

# Oil and Gas Safety Management



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# OSHAcademy Course 900 Study Guide

## Oil and Gas Safety Management

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This study guide is designed to be reviewed off-line as a tool for preparation to successfully complete OSHAcademy Course 900.

Read each module, answer the quiz questions, and submit the quiz questions online through the course webpage. You can print the post-quiz response screen which will contain the correct answers to the questions.

The final exam will consist of questions developed from the course content and module quizzes.

We hope you enjoy the course and if you have any questions, feel free to email or call:

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## Course Introduction

The public's and government's perception of the nature of the oil and gas industry has experienced a large shift since the 2010 blowout of the BP offshore well in the Gulf of Mexico. Other incidents of ruptured pipelines, spills, and explosions throughout the United States have also changed the perception.

According to the Bureau of Labor Statistics, the oil and gas extraction industry has an annual occupational fatality rate of 27.5 per 100,000 workers (2003-2009) - more than seven times higher than the rate for all U.S. workers.

Oil and gas industry workers engage in many activities that may expose them to serious hazards, such as falling from towers, unguarded machinery, being struck by heavy equipment, electrocutions, and silica dust.

This course is an introduction to the basic elements of an effective Oil and Gas Industry Safety Management System (SMS).

The information, tools, and resources provided in course are designed to help you, whether you are an employer or employee, to identify, reduce, and eliminate oil and gas-related hazards.

Like all companies in the oil and gas industry, you need to tailor your Safety Management System (SMS) to your own specific work operations and work environments.

An effective SMS has five primary elements:

1. safety culture
2. involvement
3. wellsite analysis
4. hazard prevention and control
5. education and training

## Module 1 – The Safety Culture

Before we get started, it is critical to understand that the only way your Safety Management System (SMS) will succeed is to make sure the underlying safety culture includes a real long-term serious commitment and tough-caring leadership by management.

This first module will briefly explore commitment and leadership and take a look at some of the other important components that are necessary in an effective safety management system and culture.

### What is a Safety Culture?

OSHA actually has a pretty good definition for a safety culture. OSHA defines a safety culture as a combination of an organization's safety attitudes, behaviors, beliefs, values, ways of doing things, and other shared characteristics of a particular group of people.

It's important to understand that, from the employer's point of view, the company's safety culture is something to be managed, but if you ask an employee to define the company's culture, they will likely tell you it's just...

**...the way things are around here.**

### Real Safety Commitment

The success of your company's SMS depends on the willingness of top management to demonstrate a long term serious commitment to protect every employee from injury and illness on the job.

But how do you get it top management commitment if you don't already have it? Real commitment doesn't just appear out of thin air. Real commitment values safety.

Management commitment to safety will occur to the extent each manager clearly understands the positive benefits derived from their effort. Understanding the benefits will create a strong desire to do what it takes to improve the company's safety culture.

Managers who understand the positive benefits will more likely invest serious time and money into effective safety management by developing safety policies, programs, plans and procedures. They will also display leadership through effective accountability and recognition of behaviors and results.

Management involvement and commitment can be shown by:

- ) Allocating dedicated health and safety resources
- ) Setting clear expectations for health and safety performance
- ) Assigning and monitoring health and safety responsibilities
- ) Demonstrating active leadership

**Bottom line: Serious commitment requires serious time and money.**

### Effective Safety Leadership

Every day, oil and gas workers, supervisors and managers have many opportunities to communicate and act in ways that demonstrate safety leadership. Unfortunately, these opportunities go unanswered because they are just not seen as real leadership opportunities.

We believe that a company's leadership is the most important asset it possesses. It's important that employers and managers understand that the simple expression of tough-caring safety leadership – having high safety standards because you care about the employee - can result in enormous benefits. The ability to perceive leadership opportunities improves the company's potential to succeed.

Tough-caring leaders also assume their workers, at all levels of the organization are good people trying to do the best they can with the skills they have.

Employees, on the other hand, do not always have the physical resources and psychosocial support needed to achieve the kind of results expected of them. Why is that? It is because they are not being provided with adequate physical resources (tools, equipment, machinery, materials, etc.) or the education, training, time, and consequences.

Effective leadership can overcome these challenges by providing the resources and training needed for their workers to excel.

### Accountability for Safety

Accountability ranks right at the top with management commitment as a critical ingredient in a company's safety and health management system. Why do we behave the way we do in the workplace? Consequences. Why do we take the unsafe shortcut? Again, consequences play a factor.

Accountability may be thought of as establishing the "obligation to fulfill a task to standard or else." When you are held accountable, your performance is measured against specific criteria and consequences are applied appropriate to the level or quality of performance.

*Example: If a builder has built a house for a man and his work is not strong, and if the house he has built falls in and kills the householder, that builder shall be slain. (King Hammurabi of Babylon, 18th Century B.C.)*

*Example: "The ancient Romans had a tradition: whenever one of their engineers constructed an arch, as the capstone was hoisted into place, the engineer assumed accountability for his work in the most profound way possible: he stood under the arch." (Michael Armstrong- Former CEO of AT&T, Hughes Electronics, and Comcast)*

Management may impose all kinds of safety policies, programs, written plans, directives, rules, training, etc., yet if appropriate application of effective consequences within a culture of accountability does not exist, desired behaviors will not be sustained. If employees do not believe they are going to be held accountable for the decisions they make and the actions they take, you can be sure that any safety effort is ultimately doomed to fail.

Six important elements should be present in an employer safety accountability system:

1. formal standards of performance
2. adequate resources and psychosocial support
3. a system of performance measurement
4. application of effective consequences
5. appropriate application of consequences
6. continuous evaluation of the accountability system

If you believe there are weaknesses in your employer's accountability system, make sure to document the behaviors and conditions you see in the workplace that may be pointing to accountability system policies, plans, processes, procedures and practices that are inadequate or missing. You can learn more about accountability systems in OSHAcademy courses 700 and 712.

### **Writing Safety Goals and Objectives**

An effective SMS will include stated goals and objectives.

First, it's good to initially develop general goals or "wishes" for your safety culture. Look at the following general goals that would be included in the SMS:

- ) Designate a qualified safety person to coordinate the program.
- ) Plan for safety using a written Job Safety Analysis.
- ) Make regular wellsite safety inspections and conduct health monitoring.
- ) Follow safety procedures and rules.
- ) Provide on-going safety training.
- ) Enforce safety rules and use appropriate discipline.

Safety objectives are measurable and more specific in terms of results. Here are some examples of operational safety objectives:

- ) "Increase the number of wellsite safety suggestions submitted each month to at least 15 by July 31st."
- ) "Reduce the number of back injuries at our wellsites by 70% by the end of 2014."
- ) "Lower our workers compensation rate to .7 by the end of the calendar year."

### **Writing Safety Policies**

Safety policies help to set standards and guidelines for decision-making. They let managers, supervisors and employees make safety decisions with some degree of confidence without having to constantly check with "the boss". Managers, supervisors and workers know they are making decisions that conform to corporate safety policies.

Below are a number of points that would be good to adopt in your companies' safety and health policy.

- ) No job or no task is more important than worker health and safety.
- ) A wellsite Job Hazard Analysis (JHA) will be conducted on all tasks with a potential safety or health threat.

- ) Every procedure must be a safe procedure. Shortcuts in safe procedures by either foremen or workers must not be tolerated.
- ) If workers observe any wellsite unsafe condition, which may pose a potential threat to their health or safety, they will immediately correct the situation when feasible or inform management.
- ) Management has the responsibility to take adequate proactive precautions, comply with OSHA standards, and assure the safety and health of employees.
- ) If a job cannot be done safely it will not be done.
- ) Leadership within a company will acknowledge the importance of creating a positive safety culture through employee involvement and effective policies and procedures.

### Writing Safety Programs

A safety “program” may be thought of as a plan of action to accomplish a safety objective. An effective safety program is designed around the processes, procedures, and practices normally assigned to employees and integrate safety-related decisions and precautions into them. Oil and gas contractors must initiate and maintain such programs as may be necessary to comply with CFR 1926.20. Ref: 1926.20(b) See Module 7 for more information on Programs.

### Responsibilities

It’s important to understand who is responsible for safety on the oil and gas wellsite construction. According to OSHA, there are four employer roles or categories on a multi-employer wellsite:

1. **Creating employer:** The employer that caused a hazardous condition that violates an OSHA standard.
2. **Exposing employer:** This is an employer whose own employees are exposed to the hazard.
3. **Correcting employer:** This is an employer who is engaged in a common undertaking, on the same wellsite construction as the exposing employer, and is responsible for correcting a hazard. This usually occurs where an employer is given the responsibility of installing and/or maintaining particular safety/health equipment or devices.
4. **Controlling employer:** This is an employer who has general supervisory authority over the wellsite construction, including the power to correct safety and health violations

itself or require others to correct them. Control can be established by contract or, in the absence of explicit contractual provisions, by the exercise of control in practice.

The controlling contractor assumes all obligations under the standards, whether or not he subcontracts any of the work [29 CFR 1926.16(b)].

To the extent that a subcontractor agrees to perform any part of the contract, he assumes responsibility for complying with the standards with respect to that part [29 CFR 1926.16(c)].

With respect to subcontracted work, the controlling contractor and any subcontractors are deemed to have joint responsibility [29 CFR 1926.16(d)].

Oil and gas companies should designate a person to coordinate, implement, and administer the Safety Management System (SMS). Responsibilities include:

1. Understand potential job hazards and how to eliminate them.
2. Conduct or assist with Job Hazard Analysis.
3. Assure compliance with OSHA oil and gas safety and health standard requirements.
4. Conduct regular job site safety and health inspections.
5. Establish safety and health procedures.
6. Coordinate regular safety and health training.
7. Conduct or assist with Tailgate or Tool Box Talks.
8. Maintain documentation of training, inspections, injuries and illnesses, and other safety records.
9. Participate in accident investigations and implementation of corrective actions.
10. Involve employees in the implementation of the SHMS.
11. Create statistical reports that compare severity and frequency rates against prior records.

## The Supervisor's Safety Responsibilities

The supervisor's attitude plays an important part in obtaining or preventing the acceptance of safe and healthful work practices, policies, and procedures. It is the supervisor's responsibility to identify potential hazards, identify methods to control or eliminate wellsite hazards, ensure workers use safe and healthful work practices, and make sure everyone receives safety and health training to do their work.

Immediate supervisors should review, investigate, and take any necessary and appropriate action on all employee reports of hazards or potential hazards.

