

Contractor Safety Performance Process

API STANDARD 2220
THIRD EDITION, OCTOBER 2011



AMERICAN PETROLEUM INSTITUTE

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Downstream Segment

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Foreword

This standard is intended to assist petroleum and petrochemical industry facility owners and their contractors in improving their safety programs with resulting health and safety benefits for all employees. The standard defines a basic approach for managing and improving contractor safety. It is supplemented by the American Petroleum Institute's (API) Recommended Practice 2221 *Contractor and Owner Safety Program Implementation*, which includes a number of annexes as samples of approaches used at some facilities, plus supplemental information. These two standards identify elements of contractor safety and health programs and provide guidance to refinery and petrochemical plant owners for designing and implementing effective programs. Contractors can also benefit from understanding the owner's program and by establishing a complementary programs of their own.

This document addresses traditional safety concerns. It does not address safety issues related to security. API has published two resources to assist evaluation of overall security needs: *API Security Guidelines for the Petroleum Industry*, April 2003 and *API/NPRA Security Vulnerability Assessment Methodology for the Petroleum and Petrochemical Industries*, 3rd Edition, April 2005. These documents (available from the API web site at www.api.org) may help facilities identify needs for special attention to security issues such as adversary identification associated with on-site presence of contractors as a route for infiltration by outsiders. Additional guidance continues to be developed through joint industry action in cooperation with Homeland Security.

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Suggested revisions are invited and should be submitted to the Standards Department, API, 1220 L Street, NW, Washington, DC 20005, standards@api.org.

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Introduction

Owners and contractors shall provide safe workplaces and protect the safety and health of their work forces. When they work together to improve the safety and health of contractors, both benefit. Benefits that come from a comprehensive and systematic contractor safety program include the following.

- a) Safety and well-being of contractor and owner employees are improved.
- b) Improved quality and productivity result from implementation of a comprehensive contractor safety program which requires that workers be properly trained for their job tasks, are familiar with their job requirements and conform to procedures.
- c) Fewer incidents result in more controllable project costs and less need for regulatory action.
- d) The potential for damage to the owner's facility and the contractor's equipment is minimized.

Application of any section of this publication should be based on a management decision that takes into account the type of work, the level of risk and the expected safety performance. This is not a compliance guide although mention is made of some areas where regulatory requirements may apply, such as those (in the U.S.) of OSHA, DOT, or EPA. It is always the responsibility of owners and contractors to review and comply with their respective legal requirements and obligations.

Contractor Safety Performance Process

1 General

1.1 Objectives

The purpose of this standard is to assist owners and contractors in developing, improving and maintaining their mutual safety programs. Widely diverse contractor functions and uses may include resident, non-resident, long-term and short-term contractors. These have in common the need for effective safety programs to protect both owner and contractor personnel from workplace injury and illness, as well as from losses associated with incidents arising out of contractor work. This standard aims to help both owners and contractors improve the contractor's safety performance while preserving the independent contractor relationship. It was developed for the petroleum and petrochemical industries and the firms that perform contract work for them.

1.2 Scope

Contractors perform greatly varied work within the petroleum and petrochemical industries. Some perform construction and turnaround activities or drilling and well servicing; specialty contractors provide skills and services that are not typically found within an owner's work force. Contractors may even provide services that augment the peak loads and skills of owners' work forces, such as in the maintenance and operation of facilities. Since owner sites and contracted work are diverse, this standard may not be applicable to all operations at each company or to all contract work performed in those operations. As such, this publication may not apply to incidental contractors that generally do not affect facility safety, such as those that provide janitorial, laundry and delivery services.

This document addresses "conventional" safety and health. It does not address safety concerns associated with security or terrorism issues.

1.3 Elements of a Contractor Safety Management Program

A comprehensive contractor safety and health process contains, but is not limited to, the following elements shown in the Figure 1 flow chart:

— Contractor Safety Management System

A written plan shall be developed by the owner that identifies specific objectives and documents necessary procedures. This clearly defines and assigns accountabilities; establishes measurement and evaluation criteria; and provides a system for feedback and improvement. The management system requires regulatory compliance.

— Potential Contractor Pre-qualification

The owner shall use a defined mechanism to pre-qualify contractors for consideration for work at a facility.

— Contractors Selected

Bidding contractors shall ensure that their employees are qualified to perform the type of work to be done. The selection process shall ensure that the contractor understands the scope of work, and that the contractor meets the site and regulatory safety and health requirements.

— Pre-job Verification

The owner shall verify that the contractor is familiar with the location, facility, personnel, facility contractor program, hazards, facility requirements and other work information before work begins.

