

## Safety Inspections

Think about how the world would be today if we never used safety inspections on our major airlines, the Golden Gate bridge, school buses, buildings after an earthquake or even the space shuttle. And think about the many disasters or tragedies that have occurred because there were poor, or no, safety inspections.

The purpose of a safety inspection is to identify and correct unsafe conditions and work practices before an accident occurs. Inspections can also be an effective tool in evaluating other safety program elements, such as safety training, safety rule adherence and supervisor accountability. Since inspections are preventive in nature, they can serve to reduce disruptions in operations, thereby increasing efficiency and productivity.

When developing an inspection program, first identify your needs. This can be done by analyzing and evaluating previous accidents to determine the kinds of accidents which have occurred. Since most accidents are caused by unsafe work practices and unsafe conditions, it is important to include both of them on the list for evaluation.

List all hazards associated with your production process, storage areas, equipment and machinery that expose employees to potential injury. Once the list is completed, it should be divided into two separate categories.

- Unsafe work practices
- Unsafe conditions

### UNSAFE WORK PRACTICES

Regardless of whether all your machinery is guarded and your facility properly maintained, approximately 80% of your accidents will continue to occur due to unsafe work practices. As a result, it is very important to develop your inspection activities to include observance of work practices. Types of unsafe work practices which can cause injury and should not be left

uncorrected include:

- Improper material handling
- Horseplay
- Drug and alcohol abuse
- Running
- Removing machine guards
- Improper or non-use of eye protection
- Improper or non-use of machine lockouts
- Unsafe operation of tools and powered equipment

This is only a partial list and should be expanded based on your operations and exposures.

When unsafe work practices are observed, it is important that the immediate supervisor correct the situation immediately. Also, the consequences of the unsafe act should be discussed with the worker at the same time. Additional training and follow up may be necessary to ensure that safe procedures are followed.

### UNSAFE CONDITIONS

Approximately 98% of all accidents are also influenced by unsafe conditions. It is, therefore, important to include a list of possible hazardous conditions.

The following are examples of typical unsafe conditions which can contribute to an accident:

- Defective hand tools
- Uneven or slippery walking surfaces
- Faulty electrical wiring
- Improper storage of flammable or other hazardous materials
- Unsafe overhead storage
- Pinch and shear points
- Unguarded machinery
- Hot and cold objects

Unsafe conditions should also be corrected as soon as they are discovered. If this is not possible, highly hazardous equipment should be shut down and locked or tagged. If less serious in nature, the condition should be documented, with the maintenance department receiving copies to initiate corrective action. It is important that follow-up procedures be established to assure that all identified hazards are corrected.

### **INSPECTION FREQUENCY**

The frequency of inspections can vary from daily to annually, and depends on:

- The potential for injury
- The past accident experience with regard to both frequency and severity
- How quickly the item can become unsafe
- The experience of employees who are operating equipment

### **WHO SHOULD CONDUCT INSPECTIONS**

As with all safety program elements, the key person for inspections is the supervisor. Not only do supervisors have close contact with employees, they are also familiar with equipment operation. Other persons frequently involved in inspections include safety committee members, the plant manager and the safety director. For group inspections, try to involve employees from all levels including someone from the department being inspected.

### **INSPECTION CHECKLISTS**

Checklists are used to serve as reminders for items to inspect and as records of what has been inspected. They also help give the inspections direction and allow for immediate recording of all findings and recommendations. In the event an inspection is interrupted, a checklist provides a record of what has and has not been included. Listed below are some of the items to be considered for a checklist.

1. Environment (dust, gases, vapors, noise)
2. Hazardous materials (explosives, flammables,

- acids, toxic materials, byproducts)
3. Production and related equipment (presses, lathes)
4. Power source equipment (steam and gas engines, electrical motors)
5. Electrical equipment (switches, fuses, breakers, outlets, extension cords, grounds, connections)
6. Hand tools (wrenches, hammers, power tools)
7. Personal protective equipment (hard hats, safety glasses, safety shoes, respirators)
8. Personal service and first aid (soap dispensers, showers, eyewash fountains, stretchers)
9. Fire protection/extinguishing equipment (alarms, sprinklers, hoses, extinguishers)
10. Walkways and roadways (ramps, docks, sidewalks, walkways, aisles, vehicle ways)
11. Elevators, escalators, man lifts (controls, wire ropes, safety devices)
12. Working surfaces (ladders, scaffolds, catwalks, platforms, sling chairs)
13. Material-handling equipment (cranes, dollies, conveyors, hoists, forklifts, chains, ropes, slings)
14. Transportation equipment (autos, rail cars, trucks, helicopters, motorized carts and buggies)
15. Warning and signaling devices (sirens, klaxons, crossing and warning lights, warning signs)
16. Containers (scrap bins, disposal receptacles, barrels, drums, gas cylinders, solvent cans)
17. Storage facilities, both indoor and outdoor
18. Structural openings (windows, doors, shafts)
19. Buildings (floors, roofs, walls, fencing)
20. Miscellaneous – any items that do not fit in preceding categories

You may want to develop a separate checklist for each department. Each plant, department or crew can develop their own list specific to the hazards associated with their area. In either case, review all operations thoroughly to determine unsafe conditions and practices.

Care should be taken to locate and correct problems. Simply checking off items on the list is not conducting a safety inspection. The checklist should be used as an aid to the inspection process, not as an end itself. Any hazard observed during the inspection should be recorded, even if it is not on the checklist.

## THE MOST IMPORTANT STEP — FOLLOW UP

All safety inspections should be documented, and individuals performing these inspections should be required to complete the checklist or report and submit it, with their recommendations, to a designated member of management. These completed reports should be reviewed by management or the safety committee to ensure timely completion of corrective recommendations.

If you need assistance with the development of your own safety inspection program, or want someone to review your existing program, contact your Zenith safety and health consultant.