

Manager's Guide for Safety and Health Walkthroughs

## **ABOUT THIS GUIDE**

This Guide can serve as a tool in observing activities and conducting interviews of personnel during the walkthroughs. This Guide contains both general and discipline specific "lines of inquiry" for areas of safety and health. It is intended to act as a guide in promoting discussions with workers on various safety and health issues as well as to initiate a more focused observation of activities and conditions on site.

The "Lines of Inquiry" are based on requirements and guidelines from a variety of references such as:

Department of Energy Orders

Department of Energy Standards

Department of Energy Radiological Control Manual

Code of Federal Regulations, Title 29, Part 1910, Occupational Safety and Health Standards for General Industry

Code of Federal Regulations, Title 29, Part 1926, Occupational Safety and Health Standards for the Construction Industry

Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute of Occupational Safety and Health.

This guide was originally developed as the *EM Manager's Guide for Safety and Health Walkthroughs*. This version was produced in September 2009 by William Bell, a Facility Representative at the Savannah River Site.

#### WALKING AND WORKING SURFACES

- 1. Are passageways kept clean, clear, and orderly?
- 2. Are structural protrusions into walkways marked with high visibility paint?
- 3. Are covers and guardrails provided to protect personnel from the hazards of open pits, tanks, vats, and ditches?
- 4. Do workers use fall protections systems such as guardrails, harnesses, body belts, and safety nets, to prevent falling from an elevated space?
- 5. Have personnel been trained not to elevate ladders by using boxes, barrels, or other platforms for extra height?
- 6. Do scaffold access ladders extend three feet above the working platform?
- 7. Are ladders properly supported and secured?
- 8. Do tall, permanent, vertical ladders have cages?
- 9. Is the scaffolding tagged to indicate whether it is complete and authorized for use?
- 10. Are exit signs visible and in good repair?

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# **VEHICLE SAFETY**

- 1. Are traffic signs and markings standard and obeyed? Are speed limits obeyed?
- 2. Do vehicles surrender the right of way to pedestrians and emergency vehicles?
- 3. Are pedestrian crosswalks marked?
- 4. Are seat belts worn at all times?
- 5. Are cars and trucks loaded appropriately?
- 6. Are vehicles parked in designated parking spaces? Are emergency spaces kept clear to allow emergency vehicles access?
- 7. Are company vehicles inspected at the beginning of each shift?
- 8. Are parking brakes set on company and Department vehicles?
- 9. Do all vehicles with an obstructed view to the rear have a back up alarm or are they always used with an observer?

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## **GENRAL LINES OF INQUIRY**

- 1. Have you received instructions on recognizing and avoiding unsafe conditions related to your job and the facility in general?
- 2. Do you know what safety and health training is required and have your received the required training?
- 3. Do you feel safe doing your job?
- 4. Have you been informed of the hazards and controls associated with your worksite and duties? What is your greatest risk?
- 5. What is the appropriate type of protective clothing required for the hazards in this area? Have you taken the protective measures required?
- 6. Do you know our work area's response procedures to unexpected hazards, warning alarms and other contingencies?
- Have you read or been trained in thee Health and Safety Plan (HASP) and/or Radiation Work Permit (RWP)?
- 8. Are you notified of changes to the HASP and are changes explained to you?
- 9. Does your supervisor hold regular pre-job briefings and safety meeting to go over hazards and controls related to your job and to the general site?
- 10. Are regular inspections of the job site, materials, and equipment conducted?
- 11. Is the safety and health staff available to you? Have you seen them in the field?
- 12. Does your management (or first-line supervisor) support the safety and health program and rules? If so, how?
- 13. Do you see DOE field office (or your management) routinely walking through facilities: Do they identify safety problems and do they seem interested in safety and health:
- 14. Have you identified any safety improvements that need to be made? Have you reported these improvements and have they been addressed?

#### RADIOLOGICAL CONTROL

- 1. Are personnel responsible for performing radiological work activities trained in radiation protection measures?
- 2. Have workers been trained in the guidelines for minimizing radiation exposure and controlling contamination?
- 3. Are radiological control areas posted and boundaries designated? Are posting obeyed?
- 4. Do entrance points to radiological areas of ongoing work activities state basic entry requirements such as dosimetry, Radiological Work Permits (RWPs) and respirators?
- 5. Have workers read and understood the requirements for applicable Radiological Work Permits?
- 6. Do personnel loiter in radiation areas, or smoke or eat in contamination areas?
- 7. Do personnel wear monitoring devices where required by the Radiological Work Permits, signs, or procedures?
- 8. Do personnel who handle radioactive material or work in contaminated or airborne radioactivity areas wear personal protective clothing?
- 9. Are instructions for donning and removing protective clothing posted at the dress-out and step-off pad areas?
- 10. Do personnel perform whole body surveys immediately after exiting contaminated or airborne radioactivity areas? Are personal items, such as notebooks, papers, flashlights, also surveyed?
- 11. Are glove boxes inspected for integrity and operability, and surveyed to identify dose rates?
- 12. Are radiation monitoring instruments calibrated and readily available?

