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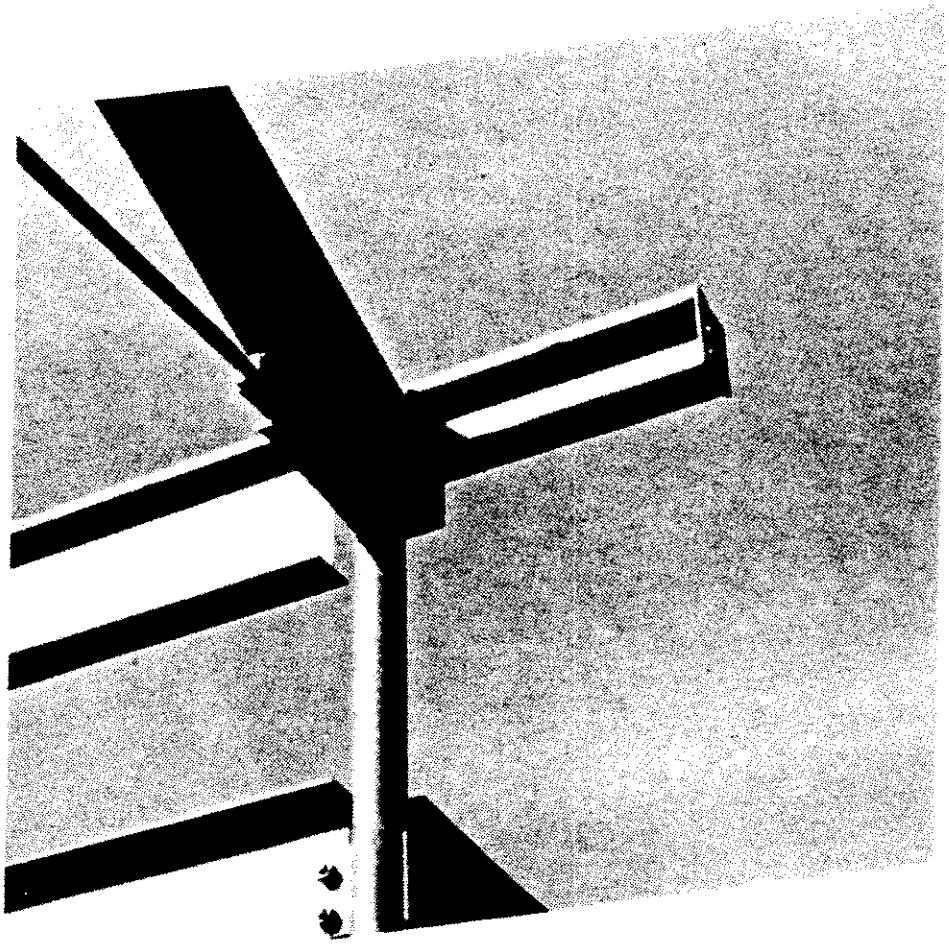
SAFETY PRACTICES THAT REDUCE WORKERS' COMPENSATION COSTS AND INCREASE PRODUCTION

SPONSORED BY A GRANT FROM THE BUILDING CONSTRUCTION INDUSTRY ADVISORY COMMITTEE



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School of Building Construction
University of Florida
1992

WORKSHOP FOR THE SMALL-TO-MEDIUM SIZE CONTRACTOR

GRANT 89-13 REVISED

SAFETY PRACTICES THAT REDUCE WORKERS' COMPENSATION COSTS AND INCREASE PRODUCTION

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FLORIDA BUILDING CONSTRUCTION INDUSTRY ADVISORY COMMITTEE

FALL 1992

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EXECUTIVE SUMMARY

This short course is one of four workshops recommended for funding by the Florida Building Construction Industry Advisory Committee (BCIAC) to the State of Florida Commissioner of Education. Funds come from the set aside of the contractor's licensing fee for research and continuing education.

The BCIAC recommended development of four courses to constitute a continuing education program for the small and medium contractor. The courses are: (1) Construction Productivity Improvement, (2) Safety and Loss Control, (3) Change Order Estimating and Control, and (4) Contractor Financial Management.

Intent

The courses are intended to be taught on a regular basis by institutions eligible for BCIAC continuing education funding. Contractor associations, especially smaller chapters in conjunction with community colleges, can use the BCIAC materials to improve member education.

Scope

The table of contents provides details on the course's scope. Each course consists of a course manual and a video tape. The manual's main components are an introduction, each hour's instructional materials with case study problems and solutions, blank forms, and notes for the instructor, including lesson plans.

A brief but thorough video segment introduces the course and each lesson's important items. The video is intended to supplement the course instructor or moderator. As a minimum, a moderator is necessary for soliciting student comments and reviewing each hour's problems and solutions.

Methodology

The courses were developed in three phases over the following academic periods.

Precontract Phase (Summer 1990 - Spring 1991). During the recontract phase, a tentative course outline was prepared. Contact was made with small and medium contractors in Boca Raton, Gainesville, Jacksonville, Orlando, Sarasota, Tampa, Vero Beach, and West Palm Beach to ascertain their needs and ideas for inclusion in the course. Graduate Research Assistants (GRA) reviewed the literature and prepared preliminary course material.

Research Phase (Summer 1991 - Fall 1991). During the research phase, contractors were recontacted on specific questions and additional suggestions were solicited and the material revised. The format is similar to the continuing education courses of the Construction Industry Institute (CII). The materials were field tested at the Continuing Education Division, University of Florida and the Florida East Coast Chapter of Associated General Contractors of America, Inc.

Development Phase (Spring 1992 - Fall 1992). During the development phase, the research materials, including a supporting video tape, were completed and reviewed by the BCIAC.

Investigators

The principal investigator was Dr. Carleton Coulter III, Professor, M.E. Rinker, Sr. School of Building Construction, University of Florida. The co-investigator was Charles A. Kelley. Graduate students developing course materials were: Mark Meeske, Construction Productivity Improvement; John V. Ward, Jr., Safety and Loss Control; William Clark, Change Order Processing and Control; and Charles A. Kelley, Contractor Financial Management.

Acknowledgements

Appreciation is expressed to the BCIAC coordinators who freely gave of their time to review the materials and suggest improvements. BCIAC coordinators for the course materials were: Bruce Simpson (Vice Chairman of the Board, The Crom Corporation) for Construction Productivity Improvement, Safety and Loss Control, and Contractor Financial Management; and Mr. Thomas Mack (State Director, Florida Home Builders Association), Mr. Clifford Storm (Director, The Broward County Board of Rules and Appeals), and Mrs. Celeste Valdez (Vice President, Kalemeris Construction, Inc.) for Change Order Processing and Control. Forms are courtesy of JAC Construction Consultants, Palm Beach Gardens, Florida.

Obtaining Copies

A copy of this report and accompanying video may be obtained by contacting: Executive Secretary, BCIAC, M.E. Rinker, Sr. School of Building Construction, FAC 101, University of Florida, Gainesville, Florida, 32611, 904/392-5965.

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Spend a brief period introducing each other and learning what each participant wishes to learn from the course.

INSTRUCTOR'S BACKGROUND

1. NAME, POSITION, AND COMPANY
2. TYPE OF CONSTRUCTION OF CURRENT COMPANY
3. OVERALL EXPERIENCE
4. QUALIFICATIONS FOR MODERATING THIS COURSE

STUDENT'S BACKGROUND

1. NAME, POSITION, AND COMPANY
2. TYPE OF CONSTRUCTION OF CURRENT COMPANY
3. OVERALL EXPERIENCE
4. REASONS FOR ATTENDING THIS COURSE
5. EXPECTATIONS UPON COMPLETING THIS COURSE

Some of the most valuable suggestions come from attenders like yourself. Make this a better course by contributing your ideas with respect to each lesson's material.

GETTING YOUR MONEY'S WORTH

1. WRITE IN YOUR MANUAL IMPORTANT "TIPS" FROM THE INSTRUCTOR OR STUDENTS
2. HIGHLIGHT IMPORTANT ITEMS IN THE MANUAL
3. PARTICIPATE BY ASKING AND ANSWERING QUESTIONS
4. WORK IN GROUPS, INCLUDING HELPING OTHER GROUP MEMBERS
5. BRING UP CONCERNS OR PROBLEMS DURING CLASS OR AT BREAKS
6. INFORM INSTRUCTOR AT A BREAK IF COURSE CONTENT IS NOT WHAT IS EXPECTED
7. TRY TO GET AT LEAST ONE GOOD IDEA PER LESSON THAT YOU CAN TAKE BACK TO USE IN YOUR COMPANY

The instructor/moderator cannot read your mind. If the material does not meet your needs, please mention what you wish to know. The information is adaptable to most small contractors. You may have some special needs. The instructor can show you how to use the proposed ideas in your company or make other suggestions that may serve your needs.

ADMINISTRATION

1. COMPLETE THE REGISTRATION FORM
2. BREAKS ARE MID-MORNING AND MID-AFTERNOON
3. SMOKING OUTSIDE OF CLASSROOM IN DESIGNATED SMOKING AREAS
4. LUNCH TIME - USUALLY AN HOUR
5. NOTIFY INSTRUCTOR IF LEAVING EARLY
6. COMPLETE COURSE EVALUATION
7. RECEIVE ATTENDANCE CERTIFICATE

COURSE OBJECTIVES

1. CONSTRUCTION SAFETY
2. COMPANY SAFETY PROGRAM
3. DRUG-FREE WORKPLACE
4. SAFETY TRAINING
5. PROJECT SAFETY
6. CREW SAFETY
7. OSHA SERVICES AND INSPECTIONS
8. OSHA RECORDS AND HAZARD COMMUNICATION

The course covers the eight major topics listed above. Remember, try to get at least one good idea each lesson to improve your company's bottom line.

The complexity of course material application can be tailored to the size and specific requirements of the individual business concern.

Look for concepts to consider and apply, as well as the specific techniques discussed.

The presentation order of the material is not a consideration, all the topics (objectives) are interrelated and should be considered in a total context.

Note: Throughout this course "SLC" shall mean "Safety Loss Control".

LESSON #1 CONSTRUCTION SAFETY

OBJECTIVES

1. CONSTRUCTION ACCIDENTS
2. DIRECT AND INDIRECT COST OF ACCIDENTS
3. COMPANY SAFETY PROGRAM
4. BENEFIT/COST OF SAFETY PROGRAM

This workshop begins with a brief overview of construction safety in the United States. This course is designed to help you reduce accidents and job losses, thereby reducing workers compensation costs and increasing productivity. Look for one good idea in each lesson that you can use in your construction firm. There are several important reasons why you should reduce accidents.

First, you increase profit which lower worker compensation premiums. The Florida construction industry's workers' compensation premium costs increased 36.7 percent in 1990 according to the National Council For Workers Compensation Insurance. (1.1)

Second, you increase productivity, thereby again increasing profit.

Finally, construction companies and their supervisors have a moral obligation for worker safety. Accidents affect a worker's livelihood, quality of life, and the happiness of their families. Serious accidents may result in the worker's permanent disability or loss of life. Every construction supervisor from company owner through foreman is intrusted with the health and lives of their workers.

This workshop should be conducted by a qualified instructor. The most qualified instructor would have attended the OSHA 500 course. As a minimum, the instructor should be thouroughly familiar with safe work practices and OSHA requirements and standards.

Questions are provided throughout the course to stimulate discussion amoung attendees. No answers are neccessary as the answers pertain to individual company operations or current work practices.

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* Numbers in parentheses refer to endnotes respectively numbered at end of this manual.

SLC PROFIT TIP #1

SURVEY YOUR COMPANY SAFETY PRACTICES

TO SEE IF YOU MEET INDUSTRY STANDARDS

Safety begins with comparing your current safety policy and practices with those of other contractors. The problem at the end of this lesson is such a survey.

Safety is no accident. Safety is based on a positive attitude that accidents can be prevented. Things get done that management wants done. If you want an accident-free workplace and are willing to require it, accidents will be reduced. To do this, safety must be more important than job quality and productivity.

An accident free workplace increases company competitiveness and profit. The direct cost of construction is approximately the same among competing contractors. Having no accidents can reduce the direct cost of workers compensation, thereby making your firm more competitive and increasing profit margins.

1. Have you noticed that workers compensation premiums are increasing?

2. Are increased workers compensation costs making your firm less competitive?

3. Do you see other advantages in reducing accidents besides reducing workers compensation costs and increasing production?

Figure 1.1 U.S. Industry Accident Statistics (1.2)

U.S. INDUSTRY ACCIDENT STATISTICS

	Workers	Deaths	Death Rate*	Disabling Injuries
Agriculture	3,100,000	1,300	42	120,000
Mining	700,000	300	43	30,000
Construction	6,400,000	2,100	33	210,000
Transportation	6,000,000	1,300	22	120,000
Government	17,600,000	1,600	9	290,000
Manufacturing	18,800,000	1,100	6	360,000
Services	37,300,000	1,600	4	340,000
Trade	27,500,000	1,200	4	330,000
Total	117,400,000	10,500	9	1,800,000

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* Death Rate = Deaths Per 100,000 Workers

Construction is a dangerous occupation. More workers are killed in construction than any other U.S. industry. Construction's death rate (shown as deaths per 100,000 workers in the chart) is only exceeded by the death rates in agriculture and mining. A disabling injury is defined as being deprived of ability, power, or fitness to work. (1.3)

While construction is inherently dangerous, the job site can be made safer. Only recently has the construction industry come to realize the impact that the indirect costs of accidents have on profit.

1. Do you believe construction is a dangerous industry?

2. In your experience, what are the major company and job site factors contributing to construction's high death and disabling injury rates?

Figure 1.2 Occupation Injuries Per 100 Full-Time Workers (1.3)

OCCUPATIONAL INJURIES PER 100 FULL-TIME WORKERS

	Total Injuries		Lost Wrkday Injuries		Total Lost Workdays	
	1989	1990	1989	1990	1989	1990
All Industries	8.2	8.3	3.9	3.9	74.2	78.3
Construction	14.2	14.1	6.7	6.6	141.6	146.1
General Building Contractors	13.7	13.2	6.4	6.3	134.9	135.9
Heavy Construction	13.6	13.6	6.4	6.2	145.9	143.7
Specialty Trade Contractors	14.5	14.6	6.8	6.8	143.3	151.2

Injuries and lost workdays are increasing for all types of contractors. From 1960 to 1985 the injury rate per 100 full-time construction workers steadily decreased. However, since 1987 the injury rate has steadily risen. Lost work injuries and total lost work days also have increased significantly.

Rising injury rates and lost workdays have caused workers compensation costs to rise dramatically. Contractors are searching for ways to reduce the cost of higher workers compensation costs.

Reforms are being attempted to lower the cost of workers compensation. Proposed changes to Florida workers compensation laws include allowing contractors to sue uninsured or underinsured competitors who win bids over them and elimination of the Special Disability Trust Fund, which encourages employers to hire previously injured workers. (1.1)

1. Has the number of lost workdays in your company increased since 1987?

2. What do you think should be done to correct the workers compensation dilemma?

WORKERS COMPENSATION COSTS

1. WORKERS COMPENSATION EXPRESSED IN DOLLARS PER $100 OF PAYROLL

2. MODIFIED BY THE EXPERIENCE MODIFICATION RATE (EMR)

3. EMR CALCULATIONS

   * PAST ACCIDENT EXPERIENCE

     - THREE YEARS PRIOR TO THE IMMEDIATE PAST YEAR

     - CONTRACTORS HAVE TO WAIT TWO YEARS BEFORE SEEING AN IMPROVED ACCIDENT RATE REFLECTED IN A LOWER EMR

     - EMR STILL REFLECTS THE TWO EARLIER YEARS OF HIGH ACCIDENT RATE

   * ACCIDENT EXPERIENCE

     - FREQUENCY OF ACCIDENTS COUNTED MORE HEAVILY

   * SEVERITY OF ACCIDENTS

   * TIMING OF REPORT

Most contractors buy insurance for their workers compensation exposure. The contractor's insurance premium is the product of the state rates multiplied by the contractor's experience modification rate (EMR). The workers compensation insurance rate for a particular type of work (i.e. carpentry, plastering, plumbing, etc.). Industry-wide, workers compensation is expressed in dollars per $100 of payroll and is based on the overall injury experience for that type of work in the state.

The cost of insurance coverage varies with the contractor's accident record, which is based on the contractor's injury costs and expressed as the EMR. The EMR is used to modify the average costs of premiums. A contractor with a lower accident rate and lower claims costs than the average pays less than a contractor with higher accident rate and higher claims costs.

DIRECT COSTS OF ACCIDENTS

1. INSURANCE COSTS

- WORKERS COMPENSATION PREMIUMS
- BUILDER RISK PREMIUMS
- MATERIAL INSTALLATION FLOATERS
- EQUIPMENT INSTALLATION FLOATERS

2. MEDICAL COSTS

- FIRST AID
- RESCUE AND AMBULANCE COSTS
- MEDICAL TREATMENT
- SICK PAY
- WORKER REHABILITATION

3. OSHA EXPENSE

- SPECIAL INVESTIGATION COSTS
- OSHA CITATION

4. PROJECT COSTS

- REPAIRING DAMAGED MATERIALS AND EQUIPMENT
- SALVAGE COSTS

5. LEGAL EXPENSE

- CLAIM INVESTIGATION
- LEGAL DEFENSE
- CLAIM JUDGEMENT

The cost advantages of a company safety program are best viewed by comparing the direct and indirect costs of accidents with the safety program costs.

The above table lists typical direct costs of accidents. The contractor must consider all of these costs in the cost of doing business. Many of these costs are not as expensive as the cost of workers compensation claims. In the case of a law suit stemming from a serious accident, where a dismemberment or death occurs or the worker can no longer be employed, the contractor may be liable for significant financial judgements in the courts. (1.4)

INDIRECT COST OF ACCIDENTS

1. COST OF INJURED WORKER

   - LOST PRODUCTIVE TIME
   - LOST PRODUCTIVE TIME FOR FOLLOW-UP TREATMENT
   - REDUCED CAPACITY OF THE RETURNED WORKER

2. COST OF INJURED WORKER'S CREW

   - LOST PRODUCTION AT TIME OF ACCIDENT
   - REDUCED CAPACITY DUE TO BEING SHORT-HANDED
   - REDUCED CAPACITY DUE TO INEXPERIENCED REPLACEMENT
   - REDUCED CAPACITY DUE TO EQUIPMENT AND MATERIAL DAMAGE

3. COST ASSOCIATED WITH OBTAINING MEDICAL HELP

   - DRIVER'S WAGES
   - TRANSPORTATION COSTS

4. EQUIPMENT AND MATERIAL DAMAGES

5. COST OF SUPERVISION

   - LOST TIME IN INVESTIGATING THE ACCIDENT
   - LOST TIME IN PREPARING ACCIDENT REPORTS
   - LOST TIME IN ACCOMPANYING REGULATORY PERSONNEL
   - LOST TIME IN ADDRESSING MEDIA PERSONNEL

Most of the indirect costs of accidents occur immediately or shortly after the accident. The indirect costs or hidden expense of accidents far exceeds their direct costs. In accidents involving only medical treatment and being returned to work the ratio of indirect costs to direct costs is 4.2 to 1. In accidents involving restricted activity or lost workday cases the ratio of indirect costs to direct costs is 20.3 to 1. (1.5)

Figure 1.3 Additional Revenue to Offset Accident Costs (1.6)

YEARLY INCIDENT COSTS ($)	NET PROFIT MARGIN ($1,000)				
	1%	2%	3%	4%	5%
1,000	100	50	33	25	20
5,000	500	250	167	125	100
10,000	1,000	500	333	250	200
25,000	2,500	1,250	833	625	500
50,000	5,000	2,500	1,667	1,250	1,000
100,000	10,000	5,000	3,333	2,500	2,000
200,000	10,000	10,000	6,666	5,000	4,000
	ADDITIONAL REVENUE TO OFFSET ACCIDENT COSTS				

If your company has been charged $25,000 to cover the direct costs for one injury and you are presently operating at a four percent net profit margin, you would have to do an additional $625,000 in revenue, with no accidents, to cover the costs of the injury.

TOTAL COST OF ACCIDENTS

1. INSURANCE AVERAGES ABOUT 8% OF DIRECT LABOR COSTS

   - WORKERS COMPENSATION @ 7%
   - LIABILITY INSURANCE @ 1%

2. ACCIDENT CLAIMS ESTIMATED AT 65% OF INSURANCE COSTS

   - (0.65 X 8%) = 5.2% OF LABOR COSTS

3. INDIRECT COSTS ARE 4 TIMES ACCIDENT COSTS

   - (4 X 5.2%) = 20.8% OF LABOR COSTS

4. AVERAGE CLAIM COSTS PLUS INDIRECT COSTS EQUAL 26% OF DIRECT LABOR COSTS

   - (5.2% + 20.8%) = 26% OF LABOR COSTS

The average contractor pays 26 percent of direct labor costs for accidents. (1.7)

ELEMENTS OF COMPANY SAFETY PROGRAM

1. COMPANY SAFETY POLICY (TOP-DOWN SUPPORT)
2. SUPERVISOR AND WORKER SAFETY RESPONSIBILITIES
3. WORKER ORIENTATION AND TRAINING
4. DRUG FREE WORKPLACE POLICY
5. PROJECT SAFETY
6. CREW SAFETY
7. OSHA REQUIREMENTS
8. OSHA RECORD KEEPING

Many elements make up a successful safety program, but the above eight steps are a necessary minimum. These elements are closely related to the characteristics of a company with high productivity and low accident rates.

