



ROOFTOP SAFETY AUDIT GUIDE FOR PHARMACEUTICAL MANUFACTURING FACILITIES: A QUICK GUIDE

BlueWater
by Tractel®

Why Does My Facility Need A Rooftop Safety Audit?

OSHA names falling from heights as one of the most common causes of workplace injuries and fatalities. Fall protection, and specifically rooftop safety, are vital for today's Pharmaceutical Manufacturing Facilities. It is important to protect employees, contractors, and anyone else who happens to be on the roof of your building.

Unfortunately, falling is an inescapable part of work life in many industries. Even the most experienced worker can easily slip, lose their grip or balance, or simply miss a beat. In order to protect your workforce from the danger of injurious or fatal falls, a system of fall protection and prevention must be implemented and updated to the newest OSHA standards. This guide can help you get started.



5 Areas of concern for Rooftop Safety at Food & Beverage Manufacturing Facilities

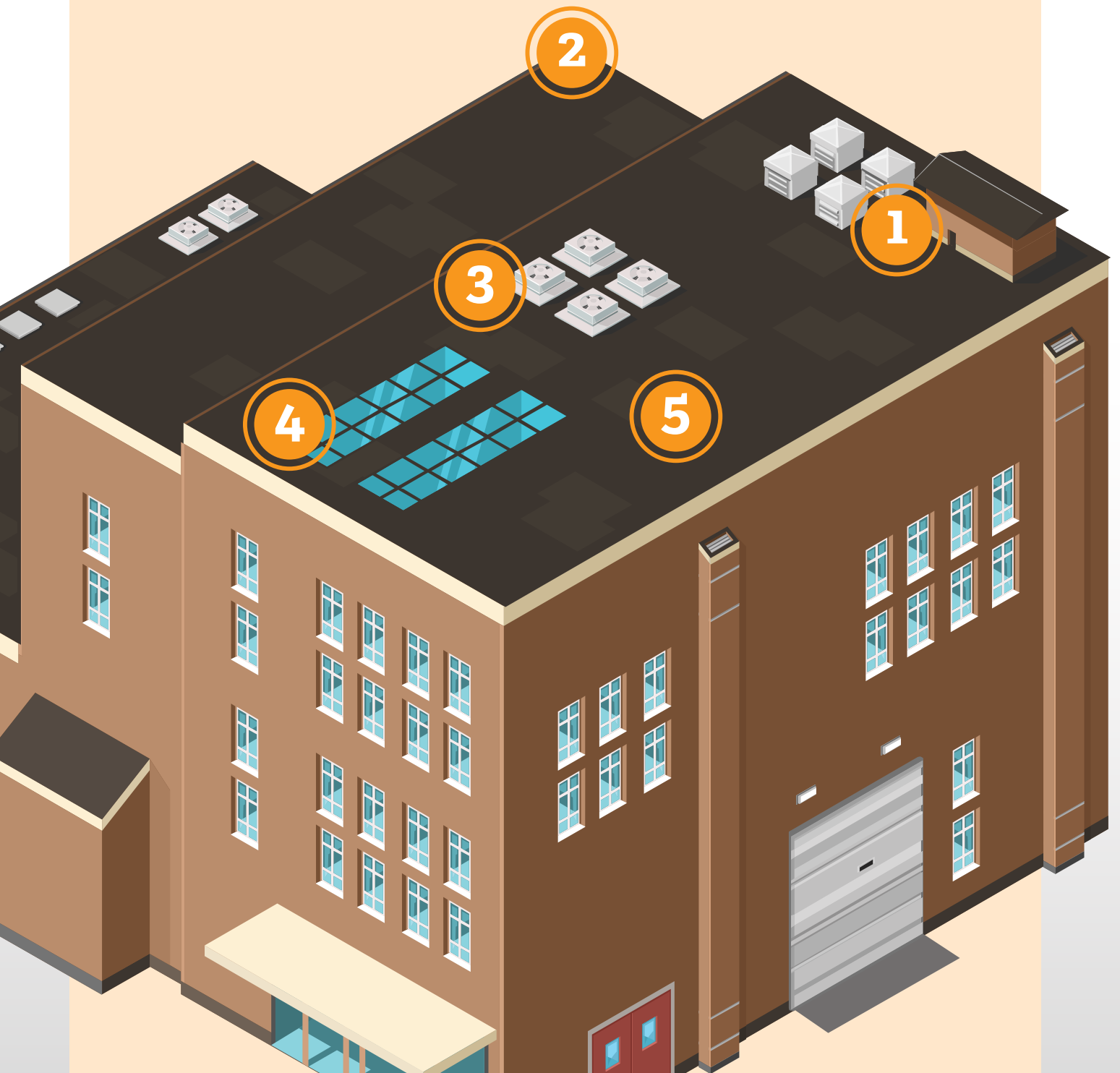
1. Access

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Access

It's important to take into consideration that many falls happen not once people are on top of the roof, but as they are accessing it. While proper lighting and removal of obstruction are important, the top three items on your checklist should be:



- 1. Control Access.** There are products that can block the bottom of your ladder, allowing you to grant access only to those with permission to ascend.
- 2. Guard Access Points.** Protecting hatches and rooftop ladders is just as important as restricting access. Make sure you have self-closing gates in all appropriate areas.
- 3. Prevent Falls During Ascension.** Are your employees and contractors anchored as they ascend and descend from the roof?