### OSHA requirements related to this element

1. Provide employees with sanitary and safe working conditions [[29 CFR 1926.20\(a\)](#)].  
Assign safety and health responsibilities [[29 CFR 1926.20\(b\)](#)].
2. Give safety and health designees authority to correct hazards [[29 CFR 1926.32\(f\)](#)].
3. Assure employees that they may voice safety and health concerns without fear of reprisal [[29 CFR 1903.11\(d\)](#)].
4. Inform employees of hazards [[29 CFR 1926.21\(b\)](#), [29 CFR 1926.33](#), [29 CFR 1926.59](#), [29 CFR 1926.454](#), [29 CFR 1926 Subpart Z](#)].
5. Coordinate hazard communication with other employers on site [[29 CFR 1926.59](#), [29 CFR 1926.65](#), [29 CFR 1926.652](#)].
6. Post the OSHA State or Federal Poster [[29 CFR 1903.2\(a\)](#)].

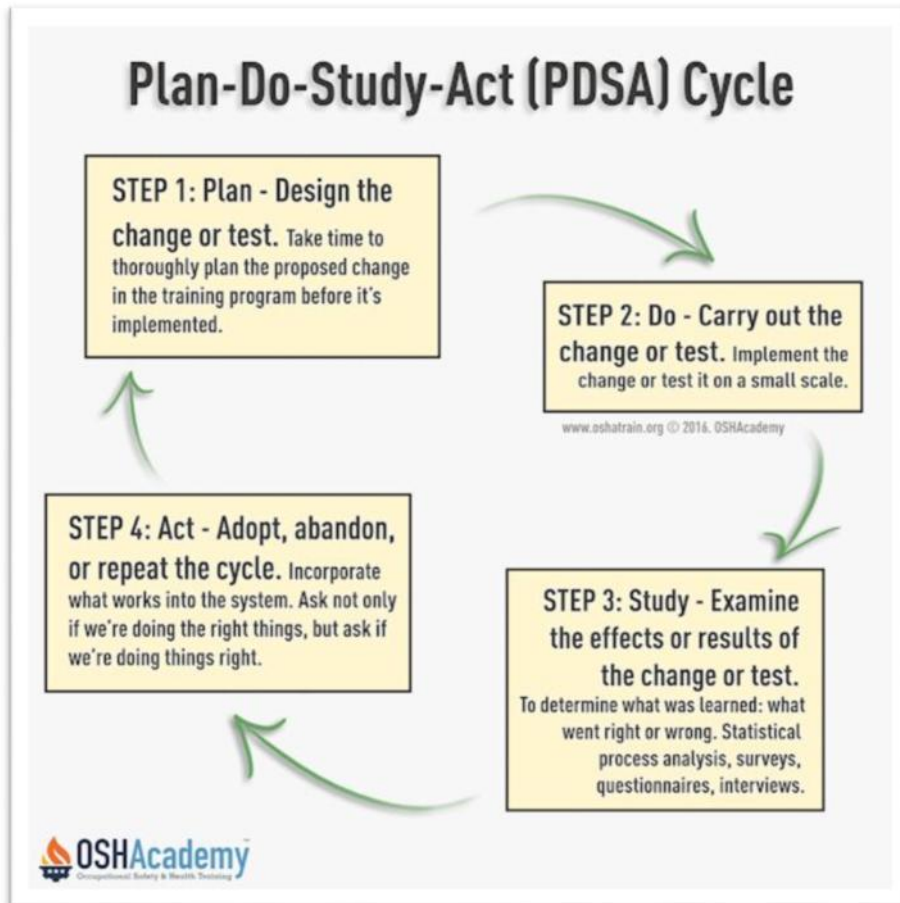
### Continuous Improvement

It's important to the overall success of the safety management system that the company makes a commitment to continuous improvement of all aspects of safety and health.

One successful change management technique is to use the Plan-Do-Study-Act (PDSA) Cycle. **(Click on the image below)** It was first developed by Dr. Walter Shewhart, and later applied by W. Edwards Deming, the father of total quality management, to transform the industry of Japan after World War II. He promoted the PDSA Cycle that was partly responsible for Japan's meteoric rise in manufacturing. He believed that statistics hold the key to improving processes,



and that management must take responsibility for quality in the workplace because management controls the processes.



The PDSA Cycle contains four important steps:

1. Plan - plan what you're going to do
2. Do - test the plan small scale
3. Check - analyze the results
4. Act - improve the plan and fully implement

You can learn more about this important topic in OSHAcademy Course 700, Safety and Health Management, Module 8.

## Module 1 Quiz

Use this quiz to self-check your understanding of the module content. You can also go online and take this quiz within the module. The online quiz provides the correct answer once submitted.

- 1. The only way your Safety Management System (SMS) will succeed is to make sure the underlying safety culture includes a \_\_\_\_\_ and tough-caring leadership by management.**
  - a. total support
  - b. real long-term serious commitment
  - c. vigorous statements of belief
  - d. continual acts of encouragement
  
- 2. OSHA defines \_\_\_\_\_ as a combination of an organization's safety attitudes, behaviors, beliefs, values, ways of doing things, and other shared characteristics of a particular group of people.**
  - a. safety culture
  - b. commitment
  - c. social justice
  - d. a management system
  
- 3. Managers who understand the positive benefits will more likely \_\_\_\_\_ in effective safety management.**
  - a. make sure employees comply
  - b. talk the talk
  - c. invest serious time and money
  - d. encourage others
  
- 4. Which of the following may be thought of as a plan of action to accomplish a safety objective?**
  - a. A safety policy
  - b. Sound safety supervision
  - c. Appropriate safety leadership
  - d. A safety program

**5. Which of the following is the employer responsible for controlling or otherwise eliminating a hazard on the worksite?**

- a. Correcting employer
- b. Exposing employer
- c. Controlling employer
- d. Creating employer

## Module 2- Working with Contractors

Oil and gas contractors are responsible for ensuring that all work under contract meets or exceeds the OSHA standards in addition to complying with the company's safety and health standards.

The contractor is responsible for ensuring safe work performance of employees and subcontractors.

Oil and gas contractors provide a variety of oil and gas services, including:

- ) wellsite construction and maintenance activities
- ) utilities and infrastructure construction
- ) property maintenance
- ) training and consultation
- ) installation, testing, calibration, repair, and maintenance of equipment and instruments

All of these work activities must be performed safely and in accordance with the applicable safety codes, standards and regulations.

### Contractor Communications

It's important that the employer involve communications about safety in all phases of the oil and gas project. From the time the project is conceived until it is finished, safety must be a part of the process.

During the Pre-Award phase, requirements are developed, solicitations are sought, contractors are selected and contracts are awarded. Key safety-related efforts during this phase include consideration of a contractor's past performance during the contractor selection process, establishment of appropriate safety and health requirements in contract specifications and ensuring the inclusion of applicable safety and health clauses.

### The Pre-Bid Meeting

In the Pre-Bid meeting, contract safety requirements should be discussed, including:

- ) site specific safety plan



However, in a world-class oil and gas company that understands the importance of safety, they will not make a decision based solely on cost.

Those companies will use the following criteria:

- ) Total Case Incidence Rate (TCIR)
- ) Experience Modification Rate (EMR) of less than 1.0
- ) past safety performance
- ) site-specific safety plan development
- ) key management and worker experience

### **Experience Modification Rate (Mod Rate or EMR)**

Experience Modification Rate (EMR) has strong impact upon a business. It is a number used by insurance companies to gauge both past cost of injuries and future chances of risk. The lower the EMR of your business, the lower your worker compensation insurance premiums will be. An EMR of 1.0 is considered the industry average. (Source: Safety Management Group).

According to the Michigan Oil and Gas Users Council (MCUC), the following EMR chart indicates the relative effectiveness of a contractor's SMS.

0.30 - 0.71 = Superior – Distinguished results

0.72 - 0.81 = Effective – Impressive results – Obvious commitment

0.82 – 1.04 = Average – Within industry norm

1.05 – 1.29 = Inadequate – Conspicuous past problems

1.30 – 2.05 = Poor – Lack of safety involvement

As you can see, safety is a serious consideration when choosing contractors to work on the oil and gas project. Using these criteria will not only result in selecting a higher level of contractor safety, it will also result in selecting a contractor that will be more professional in all aspects of the contracted work that will be performed.

### Total Case Incident Rate (TCIR)

The Total Case Incident Rate, or “TCIR” is a common method used to report workplace injuries. It is defined as the average number of work-related injuries incurred by 100 workers during a one-year period. Use of the TCIR to report workplace injuries allow comparison of accident and injury statistics across industries, among industry segments, and from one year to the next.

The TCIR is typically calculated as follows:

$$\text{TCIR} = \frac{200,000 \times \text{annual \# of injuries/illnesses}}{\text{annual total \# of hours worked}}$$



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For example, if an employer with 500 workers reported 10 injuries in 2013, and workers in that industry worked 1,000,000 hours that year, then the 2013 TCIR for that employer would be:

$$\text{TCIR} = \frac{200,000 \times 10}{1,000,000} = \frac{2,000,000}{1,000,000} = 2.0 \text{ injuries per 100 workers}$$



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## Key Players

The contractor, the owner, general contractor, project manager, site superintendent, and safety manager, should all have:

- ) previous experience on similar type oil and gas projects
- ) previous experience on projects of similar size
- ) a history of success on previous projects



All managers on the oil and gas site should be competent in safety management. Workers should be competent in the work they are performing. Heavy equipment operators should all be able to show written documentation providing proof of competency. Also, a trained on-site healthcare provider or nurse should be present on large projects (more than \$75 million).

## Project Designers

Project designers that are involved in the oil and gas phase should do the following:

- ) Identify the impact of changes in your design on the health and safety of those involved in the project.
- ) Provide sufficient information on health and safety associated with your design and planning to those who need it, so they can conduct the necessary training if needed.
- ) Cooperate and coordinate with the contracted parties, and, where appropriate, other designers/advisers involved in the project.
- ) Provide ongoing advice and information, if requested, regarding the head contractor's health and safety plan (such as by advising of any changes to planned activities).
- ) Make sure other designers/advisers and contractors continue to carry out their duties and coordinate with others on the project (such as by asking for regular written activity reports or holding site meetings).