The lessons in this workshop will explain how each of these eight elements are accomplished.

1. Does your company have any of the above in its safety program?
2. What items above does your company not do?

COST OF A COMPANY SAFETY PROGRAM

1. MANAGEMENT COSTS

- POLICY
- STANDARD OPERATING PROCEDURES
- JOB DESCRIPTIONS
- TRAINING
- DRUG-FREE WORKPLACE
- OSHA REQUIREMENTS AND RECORD KEEPING

2. PROJECT MANAGEMENT

- TASK ANALYSIS
- SITE CONTROL
- SIGNAGE
- COMMUNICATIONS
- TRAINING
- INSPECTIONS

3. EMPLOYEE PARTICIPATION

- WORKER SCREENING
- ORIENTATION AND TRAINING
- ENVIRONMENTAL PROTECTION

4. EQUIPMENT

- PROTECTIVE SAFETY DEVICES
- MAINTENANCE

5. SPECIAL TRAINING

- CPR
- FIRST-AID
- OSHA REQUIREMENTS

The cost of a company safety program ranges from 1.0 to 2.5 percent of labor costs, with 1.0 percent being closer to actual costs for most contractors (1.7 & 1.8). For example, a small contractor with $5 million annual gross revenue might have labor costs equal to 40 percent of revenue or $2,000,000 ($5,000,000 x 0.4). Thus, the cost of the safety program might be $50,000 ($2,000,000 x 0.025).

BENEFIT/COST OF A SAFETY PROGRAM

GROSS REVENUE: $5,000,000

NET PROFIT @ 5%: 0.05 x $5,000,000 = $250,000

LABOR COSTS @ 25%: 0.25% x $5,000,000 = $1,250,000

WORKERS COMPENSATION RATE:
$20 PER $100 OF LABOR COSTS OR 0.2

EXPERIENCE MODIFICATION RATE (EMR): 1.2 OR 120%

WORKERS COMPENSATION COSTS:
0.2 x $1,250,000 x 1.2 = $300,000

COST OF SAFETY PROGRAM: 0.025 x $1,250,000 = $31,250

IMPROVED EMR: 0.8 OR 80%

NEW WORKERS COMPENSATION COSTS:
0.2 x $1,250,000 x 0.8 = $200,000

WORKERS COMPENSATION SAVINGS:
$300,000 - $200,000 = $100,000

BENEFIT/COST RATIO: $100,000 ÷ $31,250 = 3.2 TO 1

NET PROFIT INCREASE: $100,000

NEW NET PROFIT: $250,000 + $100,000 = $350,000

PERCENT PROFIT INCREASE:
($350,000 - $250,000) ÷ $250,000 = 0.4 OR 40%

In the above example, a contractor with a safety program costing $31,250 is able to reduce workers compensation costs by $100,000. Not included above are the savings from reduced claims and the indirect costs of accidents. The safety program pays back $3.20 for each $1 of safety program costs. The bottom line is improved by 40 percent.

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #1: Survey of Company Safety Program

A useful way to start a safety program is by evaluating your company's current safety policies. Read and fill out the following safety practice questionnaire. Indicate with a check items that apply to your company. Discuss your evaluation with your fellow students. (1.9)

A. COMPANY SAFETY POLICY

1. What type of construction does your firm perform?

( ) Gen. Contractor ( ) Heavy & Highway ( ) Underground
( ) Utility ( ) Subcontractor ( ) Residential
( ) Commercial ( ) Industrial ( ) Municipal

( ) Other, specify: _____

2. Who at the company level is primarily responsible for safety?

_____

3. What is the scope of your safety program?

( ) Safety Responsibilities ( ) OSHA ( ) Loss Control
( ) Worker Orientation & Training ( ) Project Safety
( ) Crew & Craft Safety ( ) Record Keeping

( ) Other, specify: _____

B. SUPERVISOR AND WORKER SAFETY RESPONSIBILITIES

4. Do you have individual job descriptions? ( ) Y ( ) N

5. Is safety responsibility included? ( ) Y ( ) N

6. Does performance review include safety evaluation? ( ) Y ( ) N

7. Is supervisor's safety record included as part of pay, bonus,and promotion? ( ) Y ( ) N

C. WORKER ORIENTATION AND TRAINING

8. Do you conduct safety orientation for new employees? ( ) Y ( ) N

9. How often are workers trained in safety?

( ) Monthly ( )Bimonthly ( ) Weekly ( ) Biweekly

( ) Other, specify: _____

10. Are new hires trained in CPR? ( ) Y ( ) N

11. Are new hires trained in first-aid? ( ) Y ( ) N

12. Who teaches safety?

( ) Top-Management ( ) Middle-Mgmt. ( ) Supervisor

( ) Safety Director ( ) Other, specify: _____

13. What is your method of safety communication?

( ) Newsletter ( ) Toolbox Meeting ( ) Paycheck Insert
( ) Special Meeting ( ) Guest Lecturer ( ) Training

( ) Other, specify: _____

D. DRUG FREE WORKPLACE POLICY

14. Do you have a written drug free workplace policy? ( ) Y ( ) N

15. Are new hires oriented to drug free workplace policy? ( ) Y ( ) N

16. Do you comply with testing laws and regulations? ( ) Y ( ) N

E. PROJECT SAFETY

17. Do you have designated safety officers for your job sites? ( ) Y ( ) N

18. Are safety inspections conducted? ( ) Y ( ) N

19. If safety inspections are conducted then answer the following:

a) Who conducts inspections? _____

b) How often are inspections conducted? _____

c) Are follow-up inspections conducted? _____

F. CREW SAFETY

20. Are craftsmen and labor trained regularly any of the following areas?

a) Drug Education..... ( ) Y ( ) N
b) Drug Testing Requirements..... ( ) Y ( ) N
c) Emergency Procedure..... ( ) Y ( ) N
d) Excavation Safety..... ( ) Y ( ) N
e) Eye Protection..... ( ) Y ( ) N
f) Fire Protection..... ( ) Y ( ) N
g) First Aid Training..... ( ) Y ( ) N
h) Foot Protection..... ( ) Y ( ) N
i) Head Protection..... ( ) Y ( ) N
j) Hearing Protection..... ( ) Y ( ) N
k) Housekeeping..... ( ) Y ( ) N
l) Lifting/Back Protection..... ( ) Y ( ) N
m) Material Safety Data Sheets (MSDS)..... ( ) Y ( ) N
n) Respiratory Protection..... ( ) Y ( ) N
o) Safety Belt and Lifeline Safety..... ( ) Y ( ) N
p) Sanitation..... ( ) Y ( ) N
q) Toxic Materials..... ( ) Y ( ) N
r) Traffic Control..... ( ) Y ( ) N
s) Vehicle Start-up Requirements..... ( ) Y ( ) N

t) Other, specify: _____

G. OSHA REQUIREMENTS AND OSHA RECORD KEEPING

21. What is your Liability Insurance Historical Loss Ratio for the past three years?

1989 _____ 1990 _____ 1991 _____

22. What is your Experience Modification Rating (E.M.R.) for the past three years?

1989 _____ 1990 _____ 1991 _____

23. Are all injuries recorded for the record? ( ) Y ( ) N

24. Are injured employees interviewed? ( ) Y ( ) N

25. Who reviews OSHA accident reports and how frequently?

Responsibility	Frequency		
( ) Top-Mgmt	( ) Monthly	( ) Quarterly	( ) Annually
( ) Middle-Mgmt	( ) Monthly	( ) Quarterly	( ) Annually
( ) Supervisors	( ) Monthly	( ) Quarterly	( ) Annually
( ) Safety Dept	( ) Monthly	( ) Quarterly	( ) Annually

26. Where are accident records kept? ( ) Company ( ) Project

27. How are accident costs grouped and how often?

( ) Company ( ) Project
( ) Monthly ( ) Quarterly ( ) Annually

28. Regarding your accident frequency and severity rate?

Question	Year		
	1989	1990	1991
a) How many needed medical attention?..	____	____	____
b) How many restricted work days?.....	____	____	____
c) How many lost work days?.....	____	____	____
d) How many temporary disabilities?....	____	____	____
e) How many permanent disabilities?....	____	____	____
f) How many fatalities?.....	____	____	____

LESSON #2 COMPANY SAFETY PROGRAM

OBJECTIVES

1. COMPANY SAFETY POLICY
2. SAFETY RESPONSIBILITIES
3. COMPANY SAFETY PROGRAM

The following lesson stresses the need for a company safety program, including a company safety policy and individual safety responsibilities.

The first way to prevent accidents is for top-management to make a commitment to creating a safe workplace. Commitment begins with a company safety policy. The second way to prevent accidents is for all supervisors and workers to have clearly defined safety responsibilities. To prevent accidents, supervisors and workers must work together to perform their assigned safety duties.

Most of all, there must be a change in the corporate culture or "how things are done." With top management commitment to safety as job number one, including assigning individual responsibilities for safety, you will create an accident-free workplace.

SLC PROFIT TIP #2

THINGS GET DONE THAT TOP-MANAGEMENT WANTS DONE, ESPECIALLY SAFETY AND LOSS CONTROL

A change in the corporate culture begins with top-management's involvement. Involvement and commitment is the key to providing a safe workplace. The change in the corporate culture will encourage workers at all levels to obtain a company-wide commitment to accident-free construction. Ultimately, safety will be seen as everyone's responsibility.

This change in corporate culture includes evaluation of each construction supervisor's safety record. Normally, a job supervisor's evaluation includes only reviewing construction production and quality. Evaluating a supervisor's safety record and safe work practices for pay, bonus, and promotion sends a big message that management wishes an accident free workplace.

Top-management has an important motivation for reducing accidents. In some companies, lower workers compensation premiums from reduced accidents can be equal to or greater than the annual net profit before taxes.

1. Does everyone in your company know their safety responsibilities?

2. Does top-management visit the job site to inspect for safety?

3. Do you think top-managements visits are sufficient to create a safe workplace?

SAFETY DEFINITION

THE QUALITY OR CONDITION OF BEING SAFE; FREEDOM FROM DANGER, INJURY, OR DAMAGE; ANY OF CERTAIN DEVICES FOR PREVENTING ACCIDENTS. (2.1)

Any construction job can be made safer and most jobs can be made accident-free. However, safety begins with all supervisors and workers knowing how to avoid accidents. It is only through knowledge and training that supervisors and workers can avoid accidents.

Begin now to look for ways to make your jobs safer. For example, encourage field personnel to recognize the causes of accidents and implement safety methods. A safety competition between crews or projects helps foster pride in reducing accidents. A reward system for an accident free job site helps foster continued safety.

1. Are foremen encouraged to spot unsafe conditions and take preventative measures at your company?

2. Are good ideas proposed by those in the field incorporated in the company safety policy at your company?

CONTRACTORS WITH LOW ACCIDENT RATES AND HIGH PRODUCTIVITY

1. SUPERVISORS, INCLUDING FOREMEN, KNOW ABOUT THE ACCIDENTS THAT HAVE OCCURRED, INCLUDING TYPE, SEVERITY, FREQUENCY, CONTRIBUTING CAUSES AND HOW SUCH ACCIDENTS CAN BE AVOIDED IN THE FUTURE.

2. SUPERVISORS ARE EVALUATED BY MANAGEMENT ON THEIR SAFETY RECORD.

3. SUPERVISORS TRAIN NEW HIRES IN SAFETY PRACTICES.

4. SUPERVISORS TALK TO THEIR PERSONNEL ABOUT SAFETY.

5. FOREMEN USING DETAILED WORK PLANNING, SO THAT ALL REQUIRED MATERIALS AND EQUIPMENT ARE ON HAND WHEN NEEDED, SIGNIFICANTLY REDUCES ACCIDENTS.

6. FOREMEN WHO PLACE EMPHASIS ON SAFE WORK METHODS RATHER THAN GENERAL SAFETY PRACTICES HAVE ACCIDENT FREE CREWS.

This workshop is concerned with safety practices that increase production and reduce workers compensation costs. Studies show that companies with a safety policy, based on the above items, have low accident rates and high production. (2.2)

In these safe and high production companies, all supervisors know about previous accidents and how they occurred. Supervisors are held accountable for worker safety. New workers are trained in safety practices.

At the crew level, foremen use short-interval scheduling to insure that materials and tools are on hand, thereby helping to eliminate rushed work due to lost time in waiting for materials and other items. Most important, foremen explain safe work practices regarding the work at hand, rather than stress general safe work habits.

1. Does your company execute any of the above policies that contribute to high productivity and low accident rates?

2. What items above does your company not do?

COMPANY SAFETY POLICY

1. WRITTEN COMPANY SAFETY POLICY
2. STATES TOP-MANAGEMENT'S COMMITMENT TO SAFETY
3. STATES WHAT IS EXPECTED OF EVERYONE
4. ALL EMPLOYEES SIGN THAT THEY HAVE READ AND UNDERSTAND

The first step toward an accident free workplace is initiating a company safety policy. The safety policy is a written statement of top-management's commitment to safety, including management's expectations of employee conduct to create a safe workplace.

The safety policy need not be lengthy. A short, one page statement is sufficient. All employees should signify that they have read and understand the policy by signing the document. The original signed contract for each employee should be placed with their employment records.

1. What items do you consider important to stress in a company policy on safety?

2. What are the advantages of having the worker sign the policy and keeping a copy on record?

Figure 2.1 Company Safety Policy

(Company Letterhead)

It is the policy of this company to provide all workers with a safe working environment. Management considers worker safety more important than quality control and production.

As a condition of employment, all new hires and present employees must follow company instructions regarding safety in the workplace. As part of this policy, all supervisors and workers will adhere to the following practices.

1. All personnel shall be familiar with all company safety rules.

2. New hires will be trained in company safety rules and safe practices for each construction task.

3. All supervisors will be aware of past accidents, including type, severity, frequency, and contributing causes and how such accidents could be avoided.

4. Supervisors at all levels will talk to their personnel about safety.

5. Supervisors at all levels will be evaluated on their safety record as a condition for pay increase, bonus, and promotion.

6. Foremen will train craftsmen and labor in safe work practices for each stage of the work, rather than discuss general safety.

7. Foremen will plan the work so that sufficient manpower, materials, tools, and instructions are available prior to the start of work.

A safe workplace requires everyone working together to avoid accidents. All personnel are charged to stop work immediately upon first noticing an unsafe work practice, and then inform other workers and supervisors until the unsafe condition or practice has been corrected.

So as to provide a safe environment for those who are working with us, all subcontracts, purchase orders, and supply contracts will contain a copy of our safety policy.

All personnel have management's complete support to carry out this and other safety policies.

s/_____
President

s/_____
Employee

LEVELS OF SAFETY RESPONSIBILITY

1. TOP-MANAGEMENT
2. SAFETY DIRECTOR
3. COMPANY SAFETY COMMITTEE
4. PROJECT MANAGEMENT
5. FOREMAN
6. CREW AND CRAFTSMAN
7. SUBCONTRACTORS

Listed above are the individuals at each management level who are responsible for safety. Small companies may not have all these levels of safety management.

There should be clearly defined safety responsibilities and authorities for each type of employee. Each person must not only have the responsibility, but also the authority to enforce their safety responsibilities. Delegating safety responsibility, coupled with the authority to do what is necessary for a safe workplace, lessens attempts to "pass-the-buck" regarding safety.

1. List the types of employees in your company from top-management through workers who are responsible for safety.

2. Do these employees have safety authority as well as responsibility?

TOP-MANAGEMENT SAFETY RESPONSIBILITIES

1. ESTABLISH A CORPORATE CULTURE FOR A SAFE WORKPLACE
2. DEVELOP A COMPANY SAFETY POLICY AND PROGRAM
3. REQUIRE PROPER SCREENING OF WORKERS, INCLUDING DRUG SCREENING
4. TRAIN ALL EMPLOYEES IN SAFE WORK PRACTICES
5. PROVIDE PROTECTIVE EQUIPMENT WHERE NECESSARY
6. PROVIDE INCENTIVE PLAN
7. DESIGNATE SOMEONE AS COMPANY SAFETY DIRECTOR
8. CONDUCT PERIODIC SAFETY VISITS
9. MAINTAIN PROPER SAFETY RECORDS
10. REQUIRE SUBCONTRACTORS AND SUPPLIERS TO ADHERE TO COMPANY SAFETY POLICY
11. ESTABLISH A DRUG-FREE WORKPLACE POLICY
12. PROVIDE INCENTIVES AND REWARDS

Safety is everyone's responsibility, but top-management leads the way. Listed above are top-management's principal safety responsibilities. Top-management's main job is leadership in company-wide safety. Included are establishing policies and providing resources to accomplish these responsibilities either by top-management or others.

1. What other responsibilities does top-management have in providing a safe workplace?

2. Do all the above responsibilities apply to your company?

SAFETY DIRECTOR AND SAFETY COMMITTEE RESPONSIBILITIES

1. DEVELOP A COMPANY-WIDE SAFETY PROGRAM
2. KNOW SAFETY LAWS AND REGULATIONS
3. PROVIDE SAFETY POLICIES, PROCEDURES, AND MATERIALS
4. REVIEW EMPLOYEE JOB DESCRIPTIONS FOR SAFETY
5. ASSIST IN WORKER SCREENING AND TRAINING
6. TRAIN SUPERVISORS IN SAFETY RESPONSIBILITIES
7. CONDUCT SAFETY INSPECTIONS
8. INVESTIGATE ACCIDENTS
9. PROVIDE SUGGESTIONS
10. INVESTIGATE COMPLAINTS
11. MAINTAIN RECORDS

In a small company, the safety director is usually the owner or the project manager. In the small-to-medium company, the safety director is usually the owner, V.P of construction, or senior project manager. Regardless of company size, the safety director should have experience and occupy a position of authority. Also, the safety director should have good communication and organizational skills. An excellent method of preparing the safety director is by attendance at an OSHA 500 training course.

The safety committee is made up of representatives from company and project management. The safety director and committee develop and implement the company safety plan. The safety plan includes many items of this course, such as responsibilities, drug-free workplace, and OSHA record keeping. The success of a company safety plan is dependent upon the administration and management of the plan. By having the safety committee develop and implement the plan, coordination is effected at all levels.

1. Does your company have a safety director and safety committee?

2. If not, what individuals should be appointed as the safety director and safety committee members?

PROJECT MANAGEMENT SAFETY RESPONSIBILITIES

1. INSURE THAT SAFETY IS JOB #1
2. EVALUATE EACH PROJECT'S TASKS
3. IDENTIFY EACH TASK'S SAFETY HAZARDS AND WAYS TO AVOID ACCIDENTS
4. SELECT SUBCONTRACTORS AND SUPPLIERS WITH SAFE WORK RECORDS
5. INSURE THAT SUFFICIENT MANPOWER, MATERIALS, TOOLS, AND INSTRUCTIONS ARE AVAILABLE IN ADVANCE OF BEGINNING WORK
6. MAKE CURRENT AND FUTURE SAFETY REQUIREMENTS PART OF WEEKLY JOB MEETINGS
7. INSPECT FOR SAFETY

Listed above are typical responsibilities at the project management level. Safety commitment heads the list. Next is planning, assessing each job's construction task, potential risks, and actions necessary to avoid accidents.

Project management also is concerned with administering the company safety policy. At the project management level, carrying out policy means communicating safety practices to all on the job. Inspecting the job for safety is a major part in the communication process.

1. What project management responsibilities for safety apply to your jobs?
2. What steps can your project management take to make the workplace safer?

FOREMAN SAFETY RESPONSIBILITIES

1. HELP SCREEN WORKERS BEFORE BEGINNING NEW CONSTRUCTION TASK

2. TRAIN WORKERS IN SAFE WORK PRACTICES FOR EACH CONSTRUCTION TASK

3. INSURE SUFFICIENT MANPOWER, MATERIAL, TOOLS, AND INSTRUCTIONS ON HAND BEFORE STARTING A CONSTRUCTION TASK

Crew foremen are the first line of management to see employee unsafe work practices. The foreman must be trained to recognize safety problems, so that corrective action can be taken as soon as possible.

Experienced foremen and craftsmen have the detailed knowledge to train new co-workers. Stressing a task's safe work practices is more effective than emphasizing general safety. For example, showing how to use a power tool for the next task of cutting and joining is more effective in preventing accidents than telling workers to be watchful of potential accidents.

Rushing the work usually leads to carelessness and accidents. Foremen who plan ahead and have materials and tools on hand before commencement of a task avoid rushing the construction pace to make up for lost time.

1. Do foremen in your company play a key role in training workers in safe work practices for each construction task?

2. Do foremen in your company plan a week in advance the next week's manpower, materials, tools, and instructions?

CREW AND CRAFTSMAN SAFETY RESPONSIBILITIES

1. SUPPORT COMPANY SAFETY PROGRAM
2. ADHERE TO SAFETY RULES
3. APPLY SAFETY KNOWLEDGE WHERE REQUIRED
4. NOT CONDONING UNSAFE ACTS
5. REMIND FELLOW WORKERS OF SAFETY BENEFITS

Every crew member, whether an experienced craftsman or laborer, plays a key role in safety. This critical function includes supporting the company safety program, adhering to safety rules, and applying safety knowledge. Every crew member has a responsibility to spot and correct unsafe working conditions and practices.