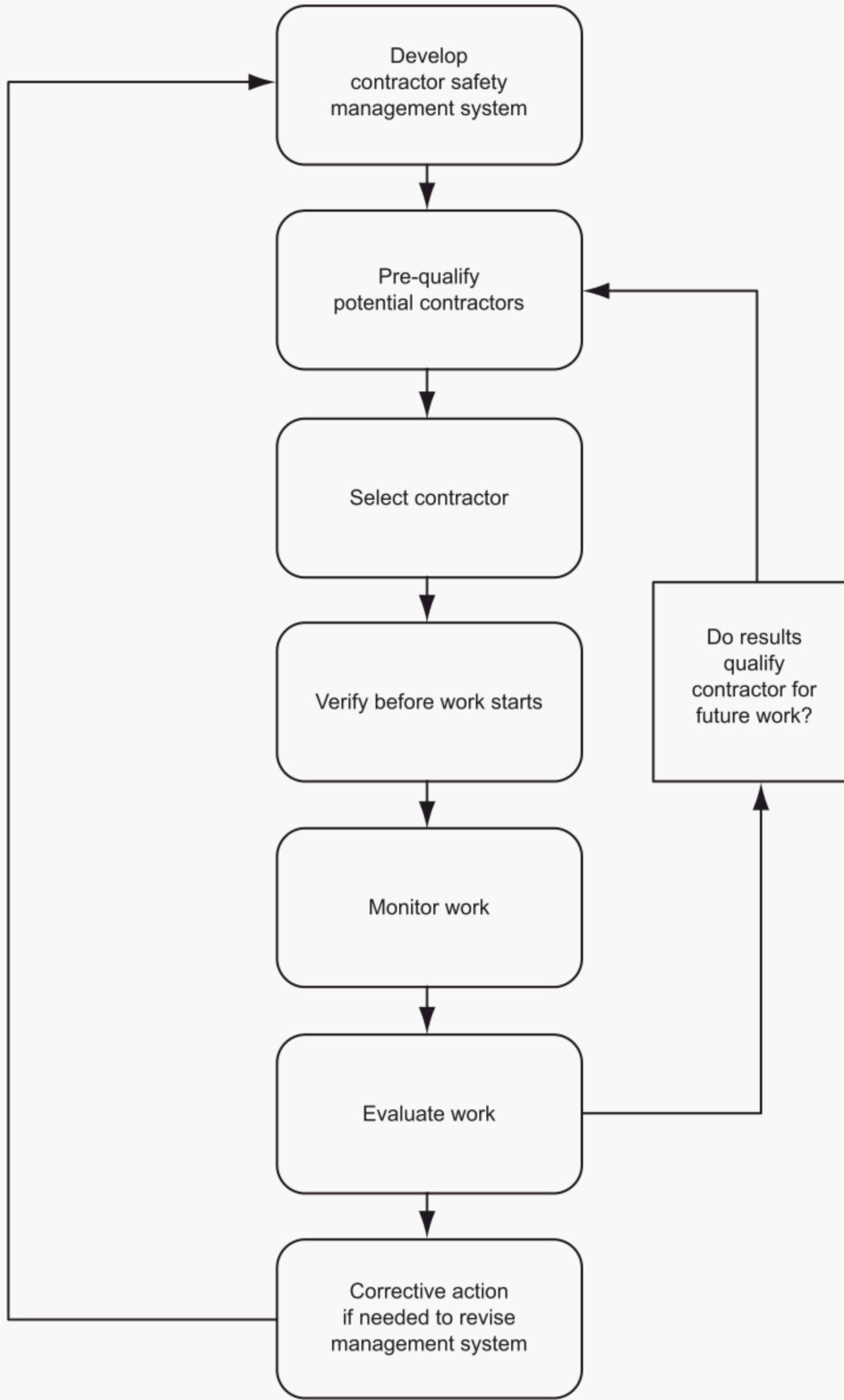


Figure 1—Contractor H&S Program Management Elements

— **Monitoring Work-in-Progress**

The owner shall monitor contractor activities while the work is being conducted, including periodic evaluation of contractor safety and health performance and contractor's compliance with safety and health requirements.

— **Work Evaluation**

At the completion of the contracted work, the owner shall evaluate the overall performance of the contractor and determine if the safety results qualify the contractor to remain on the "bid list" of pre-qualified contractors.

— **Corrective Action**

After evaluating contractor performance, the owner determines whether changes in the contractor safety program are necessary based on work evaluations of contractor performance, and then implements these as revisions of the basic contractor management system.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. General safety standards appear in Annex F along with a bibliography of historical or useful references.

API *Security Guidelines for the Petroleum Industry*, Third Edition, April 2005

API Recommended Practice 76, *Contractor Safety Management for Oil and Gas Drilling and Production Operations*

API Recommended Practice 2221, *Contractor and Owner Safety Program Implementation*

ANSI/ASSE Z490.1^{1, 2}, *Criteria for Best Practices in Safety, Health & Environmental Training*

API-NPRA³, *Security Vulnerability Assessment Methodology for the Petroleum and Petrochemical Industries*, 2nd Edition, October 2004

U.S. DOT⁴, 49 *Code of Federal Regulations* Parts 190 – 199

U.S. EPA⁵, *Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act*, 40 CFR Part 68, Section 112(r)(7)

U.S. OSHA⁶, 29 *Code of Federal Regulations* Parts 1910 & 1926

U.S. OSHA, 29 *Code of Federal Regulations* 1904 *Occupational Injury and Illness Recording and Reporting Requirements*

U.S. OSHA, 1910.119, *Process Safety Management of Highly Hazardous Chemicals*

U.S. OSHA, 1910.132-139, *Subpart I, Personal Protective Equipment*

¹ American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, New York 10036, www.ansi.org.

² American Society of Safety Engineers, 1800 East Oakton Street, Des Plaines, Illinois 60018, www.asse.org.

³ National Petrochemical & Refiners Association, 1899 L Street NW, Suite 1000, Washington, DC 20036, www.npradc.org.

⁴ U.S. Department of Transportation, 1200 New Jersey Ave, SE, Washington, DC 20590, www.dot.gov.

⁵ U.S. Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, Washington, DC 20460, www.epa.gov.

⁶ U.S. Department of Labor, Occupational Safety and Health Administration, 200 Constitution Avenue, NW, Washington, DC 20210, www.osha.gov.

U.S. OSHA, 1910.1200, *Hazard Communication*

U.S. OSHA, Publ 2254, *Training Requirements in OSHA Standards and Training Guidelines* (1998—Revised)

3 Terms and Definitions

For the purposes of this document, the following definitions apply.

3.1

approved contractor list

A list developed by owners that includes all qualified and approved contractors (and subcontractors).

3.2

contractor

General contractors, self-employed contractors, subcontractors (general or self-employed) working on construction, maintenance/repair, major renovation, turnarounds, or specialty services, in or around process equipment, laboratories, pipelines, terminals, utilities and other petroleum and petrochemical facilities and equipment. For the purposes of the requirements of this standard, the term contractor includes subcontractors, short-term contractors and small contractors.

