

Construction Safety: Supervisor's Role in Accident Prevention

This reference note reviews the supervisor's primary duties in accident prevention. It discusses various methods for preventing accidents and explains the underlying reason for each. We hope that you will use this as a personal guide, reviewing it periodically to help you appreciate the critical role you play in construction safety.

Supervisors are key to any accident prevention program. Top management may lead and encourage, but the supervisor puts accident prevention into every operation.

Supervisors are expected to run their crews at maximum production with a minimum of waste and cost. Accidents interrupt production. We practice accident prevention for two simple reasons. The first is obvious—we don't want our people to get hurt. The second is that every injured employee is an additional cost charged against the job. Allowing preventable accidents to occur is like wasting time and materials.

The Three "E's" of Supervision

A supervisor's job includes three basic principles:

1. **Engineering:** to determine the best method of doing the job.
2. **Education:** to instruct the worker in this method.
3. **Enforcement:** to make sure the worker follows the method.

By applying the three "E's" of supervision you will help control accidents on the job. Ineffectiveness in any one area can interrupt production and allow injuries to occur.

When an accident does happen, management typically has three questions for the supervisor:

1. Was the job set up properly? (Engineering)
2. Was the worker properly trained? (Education)
3. Was the worker following instructions? (Enforcement)

If you cannot answer "yes" to each of these questions, as a supervisor, you have not done your job. The three E's are based on safety rules or standards that are established to help control accidents. There are two kinds of standards: *behavioral* standards that define safe and appropriate employee work methods, and *physical* standards that define acceptable job conditions.

New Employees

It is important to recognize your responsibility in giving an inexperienced employee the right start on a job. New employees can learn the right way to do a job just as easily as they can learn the wrong way. If employees are permitted to form their own habits without guidance, you will soon need to break those habits and start back at the beginning. This situation will make your job and the new employee's more difficult. See that all new hires are informed of company safety rules and that required practices are followed. Safety rules are just as important as other company operation rules. When training a new employee:

- Explain the job in detail.
- Demonstrate the operation carefully.
- Assign the new employee to an experienced worker who performs the job correctly.
- Let the new employee get started.
- Check back frequently to see that the new employee is doing the job exactly as taught.

Unsafe Practices

Almost all serious accidents are the result of unsafe practices that have been allowed to continue day after day. As supervisor, you are the only person in a responsible position who has continuous contact with the employees. In other words, you are in a position to notice bad work habits and unsafe practices. It is up to you to correct them before they cause an accident.

Falls

Falls cause approximately half of the serious injuries in building trades and nearly a quarter of the injuries in highway and heavy construction work. Supervisors can help reduce falls through a little advanced planning. Analyze the job, provide a clean, stable, protected working surface for employees, and follow through with enforcing safe work methods. To avoid falls, instruct workers to:

- Make sure ladders are sound, stable, secured and long enough for the task.
- Replace any floor opening covers and guardrails that have been removed.
- Work only from proper surfaces, never from makeshift scaffolds such as crates, masonry piles, sacks or other stored materials.
- Tie off according to regulations and company standards.
- Lock the wheels of rolling scaffolds before working on them and get off before moving the scaffold to a new location.
- Keep equipment decks and catwalks free of mud, ice, snow and grease.
- Clean up trash as work progresses.
- Ride vehicles and equipment only on the seats provided for the purpose, and always use the seat belt.
- Report to you any hazardous conditions they notice during work operations.

Equipment Operation

Roughly half of the fatal accidents in heavy or highway construction and 10 percent of the accidents in building or demolition work arise from the operation of heavy trucks and equipment. In most of these accidents the injury occurs to a worker on the structure or grade, not to the equipment operator.

Follow these basic approaches to help control truck- and equipment-related accidents:

- Plan job operations to keep workers out from under booms, buckets and loads.
- Keep crane booms clear of power lines, with a minimum 10 foot (3-meter) clearance.
- Do not permit workers to walk in the path of trucks, dozers, rollers or other moving equipment.