Every craftsman must be alert to dangerous conditions on the construction site. Sometimes, the lowest paid workers are first to recognize an unsafe work practice by a co-worker. Because the lower paid workers can spot and prevent an accident, the company must make every effort to encourage safety, especially at these lower levels. If a dangerous work practice is observed, action must be taken to stop the hazardous act and discover a safer method of performing the given task.

Monetary reward or other recognition for a safe job is not the only motivator for worker safety. Through training and leadership, management can motivate employees to take pride in an accident-free company. Employees reminding fellow workers of safety benefits is critical for a successful safety program.

1. What does your company do to instill safety responsibility at the crew and craftsman level?

2. Does your company reward crews and craftsmen with accident free jobs?

SUBCONTRACTOR SAFETY RESPONSIBILITIES

1. PROVIDE GENERAL CONTRACTOR WITH SUBCONTRACTOR'S SAFETY PROGRAM AND RECORD

2. ADHERE TO THE GENERAL CONTRACTOR'S SAFETY POLICY

3. ATTEND JOB SITE SAFETY MEETINGS

4. PROVIDE A REPRESENTATIVE DURING OSHA SITE VISITS AND INVESTIGATIONS

The general contractor is responsible for overall safety on the job site, including insuring that subcontractors are conducting safe work practices. The general contractor can be cited by OSHA for unsafe work practices by the subcontractors.

The best way to insure subcontractor safety is to select subcontractors who also consider safety as the most important task on the job. The general contractor and subcontractor working together can create an accident-free workplace.

1. Does your company in selecting subcontractors consider subcontractor safety record and practices?

2. What are the advantages of the general contractor and subcontractor working together to create a safe working environment?

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #2: Developing a Company Safety Program

Developing a company safety program begins by reviewing past accidents and safety violations. With a clear picture of what needs to be corrected, the company can begin to incorporate solutions into the company program.

Florida Concrete, Inc. is a small labor intensive subcontractor with $3 million annual gross revenue. The company has been in business for 10 years and does 10-to-15 jobs per year, usually foundations, structural concrete, and retaining walls. The company averages 10-to-20 lost work time accidents per year.

In the past 12 months, Florida Concrete has doubled the number of jobs to 30 per year. This expansion has caused several management problems, including doubling the number of lost time accidents to 30 per year. OSHA has recently cited the company for safety violations.

Company management at all levels admits to neglecting safety. There is lack of commitment to safety. A few workers have been discharged for drug use. Management has decided to develop a safety program.

The following summarizes the past 12 month's accidents and OSHA citations.

Accident	Injury	Result
Five Tool & Material Falls	Fractured Skulls	Discharge
Four Eye Injuries	Sight Lost	Discharge
Five Major Falls	Broken Limbs	Lost Work Time
Seven Minor Falls	Sprains	Lost Work Time
Three Minor Cuts	Puncture Wounds	Lost Work Time
Two Fire and Heat Accidents	Burns	Lost Work Time

OSHA Violations

1. Faulty Scaffolding
2. Improper Form Work Construction
3. Hard Hat Violations
4. Lack of OSHA records

Working with another student, identify three problems and solutions for each of the following company levels: (A) top-management, (B) project management, (C) crew level, and (D) employee. Propose a solution for each problem. Make necessary assumptions to perform the assignment. Be prepared to explain your answers to the class.

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #2: Developing a Company Safety Program

Problem	Solution
A. TOP MANAGEMENT	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
B. PROJECT MANAGEMENT	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
C. CREW LEVEL	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
D. EMPLOYEE	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Solution #2: Developing a Company Safety Program

Problem	Solution
A. TOP MANAGEMENT	
1. No safety policy or plan	1. Develop policy and plan
2. No drug screening	2. Drug free workplace policy
3. No OSHA record keeping	3. Maintain safety records
B. PROJECT MANAGEMENT	
1. Allowing unsafe practices	1. Safety planning
2. OSHA violations	2. Comply with OSHA regulations
3. Lack of inspections	3. Inspect and hold meetings
C. CREW LEVEL	
1. Failure to plan work	1. Plan week's work ahead
2. No training in safety	2. Training in safe work habits
3. Lack of responsibility	3. Stress safe teamwork
D. EMPLOYEE	
1. Many new employee accidents	1. New worker orientation
2. Fake workers comp. claims	2. Accident investigation
3. Incorrect tool use	3. Tool use training

LESSON #3 DRUG-FREE WORKPLACE

OBJECTIVES

1. NOTIFICATION
2. EDUCATION
3. TESTING

This lesson explains how to develop a drug-free workplace. Drugs include both alcohol and controlled substances. Drug use is widespread in the construction industry. Worker drug and alcohol abuse increases accidents and lowers profits. The major elements of a drug-free workplace program are: notification, education, and testing (NET). The program can be developed by the company, a contractor association, or a consultant.

1. Does your company view drugs in the workplace as a serious problem?

2. Does your company have a drug testing program?

3. How does your company reduce drugs on site?

SLC PROFIT TIP #3

CREATE A DRUG-FREE WORKPLACE AND

IMPROVE PRODUCTION AND INCREASE PROFITS

There are many considerations and responsibilities in creating a drug-free workplace. The program must comply with Federal and state laws and regulations, however, the benefits accruing provide a major return on investment of money and time expended to develop the program.

A company with a drug-free program is eligible for a reduction in workers compensation premiums. Federal procurement regulations require a drug-free workplace program in a company doing more than $25,000 in government construction. Lower labor costs coupled with increased productivity provides a competitive edge and higher profit potential.

DRUG USER COMPARED TO A NORMAL EMPLOYEE

1. LATE 3 TIMES MORE OFTEN
2. REQUEST 2.2 TIMES MORE TIME OFF OR ARE DISMISSED
3. HAVE 2.5 TIMES AS MANY ABSENCES OF 8 DAYS OR MORE
4. USE 3 TIMES NORMAL SICK BENEFITS
5. MORE LIKELY TO BE INVOLVED IN THEFT OF COMPANY PROPERTY
6. MORE LIKELY TO DEAL IN DRUGS ON THE JOB SITE
7. INVOLVED IN ACCIDENTS 3.6 TIMES MORE OFTEN
8. ARE 5 TIMES MORE LIKELY TO FILE A WORKERS COMPENSATION CLAIM

A drug user is a hazard to himself and others on the job site. Employees involved with substance abuse bring with them greater absenteeism, claims, and judgements against the company. (3.2)

According to the OSHA 500 Safety Course, two of the key indications of drug use on the job are theft of company property and selling drugs on the job site. The drug user first steals to support the drug habit. Once having taken what can be stolen, the drug user deals in drugs in order to support the drug habit. Remember that drug abuse does not have to be accepted or tolerated.

BENEFITS OF A DRUG-FREE WORKPLACE

1. NO OSHA PENALTIES FOR NOT HAVING A DRUG-FREE WORKPLACE POLICY, BUT MAY BE LIABLE UNDER NEGLIGENCE THEORIES

2. WORKERS INJURED IN THE COURSE OF THEIR EMPLOYMENT, WHO ARE TESTED AND EXCEED PRESCRIBED LEVELS, FORFEIT THEIR ELIGIBILITY FOR MEDICAL AND INDEMNITY BENEFITS UNDER THE WORKERS COMPENSATION ACT

3. WORKERS WHO ARE TESTED AND EXCEED PRESCRIBED LEVELS MAY BE TERMINATED

4. COMPANY WITH A DRUG-FREE WORKPLACE PROGRAM QUALIFIES FOR REDUCED WORKERS COMPENSATION RATES

A company with a drug-free program enjoys many advantages. Those who are injured on the job site, but are tested and found to be under the influence have no recourse under workers compensation. In the long term, lost workers compensation coverage deters others from using drugs.

Another advantage is the right to terminate an employee who tests positive for drugs. Florida is a right to hire state, meaning that employers have the right to discharge employees at any time for any legitimate reason.

Finally, the company with a drug-free workplace qualifies for reduced workers compensation premiums. This cost reduction provides a financial competitive edge.

DRUG-FREE WORKPLACE PROGRAM

1. TOP-MANAGEMENT
2. PROJECT MANAGEMENT
3. CREW MANAGEMENT

All management levels play a role in administering the drug-free workplace program. Top-management initiates the program and insures its execution, including testing. Project management administers the drug-free workplace program on the job. Crew management, including craftsmen, are watchful for signs of deteriorating worker performance, including drug-use and dealing in drugs.

For success each level must understand and execute its responsibilities. Small companies may have some overlapping responsibilities at different management levels.

TOP-MANAGEMENT RESPONSIBILITIES

1. ESTABLISH NOTIFICATION REQUIREMENTS

2. CONDUCT DRUG-FREE WORKPLACE EDUCATION, INCLUDING EMPLOYEE ASSISTANCE PROGRAM

3. COMPLY WITH FEDERAL AND STATE TESTING REQUIREMENTS

Top-management initially develops the drug-free program, including issuing a policy on a drug-free workplace. Top-management is responsible for establishing notification requirements, educating employees, and testing. Worker privacy and confidentiality of test results is an important requirement of the program. Those found abusing drugs should be informed and/or discharged. If remaining in the company, the worker's drug habit must be held in confidence.

Again, things get done that management wants done. A well organized and enforced program will create a drug-free environment.

1. In your company is the drug-free workplace program backed 100% by top-management?

2. Do employees in your company view the drug testing program as an advantage or a hinderance?

PROJECT MANAGEMENT RESPONSIBILITIES

1. CONDUCT ON-GOING SUPERVISOR AND WORKER DRUG EDUCATION
2. COMMUNICATE DRUG-FREE WORKPLACE STANDARDS
3. SPOT SIGNS OF DETERIORATING WORKER PERFORMANCE
4. REQUIRE WORKER DRUG TESTING

Project management is a key to program success. Action is usually taken first at the project management level. Effective testing depends on project management support. If project managers believe drug testing increases production and profit, workers will have a drug-free environment.

Project management usually orders a drug test on a worker suspected of drug use. If the test reveals drug use, the project manager can discharge the employee or refer the employee to the company's employee assistance program.

1. Do project managers on your sites enforce the company drug-free workplace policy?

2. Do project managers on your sites believe in drug testing programs?

CREW MANAGEMENT RESPONSIBILITIES

1. INCREASE KNOWLEDGE ABOUT DRUGS AND THEIR EFFECTS
2. INFORM NEW WORKERS THAT A DRUG-FREE WORKPLACE IS THE NORM
3. SPOT SIGNS OF DETERIORATING WORKER PERFORMANCE
4. INFORM MANAGEMENT OF SUBSTANCE ABUSE

In creating a drug-free environment, crew management follows project management's example. Some foremen may be reluctant to become involved in drug-free program efforts. Educating foreman to their key role in monitoring worker performance usually overcomes any objection.

Workers also may not like drug testing, however, education, especially to the benefits, will gain support here too. Impress upon the workers that the drug testing program makes the company more competitive and produces a safer working environment.

It is important to reward crews who are drug free. For example, if during an interval the crew remains drug free, a minor reward, such as a company party, may be appropriate.

COMPONENTS OF A DRUG-FREE WORKPLACE PROGRAM

1. COMPANY POLICY
2. LIST OF COMPANY POSITIONS REQUIRING DRUG TESTING
3. NOTICE OF DRUG TESTING
4. INDIVIDUAL CONSENT FORM
5. STATE REQUIREMENT FOR DRUG-FREE TESTING
6. LIST OF DRUGS FOR WHICH TESTED
7. INDIVIDUAL REPORT OF USE OF PRESCRIPTION AND NON-PRESCRIPTION DRUGS
8. LIST OF CERTIFIED DRUG TESTING LABORATORIES
9. NOTICE OF TEST RESULTS
10. LIST OF EMPLOYEE ASSISTANCE AND REHABILITATION PROGRAMS
11. INDIVIDUAL CHALLENGE OF TEST RESULTS
12. INDIVIDUAL NOTIFICATION TO TESTING LABORATORY

Listed above are the major components of a drug-free workplace program. The program can be developed and conducted by the company, a contractor association, or a consultant.

DRUG-FREE WORKPLACE NOTICE

1. GENERAL ONE-TIME NOTICE TO ALL EMPLOYEES AND JOB APPLICANTS

   - CONDITION OF EMPLOYMENT TO REFRAIN FROM USING DRUGS

   - ON OR OFF THE JOB

   - DRUG TESTING PROGRAM BEING IMPLEMENTED

2. AT LEAST 60 DAYS ELAPSE TIME BETWEEN NOTICE AND TESTING

To establish a drug-free workplace there must be written notice to all employees. Each employee must sign a written acceptance of the program, including granting permission to conduct regular and periodic drug testing.

COMPANY DRUG-FREE POLICY

1. POLICY IN WRITING
2. STATES TOP-MANAGEMENT'S COMMITMENT TO A DRUG-FREE WORKPLACE
3. STATES WHAT IS TO BE EXPECTED OF EMPLOYEES
4. EMPLOYEES SIGN THAT THEY HAVE READ AND UNDERSTAND

The first step in creating a drug-free program is a written company policy. The drug-free policy is top-management's commitment to eliminating drugs in the workplace. The policy states rights of the company, employees, and job applicant. It is best to explain the policy. With a full explanation, the potential employee can decided whether or not to submit to drug testing.

The policy need not be lengthy. A short one-to-two page statement is sufficient. All employees should sign that they have read and understand the policy. The signed copy should be kept with the employee's employment records.

Figure 3.1 Company Drug-Free Policy

(Company Letterhead)

Policy:

It is the policy of this company to provide employees with a drug-free workplace. Management considers a drug-free environment as important as quality control and production. As a condition of employment employees and job applicants must comply with this policy.

Administration:

The drug-free workplace program is administered in the following manner.

1. Employees are subject to testing 60 days after signing this policy and consent form. Thereafter, testing may occur at any time. Testing is by urine analysis. Retesting method is defined in state regulations.

2. The company has the right to discharge an employee on the basis of a positive confirmed drug test result not meeting federal or state standards of being drug free.

3. Florida Department of Labor Employment Security, Division of Workers Compensation, Workers Compensation Drug Testing Rule 38F-9 defines requirements for drug-free testing.

4. Confidentiality of drug tests is protected in accordance with Section 38F-9.012 of the above rule.

5. Employees and job applicants may report the use of prescription or nonprescription medications both before and after being tested. Employees shall receive notice of the most common drugs and medications by brand name or common name, as well, as by chemical name, which may alter or affect a drug test.

6. Employees or job applicants refusing to submit to a drug test lose workers compensation medical and indemnity benefits.

7. The company maintains a list of names, address, and telephone numbers of employee assistance programs and local alcohol and drug rehabilitation programs available to employees.

8. An employee or job applicant who receives a positive confirmed drug test may contest or explain the result to the employer

within five working days after written notification of the positive test result. If the employee or job applicant's explanation or challenge is unsatisfactory to the company, the person may contest the drug test result as provided in Rule 38-F-9.009.

9. The employee or job applicant are responsible for notifying the laboratory conducting the drug test of any administrative or civil actions in conjunctions with Chapter 440, Florida Statutes.

10. The company will furnish a list of all drugs for which the employee will be tested, including brand names or common names, as applicable, as well as by chemical names.

11. Employees retain their rights under any collective bargaining agreement with the employee.

12. Employees and job applicants have the right to consult the testing laboratory for technical information regarding prescription and nonprescription medication.

13. Vacancy announcements will include a notice of drug testing for positions where drugs testing is required.

14. Notice of drug testing shall be post in an appropriate and conspicuous location and the company premises. Copies of the policy are available for inspection during regular business hours by the general public in the employer's personnel office or other suitable locations.

Acknowledgement:

I have received a copy of the Drug-Free Workplace Policy of the company. I have carefully and thoroughly read this policy. I understand its requirements and agree, without reservation, to abide by the policy.

I hereby consent to the administration of the drug-free workplace policy.

Individual: _____ SSN: _____ Date: _____

Witness: _____ SSN: _____ Date: _____

Witness: _____ SSN: _____ Date: _____

DRUG-FREE WORKPLACE EDUCATION

1. MAINTAIN A CURRENT RESOURCE FILE OF PROVIDERS OF EMPLOYEE ASSISTANCE, INCLUDING ALCOHOL, DRUG ABUSE, MENTAL HEALTH, AND BEHAVIORAL PROBLEMS

   - REFERENCE: "FLORIDA COMPREHENSIVE DIRECTORY, DRUG ABUSE AND MENTAL HEALTH SERVICE, DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES"

2. INFORM EMPLOYEES AND NEW HIRES ABOUT EMPLOYEE ASSISTANCE PROGRAMS

   - EMPHASIZE LACK OF IMPROVEMENT IS GROUNDS FOR DISCHARGE

   - INFORM WORKER OF THE AVAILABILITY OF ASSISTANCE

   - COUNSEL WORKER AND SET TIME LIMIT FOR IMPROVEMENT

3. PROVIDE ANNUAL EDUCATION COURSE TO IDENTIFY PERSONAL AND EMOTIONAL PROBLEMS RESULTING IN USE OF ALCOHOL AND DRUGS

   - FOCUS ON EMOTIONAL, LEGAL, PHYSICAL, AND SOCIAL CONSEQUENCE OF SUBSTANCE ABUSE

The above education requirement is part of the drug-free workplace program. Education is a requirement for the company being eligible for reduced workers compensation premiums.

Top-management plays a key role in the education component, including instructing workers on drug-free requirements. Worker education is central to worker compliance, including training in recognizing deteriorating performance in fellow workers. The company also has the responsibility to inform the employee of drug assistance programs.

The education program can be provided by the company, a contractor association, or a consultant.

DRUG-FREE WORKPLACE TESTING

1. JOB APPLICATION TESTING
2. ROUTINE FITNESS FOR DUTY TESTING
3. REASONABLE SUSPICION TESTING
4. FOLLOW-UP TESTING

There are four different situations requiring drug testing. First, the job applicant is tested if drug testing is a requirement for the position. The applicant's refusal to submit to a test or a positive confirmed test result is the basis for refusal to hire.

Second, is routine fitness for duty, as part of a usually scheduled medical exam and an established medical policy.

Third, reasonable suspicion testing is conducted when a reasonable suspicion exists that a worker's ability to perform effectively or safely exists and there is a basis that drugs may be involved. Reasonable suspicion can be based on:

1. Observed using drugs or worker's drug induced behavior.
2. Observed deteriorating performance, abnormal behavior, or erratic conduct.
3. Reported from a reliable source, such as a foreman, and independently corroborated.
4. Evidence of worker tampering with a drug test.
5. Evidence that worker has used or dealt in drug while on company property.
6. When a worker has caused on been involved with an accident.

Fourth, follow-up testing after the worker has taken part in a recovery assistance program, where testing may be done on a semi-annual basis for up to two years.

Upon the employee being judged by testing to be under the influence, the company has the right to 1) discharge the employee, 2) require retesting to confirm being under the influence, or 3) routinely test for fitness for duty.

IMPORTANT DRUG TESTING REGULATIONS

1. HIRING OF INDEPENDENT LABORATORY
2. WORKER'S SIGNED CONSENT TO TEST AND KNOWLEDGE OF TESTING PROCEDURES AND REGULATIONS
3. WORKER ENTITLED TO PRESENT RELEVANT INFORMATION PRIOR TO TEST
4. COLLECTION BY TESTING LABORATORY
5. RESTRICTED CHAIN OF CUSTODY OF EVIDENCE
6. CONFIRMATION TESTING
7. CHALLENGE OF TEST RESULTS

The company must retain an independent testing laboratory certified by the state as capable of conducting drug testing. The employee must sign a consent form for testing. Test results must be confidential. Only authorized personnel such as the company owner and senior project manager should view test results.

Employees can obtain information concerning challenging of test results by obtaining a copy of the law from the Department of Labor and Employment Security, Division of Workers Compensation, Tallahassee, Florida.

Figure 3.2 Consent Agreement for Applicant Drug Test

(Company Letterhead)

As a prerequisite to employment, I hereby agree to allow the company to collect urine samples from me to determine the presence of illegal drugs in by body. Further, I give my consent to the release of my test results to authorized Company management for appropriate review, and authorize the Company to use the test results as a defense against any legal action to which I am a party.

I understand that the results of the drug testing of my urine, if confirmed positive, will remove me from consideration for employment. I also understand that if I refuse to consent, I will be removed form from further consideration for employment.

Further, I understand that, if employed by the Company, I must abide by the terms of the company's drug-free workplace policy and my be required to submit to testing for the presence of illegal drugs or alcohol. I understand that submission to such testing is a condition of employment with the Company, and disciplinary action, up to and including discharge, may result in 1) I refuse to consent to such testing, 2) I refuse to execute all forms of consent and release of liability as are usually and reasonably attendant to such examinations, 3) I refuse to authorize release of the test result to the Company, if the tests establish a violation of the Company's drug-free workplace policy, or 4) I otherwise violate the policy.

I hereby consent to the administration of the drug test and to the terms and conditions of the consent Agreement.

Individual: _____ SSN: _____ Date: _____

Witness: _____ SSN: _____ Date: _____

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #3: Drug-Free Workplace

A good way to learn about a drug-free workplace policy is to evaluate a company's current situation. Take a moment and read the background concerning Florida Concrete Subcontracting, Inc.'s current drug problems.

1. Florida Concrete has a total labor force of 30 permanent employees and 30-to-40 temporary hires. In the last six months, lost time accidents have increased 50 percent. A total of 72 individual man days were lost as result of these accidents.

2. During the past six months, 10 temporary hires were arrested for selling, buying, or using narcotics. One permanent field supervisor was convicted of Driving While Intoxicated (DWI).

