

Fall Protection SOG Template

If you have any questions, please contact the Health and Safety Section for further information and resources.

Purpose

The purpose of this Fall Protection Program is to identify and evaluate fall hazards to which employees are exposed during emergency and non-emergency operations, including drills, building inspection, and training activities.

Definitions

Competent Person: A person (typically first-level supervisor or higher) capable of identifying existing and predictable hazards in the surroundings or in working conditions that are unsanitary, hazardous, or dangerous and who has the authorization to take prompt corrective measures to eliminate them.

Engineered Systems: Refers to guardrail systems, safety net systems, and covers.

Fall Hazard: Any condition while on a walking-working surface that exposes an employee to a risk of harm from a fall on the same level or to a lower level.

Fall Protection: Any equipment, device, or system that prevents a fall from an elevation or mitigates the effect of such a fall.

Fall Protection Plan: Implemented when it is infeasible or creates a greater hazard to use guardrail, safety net, or personal fall protection systems. Meets OSHA requirements.

Fall Protection System: Engineered and personal fall protection systems including guardrail systems, safety nets, covers, personal fall protection and fall protection plans.

Guardrail System: A barrier erected along an unprotected or exposed side, edge or other area of a walking-working surface to prevent employees from falling to a lower level.

Hole: A gap or open space in a floor, roof, horizontal walking-working surface or similar surface that is at least 2 inches (5 cm) in its least dimension.

National Consensus Standard: Standards, criteria and/or exemptions not specifically listed within a CalOSHA regulation because specific language may be located elsewhere as an accepted other research/standard development organization (for example, National Fire Protection Association).

Opening: A gap or open space in a wall, partition, vertical walking-working surface or similar surface that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level.

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Personal Fall Arrest System: A system used to arrest a fall from a walking-working surface. It consists of a body harness, anchorage, and connector. The means of connection may include a lanyard, deceleration device, lifeline, or a suitable combination of these.

Personal Fall Protection System: A system providing protection from falling or to safely arrest a fall if one occurs. Examples of personal fall protection systems include personal fall arrest systems, positioning systems and travel restraint systems.

Walking-Working Surface: Any horizontal or vertical surface on or through which an employee walks, works or gains access to a work area or workplace location.

Qualified Person: Describes a person who, by possession of a recognized degree, certificate or professional standing or who by extensive knowledge, training and experience has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work or the project

Policy

- A. Department supervisors shall identify fall hazards when possible and provide protection for employees exposed to fall hazards.
 1. Employees will bring any known or potential fall hazard to the attention of the supervisor or department.
- B. Employees on a walking-working surface with the intention of performing more than a visual inspection (performing *intended work*) with an unprotected side or edge that is 4 feet (1.2 m) or more above a lower level is to be protected from falling (except as provided in this fall protection policy).
- C. Fall protection is required if the lower level is less than 4 feet but the employee is exposed to an additional hazard such as moving machinery.
- D. Fall protection consists of:
 1. Guardrail systems
 2. Safety net systems
 3. Covers
 4. Personal fall protection system (personal fall arrest, travel restraint or positioning systems)
 5. Fall protection plan (when the above cannot be accomplished)
 - a. For example, a designated competent person as a spotter without any other duties.
- E. Exceptions
 1. OSHA General Industry regulations do grant specific exceptions that include, but are not limited to:

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- a. During pre-work or post-work inspections, investigations, or assessments of workplace conditions
 - 1) This exemption does not apply when fall protection systems or equipment meeting the requirements have been installed and are available.
- b. Fire service ladders: Portable ladders and hose towers with enclosed ladder wells
- c. For a list of other exceptions available see CCR Title 8, Section 3210. Elevated locations

F. Qualified Persons

1. The Department Health Safety Officer is the trained Qualified Person (QP)
 - a. Additional personnel will be trained as needed
2. QP is responsible for identifying/recognizing fall hazards and selecting the appropriate type and amount of fall protection.
 - a. QP shall have a working knowledge and understanding of fall protection requirements, guard rail systems, safety net systems, personal fall protection systems and the use of alternative fall protection plans.
 - b. Where personal fall protection systems are use, the QP ensures employee training on the personal fall protection selected.
3. QP shall review the fall protection program annually, when there has been a fall related accident or near miss, when new technology has been introduced, and when circumstances warrant.