3.3

covered process unit

Facility that meets the applicability requirements of the OSHA Process Safety Management Standard 29 *CFR* 1910.119 or the U.S. EPA Risk Management Plan 40 *CFR* 68.

NOTE OSHA PSM specifically exempts oil and gas well drilling and servicing operations and the storage of flammable liquids in atmospheric tanks that are not directly connected to a process unit.

3.4

days-away case rate

The number of injury or illness cases resulting in days away from work for each 200,000 hours worked.

3.5

EMR

Workers Compensation Experience Modification Rate (EMR) is an insurance premium adjustment that anticipates future performance based on past experience. A low EMR (below 1.0) implies good historical safety performance.

3.6

EPA

U.S. Federal Environmental Protection Agency.

3.7

general contractor

A general contractor undertakes overall responsibility for the specific work activity. General contractors might use one or more subcontractors to conduct various elements of the overall job.

3.8

hazard

A condition or inherent physical or chemical characteristic (flammability, toxicity, corrosivity, stored chemical, electrical, hydraulic, pressurized or mechanical energy) that has the potential for causing harm or damage to people, property, or the environment.

3.9**industrial hygiene**

The science or art devoted to the anticipation, recognition, evaluation, and control of those environmental factors (stresses) arising in or from the workplace which may cause sickness, impaired health and well being, or significant discomfort among workers or among citizens of the community.

3.10**injury/illness incidence rate**

The number of OSHA recordable (or equivalent) injuries and illnesses per 200,000 hours worked (the annual exposure base for 100 full-time workers).

3.11**long-term contractor**

Contractors who are on-site for long-term projects. Long-term contractors provide services over an extended period of time in the facility.

3.12**NAICS (North American Industry Classification System)**

The replacement for the former SIC system.

3.13**near miss**

An incident or situation with the potential for injury or property damage which did not occur.

3.14**non-resident contractor**

Non-resident contractors are used for short-term highly specialized jobs or jobs of short duration.

3.15**OSHA**

U.S Federal Department of Labor, Occupational Safety and Health Administration.

3.16**overlay**

Owner or contractor-added safety and health requirements which go beyond those required by OSHA or other regulatory agencies.

3.17**owner**

Person or business entity responsible for a facility, including the health and safety requirements. (Sometimes referred to as host employer.)

3.18**PQF**

Pre-qualification Form questionnaire, which collects information from a potential contractor in order for the owner to evaluate the safety philosophy and programs of the contractor. Sample PQFs can be found in API 2221 appendices.

3.19**prime contractor**

The contractor given the contract by the owner to perform work. A contractor may employ subcontractors. See **contractor**.

3.20**PSM**

Process Safety Management (most often based on OSHA regulation 29 *CFR* 1910.119).

3.21**resident contractor**

Contractors who are on-site for long-term projects. Resident contractors provide services over an extended period of time in the facility.

3.22**risk**

The probability of exposure to a hazard which could result in harm or damage.

3.23**risk assessment**

The identification and analysis with judgements of probability and consequences, either qualitative or quantitative, of the likelihood and outcome of specific events or scenarios that result in harm or damage.

3.24**risk-based analysis**

A review of potential hazards and needs to eliminate or control such hazards based on a formalized risk assessment.

3.25**short-term contractor**

A contractor used for short-term highly specialized jobs or jobs of short duration.

3.26**SIC Code**

Standard Industrial Classification—now called NAICS (North American Industry Classification System).

3.27**small contractor**

Contractors who employ less than 10 people company-wide, based on local circumstances.

3.28**subcontractor**

Contractor employed by another contractor (usually the prime contractor) who works for an owner. For the purposes of the requirements of this guide, the term contractor, subcontractor, short-term contractor, and small contractor all are “contractors.”

4 Owner Action to Improve Contractor Safety Performance

4.1 General

Owners contribute to improved contractor safety performance through actions that may include the following:

- a) making a deliberate management decision to establish an effective ongoing program that uses specific safety performance criteria for selecting contractors;
- b) including specific safety language in contracts between owners and contractors;
- c) including site-specific safety and health requirements in contractor bid packages;

- d) providing hazard communication information (including MSDSs) and communicating the need for hazard assessment and related industrial hygiene monitoring;
- e) establishing specific training requirements for contractors;
- f) conducting meetings before bid submission to address specific contractor safety requirements;
- g) requesting safety and health information from each prospective contractor and evaluating it during the selection process;
- h) conducting pre-job meetings that specifically address safety expectations;
- i) requiring formal contractor safety orientations;
- j) reviewing the safety and health performance of contractors working on the owner's sites, with the expectation of continuous improvement;
- k) maintaining on-site copies of Occupational Safety and Health Administration (OSHA) injury and illness statistics or, when OSHA statistics are not applicable, other measures of safety performance for all contractors at each location;
- l) using safety performance information to evaluate contractors.

4.2 Owner Commitment To Improved Contractor Safety Performance

Common to all successful contractor safety programs are the owners' commitment to, and continued support of, the programs. The owners' commitment and support are essential in minimizing incidents and preventing injuries and illnesses. Effective contractor safety programs require the owners to focus resources on safety and to review how contractor safety is being addressed. To emphasize their commitment, many owners incorporate the need for contractor safety in senior management policy statements on health, safety and the environment.

4.3 Contract Safety Language

Although "standard" safety language (e.g. "the contractor must comply with all federal, state, and local safety regulations") should be included in a contract, additional safety language may be necessary to clearly convey the owner's expectations. To minimize the need to modify the owner's existing contract language, a specific safety addendum can be developed and attached to the contract when more detailed safety requirements must be addressed for a particular project or work activity. Annex A provides examples of contract safety language and a safety addendum.