3. Several new employees have refused to sign the company drug-free workplace policy. The major reason for not signing was the inability to read and understand the policy's content.

Working with another student, identify three problems at each company level associated with the use of drugs and alcohol at Florida Concrete. For each problem propose a solution.

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #3: Drug-free Workplace

Problem	Solution
A. TOP MANAGEMENT	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
B. PROJECT MANAGEMENT	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
C. CREW LEVEL	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
D. EMPLOYEE	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Solution #3: Drug-Free Workplace Program

Problem	Solution
A. TOP MANAGEMENT	
1. Not explaining policy	1. Explain policy upon hiring
2. No drug screening	2. Test all new hires for drugs
3. No drug education	3. Monthly drug education
B. PROJECT MANAGEMENT	
1. Tolerating drugged workers	1. Penalize or fire supervisors
2. Fail to spot drugged workers	2. Supervisor drug education
3. Unsafe work practices	3. Safe work practice education
C. CREW LEVEL	
1. Failure to notify management	1. Penalize or fire supervisors
2. No safe work habits training	2. Training in safe work habits
3. Lack of responsibility	3. Stress safe teamwork
D. EMPLOYEE	
1. Drugs on the job site	1. Termination of offenders
2. Poor workmanship	2. Incentives for quality
3. Illiterate	3. Education

LESSON #4 SAFETY TRAINING

OBJECTIVES

1. NEW WORKER SAFETY ORIENTATION
2. JOB SITE SAFETY MEETINGS
3. CRAFT TOOL BOX MEETINGS

This lesson explains company safety training. Fifty percent of accidents happen during the new worker's first six months on the job according to information provided by the AFL/CIO. Therefore, accident reduction depends on orienting the new worker to company safety standards, and equipment training during the new hires first days on the job.

Long-term accident prevention also depends on continued training. On-going training is accomplished by job site safety meetings and craft tool box meetings. A representative from each subcontractor on your job sites should be required to attend each safety meeting and signify that they have attended by signing the meetings minutes.

Orientating the new worker to the company policies on safety and drug-free workplace is part of safety training too. However, new hire orientation, supervisor safety meetings, and craft tool box meetings help the worker focus on specific safety requirements.

SLC PROFIT TIP #4

PREVENT ACCIDENTS BY NEW WORKER ORIENTATION AND TRAINING ON SITE

Orienting new hires to company safety policies and practices sends a big message -- "This company considers safety more important than quality control and production." The majority of new hire accidents occur within the first six weeks on the job. According to a study accomplished by The Business Roundtable, new workers of less than 30 days on the job account for 25 percent of all accidents.

By concentrating on safety at the time of hiring and continuing for the first weeks on the job, you set the stage for long-term accident prevention. During this initial period, most new craftsmen and laborers wish to succeed and are open to suggestion.

Reinforce the initial orientation by continued education on the job site. Weekly job site safety meetings and craft tool box meetings help all field personnel to continue safe work habits.

NEW WORKER SAFETY ORIENTATION

1. CONDUCT FOR ALL NEW HIRES
2. FOCUS ON COMPANY POLICIES AND GENERAL SAFETY
3. USE COMPANY FORMS
4. RECORD ISSUANCE

The company is responsible for orienting new workers. Initial orientation focuses on the company safety policy with respect to safety, drug-free workplace policy, and safety rules. Someone, such as the general foremen, should be responsible for conducting this orientation on a continual basis.

The company has the new worker read the company safety policy, drug-free workplace policy, and safety rules. The general foreman should explain these policies and rules to the new worker. After asking questions, the new employee signs all policies, acknowledging that he or she will comply.

Beginning July 1992, the employment provision of the Americans with Disabilities Act (ADA) goes into effect for employers with more than 25 employees. The act prohibits discrimination against job applicants on the basis of previous accidents, illnesses, and injuries. After the worker has been hired, you may inquire regarding physical capabilities to perform the work by taking a work history.

Figure 4.1 Company Policy on New Employee Safety Orientation

(Company Letterhead)

SUBJECT: New Employee Safety Orientation

The company policy is to orientate new employees to company safety standards. This orientation will be conducted before the new hire begins work. The employee's immediate supervisor is responsible for orienting the new hire. The following tasks will be completed by the supervisor and the new employee.

Company Safety Policies

1. I have completed the company employment record and listing of all previous accidents, illnesses, and injuries, including non-work related.

2. I have read and understand the following company safety items.

   ( ) Company Safety Policy

   ( ) Company Drug-Free Workplace Policy

   ( ) Company Safety Rules

   ( ) Safety Signs

   ( ) Personal Protective Clothing and Devices

   ( ) Accident Emergency Procedures

   ( ) Safety Discipline Report

   ( ) Job Site Safety Rules

3. My immediate supervisor has explained to me my construction tasks and safe work practices.

S/_____ S/_____

Supervisor Employee

Figure 4.2 Company Employee Work History

(Company Letterhead)

Name: _____
(Last) (First) (Middle)

Address: _____
(Street) (City) (State) (Zip)

Telephone: _____ SSN: _____

Name to Contact In Emergency: _____
(Last) (First) (Middle)

Address: _____
(Street) (City) (State) (Zip)

Position: _____ Company: _____

Address: _____
(Street) (City) (State) (Zip)

From: _____ To: _____ Supervisor: _____

Duties: _____

Accidents, Illnesses and Injuries: _____

_____

Medical Treatment: _____

Physician and Address: _____

Non-Work Related Accidents, Illness and Injuries: _____

_____

Position: _____ Company: _____

Address: _____
(Street) (City) (State) (Zip)

From: _____ To: _____ Supervisor: _____

Duties: _____

Accidents, Illnesses and Injuries: _____

_____

Medical Treatment: _____

Physician and Address: _____

Non-Work Related Accidents, Illness and Injuries: _____

_____

COMPANY SAFETY RULES

1. KEEP ALERT FOR UNSAFE ENVIRONMENTS AND WORK PRACTICES
2. STOP UNSAFE WORK, CORRECT UNSAFE CONDITIONS AND INFORM SITE SUPERVISOR
3. MAINTAIN CLEAN WORK AREA
4. REPORT ALL INJURIES IMMEDIATELY TO SITE SUPERVISOR
5. WEAR PROTECTIVE EQUIPMENT
6. USE THE RIGHT TOOL FOR THE JOB
7. FOLLOW SAFE WORK PRACTICES AND DO NOT TAKE CHANCES
8. COMPLY WITH COMPANY JOB SITE RULES
9. FOLLOW SAFETY SIGNS
10. REMEMBER, SAFETY FIRST - DO THE RIGHT THING

Every company should have general safety rules. General safety rules should be followed on all company work. Print company safety rules and post them on all company bulletin boards and all job sites.

1. What is the advantage of having company safety rules?
2. What is the advantage of explaining the rules to the new employee, including having the new employee sign that the rules are understood?
3. Are there any other rules not listed above that apply to your type of work?

PERSONAL PROTECTIVE CLOTHING AND DEVICES

1. HARD HAT
2. GOGGLES WHEN NECESSARY
3. EARPLUGS WHEN NECESSARY
4. LONG-SLEEVED SHIRT WITH BUTTONS AT FRONT AND WRISTS
5. CORRECT SIZE AND TYPE GLOVES
6. FACE SHIELD WHEN NECESSARY
7. TROUSERS WITHOUT CUFFS OVER TOP OF BOOTS
8. BOOTS WITH RUBBER SOLES LACED TO ANKLE
9. NO JEWELRY AND WATCHES
10. STEEL TOED BOOTS FOR MILITARY

Employees must come dressed for safe work. The main requirement according to OSHA is to wear an hard hat on the job site at all times. Also, for any welding work goggles must be worn. The remainder of the personal protective equipment listed above should be required as company policy.

1. Do you believe that protective clothing is necessary for your work?

2. Are any of the above items not necessary for your type of construction?

3. Are there any additional items you would add to the above list?

COMPANY SIGNS

PRINT AND POST AT COMPANY AND JOB SITE

ATTENTION! HARD HAT AREA

HARD HATS MUST BE WORN AT ALL TIMES

THIS IS A DRUG-FREE WORKPLACE

VIOLATION OF COMPANY DRUG-FREE WORKPLACE POLICY

WILL RESULT IN DISMISSAL

ALL VISITORS AND FIRST TIME WORKERS

REPORT TO THE JOB TRAILER

NOTICE!

WE TEST ALL APPLICANTS FOR ILLEGAL DRUG USE

IF YOU USE DRUGS, DON'T BOTHER TO APPLY

Print these and other signs. Post on company bulletin board and on the job site.

ACCIDENT EMERGENCY PROCEDURES

1. PROVIDE NECESSARY FIRST-AID
2. INFORM JOB SUPERVISOR
3. CALL AMBULANCE OR EMERGENCY RESCUE SQUAD
4. DESIGNATE RESPONSIBLE PERSON TO ACCOMPANY INJURED WORKER TO DOCTOR OR HOSPITAL
5. CORRECT CAUSE OF ACCIDENT
6. COMPLETE SUPERVISOR'S ACCIDENT INVESTIGATION REPORT (OSHA 100)

Post on company bulletin board and on job site.

Figure 4.3 Safety Discipline Report

(Company Letterhead)

DATE: (Month, Day, Year)

TO: (Employee's Name)

FROM: (Supervisor's Name)

SUBJECT: Unsafe Practice

Job: (Job Name and Number)

Position: (Employee's Job Title or Work)

Description of Unsafe Practice: _____

_____

_____

Description of Safe Practice: _____

_____

_____

Employee's Reason for Unsafe Practice: _____

_____

_____

Correct Practice: _____

_____

Action Taken: ( ) Verbal Warning ( ) Written Reprimand

( ) Day Without Pay ( ) Dismissal

I have read the completed Safety Discipline Report above. I am aware that continued unsafe practices will result in dismissal.

S/_____ S/_____

Supervisor Employee

JOB SITE SAFETY MEETINGS AND TRAINING

1. CONDUCT WEEKLY FOR FOREMEN
2. FOCUS ON CURRENT PROBLEMS AND FUTURE WORK
3. DEVELOP JOB SAFETY NOTES
4. RECORD MINUTES AND ATTENDANCE

The general contractor is responsible for conducting frequent job site safety meetings. Site safety meetings are held weekly with subcontractor foremen. Subcontractor owners should insure their foremen attend. The purpose is to focus on current and upcoming safety hazards.

The general contractor's site superintendent is responsible for conducting the meeting. The site superintendent should prepare an outline of topics and steps for accident avoidance. The outline should be detailed enough so that foremen can explain to their crews the safety requirements.

To have undivided attention at the safety meeting, it is important to keep the length of the meeting to a minimum, but have sufficient time for attender participation. Thus, you will have attentive participants who are committed to job site safety.

A weekly job site safety meeting will not be practical for some small general contractors and subcontractors. If this is the case, the company owner should arrange time for company job site foremen to meet and review together their safety concerns. Set aside the last hour of the week or time on payday for your foremen to meet and develop group approaches to job site safety.

Regardless of where the meeting is held, OSHA requires proof of the safety meetings. Have attenders sign the meeting minutes, indicating that they have attended, for the record.

Figure 4.4 Job Site Safety Meeting

(Company Letterhead)

DATE: (Month, Day, Year)

TO: (Company Owner)

FROM: (Job Supervisor's Name and Title)

SUBJECT: Job Site Safety Meeting

Job: (Job Name and Number)

Attending: (Name, Company, and Signature)

Absent: (Name and Company. Copy to be Sent)

Description of Current Work: _____

_____

Possible Accidents, Illnesses, and Injuries: _____

_____

_____

Action To Be Taken: _____

_____

_____

Description of Future Work: _____

_____

Possible Accidents, Illnesses, and Injuries: _____

_____

_____

Action To Be Taken: _____

_____

_____

CREW TOOL BOX SAFETY MEETINGS AND TRAINING

1. CONDUCT WEEKLY FOR CREW
2. FOCUS ON WORK SPECIFIC TASKS
3. USE COMPANY SAFETY NOTES
4. RECORD MINUTES AND ATTENDANCE

The foreman is responsible for conducting weekly tool box meetings for the crew. The name "tool box" meeting originates from when the foreman would carry to a crew meeting a gang box of tools to explain how to use the various tools.

The purpose of the tool box meeting is to focus on safety practices for current and upcoming work. The focus should be on specific tasks. For example, if an upcoming task involves the setting of re-bar, the foreman should stress items like working on above ground forms, how to avoid cuts from exposed steel, and looking out for other craft work. Workers trained in work specific safety have less accidents than those who are just trained in general safety such as "wearing hard hats."

For the crew safety meeting to be successful, the company should prepare or purchase safety notes. The notes should be distributed and detailed enough so that foremen can explain to the crew the safety requirements. Added to these notes will be the foreman's notes from the weekly job site safety meeting.

Regardless of where the meeting is held, OSHA requires a record. Have attenders sign, indicating that they have attended.

Figure 4.5 Crew Tool Box Safety Meeting

(Company Letterhead)

DATE: (Month, Day, Year)

TO: (Job Supervisor)

FROM: (Crew Supervisor's Name and Title)

SUBJECT: Crew Tool Box Safety Meeting

Job: (Job Name and Number)

Attending: (Name, Company, and Signature)

Absent: (Name and Company)

Description of Current Work: _____

_____

Possible Accidents, Illnesses, and Injuries: _____

_____

_____

Action To Be Taken: _____

_____

_____

Description of Future Work: _____

_____

Possible Accidents, Illnesses, and Injuries: _____

_____

_____

Action To Be Taken: _____

_____

_____

CASE STUDY: SAFETY, WORKERS COMPENSATION AND PRODUCTIVITY

Problem #4: Company Safety Training

Review the lesson's safety items for new worker orientation and training as listed below. Using your own company situation (1) check which items that you would include for your company, (2) make notes as to what you would add to the lesson's company form, and (3) list additional items you need for your company.

Company Safety Policies

( ) Company employment record and listing of all previous accidents, illnesses, and injuries, including non-work related.

( ) Company Safety Policy

( ) Company Drug-Free Workplace Policy

( ) Company Safety Rules

( ) Safety Signs

( ) Personal Protective Clothing and Devices

( ) Accident Emergency Procedures

( ) Safety Discipline Report

( ) Job Site Safety Rules

( ) Supervisor Explanation of Task Related Safety Practices

( ) Other

LESSON #5 PROJECT SAFETY

OBJECTIVES

1. SAFETY PLAN
2. SAFETY RULES
3. EMERGENCY PLAN
4. SAFETY INSPECTIONS

This lesson explains ways to improve job safety. The next lesson will cover important crew safety procedures.

Worker safety starts with the general contractor's responsibility for making a safe site. If site supervision stresses safety then subcontractors will be safety conscious. If site supervision, including subcontractor foremen, emphasize safety on the job site workers will comply. Safety conscious supervisors send the message that worker safety is important.

SLC PROFIT TIP #5

START WITH SAFETY AS YOUR FIRST PRIORITY
AND HAVE AN ACCIDENT FREE JOB SITE

Each contractor should analyze a project for potential hazards and ways to prevent accidents. By making safety a priority, as much as quality control and production, you will have a good start toward having accident-free jobs.

1. Do you include safety requirements in your estimated cost of construction?

2. When you visit the site do you look for potential hazards that could lead to an accident?

PROJECT SAFETY PLAN

1. BREAK DOWN THE JOB INTO TASKS
2. IDENTIFY POTENTIAL HAZARDS
3. LIST SAFE PROCEDURES AND PROTECTION TECHNIQUES
4. MONITOR, REVISE, AND UPDATE

The project safety plan is a list of potential accidents associated with construction tasks. The project safety plan is based on an analysis of the contract documents, including drawings and specifications, and the site visit. The plan also includes the company's past experience with potentially dangerous conditions. Once you have listed the potential risks you can develop the safety plan.

A key element in developing a safety plan is breaking the job into tasks that can be analyzed for potential accidents. For example, if you are a structural concrete contractor, you know accidents that can occur in trenching, cutting and fitting form work, setting reinforcement, pouring concrete, stripping forms, and back filling. By listing the potential hazards you can take counter measures to prevent accidents.

Having once listed potential accidents and counter measures, you have a valuable checklist for preventing accidents.

1. Does your company currently develop a safety plan for its jobs?

2. If so, how often is the safety plan developed and updated?

ACCIDENT CATEGORIES

1. FREQUENT
2. PROBABLE
3. OCCASIONAL
4. REMOTE
5. IMPROBABLE

The next step in the project safety plan is identifying potential accidents, including classifying them as to the degree of occurrence, beginning with the most frequent accidents.

For example, there is a high likelihood that new workers using a portable electric power saw will cut themselves. Having listed this as an accident with a high degree of probability, the general contractor and subcontractors using or working around skill saws can train workers. Craftsmen can also be told to watch for and correct anyone using a power saw incorrectly.

Start with the most frequent cause of accidents and control them first. Once you control the most frequent causes of accidents, you proceed to controlling the less frequent accidents.

1. Does your company rate the various hazardous tasks performed on your job sites by level of danger or accident frequency?

2. What designations does your company use for activities or materials which are considered hazardous?

ACCIDENT CONTROL PROCESS

1. DESIGN FOR MINIMUM RISK
2. INCORPORATE SAFETY DEVICES AND PROCEDURES
3. INCORPORATE WARNING DEVICES AND PROCEDURES
4. TRAIN EMPLOYEES

Hazard avoidance starts with designing the job for minimum risk. For example, most scaffolding accidents are the result of incorrect erection and lack of barriers on the work platform. To have minimum risk, you have to prevent these common causes of scaffolding accidents.

Designing for minimum risk would consist of erecting the scaffold to manufacturer's specifications and OSHA requirements, including adding safety rails. Finally, all craftsmen on the scaffold must be trained in climbing, descending, and the placing of materials.

One does not always have to spend money to control a hazard. Much of hazard control can be accomplished through signs, meetings, and crew tool box meetings. Warning devices and signs are inexpensive ways to prevent accidents.

RULES OF THE JOB

1. NEW WORKERS AND VISITORS FIRST REPORT TO THE JOB TRAILER
2. WEAR HARD HATS AND PROTECTIVE EQUIPMENT AT ALL TIMES
3. NO HORSEPLAY, ABUSIVE LANGUAGE, AND FIGHTING ON THE JOB SITE
4. NO ALCOHOL OR DRUGS ALLOWED ON THE JOB SITE
5. USE THE PROPER TOOL FOR THE JOB
6. WATCH OUT FOR YOUR AND OTHERS' SAFETY
7. WHEN SEEING AN UNSAFE CONDITION STOP AND CORRECT
8. REPORT ALL ACCIDENTS AND INJURIES IMMEDIATELY TO THE JOB TRAILER
9. FAILURE TO COMPLY WITH THE ABOVE WILL RESULT IN INSTANT DISMISSAL FROM THE SITE

An effective way to maintain site safety is to post your "Rules of the Job." Display job rules prominently on the side of the job trailer so all can see. Displaying your rules sends a big message that "Safety is first on this job."

The above rules are some that are used by safety conscious contractors. You can modify the rules to suit your type of construction.

1. What is the effect on workers seeing the above rules on the side of the job trailer?

2. What other rules would you add to the above list?

EMERGENCY PLAN DEVELOPMENT

1. REVIEW COMPANY BASIC EMERGENCY PLAN
2. REVISE TO JOB REQUIREMENTS
3. ESTABLISH RESPONSIBILITIES AND REHEARSE
4. IDENTIFY EMERGENCY CONTACTS
5. RECORD TRAINING
6. REVISE AND UPDATE

OSHA requires a job site emergency plan. You can develop a basic plan, revising when necessary for each new job. For example, the location of the nearest hospital might change due to project location. Therefore, include the new hospital's location for each new job site.

Workers are educated to the plan via project safety meetings and crew tool box meetings. Signs also can display important information for all to see.

Rehearsals help workers learn their responsibilities in the event of an accident. Each person must know what they are required to do when someone is injured. A rehearsal or drill may be periodically performed to ensure efficiency, so that when there really is an accident the employees know what action is required without hesitation.

To prevent being cited by OSHA, record emergency plan training in your record of job and crew training.

1. How often does your company reevaluate its safety plan?

2. How do you determine the progress of your safety program?

EMERGENCY PLAN EXECUTION

1. LOCATE AND INSTALL TELEPHONES
2. DISPLAY EMERGENCY PHONE NUMBERS
3. HAVE CERTIFIED FIRST AID PERSONNEL ON SITE
4. SUPPLY FIRST-AID KIT
5. DESIGNATE EMERGENCY VEHICLE
6. REHEARSE EMERGENCY

The above items are required by OSHA. There should always be someone on the site certified in emergency first-aid and Cardiar Pulmanary Resesitation (CPR). First-aid and CPR can prevent more serious consequences of an accident such as hemorrhaging and coronary failure. For example, simple techniques such as CPR, applying pressure to stop bleeding, and properly explaining injuries to the paramedics can help decrease serious consequences.

Be certain to designate a vehicle to use in case of an emergency. The emergency vehicle is available at all times to carry workers with non-life threatening injury to the doctor or hospital. Rapidly getting the injured worker to medical treatment may result in a less disabling medical condition and thereby lower workers compensation costs.

