

Orientation Program

for Casual Contractors in the Chemical Industry

By **BRIAN T. BENNETT**

Several federal regulations mandate that contract employees be trained *before* starting to work at a host facility. With the publication of the Process Safety Management (PSM) of Highly Hazardous Chemicals Standard (29 CFR 1910.119), OSHA introduced its most in-depth attempt to regulate contractor selection and training.

In addition, Chemical Manufacturer's Assn. (CMA) has developed the Responsible Care Codes, a set of guidelines designed specifically for the chemical industry. These codes include two guidelines that cover "Employee Safety and Health" and "Process Safety Management." Although these codes have no regulatory authority, companies pledge to comply with them as a condition of CMA membership.

Both the standard and the

guidelines impact all contractor companies—large and small. Larger contractors in heavily industrialized areas generally have sufficient expertise to develop, implement and enforce a host facility's Contractor Orientation Program (COP).

Small, casual (non-resident) contractors, however, often pose a greater challenge. These contractors may work at a site only a few days or weeks per year—in contrast with firms that have long-term contracts to perform site maintenance or construction. The host-facility safety manager must provide enough training and supervision to casual contractors to ensure that work is performed safely and in compliance with applicable regulations—a task that often requires the host site to commit a significant amount of staff member time.

As Assistant Secretary of Labor for OSH Charles Jeffress said in a recent speech, "The more than 90 percent of contractors that have fewer than 20 workers are the least likely to have safety and health programs." This article addresses how to meet the challenges posed by casual contractors—many of whom fall into this category.

For a COP to be effective and accepted, all involved must understand its true objective: To ensure that contractors have a record of working safely and arrive well-trained and ready to begin working safely.

OBJECTIVE OF THE COP

Several significant incidents have occurred in recent years which support OSHA's stance that the process of selecting contractors requires more scrutiny. For example, contract employees were involved in the 1989 explosion at a Phillips 66 chemical plant that killed 24 and injured 132 people. As a result of these incidents, the PSM standard includes language that addresses contractor selection and training.

For a COP to be effective and accepted, all involved must understand its true objective: To ensure that contractors have a proven track record of working safely, and arrive well-trained and knowledgeable about the site's safety policies and procedures, and prepared to start working safely. However, the COP should not be used to prevent small contractors from bidding on projects; it must be fair, equitable and equally enforced among contractors of all sizes.

SELECTION OF CONTRACTORS

In the PSM Standard, OSHA mandates that host facilities evaluate a contractor's safety performance. Three criteria can be used in the selection process: 1) review of the injury history; 2) review of OSHA compliance history; and 3) completion of a "safety program checklist."

To assess injury history, the host site can review a contractor's OSHA 200 logs to calculate the total recordable rate. This rate can then be compared to the Bureau of Labor Statistics (BLS) national average for that trade. Contractors with rates above this average should be eliminated from the bidding process. Other considerations, such as number of workers and non-injury-producing incidents, should also be examined.

Often, however, casual contractors do not maintain an OSHA 200 log because they either are unaware of the regulation or do not meet the 10-employee threshold. In such cases, the facility safety manager should meet with contractor management to review injuries and determine hours worked. Based on this information, an informal OSHA 200 log can be generated and a total recordable rate calculated. A contractor's experience modification rate (EMR) can also reflect injury history.

A contractor's OSHA compliance history can be reviewed on OSHA's website (www.osha.gov). This site reports the

number of inspections completed and details any citations issued. This review is a good indicator of a contractor's commitment to the safety process. The injury rate and compliance history review should be completed annually.

In addition, each contractor should complete a safety program checklist (Figure 2). Created by the host facility, this checklist requests information on key program areas, such as safety policies and procedures, training programs and medical surveillance. Review of the completed checklist provides an indication of the contractor's level of compliance with relevant OSHA regulations, as well as the level of commitment to safety. This checklist should be completed and reviewed every other year. Although not required by an OSHA standard, the checklist is a useful tool in meeting the requirement to evaluate a contractor's safety program.

CONTRACTOR TRAINING

An effective way to accomplish contractor training is to classify contractors based on the level of work activity to be performed. COP training should be commensurate with their classification. Examples of categories:

- Class 1:** Contractors who make deliveries (e.g., couriers, food vendors).