4.4 Contractor Bid Package and Prebid Safety Meeting

An owner can inform a contractor of its safety expectations by clearly outlining its safety performance requirements in its bid package. Such a prebid package should define the safety standards the contractor is expected to meet. Bid packages and subsequent safety meetings may not be practical for certain projects, such as short-term, non-process-related projects. The owner may require the contractor's program to meet safety standards that are at least equal to the owner's. The owner should request specific safety information from the contractor that can be used as part of the selection process, and for the proposal to be complete, it is critical that the contractor provide this information in a clear manner. (A prebid meeting may be useful to reinforce this point.) In addition, the contractor should be informed of the selection criteria and, where appropriate, that the lowest bid will not necessarily be selected. Annex B provides an example of the type of information that may be requested in a prebid package or during a prebid meeting.

4.5 Including Site-Specific Safety and Health Requirements In the Bid Package

Safety procedures vary among companies and job sites and may have a significant impact on a contractor's proposal and subsequent work. Therefore, even though the contract language and prebid package include the requirement to follow all rules and regulations, it is important that before the contract is awarded, each bidder be made aware of the specific job-site safety rules that will apply. Safety and health requirements for the contractor should be consistent with the requirements established by the owner for its employees, including industrial hygiene assessments of activities for chemical or physical exposures.

4.6 Selecting a Contractor

The selection of a qualified contractor is a major step toward obtaining safe contractor performance. An owner can evaluate a contractor's safety program by using the safety information furnished by the contractor in response to the prebid request. API 2221, *Contractor and Owner Safety Program Implementation* provides extensive guidance, tools and examples of approaches used for contractor selection. Additional information directed toward upstream oil activities appears in API 76, *Contractor Safety Management for Oil and Gas Drilling and Production Operations*.

The following points can indicate the quality of a contractor's safety performance:

- a) The contractor's commitment to safety, as demonstrated by an ongoing safety program that is supported by its top management.
- b) The completeness of the contractor's safety programs and their appropriateness for the work site and the safety standards of the owner.
- c) The contractor's response to prebid PQF safety information requests (see Annex B), which may include the following.
 - 1) Injury and illness incidence rates.
 - 2) Experience modification rates, if applicable (see Annex C).
 - 3) The contractor's safety staffing plan. The plan describes the on-site person or persons appointed by the contractor and subcontractor who will be responsible for safety. It also describes their expertise and authority.
 - 4) A description of the safety orientation program to be provided by the contractor to all contractor employees on-site.
 - 5) The contractor's enforcement and disciplinary action program regarding safety violations.
 - 6) The contractor's policy and programs regarding alcohol, controlled substances, and firearms.
 - 7) A list of safety equipment that will be provided by the contractor.
 - 8) A narrative from the contractor's viewpoint that identifies the significant hazards of the job and a listing of the steps that will be taken to eliminate or minimize the potential for accidents.
 - 9) A description of the contractor's programs to comply with applicable regulatory requirements (e.g. U.S. OSHA, EPA, Department of Transportation, Bureau of Ocean Energy Management, Regulation and Enforcement; state governments or other jurisdictions).
 - 10) A description of the contractor's employee training program.
 - 11) A description of the contractor's employee selection process and whether it includes security screening.

As part of the commitment described in 4.2, an owner's management must make it clear that high-quality safety programs and high-safety performance will be key elements in the selection and post-work evaluation of any contractor.

4.7 Site Training Requirements for Contractors

The information submitted by a contractor in response to an owner's prebid request (PQF) should address employee training. (See Annex B in this document for a brief outline of one typical PQF or Annex B of API 2221 for a comprehensive example.) Prior to starting work, the contractor employees should have completed training which satisfies regulatory, skill and facility requirements. The contractor submission may describe any additional specific training objectives the contractor intends to accomplish before and during the project. This information provides the owner an opportunity for an initial review of the contractor's training priorities. Subsequent discussions can then further define and determine responsibility for specific training that contractor employees need before the contractor can qualify for the work being bid.

4.8 Pre-job Safety Meeting

After the contract has been awarded, a pre-job safety meeting should be held between the contractor and the owner. The owner's representatives should discuss the specific safety requirements of the project with the contractor's representatives who will be directly responsible for the planned work. This discussion is important because the contractor's representatives who attend the meeting may not be the same individuals who prepared the bid or attended the prebid meeting.

4.9 Safety Orientation of the Contractor's Work Force

Before work is started, the owner should identify and present to the contractor's management important safety rules required by the owner for working on company property. All or part of this information may be used in the safety orientation by the owner or the contractor. This information is typically communicated through one or more of the following: written material, a safety handbook, a video recording, and verbal instructions. Annex D provides a list of items that are typically included in a contractor safety orientation.

4.10 Reviewing Contractors' Safety Performance

The owner should periodically review its job site to verify that contractors performing work on-site have effective safety programs that address applicable safety and health regulations and comply with the safety provisions in the contract. Conducting periodic reviews of the job site jointly with the contractors' supervisory personnel is an effective way to assess the contractors' compliance with the contract. Using an evaluation checklist like the one shown in Annex E can assist in the review effort.

4.11 Maintaining Safety Statistics for Contractor Performance

The owner's awareness of contractor safety performance, by means of job-site injury and illness statistics, provides two immediate benefits.

- a) Incidence rates can be calculated in accordance with recommendations given in Annex C and Annex D. These incidence rates can be used to measure the effectiveness of contractors' accident prevention programs.
- b) Demonstrating that the owner is interested in safety performance throughout the duration of the project emphasizes to contractors that satisfactory performance extends far beyond prebid and pre-job submittals and discussions.