## Head Contractors

The general or head contractor on site should do the following:

- )] Develop and carry out a site-specific health and safety plan.
- )] Make sure any contractor engaged to carry out oil and gas work is competent and has made suitable provisions for health and safety.
- )] Obtain and check site-specific safety plans from subcontractors.
- )] Make sure the coordination and cooperation of subcontractors regarding:
  - o information and on-site activity (such as site meetings, site procedures)
  - o appropriate communication arrangements between contractors on site for health and safety
  - o arrangements for discussing health and safety matters with people on site (such as setting regular toolbox/tailgate meeting times)
  - o incident and accident reporting
- )] Make sure training for health and safety is completed.
- )] Make arrangements to monitor health and safety performance (such as reports, audits and inspections).
- )] Make arrangements to pass on information from the client or designer/adviser to other contractors and employees (such as activity reports).
- )] Make arrangements to control visitor access, including such things as delivery of materials.

## Subcontractors

Each subcontractor on site should do the following:

- )] Develop a site-specific safety plan for your work activity.

- J Identify the hazards of your work, assess the risks arising from them, and tell the head contractor and client about how these risks will be controlled.
- J Obtain evidence of the training and competence of your subcontractors and employees.
- J Keep the head contractor informed of any dangerous incident or accident.
- J Provide the head contractor with the information needed for health and safety management.
- J Cooperate with the head contractor and other contractors on health and safety matters.
- J Follow any directions of the client or head contractor so that they can meet their obligations.
- J Provide information and training to your employees on site.

## Module 2 Quiz

Use this quiz to self-check your understanding of the module content. You can also go online and take this quiz within the module. The online quiz provides the correct answer once submitted.

- 1. During the Pre-Award phase be sure to include consideration of the contractor's \_\_\_\_\_.**
  - a. safety office location
  - b. past safety performance
  - c. union affiliation
  - d. operational history
  
- 2. During the Pre-Bid meeting, each of the following contractor safety requirements should be discussed, except \_\_\_\_\_.**
  - a. defining hazard control responsibilities
  - b. identification of potential hazards
  - c. safety recognition programs
  - d. safety enforcement
  
- 3. An Experience Modification Rate (EMR) of \_\_\_\_\_ is considered the industry average.**
  - a. .5
  - b. 1.0
  - c. 1.5
  - d. 2.0
  
- 4. A/An \_\_\_\_\_ is a common method used to report workplace injuries.**
  - a. Injury Experience Rate (IER)
  - b. Experience Modification Rate (EMR)
  - c. Safety Experience Ratio (SER)
  - d. Total Case Incident Rate (TCIR)

- 5. The general or head contractor on site should do all of the following, except \_\_\_\_.**
- a. maintain the OSHA inspection watch
  - b. develop a site-specific safety and health plan
  - c. make sure training is completed
  - d. obtain subcontractor site safety plans

## **Module 3- Involvement in Safety**

### **Management and Employees Must Be Involved**

Employee involvement provides the means through which workers develop and express their own commitment to safety and health.

The best safety and health management systems involve employees at every level of the organization. Employees are often those closest to the hazard, and have the most first-hand knowledge of workplace hazards. Clearly, the employer has ultimate responsibility for its workers; however, using employees' knowledge and experience to help identify and resolve problems can make the system more effective.

It's difficult to have an effective safety and health program without developing a corporate safety culture that encourages genuine employee involvement. When you mention involvement in safety, most people think only about "employee" involvement, but to do it right, management should be out front and involved.

Management needs to lead by example and that means communicating and following through with action. This module will discuss some of the components of employer and employee involvement in safety.

### **Responding to Safety and Health Issues**

Management in your company should take prompt consistent action when responding to safety and health issues. Doing so will demonstrate their commitment to addressing safety and health concerns and encourage employee participation.

Management should respond to employees' reports of actual or potential hazards and any other safety concerns employees might have. There should be an effective process for employees to report such hazards.

Management should notify the employee reporting a real or potential hazard of the outcome in a timely manner.

Reporting hazards should be made without fear of reprimand or any safety reporting process is doomed to failure.

### **Employee Participation**

The employees in your company should be given an opportunity to provide input regarding recommendations on safety and health products, procedures, and training as it pertains to daily work operations. For example, employees could be given some responsibility to test out

products or conduct research to substantiate recommendations. Employee input is effectively provided through the suggestion system, the reporting of hazards, or through actions the safety and health committee initiate. Employees can also participate in a variety of ways such as; a trainer, inspector, or problem solver.

### **Preventing Ergonomic Injuries**

More than a third of all accepted disabling claims are sprains/strains and other musculoskeletal disorders. Although oil and gas work will always include lifting, carrying, and pulling (among others), many contractors have made great strides in preventing these types of injuries through pre-task planning, employee involvement in exercise programs, medical management, and training their crews to recognize risk factors and best practices.

### **Safety Inspections**

One of the best ways employees can participate in the company's safety program is to help conduct safety inspections. This gives employees a greater sense of ownership in safety and it can be a real educational experience too!

Depending on the hazardous nature of the oil and gas on the wellsite, weekly or daily inspections may be needed to effectively identify hazards and unsafe actions.

### **Safety Recognition Programs**

It's important to understand that designing, developing and deploying safety "programs" is basically a management function requiring effective organizational skill. Many companies develop and implement formal safety recognition programs because that is what they've been told works best and that is what everyone else does.

There are many different types of safety recognition program strategies used and promoted these days. Of course, some are more effective than others, but there is certainly no one-fits-all program. To be successful, the recognition program should fit the unique culture of the organization.

For instance, you can't have a highly successful safety recognition program in an oppressively authoritarian corporate culture displaying tough-coercive leadership due to the lack of positive relationships between managers and employees.

A recognition program, within a controlling (typical) safety culture will usually think a "managed" program is necessary to be successful. The "suggestion box" is likely to be used to maintain anonymity which is symptom that a lack of trust exists: It just won't work.

On the other hand, a world-class safety culture may not have the need to develop a managed safety recognition program with formal procedures: why?

Because managers will likely perceive the process of recognition as their opportunity to demonstrate leadership through recognition so that ultimately, positive working relationships are established or reinforced. You can learn more about leadership styles and recognition systems in OSHAcademy course 700.

### **The Oil and Gas Safety Committee**

The purpose of a safety and health committee is to give employees the ability to participate in the implementation of the safety and health system that exists within your company.

The main incentive for developing a safety committee is to encourage and heighten employee involvement in the company safety program. Employee input is a critical part of a successful safety program. A safety committee is one way to obtain that input. The level of involvement by employees and degree of management commitment will determine if a safety committee is successful.

Safety committees have many benefits; identify safety and health concerns that workers/management consider most critical, help find creative solutions, show a good faith effort toward health and safety regulations, boost coworker loyalty, morale and enthusiasm by getting involved in an issue that's important to everyone, and if new safety rules are needed, a safety committee can help make sure employees accept and follow them.

The safety committee in your company should be comprised of management and employee representatives. The committee should meet at least weekly due to the hazardous nature of work on a project.

The committee should:

- ) Have defined goals and objectives.
- ) Address safety and health issues.
- ) Record and post minutes of the meetings.
- ) Involve employees in problem solving.
- ) Document action taken and post on the bulletin boards for all employees to read and-or comment.

- ) Have a formal agenda.

### **Suggestion Program**

The employees in your company should be encouraged to make safety and health suggestions to help improve a process, prevent an accident, or to make any improvement in the safety and health system.

The suggestion system should be implemented by a designated person, usually the safety director, who will be responsible for determining priority and the proper means of implementation. It's important to remember that in effective safety cultures, it's not necessary to have a policy that anonymity will be assured because a high level of trust exists between managers and employees.

Safety suggestions should be shared with the Safety and Health Committee for input. Suggestion forms may be placed in suggestion boxes or given directly to a designated person such as the immediate supervisor or safety committee chairperson.

### **Employee Right to Communicate**

OSHA requires employer to make sure employees are able to voice safety and health concerns without fear of reprisal. Think about it: would a perception of reprisal for voicing a safety concern benefit the company? No way!

More specifically, according to OSHA, no employer can discharge or in any manner discriminate against any employee because the employee has:

1. filed any complaint or instituted or caused to be instituted any proceeding under or related to the OSH Act,
2. testified or is about to testify in any such proceeding, or
3. has exercised any right afforded by the OSH Act on behalf of himself or others.

Prior to or during an OSHA inspection of a workplace, any employee or representative (usually a union person) may notify an OSHA Compliance Safety and Health Officer, in writing, of any violation of the Act which they have reason to believe exists in such workplace.



### Module 3 Quiz

Use this quiz to self-check your understanding of the module content. You can also go online and take this quiz within the module. The online quiz provides the correct answer once submitted.

- 1. The best safety and health management systems involve employees \_\_\_\_.**
  - a. when it is in the best interest of the company
  - b. at every level of the organization
  - c. when politically correct
  - d. as necessary
  
- 2. Management should notify the employee reporting a real or potential hazard of the outcome \_\_\_\_.**
  - a. in a timely manner
  - b. within a month
  - c. as needed
  - d. in a quarterly report
  
- 3. Employee safety input is effectively provided through each of the following ways, except \_\_\_\_.**
  - a. actions of the safety committee
  - b. reporting hazards
  - c. a suggestion program
  - d. enforcing safety
  
- 4. Including employees in safety inspections is very effective because it helps to give them \_\_\_\_.**
  - a. time off from their regular job
  - b. an opportunity to enforce safety rules
  - c. a sense of ownership in safety
  - d. a chance to control workers

- 5. The safety committee on a rig project should be comprised of \_\_\_\_\_ representatives and should meet weekly.**
- a. only employee
  - b. management and employee
  - c. employee and union
  - d. only management

## Module 4- SMS and Wellsite Analysis

### Plan for Wellsite Analysis

When planning for an oil and gas wellsite analysis, be sure to include the following four processes:

- ) comprehensive baseline survey
- ) change analysis
- ) job hazard analyses (JHA)
- ) periodic and daily safety inspections

### The Comprehensive Baseline Survey

A comprehensive baseline survey and analysis is a first attempt at understanding:

- ) the potential hazards that may exist at a new wellsite, or
- ) the hazards that currently exist at a working wellsite.

It establishes initial levels of exposure (baselines) for comparison to future levels uncovered in follow-up surveys and analyses, so that changes can be recognized. Basically, the baseline survey tells the employer what the starting point is.

A comprehensive baseline survey should include a review of previous accidents, injuries, and illnesses; complaints; previous studies; etc. Comprehensive surveys should be performed depending on the business size and nature of the hazards at least every three years by private consultants, insurance company, and/or state-funded programs.