G. Competent Person

1. The Competent Person (CP) is a first level supervisor or higher who:
 - a. Ensures that the fall protection program is implemented, performs the job hazard analysis (JHA) to look for fall hazards, and that fall protection systems are installed and used correctly.
 - b. Has authority to take prompt and corrective measures to include stopping work.
 - c. Is responsible to ensure that guard rails, safety net systems, personal fall protection systems and fall protection plans are in place, that they are properly inspected and used.
 - d. Is properly trained
 - e. Is responsible for documenting and disseminating the fall protection plan including scope of work, duration, known hazards, potential hazards, and mitigation attempts.

H. Job Hazard Analysis (JHA)

1. Process to look for workplace hazards
2. Person conducting the JHA is looking for fall hazards
3. Performed by either the QP or CP
4. Conducted annually as part of the required annual safety inspection of

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- facilities and includes training sites
5. Conducted when employees are operating in the field under non-emergency conditions
 6. Performed when activities, tasks, or changes may introduce new fall hazards
 7. Steps of a JHA
 - a. Break the job into logical steps
 - b. Identify each hazard in each of the steps
 - c. Develop measures to reduce or eliminate risk for each of the hazards identified
 - d. Review and update periodically
 8. See Appendix A: Job Hazard Analysis and Hazard Correction Form
- I. Potential Fall Hazards
- The following examples describe some common, but not all, fall hazards.
1. Unprotected sides and edges
 - a. Employees on a walking-working surface, top of apparatus, roofs, or any area with an unprotected side or edge that is 4 feet (1.2 m) or more above a lower level is protected from falling by:
 - 1) Guardrail systems
 - 2) Safety net systems
 - 3) Covers
 - 4) Personal fall protection systems
 - 5) Personal protective equipment (must be used in conjunction with the items above)
 - 6) Fall protection plan (when the above cannot be accomplished)
 2. Other Elevated Locations
 - a. The unprotected sides of elevated work locations that are not buildings or building structures where an employee is exposed to a fall of 4 feet or more shall be provided with guardrails.
 - b. If overhead clearance prohibits installation of a 42-inch guardrail, a lower rail or rails shall be installed.
 - 1) Railings will have a toe board when:
 - a) Work location is 6 feet or more above places where employees normally work or pass
 - b) The lack of a toe board could create a hazard from falling tools, material, or equipment
 3. Dangerous Equipment
 - a. Each employee operating less than 4 feet (1.2 m) above dangerous equipment is protected from falling into or onto the dangerous equipment by a guardrail system or a personal fall protection.
 4. Hoist Areas
 - a. Employees working in a hoist area are protected from falling 4 feet (1.2 m) or more to a lower level.
 - b. When any portion of a guardrail system, gate or chains are removed and an employee must lean through or over the leading edge of the access