As a minimum, the owner should request copies of all job-site OSHA Form 300 logs or, when U.S. OSHA statistics are not applicable, other measures of safety performance; the corresponding employee-hours worked; and a copy of

the accident investigation report for each on-site recordable injury or illness case experienced by the contractor and its subcontractors while carrying out the contract. For work in the U.S., recordkeeping shall comply with OSHA *CFR* 1904.

4.12 Safety Performance and Evaluation

Each completed contractor project should be reviewed not only for the quality of the work, adherence to the schedule, and cost but also for the effectiveness of the contractor's safety program. This overall assessment may be used by the owner in its future bid lists. Contractors that have demonstrated a higher sustained level of safety performance and have achieved the safety goals established by the owner should be considered for inclusion in these lists. Contractors should be aware that they will be held accountable for good safety performance and that it can affect their potential for inclusion on future bid lists as shown in Figure 1.

5 Contractor Action to Improve Safety Performance

5.1 General

Although an owner's expectations can affect the contractor's safety performance, the commitment of the contractor's management to safety is essential because each contractor is in the best position to know how to attain improved safety performance. The actions described in 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, and 5.8 support the attainment of this principle.

5.2 Compliance With Owner's Safety Expectations

The contractor's ability to meet or exceed the safety expectations of owners has grown in importance in recent years. Understanding the recommendations given in Section 4 will help the contractor to meet owner expectations and identify steps that can be taken to improve safety performance.

5.3 Accident Prevention and Investigation

To help prevent accidents, the contractor is expected to report any workplace hazards, irrespective of their cause, to the owner. Occupational injuries, illnesses, and incidents should be immediately reported to the owner; their cause should be identified; and actions should be taken to prevent their recurrence. The contractor should investigate and document accidents, injuries, illnesses, and near misses. The owner may participate in these investigations.

5.4 Safety Inspections

Performing safety inspections of ongoing work is important to program success. Although the owner may conduct periodic surveys of the contractor's work, frequent and thorough safety inspections performed by the contractor are necessary.

5.5 Safety Training

The owner expects the contractor's personnel to be knowledgeable about their assigned duties. This includes all applicable requirements for safety, health, and fire prevention associated with the performance of their work. As evidence that its personnel have been trained to perform their assigned duties, the contractor should provide documentation of its employee training. The documentation should include the names of those trained, the course content, the date the course was held, and the names of the instructors.

OSHA provides a guide to mandatory training in their Publ 2254 *Training Requirements in OSHA Standards and Training Guidelines*. ASSE/ANSI Z490.1 *Criteria for Best Practices in Safety, Health & Environmental Training* is frequently referenced as a training resource.

NOTE It is understood that the contractor will review with the owner the relevant site-specific safety, health, fire protection, and emergency information.

5.6 Medical Care

Proper treatment of occupational injuries can often improve recovery rates and reduce the time away from the job. Contractors involved in large projects that require greater medical response capability than basic first-aid training should consider using a nurse, paramedic, or physician with “occupational medicine” experience. Familiarizing the medical support staff with the project, the type of work that will take place, and the hazards that are anticipated may also improve medical care.

5.7 Emergency Response Plans

Proper attention by the contractor and owner to the development of emergency response plans increases the probability that the desired response will take place. Periodic drills should be conducted to practice and improve the plans.

5.8 Incentive Programs

Motivational programs, such as awards for a contractor employee or employees who achieve specified safety goals, may improve safety performance when properly implemented. Specified goals may, for example, focus on meeting goals for safety meetings, training completion, safety audits, hazard identification or JSAs.

5.9 Industrial Hygiene

A process should be in place to determine the need for exposure controls by evaluating worker exposure to physical and chemical hazards. Qualitative or quantitative assessments should be performed for tasks identified with potential for harmful exposure. Corrective measures shall be taken to control exposure risks if results identify needs. All contractor assessments should be documented and results made available to contract employees and the owner.

From a practical standpoint, the owner may agree to provide IH monitoring as a service or monitoring may be done by the contractor or by a third party. The key element is ensuring that required monitoring is defined and done both to satisfy any specific legal or regulatory compliance needs and to address any owner programs not specifically required by law.

6 Effective Safety and Health Communication

Ongoing safety and health discussions between the owner and the contractor are necessary if the contractor safety program is to be effective. Both parties have a reciprocal responsibility to inform the other regarding potential hazards related to conditions or materials (in the owner’s workplace or brought on-site by the contractor—including the availability of Material Safety Data Sheets). This information should be used when establishing safety program requirements. Conducting a hazard evaluation (such as required by OSHA 1910.132 in the U.S.) not only provides a basis for determining personal protective equipment (PPE) needs, but also helps define the need for IH monitoring.

Special safety and health conditions may arise that might not have been discussed or identified during the prebid and pre-job safety discussions, the subsequent safety meetings, the safety manuals, or the written safety rules, and these conditions should be anticipated as the work progresses. Therefore, open communication must be maintained between the owner and the contractor, as well as the contractor’s work force. No limitations should be placed on the identification and discussion of any safety and health issues. The identification and discussion of relevant safety and health issues should be emphasized throughout the performance of the contract.

Annex A (informative)

Contract Safety Language and Contract Addendum

A.1 Examples of Contract Safety Language

A.1.1 Example 1—Regulatory Compliance

“The contractor shall comply with all federal, state, and local government laws and regulations and owner job-site rules for safety, health, and fire protection.”

A.1.2 Example 2—Contractor Responsibility

“It shall be the contractor’s responsibility to become fully acquainted with applicable safety and health laws and regulations prior to commencing work.”

A.1.3 Example 3—Contractor Notifications To Owner

“The contractor and any subcontractor or agent shall inform the owner of any notices, warnings, or asserted violations issued by any government agencies relative to the contracted work. In addition, the contractor shall immediately report governmental inspections, and the results of the inspections, to the owner’s representative. Where advance notice is given of an inspection, the contractor shall report it to the owner’s representative upon the arrival of the inspector or inspectors.”