The baseline survey should include a review of the following:

1. copies of written inspections and surveys by: fire department and in-house as required by safety and health standards (e.g., overhead crane inspections, powered industrial truck daily inspection, etc.)
2. employee report of hazards or potential hazards
3. accident and incident investigations with corrective actions and follow-up

4. injury and illness trend analysis
5. personal protective equipment (PPE) assessment
6. ergonomic analysis
7. specific identification of confined spaces
8. identification of energy sources for specific machines

As part of the wellsite analysis process, the employer/general contractor should also require subcontractors to perform a baseline analysis as necessary in accordance with OSHA and company requirements. The subcontractors should share pertinent information with the general contractor, and/or other subcontractors.

### Change Analysis

As you know, change is continuous on an oil and gas wellsite. Change analysis is simply the analysis of the management of change, conducted by competent persons, to make sure that change on the wellsite does not introduce new hazards or unsafe procedures in the work environment.

A designated person should analyze how changes on the wellsite can affect equipment, processes, and materials for hazards and potential hazards. Findings should be documented and plans developed to minimize or design out the new hazards.

Changes in the following general categories need to be reviewed:

- ) wellsite layout
- ) materials
- ) process technology
- ) equipment

To more specifically analyze how changes to the wellsite layout, materials, processes and equipment, affect the work being conducted, be sure to include the following in your analysis:

- ) site entrance and traffic routes/surfaces
- ) covered walkways

- ) protection from falling objects
- ) danger areas
- ) storage and personnel areas
- ) hazardous materials/dangerous goods
- ) barriers and fences
- ) loading and unloading areas
- ) bays and ramps
- ) working, slopes for excavators, dump trucks etc.
- ) safety signage
- ) protection of pedestrians
- ) site security
- ) housekeeping and cleanliness

### **Job Hazard Analyses (JHA)**

A Job Hazard Analysis is a technique that focuses on job tasks as a way to identify hazards before they occur. It focuses on the relationship among the worker, the task, the tools, and the work environment. Ideally, after you identify uncontrolled hazards, you will take steps to eliminate or reduce them to an acceptable risk level.

A JHA should be conducted for all hazardous jobs/procedures to determine potential hazards and identify methods to reduce exposure to those hazards at oil and gas wellsites. Here are the steps in a basic JHA:

1. List the steps in the job or procedure.
2. Describe the safety and health hazards in each step.
3. Develop preventive measures.

4. Write a safe job procedure.

You can learn more about conducting a JHA in OHAcademy course 706.

### Safety Inspections and Reports

Employees play a key role in identifying, controlling, and reporting hazards that may occur or already exist in your workplace. Safety inspection reports of potential hazards can be an effective tool to trigger a closer look at a piece of equipment, operation, or how work is being performed. Reports of potential hazards can also provide suggestions to eliminate a hazard.

There are many positive reasons for conducting safety inspections, including:

- ) helping ensure compliance with OSHA and meet other legal responsibilities
- ) involving both management and employees - always good!
- ) identifying areas of high risk and controlling hazards
- ) developing positive attitudes - demonstrating leadership
- ) suggesting better methods of doing procedures safely

### OSHA requirements related to this element

The following is a list of topics relevant to wellsite analysis by identifying wellsite hazards.

- ) Evaluate operations, procedures, facilities, and equipment to identify hazards [[29 CFR 1926.20\(a\)](#), [29 CFR 1926.21\(b\)](#)].
- ) Monitor exposure levels [[29 CFR 1926.55](#), [29 CFR 1926.62](#), [29 CFR 1926 Subpart Z](#), [29 CFR 1926.1101](#)].
- ) Ensure regular safety and health inspections [[29 CFR 1926.20\(b\)\(2\)](#), [29 CFR 1926.703\(b\)](#), [29 CFR 1926.1081](#)].
- ) Conduct accident investigations [[29 CFR 1904.4](#)].
- ) Determine if engineering or administrative controls or personnel protective equipment are to be used [[29 CFR 1926.103](#), [29 CFR 1926.951](#)].

## Module 4 Quiz

Use this quiz to self-check your understanding of the module content. You can also go online and take this quiz within the module. The online quiz provides the correct answer once submitted.

- 1. When planning for an oil and gas wellsite analysis, include all of the following processes, except \_\_\_\_.**
  - a. safety inspections
  - b. Job Hazard Analysis
  - c. change analysis
  - d. pareto analysis
  
- 2. Prior to construction of the wellsite, the first safety analysis process to conduct is called the \_\_\_\_.**
  - a. safety inspection
  - b. change analysis
  - c. Job Hazard Analysis
  - d. baseline survey
  
- 3. Which process is conducted to make sure that change on the wellsite does not introduce new hazards or unsafe procedures in the work environment?**
  - a. Safety inspection
  - b. Change analysis
  - c. Job Hazard Analysis
  - d. Baseline survey
  
- 4. Which process is conducted on job tasks as a way to identify hazards before they occur?**
  - a. Safety inspection
  - b. Change analysis
  - c. Job Hazard Analysis
  - d. Baseline survey

- 5. Which process is an effective tool to trigger a closer look at a piece of equipment, operation, or how work is being performed?**
- a. Safety inspection
  - b. Change analysis
  - c. Job Hazard Analysis
  - d. Baseline survey



## Module 5- Hazard Prevention and Control

### Controlling Exposure - The Hierarchy of Controls

Controlling exposures to wellsite hazards is the fundamental method of protecting workers on an oil and gas site. Traditionally, the widely-accepted hierarchy of controls has been used as a means of determining how to implement feasible and effective controls.

ANSI/AIHA Z10-2005 discusses the five control measures below:

- ) elimination
- ) substitution
- ) engineering controls
- ) administrative controls
- ) personal protective equipment

The idea behind this hierarchy is that the control methods at the top of the list are potentially more effective and protective than those at the bottom. Following the hierarchy normally leads to the implementation of inherently safer systems. The risk of illness or injury should be substantially reduced. Let's take a closer look at each of the control measures.

#### Elimination

The best control measure to control a hazard is to eliminate it. If you don't have the hazard, you won't get injured. While elimination is the most effective at reducing hazards, it also tends to be the most difficult to implement in an existing process.

If the oil and gas project is still at the design or development stage, elimination and substitution of hazards may be inexpensive and simple to implement. For an existing process, major changes in equipment and procedures may be required to eliminate or substitute for a hazard.

#### Substitution

The next best control measure is to substitute something else in its place that would be non-hazardous or less hazardous to workers. For example, a non-toxic (or less toxic) chemical could be substituted for a hazardous one.

## Engineering Controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The initial cost of engineering controls can be higher than the cost of administrative controls or personal protective equipment, but over the longer term, operating costs are frequently lower, and in some instances, can provide cost savings in other areas of the process. Engineering controls should be designed to make it difficult for employees to defeat the controls.

Engineering controls include methods such as using noise dampening technology to reduce noise levels; enclosing a chemical process in a Plexiglas "glove box"; using mechanical lifting devices; or using local exhaust ventilation that captures and carries away the contaminants before they can get in the breathing zone of workers.

## Administrative Controls

If engineering controls cannot be implemented, or cannot be implemented right away, administrative controls should be considered. These methods for protecting workers have also proven to be less effective than other measures, requiring significant effort by the affected workers. Administrative controls work only so long as employee behavior conforms to standards.

Administrative controls involve changes in workplace policies and procedures. They can include such things as:

- ) warning alarms
- ) labeling systems
- ) reducing the time workers are exposed to a hazard
- ) training

For example, workers could be rotated in and out of a hot area rather than having to spend eight hours per day in the heat. Back-up alarms are an example of effective warning systems. However, warning signs used instead of correcting a hazard that can and should be corrected are not acceptable forms of hazard control.

## Personal Protective Equipment

PPE is the last resort and least effective means of controlling exposure to hazards because of the high potential for damage to render PPE ineffective. Again, the success of this control measure depends not only on the quality of the PPE, but also the quality of human behavior.

PPE should be used only while other more effective controls are being developed or installed, or if there are no other more effective ways to control the hazard.

This is because:

- ) The hazard is not eliminated or changed.
- ) If the equipment is inadequate or fails, the worker is not protected.
- ) No personal protective equipment is fool-proof (for example, respirators leak).
- ) Personal protective equipment is often uncomfortable and can place an additional physical burden on a worker.
- ) Personal protective equipment can actually create hazards. For example, the use of respirators for long periods of time can put a strain on the heart and lungs.

While there are some jobs, such as removing asbestos, where wearing adequate personal protective equipment is absolutely essential, there are many jobs where employers hand out personal protective equipment when in fact they should be using more effective hazard control methods.

## Other Methods to Prevent and Control Hazards

Let's take a look at some of the programs and processes that will help the company prevent and control typical hazards on an oil and gas wellsite.

### Wellsite Inspections

Your company should conduct daily wellsite inspections. Hazards should be documented, reviewed, and corrections should be made in a timely manner. More detailed, written inspections should be conducted by a designated person on a weekly or monthly basis.

Your company's Safety Coordinator or other designated safety person should tour each job site and observe potential safety/health hazards, and develop a plan for safeguarding the workers, which may include the following:

- ) removing the hazard
- ) guarding against the hazard as required by OSHA
- ) providing personal protective equipment and enforcing its use
- ) training workers in safe work practices
- ) coordinating protection of workers through other contractors

A record of all safety inspections and correctional steps should be kept.

### **Analyze Past Accident Investigations**

All accidents in your workplace resulting in injury or property damage should be investigated.

By using the information gained through analysis of accident investigations occurring on previous projects, a similar, or perhaps more disastrous, accident may be prevented.

### **Control of Hazardous Energy**

The control of hazardous energy through lockout/tagout procedures assures that you and other employees are protected from unexpected machine motion or release of energy which could cause injury. This includes electricity, water, steam, hydraulic, gravity, and many other sources of stored energy.

All sources of hazardous energy must be shut off, de-energized at the source, and locked-out prior to you or any other employee beginning work around or on the potential hazard.

### **Confined Space Entry**

Analyze the project for the potential for confined spaces. Workers should not enter confined spaces without proper training and management authorization.

A confined space is defined as the following:

- a. A space that is NOT DESIGNED FOR CONTINUOUS employee OCCUPANCY, and
- b. Is large enough and so configured that a person can bodily enter into and perform assigned work, and
- c. Has LIMITED or RESTRICTED means for ENTRY or EXIT.