1. Is there someone certified in CPR and first-aid on your jobs at all times?

2. Does your company do any of the above items in executing your job emergency plan?

EMERGENCY INFORMATION

1. FIRE & RESCUE NUMBER
2. AMBULANCE AND PARAMEDIC NUMBER
3. URGENT CARE CENTER LOCATION AND NUMBER
4. POLICE DEPARTMENT LOCATION AND NUMBER
5. COMPANY PHYSICIAN LOCATION AND NUMBER
6. HOSPITAL LOCATION AND NUMBER
7. FIRST-AID AND CPR INDIVIDUAL
8. COMPANY CONTACT, LOCATION, AND NUMBER

Display prominently by all telephones all emergency numbers for quick reference. List also who is certified in first-aid and CPR. There could also be an order of operations list provided to assist those who are helping the accident victim. This list could offer proven steps and methods for ensuring the least possible damage from an accident.

1. What are some steps which should be taken in the event of an accident on the job site?

2. Does your company maintain a list of emergency phone numbers on or near the site phone?

DAILY SAFETY INSPECTIONS

1. IDENTIFY STANDARD HAZARDS
2. SPOT NEW HAZARDS
3. CHECK GENERAL SITE HOUSEKEEPING
4. REQUIRE PERSONAL PROTECTION EQUIPMENT
5. ENSURE SAFE OPERATING OF EQUIPMENT AND TOOLS
6. ENSURE AVAILABILITY OF FIRST AID SUPPLIES
7. CHECK FIRE FIGHTING EQUIPMENT
8. CHECK SAFETY SIGNS AND INFORMATION
9. CHECK CONDITION OF STORAGE AREAS
10. CORRECT PROBLEMS

The job site should be inspected daily. Use the above checklist to develop a daily safety checklist for your type of construction. Using a daily checklist helps spot essential items in job safety.

Attach the daily safety inspection to the daily construction report. A daily safety report will convince OSHA that you consider safety important.

1. Do you inspect daily for safety?
2. Who typically carries out the safety inspections?
3. Are shortcomings in the daily safety inspection used to enforce better safety on all jobs?

FREQUENT CAUSES OF CONSTRUCTION ACCIDENTS

1. UNGROUNDED PORTABLE ELECTRIC TOOLS
2. UNSECURED ELECTRIC WIRES, CORDS, AND BOXES
3. IMPROPERLY SHORED OR SLOPED EXCAVATIONS
4. OPEN HOLES AND TRENCHES
5. IMPROPERLY MAINTAINED OR SUBSTANDARD SCAFFOLDING
6. ABSENT OR INADEQUATE GUARDRAILS AT FLOOR, ROOF, AND WALL OPENINGS, HOLES, AND TRENCHES
7. IMPROPER OR UNSECURED LADDERS
8. IMPROPER HANDLING AND STORAGE OF HAZARDOUS MATERIALS
9. UNPROTECTED WORKERS INCLUDING ABSENT EYE PROTECTION, RESPIRATORS, AND HARD HATS
10. POOR SITE HOUSEKEEPING
11. IMPROPER LIFTING

Listed above in descending order of frequency are the most common causes of construction accidents. Use this list as a starting checklist to avoid accidents on your jobs. Inspect these items frequently.

Collect information on what are the typical causes of construction accidents for your type of construction. This knowledge should then be continually added to the list provided here.

Many of these frequent accident causes result in fatalities. The major causes of fatalities are (1) worker falls and (2) workers being hit by dropped equipment, material, or tools. Train yourself, safety supervisors, and foremen to look for common causes of accidents.

1. In addition to the above list, what are some common causes of accidents encountered in your particular type of construction?

2. Can a general contractor be cited by OSHA for the violations of a subcontractor?

Use the checklist on the following pages for safety on larger jobs.

Figure 5.1 Safety Inspection Checklist

Job Name: _____ Date: _____

Inspector: _____ Superintendent: _____

General Safety	Yes	No	Action	Corrected
1. Clear safe access areas	( )	( )	( )	( )
2. Drinking water available	( )	( )	( )	( )
3. Excavation shoring	( )	( )	( )	( )
4. First-aid kit	( )	( )	( )	( )
5. High noise level present	( )	( )	( )	( )
6. Materials storage	( )	( )	( )	( )
7. Sanitation	( )	( )	( )	( )
8. Site housekeeping	( )	( )	( )	( )
9. Site lighting	( )	( )	( )	( )
10. Walkways clear	( )	( )	( )	( )

Comments: _____

_____

Fire Protection	Yes	No	Action	Corrected
1. Burn barrels maintained	( )	( )	( )	( )
2. Fire extinguishers charged	( )	( )	( )	( )
3. Fire protection accessible	( )	( )	( )	( )
4. Flammables stored properly	( )	( )	( )	( )

Comments: _____

_____

Signs and Warnings	Yes	No	Action	Corrected
1. Company requirements posted	( )	( )	( )	( )
2. Easily visible	( )	( )	( )	( )
3. Needs replacing	( )	( )	( )	( )
4. OSHA requirements posted	( )	( )	( )	( )

Comments: _____

_____

Personal Protection	Yes	No	Action	Corrected
1. Eye protection	( )	( )	( )	( )
2. Hard hats	( )	( )	( )	( )
3. Respirators	( )	( )	( )	( )
4. Safety belts	( )	( )	( )	( )
5. Special equipment	( )	( )	( )	( )

Comments: _____

_____

Scaffolding	Yes	No	Action	Corrected
1. Bracing (sway, displacement)	( )	( )	( )	( )
2. Cleanliness	( )	( )	( )	( )
3. Fully decked	( )	( )	( )	( )
4. Safe access	( )	( )	( )	( )
5. Safety rail (if 6' and over)	( )	( )	( )	( )
6. Serviceable	( )	( )	( )	( )

Comments: _____

_____

Ladders	Yes	No	Action	Corrected
1. Braced contact points	( )	( )	( )	( )
2. Non-conducting ladder	( )	( )	( )	( )
3. Secured in place	( )	( )	( )	( )
4. Serviceable	( )	( )	( )	( )
5. Used properly	( )	( )	( )	( )
6. Vertical position (1:4)	( )	( )	( )	( )

Comments: _____

_____

Floors and Openings	Yes	No	Action	Corrected
1. Guard rails erected	( )	( )	( )	( )
2. Hole covers in place	( )	( )	( )	( )
3. Serviceable	( )	( )	( )	( )
4. Stairways blocked and braced	( )	( )	( )	( )
5. Toe boards in place	( )	( )	( )	( )

Comments: _____

_____

Hand and Power Tools	Yes	No	Action	Corrected
1. Eye protection	( )	( )	( )	( )
2. Grounded power cables	( )	( )	( )	( )
3. Hearing protection	( )	( )	( )	( )
4. Right tool for job	( )	( )	( )	( )
5. Safety devices in place	( )	( )	( )	( )
6. Serviceable	( )	( )	( )	( )

Comments: _____

_____

Cranes and Hoists	Yes	No	Action	Corrected
1. Clear work area	( )	( )	( )	( )
2. Stable work area	( )	( )	( )	( )
3. Tag lines being used	( )	( )	( )	( )
4. Tested lifting equipment	( )	( )	( )	( )

Comments: _____

_____

Welding Equipment	Yes	No	Action	Corrected
1. Cylinders serviceable	( )	( )	( )	( )
2. Eye protection	( )	( )	( )	( )
3. Falling sparks	( )	( )	( )	( )
4. Proper ground	( )	( )	( )	( )

Comments: _____

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CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #5: Safety Inspection Checklist

As the general foreman of a small general contractor building custom homes and apartments, you have been assigned to develop a company inspection checklist. The checklist will be used for daily and weekly inspections.

As a start you inspect all jobs. From this information you decide on several areas that are important. Specifically, you notice that safety job signs need repair or are missing. Also, workers are not using personal protective equipment. There is no emergency plan nor are there emergency telephone numbers posted. Finally, there are few tool box meetings and tools are in disrepair.

Working with another student, identify for each of the major safety areas the sub-items that need to be included on your safety checklist.

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #5: Safety Inspection Checklist

Job Name: _____ Date: _____

Inspector: _____ Superintendent: _____

Job Signs and Warnings	Yes	No	Action	Corrected
1.	( )	( )	( )	( )
2.	( )	( )	( )	( )
3.	( )	( )	( )	( )
4.	( )	( )	( )	( )
5.	( )	( )	( )	( )
6.	( )	( )	( )	( )
7.	( )	( )	( )	( )
8.	( )	( )	( )	( )
9.	( )	( )	( )	( )
10.	( )	( )	( )	( )

Comments: _____

_____

Personal and Protective Clothing	Yes	No	Action	Corrected
1.	( )	( )	( )	( )
2.	( )	( )	( )	( )
3.	( )	( )	( )	( )
4.	( )	( )	( )	( )
5.	( )	( )	( )	( )
6.	( )	( )	( )	( )
7.	( )	( )	( )	( )
8.	( )	( )	( )	( )
9.	( )	( )	( )	( )
10.	( )	( )	( )	( )

Comments: _____

_____

Emergency Plan	Yes	No	Action	Corrected
1.	( )	( )	( )	( )
2.	( )	( )	( )	( )
3.	( )	( )	( )	( )
4.	( )	( )	( )	( )
5.	( )	( )	( )	( )
6.	( )	( )	( )	( )
7.	( )	( )	( )	( )
8.	( )	( )	( )	( )
9.	( )	( )	( )	( )
10.	( )	( )	( )	( )

Comments: _____

_____

Tools and Equipment	Yes	No	Action	Corrected
1.	( )	( )	( )	( )
2.	( )	( )	( )	( )
3.	( )	( )	( )	( )
4.	( )	( )	( )	( )
5.	( )	( )	( )	( )
6.	( )	( )	( )	( )
7.	( )	( )	( )	( )
8.	( )	( )	( )	( )
9.	( )	( )	( )	( )
10.	( )	( )	( )	( )

Comments: _____

_____

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Solution #5: Safety Inspection Checklist

Job Name: _____ Date: _____

Inspector: _____ Superintendent: _____

Job Signs and Warnings	Yes	No	Action	Corrected
1. Company requirements posted	( )	( )	( )	( )
2. Easily visible	( )	( )	( )	( )
3. Needs replacing	( )	( )	( )	( )
4. OSHA requirements posted	( )	( )	( )	( )
5. Display Emergency Numbers	( )	( )	( )	( )
6. Certified First Aid Person	( )	( )	( )	( )
7. First-Aid Kit	( )	( )	( )	( )
8. Emergency Vehicle	( )	( )	( )	( )
9. Emergency Rehearsals	( )	( )	( )	( )
10. Record Training	( )	( )	( )	( )

Comments: _____

_____

Personal and Protective Clothing	Yes	No	Action	Corrected
1. Boots	( )	( )	( )	( )
2. Ear Protection	( )	( )	( )	( )
3. Eye protection	( )	( )	( )	( )
4. Gloves	( )	( )	( )	( )
5. Hard hats	( )	( )	( )	( )
6 Long Pants	( )	( )	( )	( )
7. Long Sleeve Shirt	( )	( )	( )	( )
8. Respirators	( )	( )	( )	( )
9. Safety belts	( )	( )	( )	( )
10 Special equipment	( )	( )	( )	( )

Comments: _____

_____

Emergency Plan	Yes	No	Action	Corrected
1 Certified First Aid Person	( )	( )	( )	( )
2. Display Emergency Numbers	( )	( )	( )	( )
3. Emergency Rehearsals	( )	( )	( )	( )
4. Emergency Vehicle	( )	( )	( )	( )
5. Establish Responsibilities	( )	( )	( )	( )
6. First-Aid Kit	( )	( )	( )	( )
7 ID. and Correct Cause	( )	( )	( )	( )
8. Install Telephones	( )	( )	( )	( )
9. Record Training	( )	( )	( )	( )
10. Revise and Update	( )	( )	( )	( )

Comments: _____

_____

Tools and Equipment	Yes	No	Action	Corrected
1. Check-out Procedure	( )	( )	( )	( )
2. Eye protection	( )	( )	( )	( )
3. Grounded power cables	( )	( )	( )	( )
4. Hearing protection	( )	( )	( )	( )
5. Minimize Electrical Chords	( )	( )	( )	( )
6. Right tool for job	( )	( )	( )	( )
7. Safety devices in place	( )	( )	( )	( )
8. Safety Reminders on Tools	( )	( )	( )	( )
9. Serviceable	( )	( )	( )	( )
10. Training	( )	( )	( )	( )

Comments: _____

_____

LESSON #6 CREW SAFETY

OBJECTIVES

1. PERSONAL PROTECTION SAFETY
2. HAND AND POWER TOOL SAFETY
3. LADDER AND SCAFFOLD SAFETY
4. EXCAVATION AND TRENCHING SAFETY

This lesson stresses important aspects of crew safety and the need for crews to work together in avoiding accidents. An essential element in a "safe working" crew is working together, meaning looking out for fellow workers' safety. In jobs with multiple crews, all foremen need to follow and implement the safety instructions of the site superintendent or general foreman.

Safety requirements for each trade are beyond the scope of this course. However, you can learn about four work specific safety steps that apply to all jobs. Covered are personal safety, hand and power tools, ladders and scaffolding, and excavation and trenching. Knowledge of how to avoid accidents in these common construction tasks will help prevent a major cause of accidents, especially for new workers.

The lesson on safety training covered the need for a safety program, including crew tool box meetings. In companies with low accident rates and high productivity, foremen stress work specific safety rather than general safety. This lesson explains how this crew training should be carried out.

SLC PROFIT TIP #6

EXPLAIN TO THE CREW WORK SPECIFIC SAFETY

RATHER THAN SAFETY IN GENERAL

As mentioned previously, new workers cause approximately half of all accidents. Most of these accidents occur in the first few weeks and months of a new workers employment.

Many of these accidents can be prevented by the foreman explaining work specific safety. Work specific safety concentrates on how to safely perform the construction task. For example, a foreman of an electrical crew installing overhead conduit would explain and show the proper use of ladders and scaffolding. Making the crew aware of potential accidents and how to make the work safer will help prevent this crew from falling off ladders or scaffolding. In addition, the foreman would cover the proper stringing of conduit and fasteners.

CAUSES OF ACCIDENTS

1. UNSAFE ENVIRONMENT

   - WORKING OFF THE GROUND WITHOUT A LIFE LINE

2. UNSAFE WORK PRACTICE

   - USING A GRINDER WITHOUT SAFETY GOGGLES

All accidents happen in one of two ways: by placing the worker in an unsafe environment, including unsafe acts by another worker, and/or the worker committing an unsafe work practice. An example of an unsafe working environment is working in a multi-story building without barricades across openings. An example of an unsafe work practice is using incorrect tools for the job or incorrect use of the tools. The majority of accidents occur from an unsafe work practice. (6.1)

Every situation can be viewed as an unsafe environment and/or an unsafe work practice. By looking at the next phase of work, the foreman can quickly identify important safety instructions for the crew concerning work specific safety instructions. The foreman, looking at potential accidents as either environmental or/and work practice, can quickly identify appropriate safety instructions for the crew.

First, the foreman can take steps to place the worker in a safe environment. Second, the foremen can instruct the new worker in safe work practices. Finally, these safety instructions are presented to the crew tool box safety meetings or by directly instructing individual workers.

1. Identify a common unsafe environment associated with your type of work.

2. Identify a common unsafe work practice associated with your type of work.

3. Identify a combined unsafe environment and work practice associated with your work.

SAFETY COMPETENT WORKER

1. CAN PERFORM "ACCEPTABLE CONSTRUCTION PRACTICES"
2. CAN IDENTIFY HAZARDS ON THE JOB SITE AND IN THE NEARBY AREA
3. HAVE THE AUTHORITY TO TAKE CORRECTIVE ACTION
4. CAN READ, INTERPRET, AND MEET ALL OSHA SAFETY REQUIREMENTS
5. HAS REQUIRED SPECIALIZED TRAINING (EG. EXCAVATION AND TRENCHING)

Only safety competent workers should be on the construction site. The above guidelines provide basic, universally accepted requirements for evaluating worker's competence. (6.2)

Each contractor must evaluate their workers, including safety competency, skill capability, and training required to become safety competent. Even though there is ambiguity on competency, workers who have completed the OSHA Safety Training Courses can be considered a competent person regarding safety.

CREW TOOL BOX RECORD

1. LIST CURRENT AND FUTURE WORK
2. IDENTIFY UNSAFE ENVIRONMENT AND WORK PRACTICES
3. LIST POSSIBLE ACCIDENTS, ILLNESSES, AND INJURIES
4. LIST SAFETY INSTRUCTIONS
5. EXPLAIN TO CREW
6. RECORD MEETING
7. EMPLOYEE SIGN ATTENDANCE

The foreman should be trained in how to conduct a tool box meeting. Less experienced and knowledgeable supervisors will have to instructed on how to conduct a tool box instruction. By checking in the field actual tool box meetings, you will see who needs augmented training on how to give work specific instructions.

First, The foreman needs to systematically develop work specific instructions as part of the tool box meeting. Foremen should mentally analyze the work, identifying potential hazards and necessary safety instructions.

Second, this analysis of hazards and work specific safety instructions forms the basis of written notes for the upcoming tool box meeting.

Finally, a record of what safety topics were covered and worker signing for attendance demonstrates to your surety and OSHA that worker safety is a primary concern to your company.

PERSONAL PROTECTION SAFETY

1. HARD HAT
2. EYE PROTECTION
3. HEARING PROTECTION
4. SKIN PROTECTION
5. SAFETY SHOES
6. RESPIRATORS
7. SPECIAL CLOTHING
8. SAFETY LINES
9. LIFE JACKETS

Everyone knows that the safety equipment listed above can prevent or reduce the severity of an injury. (6.3) The problem lies in workers now using or wearing protective gear. For example, workers may feel wearing a hard hat is too bothersome, too hot and unnecessary. The facts are that hard hats are not hot, do not fall off, and, in fact, reduce noise. The same applies to most protective gear and devices.

One of the easiest ways to encourage workers to wear their safety equipment is by example. Field supervisors, always wearing the required safety equipment, provide an example for workers.

Employees should be disciplined for every failure to wear protective gear. A progressive system of punishment is preferred. For example, a first offense may result in an oral warning, the second offense may require a written reprimand, and the third offense causes termination of the employee. On the other hand, reward workers who always wear the necessary protective equipment.

1. Does your company require safety equipment, including enforcing compliance in the field?

2. How does your company insure field compliance of OSHA requirements for protective equipment?

HAND AND POWER TOOL SAFETY

1. MAINTAIN TOOLS IN GOOD WORKING CONDITION
2. USE THE RIGHT TOOL FOR THE JOB
3. EXAMINE TOOLS FOR DAMAGE PRIOR TO USE
4. OPERATE TOOLS ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS
5. GROUND POWER TOOL, OR DOUBLE INSULATE, OR USE GROUND FAULT CIRCUIT INTERRUPTERS
6. PROVIDE AND USE THE RIGHT PROTECTION EQUIPMENT

Company and field supervisors are responsible for providing the correct tools on the job. The best way to make sure tools are on the job at the right time and in the right quantity is by having the foreman list tool requirements in the weekly short-interval schedule. (6.4)

The foreman's weekly short-interval schedule lists for each task such items as: manpower, materials, machines and tools, management instructions, and special purchases. After listing the tools required, the foremen must check on tool availability.

1. Does your company have an equipment check out procedure?
2. Does your company have a quality control system to maintain equipment and tools in proper working order?

LADDER SAFETY

1. CHECK FOR SERVICEABILITY AND CORRECT DEFECTS, IF NOT SERVICEABLE TAG: "DO NOT USE."

2. JOB MADE LADDERS ONLY CONSTRUCTED FOR THEIR INTENDED USE, INCLUDING CLEATS NOT LESS THAN 10 INCHES AND NO MORE THAN 14 INCHES APART ALONG THE HANDRAILS

3. CHECK CONTACT POINTS TO SUPPORT LOAD AND ON STATABLE AND LEVEL SURFACE

4. DO NOT USE LADDERS ON SLIPPERY SURFACE

5. CHECK VERTICAL POSITION (1:4)

6. CHECK FIXED LADDER NO MORE THAN 90 DEGREES IN THE VERTICAL

7. CHECK FOR TOE BOARDS REQUIRED

8. PLACE LADDERS ON ALL ACCESS MORE THAN 19 INCHES HIGH

9. DO NOT USE METAL LADDERS NEAR ELECTRICAL WIRES

10. PROVIDE TRAINING FOR EMPLOYEES WHO USE LADDERS, INCLUDING A FALL PROTECTION PROGRAM

- NATURE OF FALL HAZARDS ON THE WORK AREA
- CORRECT PROCEDURES FOR ERECTING, MAINTAINING, AND DISASSEMBLING FALL PROTECTION EQUIPMENT
- PROPER LADDER CONSTRUCTION, USE PLACEMENT, AND CARE
- MAXIMUM INTENDED LOAD CAPACITY OF LADDERS
- ON-GOING TRAINING OF EMPLOYEES

Before the crew mounts ladders, the company field supervisors and foreman should check for safe erection. The greatest underlying contributor to accidents is lack of fear by the worker. Workers assume that ladder rungs and scaffold platforms are always secure. Train workers to check ladders each time they are used, thereby lessening the chance of an accident occurring during the construction task. (6.5)

SCAFFOLD SAFETY

1. ERECT ON SOUND, RIGID FOOTING CAPABLE OF CARRYING INTENDED LOAD, INCLUDING TOE BOARDS AND BRACING

2. SCAFFOLDS MUST CARRY AT LEAST 4 TIMES THE MAXIMUM INTENDED LOAD

3. INSTALL GUARDRAILS AND TOE BOARDS ON ALL OPEN SIDES AND ENDS OF PLATFORMS MORE THAN 10 FEET ABOVE THE GROUND OR FLOOR

4. SCREEN WITH MAXIMUM 1.2 INCHES OPENINGS BETWEEN THE TOE BOARD AND THE GUARDRAIL, WHERE PERSONS WORK OR PASS UNDER

5. ALL PLANKING SHALL BE SCAFFOLD GRADE

6. SCAFFOLD PLANKING SHALL BE OVERLAP 12 INCHES MINIMUM OR SECURED FROM MOVEMENT

7. EXTEND ENDS FROM 6 TO 12 INCHES

8. REPAIR OR REPLACE DEFECTIVE PARTS

9. SEE OSHA 1926 FOR DETAILS ON MOBILE AN SWING SCAFFOLDS

Another source of accidents when working off the ground occurs when craftsmen are working outside the safe limits of a scaffold. Lazy workers, rather than reposition the platform, will try to reach beyond the safe limits. The foreman can show the worker when the ladder or scaffold needs to be repositioned. (6.6)

EXCAVATION AND TRENCH SAFETY

1. LOCATE AND MARK UNDERGROUND UTILITIES
2. PROVIDE DESIGN REQUIREMENTS AND OBTAIN APPROPRIATE APPROVALS
3. PROTECT EXISTING STRUCTURES
4. ERECT BARRICADES
5. CONTROL VEHICLE ACCESS AND PROXIMITY
6. ERECT SHORING OR ADEQUATELY SLOPE SIDES
7. PLACE EXCAVATED MATERIAL AWAY FROM EDGE
8. INSTRUCT WORKERS ON CORRECT ACCESS AND EGRESS
9. SUPERVISE CONSTANTLY
10. INSPECT DAILY (COMPETENT PERSON)

Excavation is one of the most dangerous activities in construction. According the OSHA, "the excavation standard of (29 CFR; 1926) is to reduce trenching related deaths by more than 80 percent". Great care should be taken to ensure that all excavations are carried out according to building code and OSHA requirements. (6.7)

The list above describes important items when excavating. While not including every situation, is a basis for developing a company policy on excavation and trenching safety.