- Assign spotters and other persons specifically trained to use standard hand signals.
- Instruct operators not to accept any signal that is not clearly understood.
- Have outriggers in place before any hoisting is done with a mobile crane.
- Verify that the load is within the capacity, as shown on the load chart, for the specific crane being used.
- Use tag lines on all heavy or awkward loads.
- Plan haul routes to minimize backing and cross-traffic.

Manual Handling

About 20 percent of the injuries in all types of construction work are related to manual lifting and handling of materials. Here are some steps you can take to help reduce the number of injuries arising from manual lifting:

- Place materials in a convenient location to minimize rehandling and reduce transport distances.
- Use power equipment whenever possible to handle heavy or awkward loads.
- Teach proper lifting methods to inexperienced workers.
- Assign lifting jobs to workers who are physically suited for the task.
- Use a sufficient number of workers to handle long or awkward loads, such as lumber or reinforcing rods.

Hidden Costs of Accidents

Insurance covers some of the costs involved in an accident, but any accident, even a minor one, delays the progress of the job. Delays mean lost time and money. Consider some of these hidden accident costs that can never be recovered:

- Time lost by the injured employee.
- Time lost by the supervisor in assisting the injured person, securing a replacement, supervising repairs to equipment, investigating the accident.
- Time lost by other employees in assisting the injured person, waiting for work to resume.
- Damage to work in progress.
- Damage to equipment and tools.
- Loss of equipment use during repairs.

Not all of these costs are associated with every accident but the true cost of an accident is, on average, four times the cost of the medical, hospital and compensation expenses covered by insurance.

Accident Investigation

When a piece of equipment unexpectedly breaks down we repair it, figure out what caused the breakdown and take steps to prevent it from happening again. The process is similar when workers are injured. They should receive medical attention, the cause of the accident should be investigated and steps should be taken to prevent recurrence.

Accident investigation is necessary for both minor and serious accidents. The causes of both are often very similar. It is just as important to investigate the underlying causes of near misses. A near miss should be considered a warning that changes need to be made before someone is injured or something is damaged. The conditions that result in a near miss or minor accident this time may well have serious consequences next time.

Your Role with Subcontractors

New subcontractors on a jobsite should be treated as new employees. Review safety issues with them at coordination meetings. Conduct safety orientation on jobsite safety rules. Safety rules must be applied equally to everyone at the site. If you observe a subcontractor's employee using unsafe methods or working in unsafe conditions, talk to the subcontracting supervisor to be sure the worker is instructed in the proper procedures. Their error may injure another employee or interrupt job production.

Treat a subcontractor's accident as you would any event that could increase your company's liability. Inform subcontractors that they are expected to investigate every accident they are involved in and to provide you with a copy of their report. Such reports are important. You may never see the subcontractor on the job again but you do need a record of what happened.

Remember, as supervisor, you play a crucial role in the safety of your crew and the jobsite.

How to Investigate an Accident

1. **Act at once:** Talk with the injured person immediately if possible. Get the complete story. Ask the injured person or witness to show how it happened (but don't have anyone repeat a dangerous act).
2. **Look for physical causes:** Defective equipment, inadequate lighting, lack of protection.
3. **Look for behavioral causes:** Dangerous practices, lack of ability, inexperience, poor judgment, disobeying rules, personal problems.
4. **Investigate each item:** This will help to find every contributing factor. Decide on necessary preventive measures. Report defective equipment to the person responsible. Tell the other workers about the accident and how it could have been avoided.
5. **Be objective:** Your goal is to find the cause of the accident so you can prevent it from happening again. There is no need to place blame or embarrass anyone.
6. **Use a form:** Forms are useful as a guideline to help complete a thorough investigation. Liberty Mutual Group's LP 806, *Supervisor's/Foreman's Accident Report*, is available through your Loss Prevention service provider.

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