Confined spaces that may have a HAZARDOUS ATMOSPHERE require special precautions. Hazardous atmospheres are those that may expose employees to the risk of death, incapacitation, and impairment of ability to self-rescue caused by:

- ) flammable gas
- ) airborne combustible dust
- ) atmospheric oxygen concentration below 19.5 or above 23.5%
- ) a toxic atmosphere or substance
- ) danger of engulfment

### Analyze Fall Hazards

Each year, falls consistently account for the greatest number of fatalities in the oil and gas industry. A number of factors are often involved in falls, including unstable working surfaces, misuse or failure to use fall protection equipment and human error.

Studies have shown that using guardrails, fall arrest systems, safety nets, covers and restraint systems can prevent many deaths and injuries from falls.

Analyze the project to determine if you will be using:

- ) aerial lifts or elevated platforms to provide safer elevated working surfaces
- ) guardrail systems with toeboards and warning lines or install control line systems to protect workers near the edges of floors, roofs, and floor holes; and/or
- ) safety net systems or personal fall arrest systems (body harnesses)

### Analyze for Excavation Hazards

The primary hazard of trenching and excavation is employee injury from collapse. Soil analysis is important in order to determine appropriate sloping, benching, and shoring.

Additional hazards include working with heavy machinery; manual handling of materials; working in proximity to traffic; electrical hazards from overhead and underground power-lines; and underground utilities, such as natural gas.

## Analyze for Hazardous Chemicals

Analyze the project for the potential for hazardous chemicals requiring a Hazard Communications Program (HCP) to ensure all workers know about the chemicals that they work with and work around. The HCP involves the following elements.

1. written hazard communication program
2. training on the chemicals your company uses
3. labeling using properly labeled containers
4. Safety Data Sheets (SDS): SDS must be readily available onsite. Workers must know where to find SDS and be able to read and properly utilize a SDS.
5. Posting signs to inform employees of the location of SDS and when new chemicals are brought on the job site.
6. Informing other contractors: If using chemicals around other contractors, it is your responsibility to inform the other contractors of the hazards involved. Every effort must be made to keep other contractors safe from the chemicals in use. Typically, the general contractor onsite will need to coordinate all chemical use of all contractors to maintain a safe workplace.

**Note:** Your written Hazard Communication program should outline the specific details of the elements listed above.

## Analyze Electrical Hazards

Many oil and gas workers are unaware of the potential electrical hazards present in their work environment, which makes them more vulnerable to the danger of electrocution.

Experts in electrical safety have traditionally looked toward the widely used National Electrical Code (NEC) for help in the practical safeguarding of persons from these hazards.

Electrical safety in oil and gas involves two primary issues:

- ) powerlines
- ) temporary and permanent electrical wiring and equipment

## Module 5 Quiz

Use this quiz to self-check your understanding of the module content. You can also go online and take this quiz within the module. The online quiz provides the correct answer once submitted.

- 1. Which of the following is the fundamental method of protecting workers on a oil and gas site?**
  - a. Employee interviews
  - b. OSHA inspections
  - c. A cost-benefit analysis
  - d. Controlling exposures to hazards
  
- 2. Which of the following "Hierarchy of Controls" strategies is effective only after attempting all other controls?**
  - a. Engineering Controls
  - b. Administrative Controls
  - c. Personal Protective Equipment
  - d. Elimination
  
- 3. Replacing a highly toxic cleaning chemical with a less-toxic cleaning chemical is an example of which hazard control strategy?**
  - a. Elimination
  - b. Administrative Controls
  - c. Engineering Controls
  - d. Substitution
  
- 4. The employer on a rig should investigate \_\_\_\_\_ accidents in your workplace resulting in injury or property damage.**
  - a. all
  - b. all injury
  - c. injury or illness
  - d. lost-workday

- 5. Which of the following is the primary hazard of trenching and excavation on a project?**
- a. Flooding
  - b. Soil collapse
  - c. Electrical shock
  - d. Manual material handling



## Module 6- Education and Training

### Introduction

Safety training should be a part of every employee's basic job training. This reinforces the belief that safety is an essential part of the job. By focusing on job training needs, you will identify safety training needs. You want your employees to learn what they need to know to perform their jobs.

### The Importance of Training

Accidents will be reduced when people who work on well sites are selected properly, oriented well, completely trained, retrained when necessary, always motivated and retrained to become the best career oil field staff.

**Selection** – Selecting properly from a more qualified pool of applicants will begin to occur when escalation of activity in the industry decreases, or levels out, or when better retention of workers reduces the need for constant replacements. At the present time manpower needs are so urgent that normal selection procedures are often by-passed.

**Orientation** – Orientation would be improved by the industry cooperating with educational institutions in providing information and courses to prospective employees about opportunities in the oil fields. Recruitment should include exposure to packaged audiovisual orientation material that would take the surprise out of first days on the job.

**Training** – Worker training must compensate for lack of experience when new employees, because of necessity, are promoted rapidly. The industry will be challenged to research best methods and to implement excellent programs.

**Retraining** – Remaining aware of danger, as familiarity kills caution, requires constant retraining in a variety of ways in order to retain interest. This constitutes another developmental thrust for training institutions and personnel.

**Motivation** – Worker motivation to work safely and to stay with the industry must come from the companies. The opportunity to be employed year around, developing pride in working for a good company, experiencing satisfaction with job conditions, knowing that the work is meaningful and being rewarded generously should lessen the movement of workers through the industry. It will assist in raising public opinions about oil field work to the status of a respected career. This should reduce the number of workers who say they are in it for the money only.

When initially employed, a worker should receive instruction and training pertinent to the hazards, safety precautions, safe work practices, and use of personal protective equipment applicable to the type of work performed.

The instructions should adequately orient and alert the new employee to:

- a. the basic principles of a well drilling operation, including the safe work practices and hazards associated with rig equipment
- b. the purpose and operation of blowout prevention
- c. hydrogen sulfide and respiratory protection
- d. fire prevention and control
- e. confined spaces and entry procedures
- f. personal protective equipment
- g. emergency procedures

Each new employee should receive training in the safe use of all equipment or tools that are necessary for use and the safe performance of assigned tasks. The employer should require that the worker demonstrate his ability to safely operate the tool or equipment prior to using it in a drilling situation.

As an employee advances to new positions and tasks, he should demonstrate his knowledge and ability to safely operate the equipment and perform the tasks before he is required to perform them in a drilling situation.

Retraining should be conducted as needed to ensure that employees are able to perform their tasks in a safe manner.

### **Implementing Education and Training**

The company should provide safety information and training to assure the requirements of OSHA standards are met and it should continuously evaluate employee training needs to keep workers safe and healthy on the job.

1. **New Employee Orientation:** New employees should receive training on your company's safety and health management system, safe work practices and expectations, and specific safety and health training for the tasks that they will perform.

2. When initially employed, a worker should receive instruction and training pertinent to the hazards, safety precautions, safe work practices, and use of personal protective equipment applicable to the type of work performed.
3. The instructions should adequately orient and alert the new employee to:
  - the basic principles of a well drilling operation, including the safe work practices and hazards associated with rig equipment
  - the purpose and operation of blowout prevention
  - hydrogen sulfide and respiratory protection
  - fire prevention and control
  - confined spaces and entry procedures
  - personal protective equipment
  - emergency procedures
  - the safe use of all equipment or tools that are necessary for use and the safe performance of assigned tasks
4. As an employee advances to new positions and tasks, he should demonstrate his knowledge and ability to safely operate the equipment and perform the tasks before he is required to perform them in a drilling situation.
5. After inspecting a job site, a designated person should identify and evaluate all potential hazards that may cause serious injuries and increase the probability of an accident. Actions will be taken to minimize the hazards and protect the workers.
6. The Safety Coordinator or other designated site safety person will appraise the skill and knowledge level of exposed workers, and provide any needed training.
7. Where safety and health training is needed, appropriate training should be provided.
  - Hazards must be identified.
  - Necessary precautions will be explained.

- Training length and level of detail should be determined by the severity of the hazards and the requirements of OSHA.
8. Records should be maintained for all training sessions with descriptions of topics covered and names of workers trained.
  9. Toolbox talks should be conducted regularly (weekly or daily). Topics covered should include:
    - safe work practices necessary for that day's work
    - Any safety concerns workers may have
    - Brief refresher training on relevant safety topics (topics to be provided by the Safety Coordinator)

### Conducting Classroom and On-The-Job Training

Training Development Process: The Texas Department of Insurance Division of Workers' Compensation Workplace Safety ([www.tdi.state.tx.us](http://www.tdi.state.tx.us)) has a seven-step classroom training development process that can be quite effective in conducting classroom training for oil and gas companies.

#### Step #1 - Determine Training Needs

Training does not solve all problems. Sometimes the problem may be work procedures, equipment, or lack of employee motivation. Ask yourself: *"Does the employee have the skills or knowledge to perform the job?"*

- ) If the answer is "yes", then safety training may not be required.
- ) If the answer is "no", then safety training will be required.

Safety training may be required for any of the following reasons:

- ) initial orientation
- ) employee's lack of knowledge
- ) employee's lack of skills

- ) new machinery or equipment

- ) new procedures or job change

All new employees need to participate in an overall safety training orientation class. Every employee must be trained to be aware of and understand the hazards in the workplace.

Finally, dangerous work practices may exist on the job. After you have determined that training will correct the problems and/or meet the legally mandated training requirements, the next step is to identify the training needs.

### Step #2 - Identify Training Needs

The purpose of training is to ensure that the employee will be able to perform the job correctly and safely. Some questions to help identify training needs are:

- ) Does the employee have previous experience?

- ) Does the employee know how to perform the tasks?

- ) Does the employee possess the skills to perform the tasks?

Once these questions have been answered, you can look at additional information to help identify specific training that needs to be done. Information to look at includes:

- ) accident and injury records

- ) incident and near miss reports

- ) audits and inspections

- ) observing employees while working

- ) safety meetings

- ) suggestions from employees

- ) job hazard analysis and developed solutions for the hazards (this is a very valuable tool to identify training needs)

### Step #3 - Identify Learning Goals and Objectives

After determining training needs, it is time to identify your goals and objectives. When developing your learning goals and objectives, you should know exactly what you expect your employees to know and do to:

- ) perform their tasks
- ) improve their performance
- ) improve their behavior

Goals are merely statements describing a general end-state result such as:

- ) Increase our safety training
- ) Have fewer accidents

On the other hand, an operational learning objective is an outcome statement that captures specifically what knowledge, skills, attitudes learners (not trainers) should be able to demonstrate following the training. To successfully achieve desired training goals, learning objectives need to be well thought out and planned. Operational learning objectives should include the following components:

1. specific
2. attainable
3. measurable/observable
4. results-oriented
5. targeted

Here are two examples of learning objectives for safety training:

- ) At the end of the training session today, given a full body harness, each student will be able to correctly inspect and identify at least two defects in the equipment.
- ) By the end of training, given a 10-question written exam on oil and gas electrical safety, each student will be able to correctly answer at least 8 questions.