- Class 2:** Contractors who work in continuous presence of facility employees (e.g., equipment repair or calibration, phone repair).

- Class 3:** Contractors who work on their own for significant periods of time (e.g., steel erectors).

The host facility should prepare a comprehensive training manual and issue it to all trainers; this ensures standardized training. A pocket-size handbook that summarizes key points should be issued to all contract employees who have completed the training program; this becomes a ready field reference. Such materials should be reviewed by staff safety professionals and the corporate attorney to ensure accuracy and to minimize potential liability.

Depending on the contractor population, training materials may need to be developed in languages other than English in order to meet OSHA's requirement of providing safety and health information in the employee's primary spoken language.

In addition, refresher training should be conducted annually. Retraining is best

conducted each January because it eliminates the need to track each contract employee's training anniversary date.

COP TRAINERS

Once training materials have been developed, the host site must determine who will present the material—facility representatives or contractor management. Both options have advantages and disadvantages.

A facility representative has already bought into and taken ownership of the COP; is familiar with the facility, its policies and procedures; and is accountable (ultimately) to the site manager for compliance with the COP. In addition, training sessions can be audited more easily by the site safety manager.

However, a host facility manager who conducts training will likely face contract employees who are unprepared to begin working. This option also increases the possibility of error and omission liability. In addition, the facility representative must adjust his/her schedule to accommodate the training process, which can be time-consuming—and in some cases, can become a full-time job.

If contractor management conducts the training, it is completed at the contractor's facility on its representatives' time and at their convenience. As a result, contract workers arrive at the worksite prepared to begin working. In addition, contractor management develops a vested interest in ensuring that the COP is implemented correctly.

However, since contractor management is not familiar with facility policies and procedures, some training may be inadequate or insufficient. It is also less convenient for the facility safety manager to audit COP training for content and overall quality.

In most cases, it is desirable to have contractor management perform COP training for its employees. To prepare facility and contractor representatives for this task, a train-the-trainer course is needed. It is best to have several sessions, with the facility providing advance notice and contractors indicating which session(s) they will attend. The facility manager, safety manager, contractor liaisons, project engineers, maintenance manager and other key personnel should attend each session to meet contractors and answer questions. Each should also present a section of the COP.



2000 Injury Statistics Form

Company: _____ SIC Code: _____

Form Completed by: _____ Date: _____

Please provide the following data using your 1999 OSHA 200 Form:

of fatalities (Total Column 1): _____

of lost work case injuries involving days away from work, or days of restricted work activity or both (total column 2) _____

Lost work case injuries involving days away from work (total Column 3): _____

Injuries involving medical treatment only (total Column 6): _____

Total employees hours worked in 1999: _____

Total OSHA recordable injury rate $(\frac{\text{total column (1+2+6)} \times 200,000}{\text{Total employee hours worked}})$ _____

Workers Compensation exposure modification rate (EMR) if known _____

Have you received any OSHA citations on 1999? Yes No

Have you received any USEPA or NJDEP citations in 1999? Yes No

BLS Data for: _____ SIC Code: _____ TR: _____

Company TR is: Below BLS Average
 Above BLS Average

Contractor is Accepted
 Rejected
 Deferred: _____

Signed: _____ Date: _____

These sessions should cover several key topics.

1) Introduction. During this session contractor management and key facility personnel are introduced. The facility manager should outline the firm's contractor selection and training policy, why and how it was developed, and how it will be enforced.

2) Background. Applicable regulations and codes that guided creation of the COP are reviewed.

3) Review of training material. Each contractor management representative receives a copy of the complete COP for review and discussion. Key facility representatives should review their area-specific materials.

4) Recordkeeping. COP recordkeeping requirements are reviewed. The goal is to develop a clear understanding regarding who will maintain required documentation.

5) Testing. Methods and procedures to ensure "verification of understanding the training" are discussed. Trainers should be tested on COP procedural and site-specific issues at the end of the session.

6) Audits. Discussion focuses on the site's procedure to audit COP compliance. Copies of audit worksheets should be included as examples of audit formats.