A.1.4 Example 4—Contractor General Safety Duty

“The contractor shall take all necessary precautions to keep the work site free from recognized hazards that are likely to cause injury, death, illness, or damage to property.”

A.1.5 Example 5—Compliance With Legal and Site Requirements

“The contractor will adhere to all legally-mandated and generally-accepted practices of safety and workmanship and to site safety standards or job work rules to avoid injury to workers and others and damage to equipment, materials, and property.”

A.1.6 Example 6—Safety-Related Work Termination

“The owner may suspend work at any time or terminate the contract for a pattern of frequent failure to adhere to safety laws and regulations or the owner’s established on-site safety procedures.”

A.1.7 Example 7—Denial of Site Access

“The owner may deny access to the site by the contractor and its employees if, in the owner’s sole judgement, such action is justified on the basis of safety or security policy or concerns.”

A.1.8 Example 8—Owner Access To Contractor Work Areas

“The contractor will allow the owner to enter any and all work sites to audit for compliance with the terms of this contract, including all addenda.”

A.1.9 Example 9—Safety Training Records

“The contractor agrees to maintain current records covering safety and health training for employees working on this project for the duration of this contract and agrees to make these records available to the owner for review, at the owner’s request.”

A.2 Example of a Contract Addendum: Flare Repair

NOTE The following is a hypothetical example and is provided for illustrative purposes only. Actual addenda may vary in details and tasks covered.

“The contractor must adhere to the following safety requirements when performing maintenance on an inactive flare line that is in near proximity to a live flare.

- a) To prevent adjacent live flare smoke and by-products of combustion from entering the contractor work area, maintenance activity in the inactive flare pit will only be allowed when the wind is blowing in a NE/N/NW direction.
- b) The owner’s radiant heat calculations verify that radiant heat will not be significant within the “safe zone,” which is 500 ft from the flare center.
- c) Contractor personnel shall obey posted signs that restrict their access to the adjacent live flare area. Evidence of training in this area shall be documented and presented to the owner’s safety representative on-site.
- d) Whenever possible, material will be prefabricated outside the flare pit to further minimize exposure.
- e) A contractor employee shall be assigned to monitor the wind condition at all times. This person shall have radio communication with the owner’s operations department and shall be capable of initiating an evacuation when necessary.
- f) Escape routes will be planned, the contractor’s employees will be trained on the escape routes, and training will be documented.
- g) No synthetic clothing will be allowed in the inactive flare repair area.
- h) The contractor will provide first-aid capabilities, including water-gel-type fire blankets.
- i) A full-time safety person shall be assigned to the project and will be on-site whenever work activities must take place in the inactive flare repair area.
- j) Based on the uniqueness of this project, the owner requires all contractors to attend a 15-minute safety briefing at the start and end of each shift.”

Annex B (informative)

Bid Package: Request For Information

As part of the contractor's proposal and bid, the following safety-related information may be requested from the contractor by the owner.

- a) A written safety policy endorsed by the contractor's top management.
- b) The contractor's safety manual.
- c) The contractor's staffing plan for safety program implementation.
- d) The contractor's number of OSHA (or equivalent) recordable cases, lost workday cases with days away from work, lost workdays and restricted work cases, and days lost, along with hours worked for the current and previous 3 years. Fatalities should be listed separately, with detailed explanations provided.
- e) The contractor's experience modification rate (EMR), if applicable, for the previous 3 years (see Annex C).
- f) A description of the initial employee safety orientation program proposed by the contractor.
- g) A disciplinary action procedure that addresses safety-related infractions.
- h) A list of the types of safety equipment that the contractor anticipates will be used, including personal protective equipment (PPE) and equipment that the owner may be requested to supply.
- i) A narrative that identifies what the contractor perceives to be the significant hazards of the work to be performed and the contractor's plan to eliminate or minimize the potential for an incident that could result in an occupational injury or illness.
- j) A description of the contractor's hearing conservation program if noise levels are expected to exceed 85 dB(A).
- k) A description of how the contractor's on-site job manager and supervisors are held accountable for safety performance and how performance is monitored, assessed, and communicated to them.
- l) A description of the contractor's accident investigation procedures and the types of incidents that are investigated. Copies of the accident investigation forms to be used should be included.
- m) A description of the manner in which safety inspections will be performed, a list of who will perform them, and the proposed frequency of the inspections.
- n) A description of the types of safety, health, and fire training the contractor's work force has received or will receive and if these are intended to conform to specific relevant regulations.
- o) A description of how often safety meetings are conducted, who presents and attends the meetings, and how the topics are selected.
- p) A description of the safety incentive program (if the contractor anticipates that one will be used).
- q) A description of the contractor's policies and programs relating to alcohol, controlled substances, and firearms.

- r) A description of how the contractor's safety programs apply to subcontractors and of the method by which successful implementation of, and compliance with, the programs will be assured.
- s) A description of employee selection practices including security screening of personnel working in sensitive positions.
- t) A description of the contractor's hazard communication and hazard evaluation procedures.
- u) A description of the contractor's industrial hygiene procedures and what support will be requested from the owner.

Annex C (informative)

Workers Compensation Experience Modification Rates

Workers' compensation experience modification rates (EMRs) are used by the U.S. insurance industry to determine premiums for workers' compensation insurance. An EMR less than 1 indicates better than average injury and illness performance, and an EMR greater than 1 indicates below-average performance. An owner can get an indication of a contractor's past safety performance by reviewing the contractor's EMR. A comparison of the EMRs of contractors bidding on a project may improve the selection process.

It is important to note, however, that EMRs are not applicable to all work locations and that there are three types of EMRs, none directly comparable with any of the others. Because of this and the fact that some contractors self-insure, the use of EMRs may not always be appropriate.