As you can see, operational objectives are much more specific and detailed than mere safety goals.

#### Step #4 - Develop Learning Activities

You must decide what types of activities you're going to use to train your employees. How are you going to get across to them the skills and knowledge they need? Different people require different types of training; some visual, some hands-on, etc. However, you must remember to use activities that will allow your employees to reach the goals and objectives.

Prepare your training materials and aids after deciding on the learning activities. Arrange objectives and activities in the sequence that corresponds to the tasks actually performed on the job, and if possible, use hands-on demonstrations. Employees will retain training information if it is related to their job tasks.

#### Step #5 - Conduct the Training

The actual training is crucial for the overall safety training process to be successful. Begin your training with a short review of the key training subjects and activities. After each objective is taught, draw a relationship between the employee's goals, interests, and experiences to the objective. Reinforce what the employee has learned by summarizing objectives and key points.

An effective training program requires employees to participate in the training process and to practice their new skills and knowledge in a safe environment.

#### Step #6 - Evaluate the Program

When you develop the objectives and contents of your training program, you will also develop a policy on how the training activities will be evaluated and the requirements for success.

A training program is successful only if workers learn from it, accomplish the established objectives and reach the goals. Without evaluation, you will never know.

Your evaluation can include:

- ) student opinion
- ) supervisors' observations (both before and after training)
- ) workplace improvements

## Step #7 - Program Improvement

You can use the information from Step #6 to improve your training program. Training program revisions and improvements can be made based on the evaluation results.

Remember, OSHA mandates training in a number of the federal standards. By following these outlined steps, being prepared, presenting your program with enthusiasm, sincerity, and careful evaluation, you will promote safe work habits in your workplace.

### A Simple Seven Step On-The-Job Training (OJT) Process

Safety training should be simple training. It should be done where the task is performed, and hopefully the supervisor is conducting the training. Here is a seven-step OJT training process that helps to ensure new employees don't get hurt while being trained. Now I know that might sound funny, but it happens regularly.

**Step 1 - Introduction:** State and discuss the learning objectives and answer any questions the employee may have. Discuss the acceptable standards of knowledge and performance. Tell the trainee what you're going to train. Emphasize the importance of the procedure to the success of the production/service goals.

**Step 2 - Trainer shows and tells:** In this step the trainee becomes familiar with each work practice and why it is important. Review the initial conditions for the procedure. Demonstrate the process, carefully explaining each step as you go. Answer questions and continue to demonstrate and explain until the employee understands what to do, when and why to do it, and how to do it.

**Step 3 - Learner tells - Trainer shows:** This step is necessary when exposure to hazards inherent in the procedure could cause serious harm. It protects the trainee because the trainer performs the procedure. The trainee explains the procedure to the trainer, while the trainer does it.

**Step 4 - Learner shows and tells:** The trainer has the trainee do it. The trainee explains the step, gets permission to perform the step and then carries out the step. This step is very important when training tasks that might result in serious physical injury or death if not performed correctly.

**Step 5 - Conclusion: Recognize accomplishment:** "Good job!" Reemphasize the importance of the procedure and how it fits into the overall process. Tie the training again to accountability by discussing the natural and system consequences of performance.



**Step 6 - Document:** Training documentation should be more than an attendance sheet. See the sample training certification document on the next page. It represents one possible way to document training.

**Step 7 - Validate:** At some point in time after the conclusion of the OJT session, observe and question the employee to validate that the training has been successful and that the employee has developed a proper attitude related to the work.

You can learn more about how to conduct a JHA in OSHAcademy Course 706.

[Training Requirements in OSHA Standards and Training Guidelines](#) (OSHA's Training Requirements Guide) Here's a great booklet that covers many OSHA training requirements and also gives you some ideas on training strategies.

### **Safety and Health Work Observations**

Safety and health work observations should be performed periodically by supervisors or designated observers. Observations may be conducted randomly in an informal program, or they may be planned when a formal observations program (Behavior Based Safety Program) is part of the SMS.

Electrical safety in oil and gas involves two primary issues:

- ) an employee has the knowledge to perform the work as trained
- ) the employee is actually performing their work task safely

Specific observations or audits are especially critical for lockout/tagout, confined space, fall protection and other programs where the risk of exposure to hazards is high. Results should be documented and follow-up training should be provided as needed. This process helps assure safety and health training is effective.

To learn more about safety education and training, be sure to complete OSHAcademy Courses 703, 721, and 723.

**Sample Training Certification – Page 1**

Training Subject \_\_\_\_\_ Date \_\_\_\_\_ Location \_\_\_\_\_  
\_\_\_\_\_

**Trainee Certification of Training:** I have received on-the-job training on those subjects listed (see other side of this sheet): This training has provided me adequate opportunity to ask questions and practice procedures to determine and correct skill deficiencies. I understand that performing these procedures/practices safely is a condition of employment. I fully intend to comply with all safety and operational requirements discussed. I understand that failure to comply with these requirements may result in progressive discipline (or corrective actions) up to and including termination.

Employee Name    Signature        Date  
\_\_\_\_\_  
\_\_\_\_\_

**Trainer Certification of Competency:** I have conducted orientation/on-the-job training to each employee listed above. I have explained related procedures, practices and policies. Each employee was given opportunity to ask questions and practice procedures in the learning environment. Based on each student's performance, I have determined that each employee trained has adequate knowledge and skills to safely perform these procedures/practices.

\_\_\_\_\_  
Trainer Name                      Signature                      Date

**Supervisor Certification of Competency:** I observed/interviewed the above employees on \_\_\_\_\_ date(s). Each employee demonstrated adequate knowledge and skills to safely perform all steps of the procedures/practices in the work environment (at their workstation, worksite, etc).

\_\_\_\_\_  
Supervisor Name                  Signature                      Date

**Sample Training Certification – Page 2**

The following information was discussed with students: (check all covered subjects)

- Overview of the hazard communication program - purpose of the program
- Primary, secondary, portable, and stationary process container labeling requirements
- Discussion of the various sections of the MSDS and their location
- Emergency and Spill procedures
- Discussion of the hazards of the following chemicals to which students will be exposed
- Symptoms of overexposure
- Use/care of required personal protective equipment used with the above chemicals
- Employee accountability

The following practice/performance exercises were conducted:

- Spill procedures
- Emergency procedures
- Personal protective equipment use

The following written test was administered: (Or "Each student was asked the following questions:") (Keep these tests as attachments to the safety training plan and merely reference it here to keep this document on one sheet of paper)

- ) What are the labeling requirements of a secondary container? (name of chemical. and hazard warning)
- ) When does a container change from a portable to secondary container? (when employee loses control)
- ) What are the symptoms of overexposure to \_\_\_? (stinging eyes)
- ) Where is the "Right to Know" station (or MSDS station) located? (in the production plant)
- ) What PPE is required when exposed to \_\_\_? (short answer)
- ) How do you clean the PPE used with \_\_\_? (short answer)
- ) What are the emergency procedures for overexposure to \_\_\_? (short answer)
- ) Describe spill procedures for \_\_\_. (short answer)
- ) When should you report any injury to your supervisor? (immediately)
- ) What are the consequences? if you do not follow safe procedures with this chemical (injury, illness, discipline)

## Module 6 Quiz

Use this quiz to self-check your understanding of the module content. You can also go online and take this quiz within the module. The online quiz provides the correct answer once submitted.

- 1. If a rig worker has the skills and knowledge to perform their job safely, safety training \_\_\_\_\_.**
  - a. will be a waste of time
  - b. will be more effective
  - c. is still required
  - d. may not be required
  
- 2. Safety training may be required for any of the following reasons, except \_\_\_\_\_.**
  - a. as part of a reprimand
  - b. lack of knowledge
  - c. lack of skills
  - d. new procedures
  
- 3. Each of the following questions should be asked when determining training needs, except \_\_\_\_\_**
  - a. has the employee been previously disciplined?
  - b. does the employee have previous experience?
  - c. does the employee know how to perform the tasks?
  - d. does the employee possess the skills to perform the tasks?
  
- 4. When developing your learning goals and objectives, you should know \_\_\_\_\_.**
  - a. OSHA requirements
  - b. what you will train
  - c. exactly what you expect employees to do
  - d. the length and duration of the training

5. An effective training program \_\_\_\_\_ employees to practice their new skills and knowledge in a safe environment.
- a. encourages
  - b. recommends
  - c. requires
  - d. tasks

## Module 7- Getting Started

### Steps to Identify OSHA Requirements

Follow the steps below to identify the major OSHA oil and gas requirements and guidance materials that may apply to your jobsite.

These steps will lead you to resources on OSHA's website that will help you comply with OSHA requirements and prevent workplace injuries and illnesses.

**Step 1:** OSHA Requirements Related to Leading Hazards at Oil and Gas Sites

**Step 2:** Other OSHA Requirements That May Apply to Your Jobsite

**Step 3:** Survey Your Workplace for Additional Hazards

**Step 4:** Develop a Jobsite Safety and Health Program

**Step 5:** Train Your Employees

**Step 6:** Recordkeeping, Reporting and Posting

**Step 7:** Find Additional Compliance Assistance Information

#### Step 1: OSHA Requirements Related to Leading Hazards at Oil and Gas Sites

The following resources will introduce you to OSHA requirements that address some of the leading hazards at oil and gas sites.

Falls consistently account for the greatest number of fatalities in the oil and gas industry. If you have employees who work six or more feet above a lower level, you must provide fall protection.

) Read a fact sheet. OSHA Fact Sheet: [Preventing Falls in Oil and Gas](#).  
Also available as a 1 MB [PDF](#) - 353 KB]

) Read the standards.

o [29 CFR 1926 Subpart M](#)

o [OSHA Safety and Health Topics Page: Fall Protection - Standards](#)

) Review fall protection information for specific operations or types of oil and gas:

- Residential oil and gas. [OSHA Fall Protection in Residential Oil and gas](#)
- Steel erection. [OSHA Oil and gas eTool: Steel Erection - Fall Protection](#)

) Learn more:

- [OSHA Safety and Health Topics Page: Fall Protection](#)
- [OSHA Campaign to Prevent Falls in Oil and Gas](#)
- [OSHA Oil and gas eTool: Falls](#)
- [OSHA Pocket Guide: Oil and Gas](#). OSHA Publication 3252 (2005). Also available as a 288 KB [PDF](#).