OUTLINE OF COP TRAINING PROGRAM

Site-specific information is the key element in the COP. However, to be effective,

FIGURE 1 Injury History

the program should cover some basic information.

A) Policy statement and introduction. Publish the facility safety policy, contractor training policy and a brief introduction to the COP.

B) Security regulations. Outline parking regulations; entrance gates; contractor training badges; package and motor vehicle inspection; camera/recording device policy; liquor, drug, firearm and explosives policy; and traffic rules, seat-belt policy, vehicle accident reporting procedure, parking areas and vehicle use in emergencies.

C) Occupational safety and health. Explain basic requirements that all contractors must follow. Topics to address include: personal protective equipment (29 CFR 1910 Subpart I); hazard communication (Subpart Z); radiation hazards (Subpart G); eating and drinking areas; asbestos hazards (Subpart Z); lead hazards (Subpart Z); hearing conservation (Subpart G); and first-aid procedures (Subpart K).

D) Before work begins. Discuss issues that must be addressed before work begins, including pre-job briefing, work permits and site inspection.

E) Emergency procedures. Outline how to sound the facility alarm and how to respond to an alarm activation. Key topics include emergency alarm (29 CFR 1910 Subpart E); injuries; skin and eye chemical exposure; accident reporting; and safe areas and evacuation areas (29 CFR 1910 Subpart E).


F) General rules. Review basic rules regarding proper clothing; smoking policy; rotating equipment; lifting personnel (29 CFR 1910 Subpart F); ladders (29 CFR 1910 Subpart D); and scaffolds and platforms (29 CFR 1910 Subpart D).

G) Electrical-related rules. Outline safe work practices related to electrical equipment. Topics include grounding (29 CFR 1910 Subpart S), portable generators and protective equipment.

H) Machinery and tools. Review safe work practices related to machinery and tools. This should encompass care of tools (29 CFR 1910 Subpart P); machine guards (Subpart O); grinders and buffers; pneumatic tools; welding and cutting (Subpart Q); and fueling engines.

I) Environmental. Cover environmental rules and industrial hygiene procedures that must be followed due to governmental regulations or internal waste minimization policy. Key topics include spill/leak

FIGURE 2 Prequalification Checklist



Contractor Safety Pre-Qualification Form (SPQF)

GENERAL INFORMATION		
Company Name	Telephone #	Fax:
Street Address	Mailing Address	
Are you self insured for Worker's Compensation Insurance? Yes <input type="checkbox"/> No <input type="checkbox"/>		
PQF Completed by: (Name) _____ Date: _____		
Title	Telephone:	Fax:
SAFETY & HEALTH MANAGEMENT		
1. Highest ranking safety/health professional in the Company:		
Title	Telephone:	Fax:
2. Do you have or provide:		
a. Full time Safety/Health Director?	Yes	No
b. Full time Safety/Health Supervisor?	Yes	No
c. Full Time Job Safety/Health Coordinator?	Yes	No
3. Do you have or provide:		
a. Safety/Health incentive program?	Yes	No
b. Company paid safety/health training?	Yes	No
SAFETY & HEALTH PROGRAMS AND PROCEDURES		
4. Do you have a written Safety and Health Program? Yes No		
5. Does the program address the following key elements:		
a. Management commitment and expectations?	Yes	No
b. Employee participation?	Yes	No
c. Accountabilities and responsibilities for managers, supervisors, and employees?	Yes	No
d. Resources for meeting safety & health requirements?	Yes	No
e. Periodic safety and health performance appraisals for all employees?	Yes	No
f. Hazard recognition and control?	Yes	No
6. Does the program satisfy your responsibility under the law for:		
a. Ensuring your employees follow the safety rules of the facility?	Yes	No
b. Advising Akzo Nobel of any unique hazards presented by your work, and of any hazards found by your employees?	Yes	No