1. Does your company have a clearly defined trenching policy?
2. Are there other aspects of trench safety which you feel should be added to this list?

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #6: Ensuring Crew Safety

Florida Concrete, Inc. has many OSHA citations regarding personal protection, ladders and scaffolding, and excavation.

Workers are reluctant to wear personal protective gear and do not heed warnings by field supervision. For example, Joe was told three times last week to wear his hard hat at all times. The OSHA inspector cited Florida Concrete, Inc. six times last year for personal protection violations.

Florida Concrete, Inc. conducts tool box meetings, but the superintendents do not take it seriously. Paperwork for OSHA is kept. However, the records are usually incomplete and always behind schedule.

Working with another student, identify three problems and solutions for each of the following company levels: (A) top-management, (B) project management, (C) crew level, and (D) employee. Propose a solution for each problem. Make necessary assumptions to work the problem. Be prepared to explain your answers to the class.

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #6: Ensuring Crew Safety

Problem	Solution
A. TOP MANAGEMENT	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
B. PROJECT MANAGEMENT	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
C. CREW LEVEL	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
D. EMPLOYEE	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Solution #6: Ensuring Crew Safety

Problem	Solution
A. TOP MANAGEMENT	
1. Low interest in crew safety	1. Clear support message
2. No specific safety training	2. Train all field personnel
3. Lack of Safety goals	3. Safety goals and awards
B. PROJECT MANAGEMENT	
1. Unqualified personnel	1. Training and leadership
2. Low interest in safety	2. Incentive plan
3. Feel meetings waste time	3. Show potential savings
C. CREW LEVEL	
1. Many new workers	1. More constant work force
2. High turnover	2. Orientation & training
3. Unattended safety meetings	3. Incentives & punishment
D. EMPLOYEE	
1. Improper tool use	1. Training
2. Averse to safety gear	2. Incentives & punishment
3. Lazy and take chances	3. Motivate & encourage safety

LESSON #7 OSHA SERVICES AND INSPECTIONS

OBJECTIVES

1. OSHA PURPOSE
2. OSHA SERVICES
3. OSHA INSPECTION PRIORITIES AND PROCEDURES

This lesson explains OSHA purpose, services, and inspections. The lesson concludes with the "OSHA construction hit list" - the most frequently cited violations.

OSHA was established to improve worker safety and health. By knowing more about OSHA your company can provide a safer work place, reduce OSHA fines, and achieve higher profit.

The contractor has no choice, but to establish and maintain a safe workplace. The problems of insurance and liability have escalated to the point where construction is becoming a major expense. A poor safety record may even affect a company's ability to bid on future projects due to pre-qualification.

Due to the OSHA citation category of "willful violations," those who are responsible for safety on the job site may be exposed to criminal negligence in the event of a serious safety violation, or failure to minimize exposure to a known danger.

SLC PROFIT TIP #7

COMPLY WITH OSHA REGULATIONS AND AVOID

COSTLY FINES AND INCREASE PRODUCTIVITY AND PROFIT

Knowing and complying with OSHA requirements helps you avoid costly fines, increase production, and improve the bottom line. Using OSHA as a baseline, the company can maintain a safe workplace and minimize OSHA fines.

Field supervisors at all levels should be knowledgeable about OSHA regulations and potential violation penalties, including the latest changes in OSHA standards or procedures. You can find out all you need to know by contacting the local OSHA office, listed in the Yellow Pages under Federal Government, Department of Labor. Contractor associations and insurance companies also provide advice and information regarding OSHA compliance and safety practices.

1. Do you aware of the OSHA provisions that apply to your type of construction?

2. Are your field supervisors aware of the OSHA regulations that apply to their type of work?

OSHA'S PURPOSE

1. REDUCE WORKPLACE HAZARDS
2. PROVIDE FOR RESEARCH IN OCCUPATIONAL SAFETY AND HEALTH PROGRAMS
3. ESTABLISH RESPONSIBILITIES AND RIGHTS FOR EMPLOYERS AND EMPLOYEES
4. MAINTAIN ACCIDENT REPORTING AND RECORD KEEPING SYSTEM
5. ESTABLISH TRAINING PROGRAMS FOR SAFETY AND HEALTH PERSONNEL
6. DEVELOP AND ENFORCE MANDATORY JOB SAFETY AND HEALTH STANDARDS
7. PROVIDE FOR DEVELOPMENT, EVALUATION, AND APPROVAL OF STATE OCCUPATIONAL SAFETY AND HEALTH PROGRAMS

OSHA regulations apply to all industries and most contractors. However, those construction companies with less than 11 employees do not have to fulfill the OSHA requirement of record keeping. The construction industry, with it's high rate of fatalities, disabilities, and injuries, is a high priority on OSHA's enforcement list. Today's constructor needs to build it's safety program around OSHA.

EMPLOYEES NOT COVERED UNDER OSHA REGULATIONS

1. SELF-EMPLOYED INDIVIDUAL

2. FIRMS WHICH EMPLOY IMMEDIATE FAMILY MEMBERS

3. WORKPLACES ALREADY PROTECTED BY OTHER FEDERAL AGENCIES OR UNDER OTHER FEDERAL STATUTES

It is good idea to comply with OSHA regulations, regardless of whether or not they apply to you. OSHA is an excellent baseline for a safety program. By basing your safety practices on OSHA standards you are meeting construction industry standards.

OSHA SERVICES AVAILABLE

1. CONSULTATION ASSISTANCE
2. VOLUNTARY INSPECTION PROGRAMS
3. TRAINING AND EDUCATION

OSHA information can be obtained at no charge from your local or regional OSHA office. If there are any questions regarding the interpretation of a regulation call or write the nearest OSHA office.

OSHA, through it's voluntary inspection programs, will evaluate your safety program, including your job site. The OSHA inspector is completely familiar with all OSHA regulations. Contractors who use this free advice have the chance to incorporate the latest regulations into their safety program.

OSHA is a source of formal and informal education and training. The OSHA 500 Safety Training Course is a 40 hour course to certify OSHA trainers. However, the current waiting list for an OSHA 500 course is approximately one-and-half years. Graduates are certified to conduct a 10 or 30 hour safety course on site safety.

1. How often does your company compare it's safety practices to OSHA standards?

2. Have you ever attended the OSHA course for safety instructor qualification?

OSHA REGULATIONS 1910 AND 1926

1. PURPOSE
2. PROVISIONS
3. STANDARDS ADOPTED
4. EMERGENCY TEMPORARY STANDARDS
5. VARIANCES
   - TEMPORARY
   - PERMANENT
   - EXPERIMENTAL

OSHA Regulation 1910 and 1926 presents safety requirements for various hazardous activities in construction. You need to review the regulations regarding your type of work.

General contractors must be completely familiar with all provisions of OSHA 1926. The general contractor is responsible for the means and methods of construction and therefore held accountable for job site safety, including subcontractor safety.

Subcontractors need to be familiar with OSHA 1926 requirements for their type of construction. It is a good idea for the subcontractor to also be familiar with OSHA provisions for adjacent subcontractors. Spotting unsafe work practices can help correct other subcontractors' violations and make a safer workplace for your crews.

1. Are you familiar with the OSHA 1910 and 1926 regulations applicable to your company's crews?

2. Do you make an effort to also know OSHA 1910 and 1926 regulations that apply to adjacent subcontractors' work?

INSPECTION PRIORITIES

1. IMMINENT DANGER
2. CATASTROPHES AND FATAL ACCIDENTS
3. EMPLOYEE COMPLAINTS
4. PROGRAMMED HIGH-HAZARD INSPECTIONS
5. FOLLOW-UP INSPECTIONS

Because of limited time, the OSHA inspector concentrates on correction of situations creating an imminent danger to workers. An example of imminent danger is failure to provide guardrails on above ground work. OSHA immediately investigates catastrophic accidents such as a major collapse of concrete forms and will more often than not issue citations. OSHA always investigates the cause of fatalities and accidents involving more than five employees.

OSHA pays close attention to employee complaints. To lessen the likelihood of an employee complaining to OSHA, the company needs to provide a way for the employees to voice concerns to management. An individual witnessing an unsafe act needs to know that the company will rapidly correct any unsafe condition, rather than the employee first going to OSHA and the company being cited.

1. Is there a policy in your company of hearing safety complaints without any chance of punitive action by the company?

2. If a company fires someone who reported an unsafe condition or discontinued an unsafe act on the job site, does the worker have avenues of recourse against the contractor?

3. Are there benefits which may result from employees observing and reporting unsafe practices? If so, what are some of them?

OSHA INSPECTION PROCESS

1. OPENING CONFERENCE
2. INSPECTION OF OSHA RECORD KEEPING (EG. OSHA 200, 101 AND MSDS)
3. INSPECTION TOUR
4. CLOSING CONFERENCE

There are several things the site supervisor can do to lessen the likelihood of being cited by the OSHA inspector. Remember, the contractor and the OSHA inspector have the same goal, a safe working environment.

The opening conference serves several objectives. Upon the OSHA inspector's arrival, the site supervisor should provide complete attention to and respect for the inspector's statements and concerns. Unless the OSHA inspector is personally known by the field supervisor, the inspector's identity should be verified by proper credentials. The site supervisor and all subcontractor supervisors should be at the opening conference and accompany the OSHA representative during the inspection.

During the inspection work should continue at a normal pace, as if an inspection was not taking place. However, a good tactic when dealing with an OSHA inspection is to request that a representative be present at the opening conference from each subcontractor on the job site. This option gives the contractor time to ensure that the job site is safe. The site supervisor should answer all the inspector's questions concisely and completely. Do not lie or try to gloss over failure to provide safe working conditions. When possible, try to have the deficiency corrected before the inspector's departure. Correcting deficiencies on the spot sends a big message that you take safety as seriously as the inspector.

During the closing conference, ask the inspector's advice about how best to correct any observed unsafe practices. Ask the inspector to provide suggestions on correcting other mistakes not seen on your site, but which usually occur on other sites. The information may be surprisingly useful and potentially cost saving.

4

TYPES OF OSHA VIOLATIONS

1. POSTING REQUIREMENT VIOLATION (SERIOUS VIOLATION)
2. OTHER THAN SERIOUS VIOLATION
3. SERIOUS VIOLATION
4. WILLFUL VIOLATION
5. FAILURE TO CORRECT PRIOR VIOLATION
6. REPEATED VIOLATION
7. FALSIFYING RECORDS, REPORTS, OR APPLICATIONS
8. ASSAULTING A COMPLIANCE OFFICER, OR OTHERWISE RESISTING, INTIMIDATING, OR INTERFERING WITH A COMPLIANCE OFFICER IN THE PERFORMANCE OF THEIR DUTIES

There are several levels of violation under OSHA regulation. Listed above are OSHA violations in increasing order of severity. The more serious violations start when the contractor fails to correct a previous violation.

MOST FREQUENT CITATIONS ISSUED BY OSHA

1. HAZARD COMMUNICATION - WRITTEN PROGRAM (3,819)
2. HAZARD COMMUNICATION - TRAINING (3,112)
3. HAZARD COMMUNICATION - MSDS FOR CHEMICALS (1,679)
4. HAZARD COMMUNICATION - MSDS NOT ACCESSIBLE (1,263)
5. EMPLOYEE TRAINING (1,191)
6. HEAD PROTECTION (1,105)
7. OPEN-SIDED FLOORS - GUARDRAILS (1,100)
8. BRANCH CIRCUITS - GFP/GROUNDING (949)
9. EXCAVATIONS (873)
10. WELDED FRAME SCAFFOLDS - GUARDRAILS (761)

Above lists the most frequently cited violations by OSHA with the number of citation of each violation in parenthesis. Notice that OSHA considers record keeping, communication, training a high priority. Special attention must be given to properly maintaining all required OSHA records. These items are just as important work specific safety. (7.1)

TEN FREQUENTLY CITED OSHA VIOLATIONS

1. NO WRITTEN HAZARDOUS COMMUNICATION PROGRAM

2. GUARDING OPEN SIDED FLOORS, PLATFORMS, AND RUNWAYS SIX FEET ABOVE THE GROUND OR ADJACENT FLOOR WILL BE GUARDED BY STANDING RAILING AND TOE BOARD

3. EMPLOYEE INFORMATION AND TRAINING ON HAZARDOUS MATERIALS: PERSONAL PROTECTIVE EQUIPMENT WHERE THERE IS AN EXPOSURE TO HAZARDOUS CONDITIONS OR THE NEED FOR USING SUCH EQUIPMENT TO REDUCE THE HAZARD TO EMPLOYEES

4. APPROVED HEAD PROTECTION WILL BE WORN BY EMPLOYEES WORKING IN AREAS WHERE THERE IS POSSIBLE DANGER OF HEAD INJURY FROM IMPACT, FALLING OBJECTS, FLYING OBJECTS, ELECTRICAL SHOCK, OR BURNS

5. BRANCH CIRCUITS, GROUND FAULT PROTECTION AND/OR ASSURED GROUNDING PROGRAM

6. THE EMPLOYER SHALL INSTRUCT EACH EMPLOYEE IN THE RECOGNITION AND AVOIDANCE OF UNSAFE CONDITIONS AND THE REGULATIONS APPLICABLE TO HIS WORK ENVIRONMENT TO CONTROL OR ELIMINATE ANY HAZARDS OR OTHER EXPOSURE TO ILLNESS OR INJURY

7. GROUNDING PATH TO GROUND FROM CIRCUITS SHALL BE PERMANENT AND CONTINUOUS

8. MATERIAL SAFETY DATA SHEETS

9. TUBULAR WELDED FRAME SCAFFOLDS SHALL BE DESIGNED, CONSTRUCTED, AND ERECTED WITH NECESSARY ACCESSORIES TO SAFELY SUPPORT FOUR TIMES THE MAXIMUM-RATED LOAD

10. GENERAL PROTECTION REQUIREMENTS: WALKWAYS, RUNWAYS, AND SIDEWALKS CLEAR OF EXCAVATED MATERIAL AND OBSTRUCTION. EMPLOYEES EXPOSED TO VEHICULAR TRAFFIC SHALL BE PROVIDED WITH WARNING VESTS

Use the above list to orient your safety program to OSHA standards. (7.2)

ADDITIONAL COMMONLY CITED OSHA VIOLATIONS

1. FIRE PROTECTION AND PREVENTION; EMPLOYER SHALL BE RESPONSIBLE FOR DEVELOPMENT AND MAINTENANCE OF AN EFFECTIVE FIRE AND PREVENTION PROGRAM, INCLUDING AVAILABILITY OF FIRE PROTECTION AND FIGHTING EQUIPMENT

2. HOUSE KEEPING: DURING CONSTRUCTION ALL DEBRIS, SCRAP LUMBER, COMBUSTIBLE, AND INFLAMMABLE MATERIAL SHALL BE CLEANED AWAY FROM THE WORKING AREAS, INCLUDING PROVIDING CONTAINERS FOR HAZARDOUS AND FLAMMABLE MATERIAL

3. MEDICAL SERVICES: AVAILABILITY OF FIRST AID AND HOSPITAL TREATMENT

4. EYE AND FACE PROTECTION: PROTECTION FROM POTENTIAL EYE OR FACE INJURY FROM PHYSICAL, CHEMICAL, OR RADIATION AGENTS

5. SAFETY BELTS, LIFELINES AND LANYARDS

6. FIRE PROTECTION EQUIPMENT

7. HAND TOOLS; USE SAFE HAND TOOLS. WOODEN HANDLES KEPT TIGHT AND SECURE. IMPACT TOOLS FREE FROM MUSHROOM HEADS

8. POWER OPERATED TOOLS: GUARDS, SAFETY CLIPS, AND RETAINERS FASTENED FOR OPERATOR SAFETY

9. LOCKOUT AND TAGGED CIRCUITS: CONTROLS PROPERLY DEACTIVATED AND CLEARLY TAGGED

10. EXCAVATION AND TRENCHING: SIDES OF TRENCHES IN UNSTABLE OR SOFT MATERIALS, SIX FEET OR MORE IN DEPTH, SHALL BE SHORED, SHEETED, BRACED, SLOPED, OR OTHERWISE SUPPORTED BY MEANS OF SUFFICIENT STRENGTH TO PROTECT WORKERS

Expand your safety program to include 10 more additional items. (7.3)

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #7: Frequent OSHA Violations

You are the structural concrete foreman for a two story office building project. You make it a habit to continually inspect the job for possible OSHA violations because, regardless of who is at fault, such violations may endanger your crew. The first day on the job you noted the following violations. List the best way to correct each violation.

	Problem	Solution
1.	Unguarded open-side floors, platforms, six feet above the ground or adjacent floor.	
2.	Unprotected and ungrounded branch circuits.	
3.	No personal protective equipment where there is an exposure to hazardous conditions, such as working without eye protection.	
4.	No hard hats worn in areas where there is a possible danger of head injury from impact, falling and flying objects, and electrical shocks and burns.	

5. Tubular welded frame scaffolds not constructed and erected with necessary accessories to fully support four times the maximum load.

6. Grounding path to ground from circuits not continuous and permanent.

7. Woodworking tools and machinery not to ANSI 01.1-1961.

8. No site or crew tool box safety meetings. Foremen placing workers in an unsafe environment. Unskilled craftsmen working in an unsafe manner.

9. Unguarded floor openings and holes.

10. Unsupported sides of trenches more than six feet deep in unstable or soft material.

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Solution #7: Frequent OSHA Violations

	Problem	Solution
1.	Unguarded open-side floors, platforms, six feet above the ground or adjacent floor.	Erect standing rail and toe board.
2.	Unprotected an ungrounded branch circuits.	Install ground fault protection as part of total grounding program.
3.	No personal protective equipment where there is an exposure to hazardous conditions, such as working without eye protection.	Require/provide personal protective equipment if necessary to reduce hazards to workers.
4.	No hard hats worn in areas where there is a possible danger of head injury from impact, falling and flying objects, and electrical shocks and burns.	Post sign "Hard Hats Must Be Worn!", and enforce.

5.	Tubular welded frame scaffolds not constructed and erected with necessary accessories to fully support four times the maximum load.	Check manufacturer's specs for correct scaffold erection.
6.	Grounding path to ground from circuits not continuous and permanent.	Make grounding path from circuits continuous and permanent.
7.	Woodworking tools and machinery not to ANSI 01.1-1961.	Reclaim non-standard tools and machinery and replace with ANSI approved items.
8.	No site or crew tool box safety meetings. Foremen placing workers in an unsafe environment. Unskilled craftsmen working in an unsafe manner.	Request a program where general contractor and subcontractors instruct each worker to recognize and avoid unsafe working conditions.
9.	Unguarded floor openings and holes.	Guard floor openings and install safety railings, toe boards, or covers.
10.	Unsupported sides of trenches more than six feet deep in unstable or soft material.	Shore, sheet, brace, slope or otherwise support sides of trench to protect workers.

LESSON #8 OSHA RECORDS AND HAZARD COMMUNICATION

OBJECTIVES

1. OSHA RECORD KEEPING

2. HAZARD COMMUNICATION STANDARD

This lesson covers OSHA record keeping requirements and hazard communication standards, including material safety data sheets (MSDS). Company management is responsible for training job site supervisors in correct maintenance of OSHA forms and hazardous materials communication.

OSHA inspectors review your OSHA records and hazardous communication program. This record and program review comprises an important part of the OSHA inspection.