**Stairways and Ladders:** Working on and around stairways and ladders can be hazardous. Stairways and ladders are major sources of injuries and fatalities among oil and gas workers.

) Review an OSHA booklet. [Stairways and Ladders](#). OSHA Publication 3124 (2003). Also available as a 156 KB [PDF](#).

) Read the standards.

- [29 CFR 1926 Subpart X](#)
- [OSHA Safety and Health Topics Page: Walking/Working Surfaces - OSHA Standards](#)

) Learn more:

- [OSHA Safety and Health Topics Page: Walking/Working Surfaces](#)
- [OSHA Oil and gas eTool: Misuse of Portable Ladders](#)

**Scaffolding:** Do you use scaffolding on your jobsite?

) Review an OSHA booklet. [A Guide to Scaffold Use in the Oil and gas Industry](#). OSHA Publication 3150 (2002). Also available as a 2 MB [PDF](#).

) Read the standards.

- [29 CFR 1926 Subpart L](#)



- [OSHA Safety and Health Topics Page: Scaffolding - OSHA Standards](#)

) Learn more:

- [OSHA Safety and Health Topics Page: Scaffolding](#)
- [OSHA Oil and gas eTool: Scaffolding](#)

**Electrical:** Almost all oil and gas employers must consider the hazards associated with electricity (i.e., electric shock, electrocution, fires and explosions).

) Review OSHA booklets:

- [Controlling Electrical Hazards](#). OSHA Publication 3075 (2002)

) Read the standards.

- [29 CFR 1926 Subpart K](#)
- [OSHA Safety and Health Topics Page: Electrical - Standards](#)

) Learn more:

- [OSHA Safety and Health Topics Page: Electrical](#)
- [OSHA Oil and gas eTool: Electrical Incidents](#)

**Trenching and Excavation** are among the most hazardous oil and gas operations.

) Read a QuickCard. [Working Safely in Trenches](#) [PDF\* - 322 KB] OSHA Publication 3243 (2011) (English and Spanish)

) Read a fact sheet. OSHA Fact Sheet: Trenching and Excavation Safety: [English](#) [PDF\* - 249 KB] and [Spanish](#) [PDF\* - 282 KB]

) Get a poster. Trenching Poster: [English](#) [PDF\* - 249 KB] OSHA Publication 3215 (2011) and [Spanish](#) [PDF\* - 263 KB] OSHA Publication 3255 (2011)

) Review an OSHA booklet. [Excavations](#). OSHA Publication 2226 (2002). Also available as a 536 KB [PDF](#).

) Read the standards.

- [29 CFR 1926 Subpart P](#)
- [OSHA Safety and Health Topics Page: Trenching and Excavation - Oil and gas](#)

) Learn more:

- [OSHA Safety and Health Topics Page: Trenching and Excavation - Oil and gas](#)
- [OSHA Oil and gas eTool: Trenching and Excavation](#)
- [OSHA Technical Manual Chapter: Excavations - Hazard Recognition in Trenching and Shoring](#)

**Motor Vehicle Safety/Highway Work Zones:** Do you operate motor vehicles on your jobsite or do your employees work in and around highway work zones?

) Read a fact sheet. OSHA Fact Sheet: [Work Zone Traffic Safety](#) [PDF\* - 21 KB]

) Read the standards.

- [29 CFR 1926 Subpart O, 29 CFR 1926 Subpart G](#)
- [OSHA Safety and Health Topics Page: Motor Vehicle Safety - Oil and gas](#)

) Learn more:

- [OSHA Safety and Health Topics Page: Motor Vehicle Safety - Oil and gas](#)
- [OSHA Safety and Health Topics Page: Oil and gas - Highway Work Zones and Signs, Signals and Barricades](#)
- [OSHA Oil and gas eTool: Vehicles](#)

**NOTE:** Most oil and gas jobsites involve multiple employers (i.e., general contractors, oil and gas managers, subcontractors, etc.). If you perform work on such jobsites, you should review OSHA's Multi-Employer Citation Policy.

## Step 2: Other OSHA Requirements That May Apply to Your Jobsite

In addition to the OSHA requirements covered in Step 1, a number of other OSHA standards may apply to your jobsite. The following items can help you identify other key OSHA standards that may apply and point you to information to help you comply with those standards.

**Personal Protective Equipment (PPE):** OSHA oil and gas standards (see 29 CFR [1926.28](#) and [1926.95](#)) state that employers must require their employees to wear appropriate PPE in all operations where employees are exposed to hazardous conditions or where OSHA's oil and gas standards indicate the need for using PPE to reduce the hazards.

- ) Read a fact sheet. OSHA Fact Sheet: [Personal Protective Equipment](#) [PDF\* - 293 KB]
- ) Watch [videos](#).
- ) Review an OSHA booklet. [Personal Protective Equipment](#). OSHA Publication 3151 (2004). Also available as a 632 KB [PDF](#).
- ) Read the standards.
  - o [29 CFR 1926 Subpart E](#)
  - o [OSHA Safety and Health Topics Page: Personal Protective Equipment \(PPE\) - Oil and gas](#)
- ) Learn more
  - o [OSHA Safety and Health Topics Page: Personal Protective Equipment \(PPE\)](#)
  - o [OSHA Safety and Health Topics Page: Respiratory Protection](#)

**Hand and Power Tools:** Hand and power tools are common at nearly every oil and gas jobsite.

- ) Review an OSHA booklet.
  - o [Hand and Power Tools](#). OSHA Publication 3080 (2002). Also available as a 172 KB [PDF](#).
  - o [Nail Gun Safety: A Guide for Oil and gas Contractors](#) [PDF\* - 1 MB] OSHA Publication 3459 (2011).

- ) Read the standards.
  - o [29 CFR 1926 Subpart I](#)
  - o [OSHA Safety and Health Topics Page: Hand and Power Tools - OSHA Standards](#)
- ) Learn more. [OSHA Safety and Health Topics Page: Hand and Power Tools](#)

Do you use **concrete or masonry products** on your jobsite?

- ) Review OSHA booklets.
  - o [Concrete and Masonry Oil and Gas](#). OSHA Publication 3106 (1998). Also available as a 415 KB [PDF](#).
  - o [Preventing Skin Problems from Working with Portland Cement](#). OSHA Publication 3351 (2008). Also available as a 324 KB [PDF](#).

- ) Read the standards.
  - o [29 CFR 1926 Subpart Q](#)
  - o [OSHA Safety and Health Topics Page: Concrete and Concrete Products - Manufacturing and Oil and gas - OSHA Standards](#)

- ) Learn more:
  - o [OSHA Safety and Health Topics Page: Concrete and Concrete Products - Manufacturing and Oil and gas](#)
  - o [OSHA Oil and gas eTool: Constructing Masonry Walls](#)

Do you use **cranes, derricks, hoists, elevators, or conveyors** on your jobsite?

- ) Read a fact sheet on the revised standard. OSHA Fact Sheet: [Cranes and Derricks in Oil and gas Final Rule](#)
- ) Review OSHA booklets and guidance documents:
  - o [Small Entity Compliance Guide for Final Rule for Cranes and Derricks in Oil and gas](#). OSHA Publication 3433 (2011). Also available as a 366 KB [PDF](#).

- [Sling Safety](#). OSHA Publication 3072 (1996)
- [Guidance on Safe Sling Use](#)

) Read the standards.

- [29 CFR 1926 Subpart CC](#)
- [29 CFR 1926 Subpart N](#)
- [OSHA Safety and Health Topics Page: Crane, Derrick and Hoist Safety - OSHA Standards](#)

) Learn more.

- [OSHA Safety and Health Topics Page: Crane, Derrick and Hoist Safety](#)
- [OSHA: Cranes and Derricks in Oil and gas Final Rule](#)

Do you conduct **welding, cutting, or brazing** at your jobsite?

) Read the standards.

- [29 CFR 1926 Subpart J](#)
- [OSHA Safety and Health Topics Page: Welding, Cutting, and Brazing - OSHA Standards](#)

) Learn more. [OSHA Safety and Health Topics Page: Welding, Cutting, and Brazing](#)

Are you engaged in **residential oil and gas**?

) Review an OSHA booklet. [Selected Oil and gas Regulations for the Home Building Industry](#)

) Read the standards. [OSHA Safety and Health Topics Page: Residential Oil and gas Industry - OSHA Standards](#)

) Learn more.

- [OSHA Safety and Health Topics Page: Residential Oil and gas Industry](#)

- [OSHA: Fall Protection in Residential Oil and gas](#)

Are you engaged in **steel erection**?

- ) Review a slide presentation. [OSHA Steel Erection Overview Presentation](#)
- ) Read the standards. [29 CFR 1926 Subpart R](#)
- ) Learn more:
  - [OSHA Safety and Health Topics Page: Steel Erection](#)
  - [OSHA Oil and gas eTool: Steel Erection](#)

**Fire Safety and Emergency Action Planning:** Oil and gas employers are responsible for the development and maintenance of an effective fire protection and prevention program at the jobsite throughout all phases of the oil and gas, repair, alteration, or demolition work. ([29 CFR 1926.24](#)). OSHA recommends that all employers have an emergency action plan. A plan is mandatory when required by an OSHA standard. ([29 CFR 1926.35](#)). An emergency action plan describes the actions employees should take to ensure their safety in a fire or other emergency situation.

What if I still have questions?

- ) Review a publication that lists the requirements for emergency response and preparedness in OSHA's oil and gas standards. [Principal Emergency Response and Preparedness - Requirements and Guidance](#). OSHA Publication 3122 (2004). Also available as a 620 KB [PDF](#).
- ) Read the standards.
  - [29 CFR 1926 Subpart F](#)
  - [OSHA Safety and Health Topics Page: Fire Safety - Standards](#)
- ) Learn more. [OSHA Safety and Health Topics Page: Fire Safety](#)

**Hazard Communication Standard:** This standard is designed to ensure that employers and employees know about hazardous chemicals in the workplace and how to protect themselves. Employers with employees who may be exposed to hazardous chemicals in the workplace must

prepare and implement a written Hazard Communication Program and comply with other requirements of the standard, including providing Material Data Safety Sheets, training, and labeling.