## PROCEDURES AND WORK PACKAGES

- 1. Was the procedure or work package validated? Did workers participate in the procedure or work package development?
- 2. Are procedures and work packages free of errors? Can the procedure or work package be followed logically?
- 3. Do workers know what to do if a procedure or work package cannot be followed once it is in the field?
- 4. Are potential hazards discussed in the procedure or work package, and are protective measures specified?
- 5. Do workers "take time" to consider the potential hazards prior to initiating a job?
- 6. Has the procedure or work package been reviewed by the safety organization?

- 15. Are there safety and health issues of specific interest or sensitivity to the line organization, internal oversight, or external oversight (DNFSB)?
- 16. Are there specific safety issues or observations previously identified that require follow-up or closeout?
- 17. Is there a "safety lessons learned" program at your site? How is information disseminated? Do you find the information useful?
- 18. Does management enforce safety compliance? How:
- 19. Do you practice Conduct of Operations as part of your daily activities?

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## **CONFINED SPACE**

- 1. Are personnel required to enter confined spaces instructed in the nature of the hazards involved, the necessary precautions to be taken, and in the use of protective and emergency equipment?
- 2. Has a confined space entry permit been issued? Are confined space entry requirements met?
- 3. Are confined spaces adequately posted to warn personnel prior to entry?
- 4. Is the confined space isolated through locking out, closing off, disconnecting, etc.?
- 5. Are all areas (top, middle, and bottom) of a confined space tested with calibrated equipment for the presence of gases? Is the atmosphere monitored either periodically or as work proceeds?
- 6. When the confined space is entered, is a standby person assigned outsides the confined space and in constant communication? Are standby personnel trained in emergency actions?
- 7. Is work is a confined space being performed with a confined space evaluation?
- 8. Are confined spaces evaluated for temperature extremes, engulfment hazards, noise, slick/wet surfaces, and falling objects?

#### POSTING OF HAZARDOUS/RADIOACTIVE AREAS

- 1. Are hazardous and radioactive areas clearly defined?
- 2. Are posted hazardous and radioactive warning signs clear and understandable? Do they follow the signage standards?
- 3. Have workers been trained in the various types of warning labels (EPA hazardous waste label, National Fire Protection Association signs, and Hazardous Material Information System labels)?
- 4. Are safety bulletins posted in a visible and accessible location?
- 5. Are waste containers available for hazardous and radioactive waste materials? Are they clearly labeled and do personnel comply with the labeling information?

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#### PHYSICAL AND SAFETY HAZARDS

- 1. Are work areas analyzed for temperature and noise extremes and are precautions taken to minimize extremes?
- 2. Are workers protected from engulfment hazards (such as bins and hoppers) and falling objects?
- 3. Are floor openings and runways guarded by railings?
- 4. During overhead work activities, are hand tools properly secured?
- 5. Are normal lighting and emergency/warning lights adequate?
- 6. Is housekeeping adequate (e.g. is there trash water or oil on floors?
- 7. Are tripping hazards marked?
- 8. Are operating platforms or ladders located near hard to reach equipment?
- 9. Are personnel prevented from climbing on pipes, conduits, and equipment?
- 10. Are safety belts used when required?

## **CONSTRUCTION SAFTEY**

- 1. Have underground utilities been located and supported during excavation?
- 2. Are walls and faces of trenches 5 feet or deeper guarded by a shoring system or the equivalent?
- 3. Are daily inspections of excavations made to evaluate evidence of cave-ins or slides?
- 4. Are belts, pulleys, gears, shafts, flywheels, clutches and other rotating parts of equipment properly guarded?
- 5. Are current carrying parts of electrically operated equipment insulated, guarded, and/or grounded?
- 6. Is exhaust from power equipment controlled by ventilation design?
- 7. Are operators of heavy equipment protected against inclement weather, falling objects, electrical shock, swinging loads, and similar hazards?
- 8. At the end of the work shift, is equipment set and locked to that it cannot be released, dropped, or activated in any way?
- 9. Is out-of –order equipment shut down, segregated and tagged until repaired?
- 10. Is equipment suspended in slings or supported by hoists or jacks cribbed or blocked before repair personnel are permitted to work beneath it?
- 11. Are portable or temporary buildings anchored for protection from high wind loads?