In the U.S., some states do not allow commercial workers' compensation insurance and do not participate in the National Council on Compensation Insurance (NCCI) rating program. Another group of states allows commercial insurance, but each state's rating bureau develops its own set of experience modification factors. Other states participate in the National Council on Compensation Insurance's interstate experience system, but the rating bureaus develop their own experience modifiers for employers who only employ people within their respective states. Comparable systems may be used in other countries outside the U.S.

Insurance and risk management personnel should be consulted to determine what system is in current use in the state, country or jurisdiction in which the work is to be done.

EMR data can be solicited as follows: "List your firm's (or division's) experience modification rate for the three most recent years."

NOTE The National Council on Compensation Insurance web site at www.ncci.com has resources and publications on workers compensation. When this standard was written the site included an eLearning Center with units on the "Fundamental Concepts of Workers Compensation."

Annex D (informative)

Contractor Safety Orientation

The following topics should be considered as part of a contractor safety orientation. The choice of topics for an orientation is based on the type of work to take place and the duration of the project. For contractors working in jurisdictions covered by U.S. OSHA, certain elements are required for contractors working in covered process units (see OSHA 1910.119[h]). Comparable requirements may appear in other jurisdictions.

Safety orientation topics include the following.

- a) Known potential fire, explosion or toxic release hazards.
- b) Emergency response plan. The plan contains procedures that are to be followed if a serious occupational injury or illness, a fatality, a structural failure, a fire, an environmental release, or any other emergency occurs.
- c) Safe work procedures including:
 - the work authorization system (work permits);
 - control of hazardous energy (lockout/tagout);
 - hot work;
 - confined space entry;
 - opening process equipment or lines;
 - excavation.
- d) Incident notification. OSHA-recordable injuries and illnesses, accidents, and damage to process equipment shall to be reported to the owner who will maintain an injury log.
- e) Accident investigation. Accident investigation reports need to be completed and given to the owner promptly, as specified in the contract. Depending on the owner's preference, accident investigations may include the following:
 - cases requiring days away from work;
 - cases with restricted activity;
 - OSHA-recordable cases;
 - near misses;
 - damage to company property or third parties.
- f) Contractor safety training. The owner requires the contractor to provide safety and health training for certain areas. The contractor should identify these in writing and present them to the owner before the job is started. Documentation of completed training is considered mandatory and should be available to the owner upon request.

Examples of contractor training topics include the following:

- 1) hazard communication;
 - 2) personal protective equipment;
 - 3) first aid and cardiopulmonary resuscitation;
 - 4) fire prevention and protection;
 - 5) forklift and crane operations;
 - 6) hot work and welding;
 - 7) entry to confined spaces;
 - 8) walking and working surfaces;
 - 9) abrasive blasting;
 - 10) housekeeping;
 - 11) asbestos removal;
 - 12) work permits;
 - 13) respiratory protection;
 - 14) scaffolding requirements;
 - 15) control of hazardous energy sources;
 - 16) warning signs, signals, and barricades;
 - 17) excavating, trenching, and shoring;
 - 18) emergency evacuation and emergency medical assistance;
 - 19) naturally-occurring radioactive material;
 - 20) hazardous waste operations and emergency response plan;
 - 21) reporting and correcting hazards;
 - 22) periodic, documented safety inspections;
 - 23) hazards of substance abuse;
 - 24) fall protection.
- g) Policy on alcohol, controlled substances, and firearms. This policy includes testing, search, and disciplinary provisions that are required by the owner and contractor.

- h) Correction of safety hazards. Instructions should be communicated about corrective action for any safety hazards that may arise. Specific instructions on the need for immediate correction of imminent hazards should also be provided.
- i) Effects of poor job safety. Poor safety performance on-site by the contractor can result in personal injury, property damage, and delays and have an impact on the contractor's ability to secure work from the owner. The owner should ensure that contract employees are aware of the importance of complying with the provisions of the contract and all applicable safety, health, and fire rules.
- j) Attendance at safety meetings. How contractor safety meetings are conducted and how often they are held should be discussed; mandatory attendance should be emphasized.

Annex E (informative)

Contractor Safety Program Checklist

Checklists can assist an owner in evaluating contractor safety programs. The following pages provide an example of such a checklist. Some questions in the checklist may not apply to all worksites; likewise, additional questions may be necessary.

CONTRACTOR SAFETY PROGRAM CHECKLIST—Page 1 of 4				
No.	Item	Yes	No	Not Applicable
	Training			
1	Does the contractor ensure that all of its personnel are competent to perform the work required?			
2	Does the contractor ensure that its newly assigned workers are directly supervised by a competent worker?			
3	Does the contractor ensure that jobs requiring certification are performed by workers who possess the appropriate documentation and certificates?			
4	Does the contractor provide training for its managers and supervisors to ensure that they are capable of administering the safety program?			
5	Is there a training plan for contractor employees?			
6	Does the training plan address:			
	Safety & health?			
	Material Safety Data Sheets (MSDSs) and the hazard communication program (HazCom)?			
	Safety orientation?			
	First aid and cardiopulmonary resuscitation (CPR)?			
	Fire fighting?			
	Firewatch?			
	Hydrogen sulfide (H ₂ S)?			
	Transportation of hazardous materials?			
	Fall protection?			
	Drug and alcohol policy?			
	Forklift and crane operations?			
	Housekeeping?			
	Entry into confined spaces and requirements for standby personnel?			
	Permit systems?			
	Abrasive blasting and hydroblasting?			
	Respiratory protection?			
	Use of personal protective equipment?			
	Control of hazardous energy (lockout/tagout) sources?			
	Excavating, shoring, and trenching?			
	Emergency response plan?			
7	Is there documentation on file to verify that the training has been completed?			
8	Does the documentation include employees' names, course dates, instructors' names, the length of the courses, and outlines or descriptions of the course content?			
9	Does the contractor require retraining or refresher training?			
10	Does the contractor expect the facility owner to provide assistance with the training?			
	Incident Investigation and Analysis			
11	Are all incidents investigated to determine their cause, and is corrective action taken?			
12	Are serious incidents and significant near misses reported to the owner immediately?			