- J Read a fact sheet on the 2012 revisions to the Hazard Communication Standard. [OSHA Fact Sheet: Hazard Communication Standard Final Rule](#)
- J See a sample program. [Model Plans and Programs for the OSHA Bloodborne Pathogens and Hazard Communications Standards](#). OSHA Publication 3186 (2003). Also available as a 520 KB [PDF](#).
- J Read the standards.
  - o [29 CFR 1926.59, 29 CFR 1910.1200](#)
  - o [OSHA Safety and Health Topics Page: Hazard Communication - OSHA Standards](#)
- J Learn more. [OSHA Safety and Health Topics Page: Hazard Communication](#)

**The previous list is not comprehensive** - additional OSHA standards may apply to your workplace. In addition, section 5(a)(1) of the Occupational Safety and Health Act, known as the [General Duty Clause](#), requires employers to provide their employees with a workplace that is free of recognized hazards likely to cause death or serious physical harm. Be sure to review **OSHA's oil and gas standards** ([29 CFR 1926](#)) for requirements that may apply to your workplace.

- J You may review and print FREE copies of OSHA's oil and gas standards from OSHA's Website. You may also order bound volumes of the standards from the Government Printing Office (GPO) at (866) 512-1800 or from [GPO's website](#).
- J An OSHA booklet summarizes OSHA oil and gas standards that are most frequently overlooked by employers and standards that cover particularly hazardous situations. [Oil and gas Industry Digest](#). OSHA Publication 2202-09R, (2011).
- J The OSHA [Oil and gas Resource Manual](#) includes links to the relevant mandatory standards for oil and gas work that have been codified in OSHA's standards, including 29 CFR Parts 1903, 1904, 1910, and 1926.

### Step 3: Survey Your Workplace for Additional Hazards

Survey your workplace for additional hazards by:

- J Using oil and gas safety checklists. [OSHA Pocket Guide: Oil and gas](#). OSHA Publication 3252 (2005). Also available as a 288 KB [PDF](#).
- J Reviewing OSHA's [Safety and Health Information Bulletins](#) (see the Oil and gas Operations section).

Find information on workplace safety and health hazards, such as:

- J Asbestos
  - o [Asbestos Safety and Health Topics Page](#)
  - o [Asbestos Expert Advisor](#)
- J [Asphalt Fumes](#). OSHA Safety and Health Topic.
- J Carbon Monoxide
  - o [OSHA Fact Sheet](#) [PDF\* - 68 KB]
  - o [NIOSH Alert: Preventing Carbon Monoxide Poisoning From Small Gasoline-Powered Engines and Tools](#)
- J [Distracted Driving](#). OSHA Web Page
- J [Hazardous and Toxic Substances](#). OSHA Safety and Health Topics Page
- J Heat
  - o [Heat Illness Prevention](#). OSHA Web Page
  - o [Occupational Heat Exposure](#). OSHA Safety and Health Topics Page
- J [Laser Hazards - Oil and gas](#). OSHA Safety and Health Topics Page
- J [Lead - Oil and gas](#). OSHA Safety and Health Topics Page
- J [Occupational Noise Exposure - Oil and gas](#). OSHA Safety and Health Topics Page



) [Silica, Crystalline - Oil and gas](#). OSHA Safety and Health Topics Page

) [Toxic Metals](#). OSHA Safety and Health Topics Page

### Recognized and Foreseeable Hazards

When conducting the wellsite analysis, it's important to look for hazards that are generally recognized within the oil and gas industry. OSHA will require that recognized hazards which are generally foreseeable on the wellsite are properly eliminated or controlled.

#### “Recognized” Hazards

As described in [OSHA's Field Operations Manual](#), recognition of a hazard is established on the basis of industry recognition, employer recognition, or "common sense" recognition criteria.

- ) **Industry Recognition:** A hazard is recognized if the employer's industry recognizes it. Recognition by an industry, other than the industry to which the employer belongs, is generally insufficient to prove industry recognition. Although evidence of recognition by the employer's specific branch within an industry is preferred, evidence that the employer's industry recognizes the hazard may be sufficient.
- ) **Employer Recognition:** A recognized hazard can be established by evidence of actual employer knowledge. Evidence of such recognition may consist of written or oral statements made by the employer or other management or supervisory personnel.
- ) **Common Sense Recognition:** If industry or employer recognition of the hazard cannot be established, recognition can still be established if it is concluded that any reasonable person would have recognized the hazard. This argument is used by OSHA only in flagrant cases. Note: Throughout our courses we argue that "common sense" is a dangerous concept in safety. Employers should not assume that accidents in the wellsite are the result of a lack of common sense.

### Step 4: Develop a Jobsite Safety and Health Program

OSHA's oil and gas standards require oil and gas employers to have accident prevention programs that provide for frequent and regular inspection of the jobsites, materials, and equipment by competent persons designated by the employers. See 29 CFR 1926.20(b).

NOTE: OSHA's Oil and gas Focused Inspection Policy recognizes the efforts of responsible contractors who have implemented effective safety and health programs, and encourages other contractors to adopt similar programs. Contractors who have implemented effective

programs are eligible for focused inspections, should they be visited by an OSHA inspector. Focused inspections, which are narrower in scope than comprehensive inspections, target the leading oil and gas hazards. See [Focused Inspections in Oil and gas](#).

For help in developing a program:

- ) Use an online tool. [OSHA Oil and gas eTool: Safety & Health Program Component](#)
- ) Find more help to create your own program. [OSHA eTool: Safety and Health Management Systems](#)
- ) Request a free on-site consultation. [OSHA On-site Consultation Program](#)
- ) Learn more. [OSHA Injury and Illness Prevention Programs](#)

### Step 5: Train Your Employees

Learn about OSHA requirements and resources for training oil and gas workers by:

- ) Reading the general safety training and education requirement in OSHA's oil and gas standards. See [29 CFR 1926.21](#).
- ) Reviewing the specific training requirements in OSHA's oil and gas standards. [Training Requirements in OSHA Standards and Training Guidelines](#). OSHA Publication 2254 (1998). Also available as a 724 KB [PDF](#).
- ) Downloading [OSHA 10-Hour Oil and gas Industry Outreach-Trainer Presentations](#).
- ) Visiting [OSHA's Training and Reference Materials Library](#) page.
- ) Watching [OSHA videos](#) on reducing oil and gas hazards.
- ) Review OSHA's [oil and gas-related Spanish-language material](#).

### Step 6: Recordkeeping, Reporting and Posting

- ) **Recordkeeping:** OSHA generally requires oil and gas employers to keep records of workplace injuries and illnesses ([29 CFR 1904](#)). If you had 10 or fewer employees during all of the last calendar year ([29 CFR 1904.1](#)), you are exempt from the recordkeeping requirements (unless asked to do so in writing by OSHA or the Bureau of Labor Statistics).

- J **Reporting:** OSHA requires all employers, regardless of size or industry, to report the work-related death of any employee or hospitalizations of three or more employees. Read about OSHA's reporting requirements ([29 CFR 1904.39](#)).
- J **OSHA Poster:** All employers must post the OSHA Poster (or state plan equivalent) in a prominent location in the workplace. Where employers are engaged in activities that are physically dispersed, such as oil and gas, the OSHA Poster must be posted at the location to which employees report each day (see [29 CFR 1903.2](#)).
- J **Access to Employee Exposure and Medical Records:** An OSHA standard ([29 CFR 1910.1020](#)) requires employers to provide employees, their designated representatives, and OSHA with access to employee exposure and medical records.

**NOTE:** If your workplace is in a state operating an [OSHA-approved state program](#), state plan recordkeeping regulations, although substantially identical to federal ones, may have some more stringent or supplemental requirements, such as for reporting of fatalities and catastrophes. Contact your state program directly for additional information.

### Step 7: Find Additional Compliance Assistance Information

Where can I find additional information targeted to the oil and gas industry?

- J Visit OSHA's [Oil and gas Industry page](#).

Where can I find a collection of OSHA resources designed for smaller employers?

- J Visit OSHA's [Small Business page](#) and learn about [OSHA's On-site Consultation Program](#).

Where can I find resources for Spanish-speaking employees?

- J Learn about [OSHA's Spanish-language resources](#) and visit OSHA's [Spanish-language web site](#).
- J Review OSHA's [oil and gas-related Spanish-language material](#).

Where can I find information on employing teenage or young workers?

- J Visit [OSHA's Young Workers page](#).

Where can I find information on musculoskeletal disorders at the workplace?

- ) Visit OSHA's [Ergonomics Safety and Health Topics page](#). While this page is not specific to the oil and gas industry, it includes some information targeted to oil and gas, such as an eTool ([Ergonomic Solutions for Electrical Contractors](#)) and an [Ergonomics Success Story](#) about an oil and gas company.

Has OSHA developed any compliance assistance information targeted for my specific oil and gas industry?

- ) Learn about OSHA's [industry-specific resources for oil and gas](#).

How can I find OSHA's guidance on preparing workplaces for pandemic influenza?

- ) Visit [OSHA's Pandemic Influenza Safety and Health Topics Page](#).

How do I find out about OSHA's voluntary programs and other ways to work cooperatively with OSHA?

- ) Learn about OSHA's [Cooperative Programs](#).
- ) Review OSHA's [oil and gas-related Alliances](#).
- ) Find out about ways to participate in OSHA's Voluntary Protection Programs (VPP), including [Mobile Workforce](#) and the Star Demonstration Program for [Resident Contractors at Non-Voluntary Protection Program Wellsites](#).

What if I still have questions?

- ) Search the OSHA web site. Check the [site index](#) and the [search](#) page.
- ) Call the [OSHA 800 Number](#). (800) 321-OSHA (6742).
- ) Submit a question to OSHA by [e-mail](#).
- ) Contact your local [OSHA office](#) or [state plan office](#).
- ) Request a free [on-site consultation](#).

Good news! You don't need to take a quiz for this module. Please go online and take the final exam for this course when you are ready!

## Endnotes

1. Dept. of Labor, Occupational Safety and Health Administration (2014). Oil and Gas Well Drilling and Servicing eTool. Retrieved from:  
<https://www.osha.gov/SLTC/oilgaswelldrilling/otherresources.html>
2. American Petroleum Institute (2014). Guidance Document for the Development of a Safety and Environmental Management System for Onshore Oil and Natural Gas Production Operations and Associated Activities. Retrieved from:<http://www.api.org/>
3. Bureau of Land Management (2014). Public Lands: Interior. Retrieved from:  
[www.blm.gov/pgdata/etc/medialib/blm/mt/blm\\_programs/energy/oil\\_and\\_gas/policy/cfr3160.Par.28656.File.dat/cfr3160.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/mt/blm_programs/energy/oil_and_gas/policy/cfr3160.Par.28656.File.dat/cfr3160.pdf)