7. Does the program include work practices and procedures such as:		Yes	No	
a. Equipment Lockout and Tagout (LOTO)		Yes	No	N/A
b. Confined Space Entry		Yes	No	
c. Injury & Illness Recording		Yes	No	N/A
d. Fall Protection		Yes	No	
e. Personal Protective Equipment		Yes	No	
f. Portable Electrical/Power Tools		Yes	No	
g. Vehicle Safety		Yes	No	N/A
h. Compressed Gas Cylinders		Yes	No	N/A
i. Electrical Equipment Grounding Assurance		Yes	No	N/A
j. Powered Industrial Vehicles (Cranes, Forklifts, JLGs, etc.)		Yes	No	
k. Housekeeping		Yes	No	
l. Accident/Incident Reporting		Yes	No	
m. Unsafe Condition Reporting		Yes	No	
n. Emergency Preparedness, including evacuation plan		Yes	No	
o. Waste Disposal		Yes	No	
p. Back injury Prevention		Yes	No	
8. Do you have written programs for the following:		Yes	No	N/A
a. Hearing Conservation		Yes	No	N/A
b. Respiratory Protection		Yes	No	N/A
Where applicable, have employees been:				
• Trained?		Yes	No	
• Fit tested?		Yes	No	
• Medically approved?		Yes	No	
c. Hazard Communication		Yes	No	
Have employees been trained?		Yes	No	
d. Program to support the contractor requirements of the OSHA Process Safety Management of Highly Hazardous Chemicals; Explosives and Blasting Agents Standard (29CFR 1910.119)		Yes	No	
9. Do you have a substance abuse program?		Yes	No	
If yes, does it include the following:				
• Pre-placement Testing?		Yes	No	
• Random Testing?		Yes	No	
• Testing for Cause?		Yes	No	
• DOT Testing?		Yes	No	N/A
10. Do your employees read, write and understand English such that they can perform their job tasks safely without an interpreter?		Yes	No	
11. Medical:				
a. Do you conduct medical examinations for:		Yes	No	
• Pre-placement?		Yes	No	
• Pre-placement Job Capability?		Yes	No	N/A
• Hearing Function (Audiograms)?		Yes	No	N/A
• Respiratory?		Yes	No	
• Frequency of exams: _____		Yes	No	
b. Do you have personnel trained to perform first aid and CPR?		Yes	No	
c. Describe how you will provide first aid and other medical services for your employees while on-site. Specify who will provide this service: First Aid Care Given on site, service provider in place prior to beginning work, _____				
d. Do you supply first aid kits on the job site?		Yes	No	
12. Do you hold site safety and health meetings for:				
• Field Supervisors	Yes	No	Frequency: _____	
• Employees	Yes	No	Frequency: _____	
• New Hires	Yes	No	Frequency: _____	
• Subcontractors	Yes	No	Frequency: _____	
a. Are the safety and health meetings documented?	Yes	No		
13. Personal Protective Equipment (PPE):				
a. Is applicable PPE provided for employees?	Yes	No		

reporting procedures; waste generation; waste recycling; personal decontamination; equipment decontamination; and industrial hygiene monitoring.

J) Safety procedures. Address specific safety procedures that may need to be referenced. For example, general and department safety rules; forklift safety rules (29 CFR 1910 Subpart N); crane safety rules; burning, welding, hot work procedure; lockout/tagout procedure (29 CFR 1910.147); asbestos handling procedure (29 CFR 1910 Subpart Z); line entry procedure; confined space entry procedure (29 CFR 1910.146); abrasive blasting procedure; facial hair policy (29 CFR 1910.134); trench and excavation procedure (29 CFR 1926 Subpart P); fall protection procedure (29 CFR 1926 Subpart M).

K) Site map. Provide all parties with a site map that shows location of important buildings and areas, including safe areas and evacuation assembly points.

RECORDKEEPING

Recordkeeping, preferably automated, is the glue that binds the program. Each contractor employee and trainer must complete the comprehensive initial training session. Refresher training must be conducted annually thereafter, or as needed. Attendance sheets that indicate instructor, length of class and materials covered must be completed for each session—and a copy submitted to the host facility. A database that lists contractors by name and company can then be generated. Only contractors on this list are

eligible to work at the facility. This database should be updated regularly and accessible to all key site personnel.

Contract employees who have completed all training requirements should receive tangible affirmation of that fact. Although wallet cards are popular, they are not readily visible to facility personnel. An alternative is to provide a sticker that can be affixed to a hardhat. This sticker should list the calendar year for which training was completed; the shape and color of the sticker could be changed annually as well.