CONTRACTOR SAFETY PROGRAM CHECKLIST—Page 2 of 4				
No.	Item	Yes	No	Not Applicable
13	Does the contractor have a written incident investigation procedure?			
14	What category of incident requires a written report?			
	Fatalities?			
	OSHA-recordable Incidents?			
	Vehicle accidents?			
	Equipment damage?			
	Spills?			
	Fires?			
	Near misses?			
	Contractor injury resulting from owner action or equipment?			
15	After an incident, are required reports submitted to the owner within 48 hours?			
16	Does a safety committee assist in the investigation and follow-up?			
17	Do the contractor's supervisors or managers ensure that as a result of the investigation, corrective action is taken?			
18	Does the contractor develop a monthly statistical summary that illustrates its safety performance?			
19	Does the owner receive a copy of this summary and photocopies of the OSHA Form 300 logs?			
	Safety Responsibility			
20	Does the contractor have a safety policy statement endorsed by its top management?			
21	Is the contractor's management aware of its role in an effective safety program?			
22	Are the contractor's employees aware of their roles in an effective safety program?			
23	Has the contractor assigned a qualified person as the safety representative?			
24	Does the safety representative have sufficient authority to implement change?			
25	Does the contractor have a disciplinary action program that includes safety and health issues, and is the program enforced?			
	Safety Reviews			
26	Does the contractor conduct ongoing safety inspections?			
27	Does the contractor have a hazard identification program that allows employees to report unsafe acts or conditions?			
28	Are inspection records kept on file, and are they available for review by the owner?			
29	Are concerns reviewed, and are corrective actions taken?			
30	Is there written documentation that concerns have been reviewed and corrective actions have been taken?			
31	Is there a system to notify the owner of safety and health problems that are not created by the contractor but that could impact personnel at the site?			
	Emergency Response			
32	Are the contractor's employees aware of their role and expected response in an emergency?			
33	Have exit routes and meeting areas where head counts are to be performed been established?			
34	Do all contractor employees receive emergency response training?			
35	Does the contractor know how to report an emergency?			
36	Have instructions been given to check wind conditions using on-site resources (like windsocks) in the event of a fire or gas release and to evacuate upwind or crosswind?			

CONTRACTOR SAFETY PROGRAM CHECKLIST—Page 3 of 4				
No.	Item	Yes	No	Not Applicable
37	Are emergency telephone numbers posted throughout the site?			
38	Have the contractor's employees received specific instructions about vehicle use during and after an emergency?			
39	Is the contractor involved in facility emergency response drills?			
	Job Analysis and Observation			
40	Are all critical jobs identified and analyzed?			
41	Are the procedures for critical jobs written and reviewed with the contract employees before the work begins?			
42	Are job observations, such as job safety analyses (JSAs), conducted?			
	Permit Systems			
43	Does the contractor ensure that all work permit systems are followed?			
44	Does the contractor conduct audits to verify that all work permit systems are followed? and is disciplinary action implemented in the event of noncompliance?			
45	Is there a method that allows the contractor to provide the owner with feedback about the effectiveness of the permit system and the impact of the permit process on the performance of the work and on the contract?			
	First Aid and Medical Care			
46	Does the contractor have personnel trained to administer first aid and cardiopulmonary resuscitation?			
47	Are adequate first aid supplies available on-site?			
48	Have the first aid kits been approved by a physician?			
49	Have arrangements been made with the owner, ambulance service, hospital, or others to handle medical care ranging from first aid to life-threatening injuries and illnesses?			
50	Does the contractor utilize a "physician under standing orders?"			
51	Does the contractor distribute prescription medications?			
	Personal Protective Equipment (PPE)			
52	Is a hazard assessment conducted to determine PPE needs? (OSHA 1910.132[d])			
53	Are specific rules developed and communicated concerning the proper use of personal protective equipment?			
54	Is the necessary personal protective equipment available on-site?			
55	Has a maintenance program been established to assure that personal protective equipment is maintained in satisfactory condition?			
56	Is the proper use of personal protective equipment monitored and enforced by the contractor's management?			
	Communications and Meetings			
57	Before a job begins, does the contractor hold a meeting to address safety issues?			
58	Do the contractor's supervisors mention safety as part of every work assignment?			
59	Are tailgate meetings held? (If they are, note how long they last, how often are they held, and how relevant and effective they seem to be.)			

CONTRACTOR SAFETY PROGRAM CHECKLIST—Page 4 of 4				
No.	Item	Yes	No	Not Applicable
60	Is documentation kept for topics discussed during safety meetings, names of those who attended, dates, and any comments or concerns?			
61	Are problems identified during the tailgate meetings acted on by the contractor's management?			
62	Does the contractor make use of safety committees?			
63	Does the contractor's management actively demonstrate support for improved safety programs?			
64	Does the contractor's management hold periodic meetings with the owner's management specifically to discuss safety, health, and job performance?			
65	Are the contractor's employees able to communicate all safety and health problems to their management?			
66	Is a meeting held with the contractor at the end of the project to review safety performance?			
	Safety Incentive Programs			
67	Does the contractor make use of safety incentive award programs?			
68	Are the contractor's incentive programs effective in reducing occupational injuries and illnesses?			
69	Does the owner offer safety incentive programs to the contractor's management that are based on the overall successful completion of the contract? If yes, note what criteria are used to judge success.			

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