Correct record keeping sends a strong message that your company is complying with all aspects of OSHA regulations. A good review of your records will alleviate one of the major reasons why contractors fail OSHA inspections.

SLC PROFIT TIP #8

MAINTAIN OSHA RECORDS AND HAZARD COMMUNICATIONS AND AVOID UNNECESSARY FINES

Two OSHA records that must be maintained are:

1. OSHA Form 200: Log of Occupational Illnesses and Injuries

2. OSHA Form 101: Supplementary Record of Occupational Injuries and Illnesses

OSHA also requires that the company review current work for hazardous materials and maintain a system for informing workers of potential hazards from materials handling and installation.

1. Are your OSHA forms current?

2. Are your MSDS sheets current?

OSHA 200: LOG OF OCCUPATIONAL ILLNESSES AND INJURIES

1. RECORDS THE OCCURRENCE, EXTENT, AND OUTCOME OF CASES RECORDED DURING THE YEAR

2. SUMMARY OF OCCUPATIONAL ILLNESSES AND INJURIES WHICH IS USED TO SUMMARIZE THE LOG, AT THE END OF THE YEAR, TO SATISFY EMPLOYER POSTING OF OBLIGATIONS

Each company of 11 or more employees must maintain OSHA 200 either at the company office or on the job site. The log must be complete within six working days after receiving information and the log must be complete for the last 45 days. OSHA 200 records must be kept for thirty years. (8.1)

Copies of the totals and information for the year must be posted at each establishment in the place or places where notices to employees are customary posted. This information must be posted no later than February 1 and must remain in place until March 1.

Even if there were no injuries or illnesses during the year, zeros must be entered on the totals line and the form posted. The person responsible for the annual summary totals shall certify that the totals are true and complete by signing at the bottom of the form.

OSHA 200 INFORMATION

1. CASE OR FILE NUMBER
2. DATE OF INJURY OR ONSET OF ILLNESS
3. EMPLOYEE'S NAME
4. OCCUPATION
5. DEPARTMENT (Crew or Job Name and Number)
6. DESCRIPTION OF INJURY OR ILLNESS
7. EXTENT OF INJURY
   - DATE OF DEATH
   - DAYS AWAY FROM WORK OR RESTRICTED WORK ACTIVITY
8. TYPE OF ILLNESS
   - DATE OF DEATH
   - DAYS AWAY FROM WORK OR RESTRICTED WORK ACTIVITY
9. ILLNESS WITHOUT LOST WORKDAYS

OSHA 200 is required by Public Law 91-596 for all contractors with 11 or more employees and must be kept in the company for thirty years. (8.2) Failure to maintain and post this form can result in the issuance of citations and assessment of fines.

OSHA 101 SUPPLEMENTARY RECORD

OF OCCUPATIONAL INJURIES AND ILLNESSES

1. FOR EVERY INJURY AND ILLNESS ENTERED ON OSHA 200, IT IS NECESSARY TO RECORD ADDITIONAL INFORMATION ON A SUPPLEMENTARY RECORD

2. THE SUPPLEMENTARY RECORDS DESCRIBES HOW THE INJURY OR ILLNESS EXPOSURE OCCURRED, LISTS THE OBJECTS OR SUBSTANCES INVOLVED, AND INDICATES THE NATURE OF THE INJURY OR ILLNESS, INCLUDING THE PART OF THE BODY AFFECTED

OSHA 101 must be completed within six working days of having received information. The completed OSHA 101 must be available for the OSHA inspector.

Companies may use any form as long as it records the same information as OSHA 101.

1. Who in your company is responsible for insuring the completeness of OSHA 200 and 101?

2. Who in your company should be responsible for insuring the completeness of OSHA 200 and 101?

HAZARD COMMUNICATION PROGRAM

1. EVALUATE MATERIAL HAZARD
2. CHECK WARNING LABELS
3. MAINTAIN MATERIAL SAFETY DATA SHEETS (MSDS)
4. NOTIFY EMPLOYEES
5. TRAIN EMPLOYEES IN PROPER HANDLING, TRANSPORTATION, STORAGE, AND USE OF HAZARDOUS MATERIALS

Employers are responsible for establishing a hazardous communication program. Hazardous communication includes evaluating materials for their hazardous content, checking warning labels, maintaining MSDS, notifying employees, and training workers in the proper handling, transportation, storage, and use of hazardous materials.

Products and materials used on your jobs must be evaluated based on hazardous potential. Especially, check warning labels. Currently, if it comes in a can or special container it probably contains a hazardous substance. You must inform employees of all hazardous materials on the job site.

Manufacturers maintain MSDS for their products. The MSDS contains sufficient information on the safe way to handle and install materials. You have to maintain a complete file of MSDS for your current and past work for 30 years. (8.3)

Training is required too. You must train employees in the handling, transportation, and storage of these dangerous substances. You must train workers in how materials will be used or installed. It is primarily during use and installation that the worker comes in close contact with the materials damaging effects.

HAZARDOUS COMMUNICATION STANDARD COORDINATOR

1. ORGANIZE MSDS
2. ESTABLISH AND CONDUCT EMPLOYEE TRAINING
3. MAINTAIN INVENTORY LIST ON CHEMICALS IN THE WORKPLACE
4. ENURE THAT ALL CHEMICALS ARE PROPERLY LABELED BY THE MANUFACTURER OR YOUR COMPANY
5. PROCESS REQUESTS FOR INFORMATION FROM EMPLOYEES AND OSHA
6. DOCUMENT EACH STEP OF COMPLIANCE
7. ENSURE THAT EACH JOB FOLLOWS THROUGH WITH COMPLIANCE
8. DOCUMENT EACH STEP!!!

Appoint someone in the company to be the hazard communication standard coordinator. The coordinator's principal job is to identify potential harmful materials, including maintaining the chemical's MSDS. The coordinator must be trained in the proper use of any chemical or material. Finally, maintain some form of record that your company has complied with regulations, such notation can be provided on the daily job log.

The hazardous communication officer can also train workers who come in contact with hazardous materials. Periodically, experts, such as manufacturer's technical representatives, can also instruct supervisors and workers regarding potentially hazardous situations.

1. Do you have a hazardous communication standard coordinator? If not, who should it be?
2. Does your company pay careful attention to incoming materials with warning labels?
3. How often are employees instructed in the handling, storage, and installation of hazardous chemicals and materials?

MATERIAL SAFETY DATA SHEETS (MSDS)

1. CHEMICAL NAME & EMERGENCY DATA
2. HAZARDOUS INGREDIENTS/CHEMICAL IDENTITY
3. PHYSICAL CHARACTERISTICS
4. FIRE AND EXPLOSION DATA
5. REACTIVITY
6. HEALTH HAZARDS
7. USAGE, HANDLING, AND STORAGE
8. SPECIAL PROTECTION AND PRECAUTIONS

Material safety data sheets are a major part of OSHA compliance. The material safety data sheets (MSDS) provide to anyone who must come in contact with an unknown or dangerous material all pertinent hazard and safety information. Listed above is some of the key information on the MSDS.

The company must have a MSDS for each hazardous chemical or material. MSDS can be obtained from the manufacturer. If no MSDS is available then you must request the information from the manufacturer who is required to maintain MSDS for each hazardous substance.

1. Do workers receive copies of MSDS for handling of materials?

2. Do you believe that hazard communication, especially MSDS, is a critical responsibility, or is it a paper work exercise?

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #8: Record Keeping and Hazard Communication

Florida Concrete, Inc. has experienced many problems with regard to OSHA record keeping and hazardous material management. OSHA forms 200 and 101 have been maintained improperly, if at all. Many times Florida Concrete, Inc. has had problems trying to explain to OSHA gaps in reporting and incomplete forms. Poor record keeping has led OSHA inspectors to believe that Florida Concrete, Inc. is trying to hide something. OSHA inspectors frequent job sites on which Florida Concrete, Inc. is working.

As was mentioned in Lesson #6, there is a high turn over rate of workers at Florida Concrete, Inc. About half the employees in the field are new to the company. The new employees have not gone through proper safety orientation. The workers are not trained to handle hazardous materials and are not familiar with MSDS. OSHA inspectors have found many employees who do not know where the MSDS information is kept. Also, many hazardous materials have been located which have no warning labels.

Working with another student, identify three problems and solutions for each of the following company levels: (A) top-management, (B) project management, (C) crew level, and (D) employee. Propose a solution for each problem. Make necessary assumptions to work the problem. Be prepared to explain your answers to the class.

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Problem #8: Record Keeping and Hazard Communication

Problem	Solution
A. TOP MANAGEMENT	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
B. PROJECT MANAGEMENT	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
C. CREW LEVEL	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
D. EMPLOYEE	
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____

CASE STUDY: SAFETY, WORKERS COMPENSATION, AND PRODUCTIVITY

Solution #8: Record Keeping and Hazard Communication

Problem	Solution
A. TOP MANAGEMENT	
1. No hazard program	1. Dev. & implement program
2. Poor hazard communication	2. Proper training & tracking
3. No new worker orientation	3. Dev. & implement program
B. PROJECT MANAGEMENT	
1. No regard for record keeping	1. Mandate proper records
2. Reports take too much time	2. Assign person for forms
3. Lack of training	3. Hazardous mat'l training
C. CREW LEVEL	
1. New to company	1. Safety Orientation
2. Not able to read	2. Appropriate graphic labels
3. Failure to heed warnings	3. Tool box mtgs, education
D. EMPLOYEE	
1. No hazard training	1. Dev. & implement training
2. Laziness	2. Punishment & reward system
3. No fear	3. Tool box mtgs, education

SAFETY PRACTICES THAT REDUCE WORKERS COMPENSATION COSTS AND INCREASE PRODUCTIVITY

BLANK FORMS

Company Safety Policy

(Company Letterhead)

It is the policy of this company to provide all workers with a safe working environment. Management considers worker safety more important than quality control and production.

As a condition of employment, all new hires and present employees must follow company instructions regarding safety in the workplace. As part of this policy, all supervisors and workers will adhere to the following practices.

1. All personnel shall be familiar with all company safety rules.

2. New hires will be trained in company safety rules and safe practices for each construction task.

3. All supervisors will be aware of past accidents, including type, severity, frequency, and contributing causes and how such accidents could be avoided.

4. Supervisors at all levels will talk to their personnel about safety.

5. Supervisors at all levels will be evaluated on their safety record as a condition for pay increase, bonus, and promotion.

6. Foremen will train craftsmen and labor in safe work practices for each stage of the work, rather than discuss general safety.

7. Foremen will plan the work so that sufficient manpower, materials, tools, and instructions are available prior to the start of work.

A safe workplace requires everyone working together to avoid accidents. All personnel are charged to stop work immediately upon first noticing an unsafe work practice, and then inform other workers and supervisors until the unsafe condition or practice has been corrected.

So as to provide a safe environment for those who are working with us, all subcontracts, purchase orders, and supply contracts will contain a copy of our safety policy.

All personnel have management's complete support to carry out this and other safety policies.

s/_____ s/_____

President Employee

Company Drug-Free Policy

(Company Letterhead)

Policy:

It is the policy of this company to provide employees with a drug-free workplace. Management considers a drug-free environment as important as quality control and production. As a condition of employment employees and job applicants must comply with this policy.

Administration:

The drug-free workplace program is administered in the following manner.

1. Employees are subject to testing 60 days after signing this policy and consent form. Thereafter, testing may occur at any time. Testing is by urine analysis. Retesting method is defined in state regulations.

2. The company has the right to discharge an employee on the basis of a positive confirmed drug test result not meeting federal or state standards of being drug free.

3. Florida Department of Labor Employment Security, Division of Workers Compensation, Workers Compensation Drug Testing Rule 38F-9 defines requirements for drug-free testing.

4. Confidentiality of drug tests is protected in accordance with Section 38F-9.012 of the above rule.

5. Employees and job applicants may report the use of prescription or nonprescription medications both before and after being tested. Employees shall receive notice of the most common drugs and medications by brand name or common name, as well, as by chemical name, which may alter or affect a drug test.

6. Employees or job applicants refusing to submit to a drug test lose workers compensation medical and indemnity benefits.

7. The company maintains a list of names, address, and telephone numbers of employee assistance programs and local alcohol and drug rehabilitation programs available to employees.

8. An employee or job applicant who receives a positive confirmed drug test may contest or explain the result to the employer

within five working days after written notification of the positive test result. If the employee or job applicant's explanation or challenge is unsatisfactory to the company, the person may contest the drug test result as provided in Rule 38-F-9.009.

9. The employee or job applicant are responsible for notifying the laboratory conducting the drug test of any administrative or civil actions in conjunctions with Chapter 440, Florida Statutes.

10. The company will furnish a list of all drugs for which the employee will be tested, including brand names or common names, as applicable, as well as by chemical names.

11. Employees retain their rights under any collective bargaining agreement with the employee.

12. Employees and job applicants have the right to consult the testing laboratory for technical information regarding prescription and nonprescription medication.

13. Vacancy announcements will include a notice of drug testing for positions where drugs testing is required.

14. Notice of drug testing shall be post in an appropriate and conspicuous location and the company premises. Copies of the policy are available for inspection during regular business hours by the general public in the employer's personnel office or other suitable locations.

Acknowledgement:

I have received a copy of the Drug-Free Workplace Policy of the company. I have carefully and thoroughly read this policy. I understand its requirements and agree, without reservation, to abide by the policy.

I hereby consent to the administration of the drug-free workplace policy.

Individual: _____ SSN: _____ Date: _____

Witness: _____ SSN: _____ Date: _____

Witness: _____ SSN: _____ Date: _____

Consent Agreement for Applicant Drug Test

(Company Letterhead)

As a prerequisite to employment, I hereby agree to allow the company to collect urine samples from me to determine the presence of illegal drugs in by body. Further, I give my consent to the release of my test results to authorized Company management for appropriate review, and authorize the Company to use the test results as a defense against any legal action to which I am a party.

I understand that the results of the drug testing of my urine, if confirmed positive, will remove me from consideration for employment. I also understand that if I refuse to consent, I will be removed form from further consideration for employment.

Further, I understand that, if employed by the Company, I must abide by the terms of the company's drug-free workplace policy and my be required to submit to testing for the presence of illegal drugs or alcohol. I understand that submission to such testing is a condition of employment with the Company, and disciplinary action, up to and including discharge, may result in 1) I refuse to consent to such testing, 2) I refuse to execute all forms of consent and release of liability as are usually and reasonably attendant to such examinations, 3) I refuse to authorize release of the test result to the Company, if the tests establish a violation of the Company's drug-free workplace policy, or 4) I otherwise violate the policy.

I hereby consent to the administration of the drug test and to the terms and conditions of the consent Agreement.

Individual: _____ SSN: _____ Date: _____

Witness: _____ SSN: _____ Date: _____

Company Policy on New Employee Safety Orientation

(Company Letterhead)

SUBJECT: New Employee Safety Orientation

The company policy is to orientate new employees to company safety standards. This orientation will be conducted before the new hire begins work. The employee's immediate supervisor is responsible for orientating the new hire. The following tasks will be completed by the supervisor and the new employee.

Company Safety Policies

1. I have completed the company employment record and listing of all previous accidents, illnesses, and injuries, including non-work related.

2. I have read and understand the following company safety items.

   ( ) Company Safety Policy

   ( ) Company Drug-Free Workplace Policy

   ( ) Company Safety Rules

   ( ) Safety Signs

   ( ) Personal Protective Clothing and Devices

   ( ) Accident Emergency Procedures

   ( ) Safety Discipline Report

   ( ) Job Site Safety Rules

3. My immediate supervisor has explained to me my construction tasks and safe work practices.

S/_____ S/_____

Supervisor Employee

Company Employee Work History

(Company Letterhead)

Name: _____
(Last) (First) (Middle)

Address: _____
(Street) (City) (State) (Zip)

Telephone: _____ SSN: _____

Name to Contact In Emergency: _____
(Last) (First) (Middle)

Address: _____
(Street) (City) (State) (Zip)

Position: _____ Company: _____

Address: _____
(Street) (City) (State) (Zip)

From: _____ To: _____ Supervisor: _____

Duties: _____

Accidents, Illnesses and Injuries: _____

_____

Medical Treatment: _____

Physician and Address: _____

Non-Work Related Accidents, Illness and Injuries: _____

_____

Position: _____ Company: _____

Address: _____
(Street) (City) (State) (Zip)

From: _____ To: _____ Supervisor: _____

Duties: _____

Accidents, Illnesses and Injuries: _____

_____

Medical Treatment: _____

Physician and Address: _____

Non-Work Related Accidents, Illness and Injuries: _____

_____

Safety Discipline Report

(Company Letterhead)

DATE: (Month, Day, Year)

TO: (Employee's Name)

FROM: (Supervisor's Name)

SUBJECT: Unsafe Practice

Job: (Job Name and Number)

Position: (Employee's Job Title or Work)

Description of Unsafe Practice: _____

_____

_____

Description of Safe Practice: _____

_____

_____

Employee's Reason for Unsafe Practice: _____

_____

_____

Correct Practice: _____

_____

Action Taken: ( ) Verbal Warning ( ) Written Reprimand

( ) Day Without Pay ( ) Dismissal

I have read the completed Safety Discipline Report above. I am aware that continued unsafe practices will result in dismissal.

S/_____ S/_____

Supervisor Employee

Job Site Safety Meeting

(Company Letterhead)

DATE: (Month, Day, Year)

TO: (Company Owner)

FROM: (Job Supervisor's Name and Title)

SUBJECT: Job Site Safety Meeting

Job: (Job Name and Number)

Attending: (Name, Company, and Signature)

Absent: (Name and Company. Copy to be Sent)

Description of Current Work: _____

_____

Possible Accidents, Illnesses, and Injuries: _____

_____

_____

Action To Be Taken: _____

_____

_____

Description of Future Work: _____

_____

Possible Accidents, Illnesses, and Injuries: _____

_____

_____

Action To Be Taken: _____

_____

_____

Crew Tool Box Safety Meeting

(Company Letterhead)

DATE: (Month, Day, Year)

TO: (Job Supervisor)

FROM: (Crew Supervisor's Name and Title)

SUBJECT: Crew Tool Box Safety Meeting

Job: (Job Name and Number)

Attending: (Name, Company, and Signature)

Absent: (Name and Company)

Description of Current Work: _____

_____

Possible Accidents, Illnesses, and Injuries: _____

_____

_____

Action To Be Taken: _____

_____

_____

Description of Future Work: _____

_____

Possible Accidents, Illnesses, and Injuries: _____

_____

_____

Action To Be Taken: _____

_____

_____

Safety Inspection Checklist

Job Name: _____ Date: _____

Inspector: _____ Superintendent: _____

General Safety	Yes	No	Action	Corrected
1. Clear safe access areas	( )	( )	( )	( )
2. Drinking water available	( )	( )	( )	( )
3. Excavation shoring	( )	( )	( )	( )
4. First-aid kit	( )	( )	( )	( )
5. High noise level present	( )	( )	( )	( )
6. Materials storage	( )	( )	( )	( )
7. Sanitation	( )	( )	( )	( )
8. Site housekeeping	( )	( )	( )	( )
9. Site lighting	( )	( )	( )	( )
10. Walkways clear	( )	( )	( )	( )

Comments: _____

_____

Fire Protection	Yes	No	Action	Corrected
1. Burn barrels maintained	( )	( )	( )	( )
2. Fire extinguishers charged	( )	( )	( )	( )
3. Fire protection accessible	( )	( )	( )	( )
4. Flammables stored properly	( )	( )	( )	( )

Comments: _____

_____

Signs and Warnings	Yes	No	Action	Corrected
1. Company requirements posted	( )	( )	( )	( )
2. Easily visible	( )	( )	( )	( )
3. Needs replacing	( )	( )	( )	( )
4. OSHA requirements posted	( )	( )	( )	( )

Comments: _____

_____

Personal Protection	Yes	No	Action	Corrected
1. Eye protection	( )	( )	( )	( )
2. Hard hats	( )	( )	( )	( )
3. Respirators	( )	( )	( )	( )
4. Safety belts	( )	( )	( )	( )
5. Special equipment	( )	( )	( )	( )

Comments: _____

_____

Scaffolding	Yes	No	Action	Corrected
1. Bracing (sway, displacement)	( )	( )	( )	( )
2. Cleanliness	( )	( )	( )	( )
3. Fully decked	( )	( )	( )	( )
4. Safe access	( )	( )	( )	( )
5. Safety rail (if 6' and over)	( )	( )	( )	( )
6. Serviceable	( )	( )	( )	( )

Comments: _____

_____

Ladders	Yes	No	Action	Corrected
1. Braced contact points	( )	( )	( )	( )
2. Non-conducting ladder	( )	( )	( )	( )
3. Secured in place	( )	( )	( )	( )
4. Serviceable	( )	( )	( )	( )
5. Used properly	( )	( )	( )	( )
6. Vertical position (1:4)	( )	( )	( )	( )

Comments: _____

_____

Floors and Openings	Yes	No	Action	Corrected
1. Guard rails erected	( )	( )	( )	( )
2. Hole covers in place	( )	( )	( )	( )
3. Serviceable	( )	( )	( )	( )
4. Stairways blocked and braced	( )	( )	( )	( )
5. Toe boards in place	( )	( )	( )	( )

Comments: _____

_____

Hand and Power Tools	Yes	No	Action	Corrected
1. Eye protection	( )	( )	( )	( )
2. Grounded power cables	( )	( )	( )	( )
3. Hearing protection	( )	( )	( )	( )
4. Right tool for job	( )	( )	( )	( )
5. Safety devices in place	( )	( )	( )	( )
6. Serviceable	( )	( )	( )	( )

Comments: _____

_____

Cranes and Hoists	Yes	No	Action	Corrected
1. Clear work area	( )	( )	( )	( )
2. Stable work area	( )	( )	( )	( )
3. Tag lines being used	( )	( )	( )	( )
4. Tested lifting equipment	( )	( )	( )	( )

Comments: _____

_____

Welding Equipment	Yes	No	Action	Corrected
1. Cylinders serviceable	( )	( )	( )	( )
2. Eye protection	( )	( )	( )	( )
3. Falling sparks	( )	( )	( )	( )
4. Proper ground	( )	( )	( )	( )

Comments: _____

_____

SAFETY PRACTICES THAT REDUCE WORKERS COMPENSATION COSTS AND INCREASE PRODUCTIVITY

INSTRUCTOR NOTES

INSTRUCTOR NOTES

This course is intended primarily for the small contractor, grossing less than approximately $5 million annually. However, larger contractors can also gain important profit making tips. The course will have attenders with construction experience ranging from a few years to several decades. Attenders will include a wide range of positions, including foremen, superintendents, project managers, general superintendents, office personnel, and company owners. the instructors biggest problem will be to keep this diverse audience interested.