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- opening to facilitate hoisting, the employee shall be protected from falling by a personal fall arrest system.
- c. Grab handles installed at hoist areas must meet OSHA requirements.
5. Holes (Horizontal)
 - a. Employees are to be protected from falling through any hole that is 4 feet (1.2 m) or more above a lower level.
 - b. Covers meeting OSHA criteria may be used to provide fall protection from falling through floor holes.
 6. Parapet Roof
 - a. A parapet roof of less than three feet requires a fall protection plan.
 7. Stairway Hole
 - a. Employees are to be protected from falling into a stairway floor hole by a fixed guardrail system on all exposed sides, except at the stairway entrance. Exceptions may apply.
 8. Ladderway Floor Hole
 - a. Employees are to be protected from falling into a ladderway floor hole or ladderway platform hole by a guardrail system and toe boards erected on all exposed sides, except at the entrance to the hole, where a self-closing gate or an offset must be used.
 9. Hinged Floor/Skylights/Hatchway/Chute Floor Hole
 - a. Hole cover that meets OSHA criteria and a fixed guardrail system that leaves only one exposed side.
 - b. When the hole is not in use, ensure the cover is closed or a removable guardrail system is provided on the exposed sides.
 - c. A removable guardrail system on not more than two sides of the hole and a fixed guardrail system on all other exposed sides.
 - d. The removable guardrail system is kept in place when the hole is not in use or, a guardrail system or a travel restraint system when a work operation necessitates passing material through a hatchway or chute floor hole.
 10. Openings (Vertical)
 - a. Employees on a walking-working surface near an opening, including one with a chute attached, where the inside bottom edge of the opening is less than 39 inches (99 cm) above that walking-working surface and the outside bottom edge of the opening is 4 feet (1.2 m) or more above a lower level are protected from falling.
 11. Fixed Ladders
 - a. Employees climbing fixed ladders that extend more than 24 feet (7.3 m) above a lower level are protected from falling.
 - 1) Fixed ladders installed before November 19, 2018 shall be equipped with a personal fall arrest system, ladder safety system, cage or well.
 - 2) Fixed ladders installed on and after November 19, 2018, shall be equipped with a personal fall arrest system or a ladder safety system.
 - b. When a one-section fixed ladder is equipped with a personal fall protection or a ladder safety system:

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- 1) The personal fall arrest system or ladder safety system provides protection throughout the entire vertical distance of the ladder, including all ladder sections.
 - 2) The ladder has rest platforms provided at maximum intervals of 150 feet (45.7 m).
 - c. When a fixed ladder is equipped with a personal fall arrest or ladder safety system on more than one section:
 - 1) The personal fall arrest system or ladder safety system provides protection throughout the entire vertical distance of the ladder, including all ladder sections.
 - 2) The ladder has rest platforms provided at maximum intervals of 150 feet (45.7 m).
12. Stairways
- a. Employees exposed to an unprotected side or edge of a stairway landing that is 4 feet (1.2 m) or more above a lower level are protected from falling by a guardrail or stair rail system.
13. Low-Slope Roofs
- a. When work is performed at least 6 feet (1.6 m) but less than 15 feet (4.6 m) from the roof edge, each employee is protected from falling by using a guardrail system, safety net system, travel restraint system or personal fall arrest system.
 - b. This shall include training props.
14. Fire Apparatus
- a. The top of the fire apparatus becomes a walking/working surface when employees are standing on it.
 - 1) The employee shall decide whether they are performing a visual inspection or performing *intended work* such as loading hose, retrieving equipment, or cleaning.
 - 2) If intended work, then employee must follow the fall protection plan.
 - b. CP will perform a JHA with the crew member working on top of the apparatus and will:
 - 1) Provide steps to mitigate hazards and ensure proper PPE is worn.
 - 2) Monitor the crew member on top of the apparatus and continuously ensure no hazards emerge.
 - c. Other approved methods of fall prevention may be used as long as they don't cause additional hazards to the individual performing work.
 - d. Fire apparatus hazard mitigation efforts:
 - 1) Avoid apparatus surface when its wet (except for essential tasks)
 - 2) Remove or move any potential tripping hazards
 - 3) Ensure apparatus is parked on a level surface
 - 4) Minimum PPE of a helmet shall be worn
 - 5) Open (butterfly) hose bed cabinets to the vertical position to provide a temporary fall protection railing
 - 6) Utilize fall protection plan (when the above cannot be accomplished)
 - e. See Appendix 2 - Job Hazard Analysis and Hazard Correction Form Fire

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Apparatus

15. Fall Hazards not otherwise addressed:

For walking-working surfaces not otherwise addressed, each employee will be protected from falling from a walking-working surface 4 feet (1.2 m) or more above a lower level. This is accomplished by:

- a. Guardrail systems
- b. Safety net systems
- c. Covers
- d. Personal fall protection system
- e. Fall protection plan (when the above cannot be accomplished)

J. Fall Protection Plan

This section applies to all operations when it can be shown that the use of conventional fall protection is impractical or creates a greater hazard.