TESTING

According to the PSM standard, the host facility must verify that training has been completed—and is understood—by the trainee. This can be achieved through verbal or written testing, or demonstration. Each method has strengths and weaknesses; the choice must be made on a case-by-case basis. However, in all cases, written documentation must be completed and placed in the contractor's file.

The purpose of verification is to ensure that trainees completely understand applicable rules and regulations. To that end, the verification methods should be uncomplicated. For written tests, multiple-choice or true-false questions are best. For demonstration tests, using a fire extinguisher as an example, ask the contractor to 1) select the appropriate type of extinguisher to meet a given scenario; 2) explain its proper use and limitations; and 3) demonstrate competency by properly extinguishing a small pan fire.

Each contractor should complete a prequalification checklist (sample pages above, pg. 28), which requests information on key program areas, such as safety policies and procedures, training programs and medical surveillance.

AUDITS

To maintain the COP's integrity, site management should conduct periodic, random contractor audits. The audit team should include both salaried and hourly personnel. This is an excellent activity for the plant safety committee or audit subcommittee—and it helps fulfill OSHA's call for employee involvement.

The audit should cover basic requirements for all contractors, such as emergency procedures and PPE, as well as job-specific issues, such as lockout/tagout, hazard communication or hot-work procedures. Audits should be conducted at the contractor's jobsite.

A policy on how to deal with deficiencies discovered must be developed as well. For example, serious violations (e.g., failure to lockout/tagout, unauthorized entry into a confined space) should result in suspension or expulsion of the contract employee(s) or contractor company. In response to minor violations, site management can put the contractor "on notice" that additional violations may result in a suspension of contract awards for a specific period.

The audit should be performed unannounced, and should take 15 to 30 min-

b. Do you have a program to assure that PPE is inspected and maintained?	Yes	No
14. Do you have a corrective process for addressing individual safety and health performance deficiencies?	Yes	No
15. Equipment and Materials:		
a. Do you have a system for establishing applicable health safety, and environmental specifications for acquisition of materials and equipment?	Yes	No N/A
b. Do you conduct inspections on operating equipment (e.g., cranes, forklifts, JLGs) in compliance with regulatory requirements?	Yes	No N/A
c. Do you maintain operating equipment in compliance with regulatory requirements?	Yes	No
d. Do you maintain the applicable inspections and maintenance certification records for operating equipment?	Yes	No N/A
16. Do you use subcontractors? (If no, skip to question 17)		
a. Do you use safety and health performance criteria in selection of subcontractors?	Yes	No
b. Do you evaluate the ability of subcontractors to comply with applicable health and safety requirements as part of the selection process?	Yes	No
c. Do your subcontractors have a written Safety & Health Program?	Yes	No
d. Do you include your subcontractors in your:	Yes	No
• Safety & Health Orientation	Yes	No
• Safety & Health Meeting	Yes	No
• Equipment Inspections	Yes	No
• Safety Audits	Yes	No
17. Inspections and Audits		
a. Do you conduct safety and health inspections?	Yes	No
b. Do you conduct safety and health program audits?	Yes	No
c. Are corrections of deficiencies documented?	Yes	No
SAFETY & HEALTH TRAINING		
18. Do you have a Safety & Health Orientation Program for new hires and newly hired or promoted supervisors?	Yes	No
19. Does the program provide instruction on the following:		
a. New Worker Orientation?	Yes	No
b. Safe Work Practices?	Yes	No
c. Safety Supervision?	Yes	No
d. Toolbox Meetings?	Yes	No
e. Emergency Procedures?	Yes	No
f. First Aid Procedures?	Yes	No
g. Incident Investigation?	Yes	No
h. Fire Protection and Prevention?	Yes	No
i. Safety Intervention?	Yes	No
j. Hazard Communication?	Yes	No
20. How long is the orientation program? _____		
21. Are written exams given? _____ If no, how do you verify comprehension? _____	Yes	No
Craft Training:		
22. Have employees been trained in appropriate job skills?	Yes	No
23. Do you have a process to assess the skills of your workers to assure they are qualified? (Attach explanation)	Yes	No
24. Are employees job skills certified where required by regulatory or industry consensus standards?	Yes	No