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#### **ELECTRICAL SAFETY**

- 1. Has the job been pre-planned and briefed?
- 2. Has the equipment been isolated (locked out/tagged out) to prevent inadvertent shock? How is this verified before beginning an activity?
- 3. Have the electrical hazards been identified?
- 4. Is electrical equipment UL (Underwriters Laboratory) or FM (Factory Mutual) listed?
- 5. Are electrical panels properly marked?
- 6. Are extension cords double insulated, properly grounded, and periodically inspected and tested?
- 7. Do any wires display visible degradation or frayed insulation? If so, has this equipment bee taken out of service, tagged, and reported?
- 8. Are Ground Fault Circuit Interrupters (GFCIs) provided for 120-volt equipment in or near wet, damp, or conductive locations if equipment is in the reach of personnel?
- 9. Are breaker or motor control center panel doors closed and latched?
- 10. Are pull boxes, junction boxes, and fittings provided with covers?
- 11. Is the ventilation in battery storage areas sufficient to prevent accumulation of explosive gas mixtures?
- 12. Are employees who may reasonably face risk of shock trained in electrical safety?
- 13. Is appropriate arc flash protective clothing available and used when required?

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

- 1. Is the use of hand, eye, ear, and foot protection appropriate for the work area and activity? Are personnel following appropriate guidelines for their protective equipment?
- 2. Are aprons, gloves, and face shields used when handling hazardous chemicals?
- 3. Is protective clothing free from cracks, holes or tears? Do personnel inspect protective clothing prior to use?
- 4. Is the personal protective equipment approved for the hazards present in the work area?
- 5. Are protective helmets (hard hats) properly worn in areas where there is a possible danger of head injuries from impact, flying or falling objects, or electrical shock?
- 6. Are lifelines and safety belts inspected before use and periodically thereafter?
- 7. Are lifelines and safety belts used only for employee safeguarding?
- 8. Is respiratory protection appropriate for the type of hazardous material used, the way the material is used, and the environment in which the material is used?

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## **OFFICE SAFETY**

- 1. Is only one file drawer open at a time?
- 2. Is the carpet in good condition to prevent tripping?
- 3. Is the floor dry?
- 4. Are the thresholds secured?
- 5. Are aisles and hallways free from obstructions?
- 6. Are cords routed to avoid overloading outlets? Is the insulation on wires free from fraying or cuts?
- 7. Is the lighting adequate for work activities?
- 8. Do temporary office heaters have "tip over" cutoff switches?
- 9. Do managers take prompt actions to address or eliminate identified issues and prevent recurrence?

## **EMERGENCY EQUIPMENT**

- 1. Is the emergency safety equipment easy to identify and well marked? Is it accessible?
- 2. Are calibration and/or inspection tags up-to-date? Is the equipment maintained and tested periodically?
- 3. Are simple instructions for shower and eyewash use posted?
- 4. Are showers and eyewashes routinely tested for operability?
- 5. Are showers and eyewashes located near hazard areas?
- 6. Are personnel trained in the use and inspection of emergency equipment in their work areas?
- 7. Are emergency lights in good repair? Are they installed in stairwells?

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## **EQUIPMENT AND MACHINERY**

- 1. Have personnel who operate power-actuated tools been trained in their use?
- 2. Are loose clothing and jewelry secured or removed when operating machinery?
- 3. Is the bypass or interlock functional on the operating machinery?
- 4. Are proper guards on power tools, belts, gears, pulleys, drums, and flywheels in place when machines are operated?
- 5. Is cleanliness maintained around machines (oil, rags, debris promptly removed)?
- 6. Are power tools used in the manner for which they were designed?
- 7. Are electrical tools properly grounded?
- 8. Are pneumatic power tools secured to the hose or whip in a positive manner to prevent accidental disconnection?
- 9. Are hoses and equipment inspected before use and periodically thereafter?
- 10. Are load capacities and recommended operating speeds conspicuously posted for machinery?
- 11. Are power tools directed away from aisle areas and other employees working in close proximity?
- 12. To the extent possible, is material secured (with clamps or a vise) to free both hands to operate tools?