1. The fall protection plan:

- a. Is prepared by a CP (consultation with the department QP if additional expertise is required) and developed specifically for the work site
- b. Is maintained and up to date
- c. Includes identity of the CP and QP, if consulted

2. Copy of the fall protection plan with all approved changes shall be maintained at the job site.

3. The implementation of the fall protection plan shall be under the supervision of a CP.

4. The fall protection plan will:

- a. Document the reasons why the use of conventional fall protection systems (guardrails, personal fall arrest systems or safety nets) are NOT feasible or why their use would create a greater hazard.
- b. Include a written discussion of other measures taken to reduce or eliminate the fall hazard for workers who cannot be provided with protection provided by conventional fall protection systems.
 - 1) For example, the CP shall discuss the extent to which scaffolds, ladders or vehicle mounted work platforms can be used to provide a safer working surface and thereby reduce the hazard of falling.
- c. Identify each location where conventional fall protection methods cannot be used.
 - 1) Where no other alternative measure (i.e. scaffolds, ladders, vehicle mounted work platforms, etc.) has been implemented, a designated spotter will be used in conformance with Section 1671.2(b).
- d. Include name or job title of those designated to work in controlled access zones. No other employees may enter controlled access zones.

5. Before employees are exposed to fall hazards:

- a. QP shall select all fall protection systems.
- b. All fall protection systems comply OSHA design and performance criteria.
- c. Employees are properly trained on the inspection, use, limitations, and maintenance of:

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- 1) The personal fall protection system they will be using
- 2) The engineered systems that they will be using
- d. Annual employee training, when new technology is introduced, or when an employee demonstrates a lack of requisite knowledge or application.
6. Training
 - a. Employees must attend one annual training at minimum provided by the department and approved by the QP.
 - b. Training shall include hazard identification (JHA), risk elimination or reduction measures, and steps to develop a fall protection plan.
 - c. Employees must be trained in the following areas:
 - 1) The nature of fall hazards in work areas
 - 2) The correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems
 - 3) The use and operation of controlled access zones and guardrail, personal fall arrest, safety net, warning line and safety monitoring systems
 - 4) The role of each employee in the safety monitoring system when the systems are in use
 - 5) The correct procedures for equipment and materials handling and storage during roof operations
 - 6) Employee role in the fall protection plans
 - d. Training facilities that have guard rails or other fall protection devices must be used.
7. Emergency Response
 - a. Recognition of a fall hazard risk and the communication of a mitigation plan is essential during emergency responses.
 - b. The following examples describe common (but not all) fall hazards encountered during emergency responses.
 - 1) Unprotected sides and edges (subsurface or elevated)
 - 2) A walking-working surface, traversing over, or any area with an unprotected side or edge that is 4 feet (1.2 m) or more above a lower level, including, but not limited to:
 - a) Cliff or bluff edge
 - b) Confined Space opening
 - c) Trenches
 - d) Trees
 - e) Tower
 - f) Or other locations that are not a building or structure

K. Fall Protection Compliance

1. Ensure employees are protected from falling by:
 - a. Guardrail systems
 - b. Safety net systems
 - c. Covers
 - d. Personal fall protection systems

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- e. Fall protection plan (when the above cannot be accomplished)
 - 1) Plan can utilize existing Fall Protection Plans or developed on-site through the use and operation of:
 - a) Controlled access zones
 - b) Warning line
 - c) Life safety communication broadcast to all on-scene personnel
 - d) Safety monitoring systems
 - e) Designated CP as a spotter without any other duties
 - 2. The mitigation of a known or potential fall hazard shall be documented on a site safety plan.