

These steps provide a process-based contractor management framework aligned with a plan-do-check-act system that can result in improved communication between hiring companies, contractors and the service providers they hire.

The guideline provides a template for companies to develop a system to manage the risks associated with hiring contractors and service providers. Guiding employees and contractors to perform accurately, safely and professionally translates into work that is done right, on time and efficiently, which are tangible contributors to the bottom line.

Recognizing that one solution does not fit all users and situations, the guideline takes a broad view of upstream petroleum industry site operations and presents accepted guiding principles that provide a useful starting point for employers seeking to establish contractor management systems.

The Contractor Management System Guideline applies to all types of projects undertaken by small, medium and large companies in the upstream oil and gas industry. And because the guideline was

developed by industry for industry, all of Canada's leading oil and gas industry trade associations support its use to help companies of all sizes improve performance. Investing the time and effort required to adopt it makes good business sense.

### ***Training and Professional Development***

In addition to providing proven guidelines for achieving safe operations, Enform also provides conferences, training opportunities and a number of safety publications, including:

- Petroleum Safety Conferences
- Safety Stand Down
- Health and Safety Program Certification
- Guides to Safe Work
- Industry Recommended Practices
- Newsletters
- Safety Alerts

*For more information on*  
**Enform's training and**  
**professional development**  
**opportunities, go to**  
**[www.enform.ca](http://www.enform.ca).**

### **About the Author**

Corinne Paul, M.Sc., CRSP, CRM is a Program Manager with the Industry Initiatives department of Enform. She is a registered safety professional with over 12 years experience in health and safety. Corinne has a Masters of Science from the University of California, Sacramento with her Masters thesis on "The health and wellness of employees and their need for a worksite wellness program". Corinne entered the Health & Safety field through occupational health and hygiene and is passionate about assisting the oil and gas industry in managing their health and reducing disease and illness caused by the work we do. Corinne led the research and development of this project that offers insight on the characteristics that lead to successful health and safety performance.

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[info@enform.ca](mailto:info@enform.ca) | [www.enform.ca](http://www.enform.ca)

Enrolment Services and Certificate of Recognition: 1.800.667.5557

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**CALGARY**

phone: 403.516.8000  
toll free: 1.800.667.5557  
fax: 403.516.8166

**NISKU**

phone: 780.955.7770  
toll free: 1.800.667.5557  
fax: 780.955.2454

**BRITISH COLUMBIA**

phone: 250.785.6009  
toll free: 1.855.436.3676  
fax: 250.785.6013  
web: [www.enformbc.ca](http://www.enformbc.ca)  
email: [bc@enform.ca](mailto:bc@enform.ca)

**SASKATCHEWAN**

phone: 306.337.9600  
toll free: 1.877.336.3676  
fax: 306.337.9610  
web: [www.enformsk.ca](http://www.enformsk.ca)  
email: [sk@enform.ca](mailto:sk@enform.ca)