## LOCKOUT AND TAGOUT

- 1. Is there a written lockout and tagout procedure to control hazardous energy sources?
- 2. Is a lockout and tagout procedure used on any machinery where inadvertent operation could cause injury?
- 3. Are tagout procedures used if an energy-isolating device cannot be locked out?
- 4. Are employees trained and do they understand the lockout and tagout program?
- 5. To the extent feasible, are live parts de-energized, locked out, and tagged out before personnel work on or near parts?
- 6. Is electrical equipment that has been de-energized, but not locked or tagged out, treated as energized?
- 7. Are control devices (i.e. selector switches and interlocks) prohibited as sole means for de-energized equipment?
- 8. Is non-electrical stored energy equipment blocked or relieved to prevent accidental energization?
- 9. Is the de-energized condition verified?

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## HOUSEKEEPING

- 1. Are all work areas, passageways, storerooms, and service rooms clean, orderly, and in sanitary condition?
- 2. Are floor clean and dry? If not, are they marked with appropriate hazard identification?
- 3. Is drainage maintained and are gratings, mats, or raised platforms used where wet processes are performed?
- 4. Are permanent aisles and passageways appropriately marked?
- 5. Are floor load rating limits marked on plates and conspicuously posted?
- 6. Are combustible scrap and debris removed at regular intervals?

## **FIRE SAFETY**

- 1. Are fire watches used for welding, cutting, burning or grinding?
- 2. Is appropriate fire extinguishing equipment available when welding, cutting, burning, or grinding?
- 3. Is there an appropriate authorization for these activities?
- 4. Is firefighting equipment conspicuously located?
- 5. Are the safety pins installed on fire extinguishers, and are the fire extinguishers within their inspection period?
- 6. Do fire extinguishers and manual pull stations have signs above them for easy identification?
- 7. Are flammable liquids stored in approved storage containers?
- 8. is damaged or degraded electrical equipment tagged so that it is not used?
- 9. Are materials, equipment, or trash kept out of the way of fire extinguishers or other emergency equipment?
- 10. Are fire doors closed and unobstructed?
- 11. Is smoking prohibited in the vicinity of fire hazards and are "No Smoking" signs posted?

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#### HAZARDOUS MATERIAL HANDLING AND STORAGE

- 1. Are Material Safety Data Sheets (MSDS) for chemical in your work area readily accessible and have you reviewed them?
- 2. Have personnel been trained in the hazards of chemicals in their work area?
- 3. Are hazardous materials stored in proper containers/cabinets?
- 4. Are flammable and combustible liquids kept in closed, clearly marked containers when not in use?
- 5. Are highly toxic substances (such as cyanide) kept in containers with distinctive shapes or are they plainly labeled?
- 6. Are storage spaces for hazardous materials marked? Are incompatible materials stored in separate areas? Are acids and bases stored separately:
- 7. Are storage areas well ventilated?
- 8. Is the shelf life of chemicals monitored? How?
- 9. Are incompatible materials stored in areas separated by curbs or the equivalent?
- 10. Is proper lifting equipment used to safely handle large quantities of hazardous chemicals?
- 11. Have personnel who handle chemicals been trained on the hazards involved?
- 12. Do drums indicate evidence of bulging or pressurization?
- 13. Is material stored with regard to their fire characteristics? Are exits unobstructed by storage materials, and aisles and passageways kept clear?
- 14. Are cleanup and spillage plans posted?
- 15. Are chemical spill response kits available, and have personnel been trained in proper response procedures?

#### HOISTING AND RIGGING

- 1. Is hoisting and rigging equipment periodically tested (major equipment, hooks, ties, straps, slings, lifting lugs, etc.)?
- 2. Is lifting equipment appropriate for use intended (i.e., tie down straps not used for lifting purposes)?
- 3. Do operators of hoisting and rigging equipment meet qualification requirements and have they been trained in operating the equipment?
- 4. Are instructions for lifting and use of equipment followed?
- 5. Have the load paths for heavy loads been analyzed and are they safe?
- 6. Has a person-in-charge been appointed to direct the lift?
- 7. Is the rated capacity marked on each hoist or its load block, and is rated capacity not exceeded?
- 8. Before a crane is left unattended, is the boom lowered to ground level or otherwise securely fastened?
- 9. Is the maintenance history maintained throughout the service life of hoisting and rigging equipment?
- 10. Are daily visual inspections (or inspections prior to use) conducted to ensure:
  - Proper operation of controls and limit switches?
  - Hooks are free of cracks and deformation?
  - Ropes are not kinked, crushed, or corroded?
  - Chains are free from excessive wear, distortion, and corrosion?

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