25. Safety & Health Training:		
a. Do you know the regulatory safety and health training requirements for your employees?	Yes	No
b. Have your employees received the required safety and health training and retraining and is it documented?	Yes	No
c. Do you have a specific safety and health training program for supervisors?	Yes	No
d. Are all employees trained in the work practices needed to safely perform his/her job?	Yes	No
e. Is each employee instructed in the known potential of fire, explosion, or toxic release hazards related to his/her job, Akzo's process and the applicable provisions of Akzo's emergency response plan?	Yes	No
INCIDENT INVESTIGATION & ANALYSIS		
1. Are all incident investigated to determine their cause, and is corrective action taken?	Yes	No
2. Do you have a written incident investigation procedure?	Yes	No
3. Do you provide accident investigation training for appropriate people in your organization?	Yes	No
4. Do you develop a periodic statistical summary that illustrates your safety performance?	Yes	No
5. Do you complete and maintain OSHA Form 101?	Yes	No
6. Do you complete and maintain OSHA Form 200?	Yes	No N/A
JOB ANALYSIS & OBSERVATION		
1. Are all critical jobs identified and analyzed?	Yes	No
2. Are all procedures for critical jobs written and reviewed with the employee before work begins?	Yes	No
3. Are job observations, such as job safety analysis (JSAs) conducted?	Yes	No
This document must be signed		
Title: _____	Signature: _____	Date: _____
.....		
SPQF EVALUATION (Akzo Nobel use only)		
Contractor is:	Acceptable for the Approved Contractor List	
	Conditionally acceptable for Approved Contractor List	
	Conditions: _____	
	Rejected	
	Reasons: _____	
Reviewer: _____	Date _____	

utes, depending on the complexity of the work activity. The team should be introduced and the audit procedure explained. The team should interview a reasonable sampling of workers (approximately 10 percent) performing a particular job. Questions should be concise since the purpose is to verify understanding of applicable regulations. Contract employees involved in the audit, as well as the audit team, should sign the audit form.

Upon completion, a letter should be sent to contractor management indicating that an audit was performed. Any deficiencies must be reported, and a written corrective action plan must be developed by contractor management. Thirty days is a reasonable amount of time to allow for development of this plan, which should be approved by the host facility.

LESSONS LEARNED

This program has been in place at Akzo Nobel's facility for 10 years, during which time several challenges have arisen.

• **Dealing with contractors that possess limited knowledge of OSHA standards.** Much time was spent educating contractors about regulatory requirements and helping them develop an effective safety and health program.

• **Obtaining necessary information (e.g., safety program checklist, annual injury statistics).** This problem was solved by stipulating that such information must be submitted and approved by the safety department during the bidding process in order to receive a contract.

The safety program checklist was also changed from a narrative format to a more-specific checklist format.

• **Written tests.** Some concerns were raised that written tests might not be the work of individual contract employees. To address this problem, written tests are now administered at Akzo Nobel under the supervision of site personnel, rather than at the contractor's site. This has led to a much better understanding of rules and regulations by all contractors.

The greatest benefit of this process is that site employees and management know contractors are working safely and that risk has been decreased. Since this program was implemented (covering more than 1 million workhours), no contractor lost-time incidents have occurred.

CONCLUSION

Contractor training is a crucial element of a facility's safety program. Too often, casual contractors are involved in accidents and suffer injuries. To address this problem, a thorough COP must be developed, implemented and audited. As with any program, care must be taken to ensure that the COP does not become too burdensome for contractors to implement or too cumbersome for host facility personnel to manage. Top management support and patience are critical—it will take time and effort to refine and perfect the COP.

According to Assistant Secretary of Labor for OSH Charles Jeffress, "More construction workers die on the job than workers in any other field. Only six per-

cent of Americans work in construction, but nearly 20 percent of American workers who lost their lives in the workplace in 1998 died on construction sites." A viable COP can help change that statistic. ■

REFERENCES

Jeffress, C. Keynote address at the 10th Annual Construction Safety Conference. Feb. 16, 2000, Rosemont, IL.

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