Based on teaching this course and companion courses, implementing the following suggestions may make instruction less difficult and more effective for the instructor while being more appealing and worthwhile to the student.

There are two kinds of instructors. One type of instructor is the lecturer who may not wish to use the accompanying video tape, but teach directly from the manual. The advantage of this approach is that informal contact and interaction is increased between the instructor and student.

The other type of instructor is the moderator who will use the video tape to present each lesson's content. Afterward viewing each lesson's video tape, the moderator will cover the respective lesson's material in more detail if necessary, usually by asking for student questions and comments.

Both the lecturer and moderator will explain the case study problems and solutions provided with each lesson, including asking for student questions and comments.

Although this is an eight hour course, nothing prevents it being made longer or shorter, including conducting the course over a period of several days.

EFFECTIVE INSTRUCTION

Following are some guidelines for making instruction more effective and better ensuring that the students feel attendance is worthwhile.

1. **Know the Material:** The best way to allay your fears or nervousness in teaching is to be well prepared. Read and become thoroughly familiar with all the material, including each lesson's problems and solutions. Use a highlighter to mark important material in your manual which you wish to emphasize. Make additional notes in your manual. Preparation helps ensure you cover each lesson's important points.

2. **Meet Student Expectations:** During the course introduction session, ask each student to state their expectation(s) from attending the course. Ask frequently (after each lesson, before each break, and at end of the course) "What important ideas or tips did you learn?" Poll each person, asking them to state what they believe to be worthwhile. Use this positive response technique to stress important points, summarize material, and motivate attenders.

3. **Increase Communications:** Communication is a key element in successful learning. Make certain you have a room that accommodates your audience, as to size, acoustics, lighting, and comfort. It is helpful to have an instructor's table in front of the class with student tables in a U shaped arrangement facing the instructor's table. Try not to overly impose the instructor's table between yourself and the students. You can sit on the instructor's table, thereby increasing the informality of the arrangement. Movement by the instructor helps keep the presentation flowing and maintain student interest.

4. **Use Visual Aids:** Use the accompanying video tape to introduce the material. Make view graphs (for use with overhead projector) of the manual's key points, important figures, and problem work sheets and solutions. Place the overhead projector on one side of the instructor's table, thus making it easier to explain the materials while maintaining eye contact with the students. Have available (placed on the side opposite from the projector) a blackboard and/or an easel with blank chart paper. The blackboard and/or chart paper can be used to further illustrate points which are not adequately addressed by the manual or your view graphs.

5. **Lesson Plans:** Included in this section of the manual are lesson plans for each of the course's eight lessons. The lesson plans are designed with one hour allotted for each lesson. Review the lesson plans to get an idea of how much time to spend on each lesson's respective objectives. The time allocations may be considered relative guidelines if more or less than one hour is to be used for a lesson. For example, if 6 minutes is assigned to a particular lesson topic, then it is approximately 10 percent of the lesson's assigned time based on the lesson plan allotted time of one hour.

CLASS ADMINISTRATION

Consider the following key elements in conducting your workshop.

1. **Cooperate with Sponsor:** Make certain you meet all your contract arrangements with whomever is sponsoring the course,

including meeting the sponsor's expectations of you as an instructor.

2. **Inspect Classroom:** Inspect the classroom the day before class. Explain to whomever is in-charge what arrangement you wish, leaving a list of what needs to be done prior to class commencement.

3. **Registration:** Registration usually commences a half-hour before starting the first lesson. Have available for the students a registration table with registration or sign-in forms (if required), manuals, name tags, pencils, and highlighters for students.

4. **Name Tags and Place Cards:** Provide a name tag and place card for each student. By calling on each person by name from time to time, you can increase individual participation and enhance student-instructor rapport.

5. **Note Taking Materials:** Provide pencils and highlighters for note taking. If the manual is printed each page single sided, advise students that they may make notes on the blank page opposite the material in question. If the manual is printed double sided, students can make notes at the bottom of the page or in the margins.

6. **Breaks:** Hold regular breaks at least every two hours. Breaks are usually five to fifteen minutes.

7. **Smoking and Refreshment Policy:** Allow smoking outside the classroom at breaks, not in the classroom. If possible, have coffee and other refreshments available at the back of the classroom or in the corridor. Place the refreshments so as not to disturb attenders during class.

MATERIAL PRESENTATION

Following are some techniques in teaching which may be helpful when presenting the workshop.

1. **Voice, Repetition, and Motivation:** Practice your presentation. During the introduction session, ask if everyone can hear you. Emphasize and repeat important words and concepts, especially those that concern the topic you are explaining. Repetition is a good teaching method. Motivate students by mentioning savings, such as improved bottom line. If you do not sound convincing, then the students will not be convinced.

2. **Body Language:** Body language plays a major part in influencing the students attention and willingness to learn.

If you are nervous, your audience will be nervous. The best way to make your audience relax is to be relaxed yourself. Stand unaffectedly, feet slightly apart, do not rock back and forth; move smoothly and purposely before your audience as you speak.

3. **Hand Gestures:** Control your hands and use them to ease the effort of instruction. Avoid making fists, hand wringing, or other nervous gestures. Avoid grasping at clothes or placing your hands in your pockets. Use smooth flowing, deliberate gestures to emphasize points.

4. **Eye Contact:** Frequent individual eye contact is invaluable for keeping your audience with you. Eye contact with each attender is a key to keeping everyone progressing with you as you teach the workshop. Vary eye contact, do not just scan back and forth from left to right. Talk to one side of the audience, then to the other, moving frequently at random among your audience.

5. **Focus Attention:** Eye contact must be made with the students to capture their attention. When attention is given to the individual student, the student will return the attention. Once attention focuses, the listening and learning processes are enhanced. Focus on one individual at a time, speaking to that person until the point or thought is complete. Then move on, to the next individual or switch to the opposite side of the room.

6. **Regaining Contact:** If you feel you are losing someone, or they are not convinced, or they do not understand, then move closer to that person. Ask them specific questions, but not to the extent of producing uneasiness in the student. Then provide a direct specific answer if you can, or offer to get back to them after you have further researched the matter. Hint: in some cases it is best to ask another class member to answer the question. Hearing the answer from one's peers often boosts learning and retention.

7. **Blackboard:** Use a blackboard and/or chart paper to explain material, including working computations and drawing sketches. Place the blackboard and/or easel with chart paper on the side of the room opposite overhead projector.

8. **Overhead Transparencies:** Use overhead transparencies (view graphs). Explain each transparency in a systematic manner. For example, state: "This is the foreman's labor budget. Along the top is information regarding the project. Along the left side is information for each task, including cost code and construction task."

9. **Pointer:** Use a retractable pointer. Place the retracted

pointer on overhead transparencies to emphasize important items. Use the extended pointer to indicate important items on the blackboard and chart paper.

COURSE CONTENT

Following are suggestions for dealing with the varied backgrounds of your students.

1. **Student Background:** Quickly learn each student's background and expectation(s) from attending the course. Try to meet each student's specific expectations each hour.

2. **Course Content:** Explain that the course was developed from contacts with smaller contractors like themselves. Materials were developed in an attempt to meet the average contractor's needs. Explain that the material has been field tested, including the updating of previous course material.

3. **New Ideas:** Some of the ideas presented in the course may be new to you or the student. Explain that these approaches are the result of input by successful contractors. Most of the material can be used as presented or is easily adaptable to individual situations.

4. **Material Adaptation:** Do not hesitate to adjust the focus to the background and comprehension of your particular class. If you have mostly superintendents and foremen, stress the practical field aspects of job management. If you have company owners and project managers, stress how to implement the material at the managerial level. Remember students are there to learn, so do not hesitate to present any of the material, even if it is new to you. Just present the material in a manner that is tailored to the needs of that particular class.

5. **Student Manual:** The course material is developed so that you and the student have everything in one manual. It is generally best to start the class by covering the courses objectives and reasons why each objective is important. Then start each lesson by addressing that lesson's objectives and why they are important.

   When you print the student manual, omit this section, "Instructor Notes".

6. **Read Manual:** You can ask the students to read certain material in the manual and then explain it in more detail. Reading varies the instructional technique.

7. **Student Teams:** Have student's work the case study problems in teams (groups of two or three, depending on the size and

experience level of the class). Teaming students often improves the learning process as students learn from their peer's experiences.

8. **Explain the Case Study Problems:** Be certain to thoroughly explain the case study problems. Many attenders may not have been in a classroom in many years and consequently may not be sure what is expected of them during the case study problem solving portion of the lesson. Walk around the class, review how well individuals and teams are solving the problem. Provide individual assistance as needed. If you see that most students are making the same mistake, stop work and re-explain how to address the problem. Ensure everyone knows that the case study problems are a learning experience only and not a means of student grading or evaluation. Make everyone comfortable with this portion of the lesson.

9. **Student Solutions:** Ask attenders to present their individual or group solution to the class. Student solutions facilitate the learning process.

SPECIAL INSTRUCTIONS

1. Have students express their thoughts on what they have learned.

2. Summarize the course for the class.

3. Have students complete the evaluation form for your report to the BCIAC.

4. Award certificates of completion.

CHECKLIST

The following checklist may be useful for class logistics.

A. Administration

( ) Student roster

( ) Registration forms

( ) Student manuals

( ) Pencils and highlighters

( ) Name cards and place cards

( ) Certificates of completion

B. Classroom

( ) Instructor's table

( ) Student tables and chairs appropriately arranged

( ) Blackboard, chalk, eraser

( ) Chart paper, easel, marking pens

( ) Waste paper basket

( ) Overhead projector

( ) TV and video cassette player

C. Refreshments

( ) Table, table cloth, napkins

( ) Coffee pot, coffee, cups

( ) Sugar, cream, stir sticks

( ) Waste paper basket(s)

( ) Soap and paper towels in rest rooms

LESSON PLAN: INTRODUCTION

SAFETY PRACTICES THAT REDUCE WORKERS COMPENSATION COSTS AND INCREASE PRODUCTIVITY

A. **SUBJECT:** Introduction to Workshop

B. **OBJECTIVE:** To familiarize the student with the instructor's background, each fellow student's background, getting your money's worth from the course, course administration, and course objectives.

C. **LOCATION:** Classroom

D. **LESSON OUTLINE:**

SUBJECT:	TIME REQUIRED:
1. Introduction Objectives	1 MIN
2. Instructor's Background	3 MIN
3. Student's Background	10 MIN
4. Getting Your Money's Worth	5 MIN
5. Course Administration	4 MIN
6. Course Objectives	2 MIN
7. Student Questions	5 MIN

E. **STUDENT ASSIGNMENT:**

1. Read Introduction.
2. Student's Background.
3. Student Questions.

F. **TEACHING AIDS:**

1. Introduction Objectives
2. Instructor's Background
3. Student's Background
4. Getting Your Money's Worth
5. Administration
6. Course Objectives

LESSON PLAN #1

A. **SUBJECT:** Construction Safety

B. **OBJECTIVE:** This lesson provides an overview of the direct and indirect costs of construction accidents to emphasize the need to reduce accidents.

C. **LOCATION:** Classroom

D. **LESSON OUTLINE:**

SUBJECT:	TIME REQUIRED:
1. Construction Accidents	10 Min.
2. Direct and Indirect Cost of Accidents	10 Min.
3. Company Safety Program	10 Min.
4. Problem #1	15 Min.
5. Solution #1	15 Min.

E. **STUDENT ASSIGNMENT:**

1. Read Lesson 1.
2. Complete the problem.

F. **TEACHING AIDS:**

1. Lesson #1 Objectives
2. SLC Profit Tip #1
3. U.S. Industry Accident Statistics
4. Occupation Injuries Per 100 Full-Time Workers
5. Workers Compensation Costs
6. Direct Cost of Accidents
7. Indirect Cost of Accidents
8. Additional Revenue to Offset Accident Costs
9. Total Cost of Accidents
10. Elements of Company Safety Program
11. Cost of a Company Safety Program
12. Benefit/Cost of a Safety Program
13. Problem #1

LESSON PLAN #2

A. **SUBJECT:** Construction Safety Program

B. **OBJECTIVE:** To familiarize the student with the need to develop a company safety plan.

C. **LOCATION:** Classroom

D. **LESSON OUTLINE:**

SUBJECT:	TIME REQUIRED:
1. Company Safety Policy	10 Min.
2. Safety Responsibilities	15 Min.
3. Company Safety Program	5 Min.
4. Problem #2	15 Min.
5. Solution #2	15 Min.

E. **STUDENT ASSIGNMENT:**

1. Read Lesson 2.
2. Complete the problem and explain the solution

F. **TEACHING AIDS:**

1. Lesson #2 Objectives
2. SLC Profit Tip #2
3. Safety Definition
4. Contractors with Low Accident Rates and High Productivity
5. Company Safety Policy
6. Levels of Safety Responsibility
7. Top-Management Safety Responsibilities
8. Safety Director and Safety Committee Responsibilities
9. Project Management Safety Responsibilities
10. Foreman Safety Responsibilities
11. Crew and Craftsman Safety Responsibilities
12. Subcontractor Safety Responsibilities
13. Problem #2
14. Solution #2

G. **SPECIAL INSTRUCTIONS**

You may choose to take a 10-20 minute break after lesson #2.

LESSON PLAN #3

A. **SUBJECT:** Drug-free Workplace

B. **OBJECTIVE:** To familiarize the student with the importance of a drug-free workplace.

C. **LOCATION:** Classroom

D. **LESSON OUTLINE:**

SUBJECT:	**TIME REQUIRED:**
1. Company Policy	10 Min.
2. Drug-free Workplace Responsibilities	10 Min.
3. Problem #3	10 Min.
4. Solution #3	10 Min.

E. **STUDENT ASSIGNMENT:**

1. Read Lesson 3.
2. Complete the problem and explain the solution.

F. **TEACHING AIDS:**

1. Lesson #3 Objectives
2. SLC Profit Tip #3
3. Drug User Compared to a Normal Employee
4. Benefits of a Drug-Free Workplace
5. Drug-Free Workplace Program
6. Top-Management Responsibilities
7. Project Management Responsibilities
8. Crew Management Responsibilities
9. Components of a Drug-Free Workplace Program
10. Drug-Free Workplace Notice
11. Company Drug-Free Policy
12. Drug-Free Workplace Education
13. Drug-Free Workplace Testing
14. Important Drug Testing Regulations
15. Consent Agreement for Applicant Drug Testing
16. Problem #3
17. Solution #3

LESSON PLAN #4

A. **SUBJECT:** Safety Training

B. **OBJECTIVE:** To familiarize the student with the key elements of safety training.

C. **LOCATION:** Classroom

D. **LESSON OUTLINE:**

SUBJECT:	TIME REQUIRED:
1. New Worker Safety Orientation	15 Min.
2. Job Site Safety Meetings	15 Min.
3. Craft Tool Box Meetings	10 Min.
4. Problem #4	15 Min.
5. Solution #4	15 Min.

E. **STUDENT ASSIGNMENT:**

1. Read Lesson 4.
2. Complete the problem and explain the solution.

F. **TEACHING AIDS:**

1. Lesson #4 Objectives
2. SLC Profit Tip #4
3. New Worker Safety Orientation
4. Company Policy on New Employee Safety Orientation
5. Company Employee Work History
6. Company Safety Rules
7. Personal Protective Clothing and Devices
8. Company Signs
9. Accident Emergency Procedures
10. Safety Discipline Report
11. Job Site Safety Meetings and Training
12. Crew Tool Box Safety Meetings and Training
13. Problem #4

G. **SPECIAL INSTRUCTIONS**

After Lesson #4 break for an hour's lunch. Let students know of nearby places to eat.

LESSON PLAN #5

A. **SUBJECT:** Project Safety

B. **OBJECTIVE:** To familiarize the students with job site safety.

C. **LOCATION:** Classroom

D. **OUTLINE:**

SUBJECT:	TIME REQUIRED:
1. Safety Plan	15 Min.
2. Safety Rules	15 Min.
3. Emergency Plan	10 Min.
4. Safety Inspections	15 Min.
5. Problem #5	5 Min.
6. Solution #5	5 Min.

E. **STUDENT ASSIGNMENT:**

1. Read Lesson 5.
2. Complete the problem and explain the solution.

F. **TEACHING AIDS:**

1. Lesson #5 Objectives
2. SLC Profit Tip #5
3. Project Safety Plan
4. Accident Categories
5. Accident Control Process
6. Rules of the Job
7. Emergency Plan Development
8. Emergency Plan Execution
9. Emergency Information
10. Daily Safety Inspections
11. Frequent Causes of Construction Accidents
12. Safety Inspection Checklist
13. Problem Study #5
14. Solution #5

LESSON PLAN #6

A. **SUBJECT:** Crew Safety

B. **OBJECTIVE:** To familiarize the student with crew safety.

C. **LOCATION:** Classroom

D. **LESSON OUTLINE:**

SUBJECT:	TIME REQUIRED:
1. Personal Protection Safety	15 Min.
2. Hand and Power Tool Safety	15 Min.
3. Ladder and Scaffold Safety	10 Min.
4. Excavation and Trenching	10 Min.
5. Problem #5	15 Min.
6. Solution #5	15 Min.

E. **STUDENT ASSIGNMENT:**

1. Read Lesson 6
2. Complete the problem and explain the solution.

F. **TEACHING AIDS:**

1. Lesson #6 Objectives
2. SLC Profit Tip #6
3. Causes of Accidents
4. Safety Competent Worker
5. Crew Tool Box Record
6. Personal Protection Safety
7. Hand and Power Tool Safety
8. Ladder Safety
9. Scaffold Safety
10. Excavation and Trench Safety
11. Problem #6
12. Solution #6

LESSON PLAN #7

A. **SUBJECT:** OSHA Services and Inspections

B. **OBJECTIVE:** To familiarize the student with the methods and formats used by OSHA.

C. **LOCATION:** Classroom

D. **LESSON OUTLINE:**

SUBJECT:	TIME REQUIRED:
1. OSHA Purpose	10 Min.
2. OSHA Services	10 Min.
3. Inspection Priorities and Procedures	15 Min.
4. Problem #7	10 Min.
5. Solution #7	10 Min.

E. **STUDENT ASSIGNMENT:**

1. Read Lesson 7.
2. Complete the problem and explain the solution.

F. **TEACHING AIDS:**

1. Lesson #7 Objectives
2. SLC Profit Tip #7
3. OSHA's Purpose
4. Employees Not Covered Under OSHA Regulations
5. OSHA Services Available
6. OSHA Regulations 1910 and 1926
7. Inspection Priorities
8. OSHA Inspection Process
9. Types of OSHA Violations
10. Most Frequent Citations Issued by OSHA
11. Ten Frequently Cited OSHA Violations
12. Additional Commonly Cited OSHA Violations
13. Problem #7
14. Solution #7

LESSON PLAN #8

A. **SUBJECT:** OSHA Records and Hazard Communication

B. **OBJECTIVE:** To familiarize the student with various OSHA record keeping requirements.

C. **LOCATION:** Classroom

D. **LESSON OUTLINE:**

SUBJECT:	TIME REQUIRED:
1. OSHA Record Keeping	15 Min.
2. Hazard Communication	15 Min.
3. Problem #8	15 Min.
4. Solution #8	15 Min.

E. **STUDENT ASSIGNMENT:**

1. Read Lesson 8.
2. Complete example short interval schedule.

F. **TEACHING AIDS:**

1. Lesson #8 Objectives
2. SLC Profit Tip #8
3. OSHA 200: Log of Occupational Illnesses and Injuries
4. OSHA 200 Information
5. OSHA 101 Supplementary Record
6. Hazard Communication Program
7. Hazardous Communication Standard Coordinator
8. Material Safety Data Sheets (MSDS)
9. Problem #8
10. Solution #8

G. **SPECIAL INSTRUCTIONS**

1. Have students express their thoughts on what they have learned.
2. Summarize the course for the class.
3. Have students complete the evaluation form for your report to the BCIAC.
4. Award certificates of completion.

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2.2 Levitt, R.E., and H. W. Parker. "Reducing Construction Accidents - Top Management's Role". New York, NY: Journal of Construction Engineering and Management. Sept, 1977. p. 231-34.

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