Related OSHA Regulations:

- **1910.28(b)(3)(iv)** - Each employee is protected from falling into a ladderway floor hole or ladderway platform hole by a guardrail system except at the entrance to the hole, where a self-closing gate or an offset must be used.
- **1910.28(b)(9)(i)(A)** - Existing fixed ladders. Each fixed ladder installed before November 19, 2018 is equipped with a personal fall arrest system, ladder safety system, cage, or well.
- **1910.28(b)(9)(i)(B)** - New fixed ladders. Each fixed ladder installed on and after November 19, 2018 is equipped with a personal fall arrest system or a ladder safety system.
- **1910.28(b)(9)(i)(C)** - Replacement. When a fixed ladder, cage, or well, or any portion of a section thereof, is replaced, a personal fall arrest system or ladder safety system is installed in at least that section of the fixed ladder, cage, or well where the replacement is located.
- **1910.28(b)(9)(i)(D)** - Final deadline. On and after November 18, 2036, all fixed ladders are equipped with a personal fall arrest system or a ladder safety system.
- **1910.29(b)(13)** - When guardrail systems are used around holes that serve as points of access (such as ladderways), the guardrail system opening:
- **1910.29(b)(13)(i)** - Has a self-closing gate that slides or swings away from the hole, and is equipped with a top rail and midrail

Edges

Once you've accessed the roof, it's important to look at edges and open sides. Even rooftops with parapet walls might need a rail to supplement fall protection, depending on their height. To protect employees who work near the edge of the main roof or on a second rooftop tier:



- 1. Eliminate Trip Hazards.** You can do this by making sure the area near the edge is clear and installing an OSHA-compliant safety rail system.
- 2. Bolster Ladder Safety.** Is there a railing on either side of the top of your access ladder? If not, rails should be installed.
- 3. Keep Workers Secure.** There are many added measures you can take to ensure that workers are protected from falls off the edge, like clearing obstruction and using lifeline systems.

Related OSHA Regulations:

- **1910.28(b)(1)(i)** - Employer must ensure that each employee on a walking-working surface with an unprotected side or edge that is 4 feet (1.2 m) or more above a lower level is protected from falling by one or more of the following: Guardrail systems; Safety net systems; or Personal fall protection systems, such as personal fall arrest, travel restraint, or positioning systems.
- **1910.28(b)(11)(i)** - Each employee exposed to an unprotected side or edge of a stairway landing that is 4 feet (1.2 m) or more above a lower level is protected by a guardrail or stair rail system.



Did You Know: Rooftop rail systems can be painted to match a building's external design?



Equipment

Many rooftops are not simple, flat spaces; they are home to large-scale equipment. Workers access the rooftop to service equipment like HVAC systems, and it's important to make sure both workers and equipment are well protected. Here's what to look for:

- 1. Evaluate Risk.** Look for any edges or open sides near equipment, and determine how close it is.



2. Provide a Barrier. If equipment is too close to the edge, a railing system is ideal for protecting service workers.

Related OSHA Regulations:

- **1910.28(b)(13)(i)** - When work is performed less than 6 feet (1.6 m) from the roof edge, the employer must ensure each employee is protected from falling by a guardrail system, safety net system, travel restraint system, or personal fall arrest system.
- **1910.28(b)(13)(ii)** - When work is performed at least 6 feet (1.6 m) but less than 15 feet (4.6 m) from the roof edge, the employer must ensure each employee is protected from falling by using a guardrail system, safety net system, travel restraint system, or personal fall arrest system. The employer may use a designated area when performing work that is both infrequent and temporary.
- **1910.28(b)(13)(iii)** - When work is performed 15 feet (4.6 m) or more from the roof edge, the employer must:
- **1910.28(b)(13)(iii)(A)** - Protect each employee from falling by a guardrail system, safety net system, travel restraint system, or personal fall arrest system or a designated area. The employer is not required to provide any fall protection, provided the work is both infrequent and temporary; and Implement and enforce a work rule prohibiting employees from going within 15 feet of the roof edge without using fall protection.

Openings

Other rooftop risks include openings like hatches and skylights, which require slightly different configurations to protect rooftop workers. This is what you should look for around rooftop openings:

- 1. Surround Hatches.** Hatches should not be left freestanding without barriers around them. Many railing and gate systems are designed specifically for rooftop hatches.
- 2. Cover Skylights.** Can a rooftop worker fall through your skylight? Make sure you are using a strong screen to completely cover your skylights and other openings that workers can fall through.



Related OSHA Regulations:

- **1910.28(b)(3)(v)** - Each employee is protected from falling through a hatchway by: A removable guardrail system on not more than two sides of the hole and a fixed guardrail system on all other exposed sides. The employer must ensure the removable guardrail system is kept in place when the hole is not in use.
- **1910.28(b)(3)(i)** - Each employee is protected from falling through any hole (including skylights) that is 4 feet (1.2 m) or more above a lower level by one or more of the following: 1910.28(b)(3)(i)(A,B,C,D) (A) Covers; (B) Guardrail; (C) Travel Restraint System; (D) Personal Fall Arrest System.
- **1910.28(b)(3)(ii)** - Each employee is protected from tripping into or stepping into or through any hole that is less than 4 feet (1.2 m) above a lower level by covers or guardrail systems.

Navigation

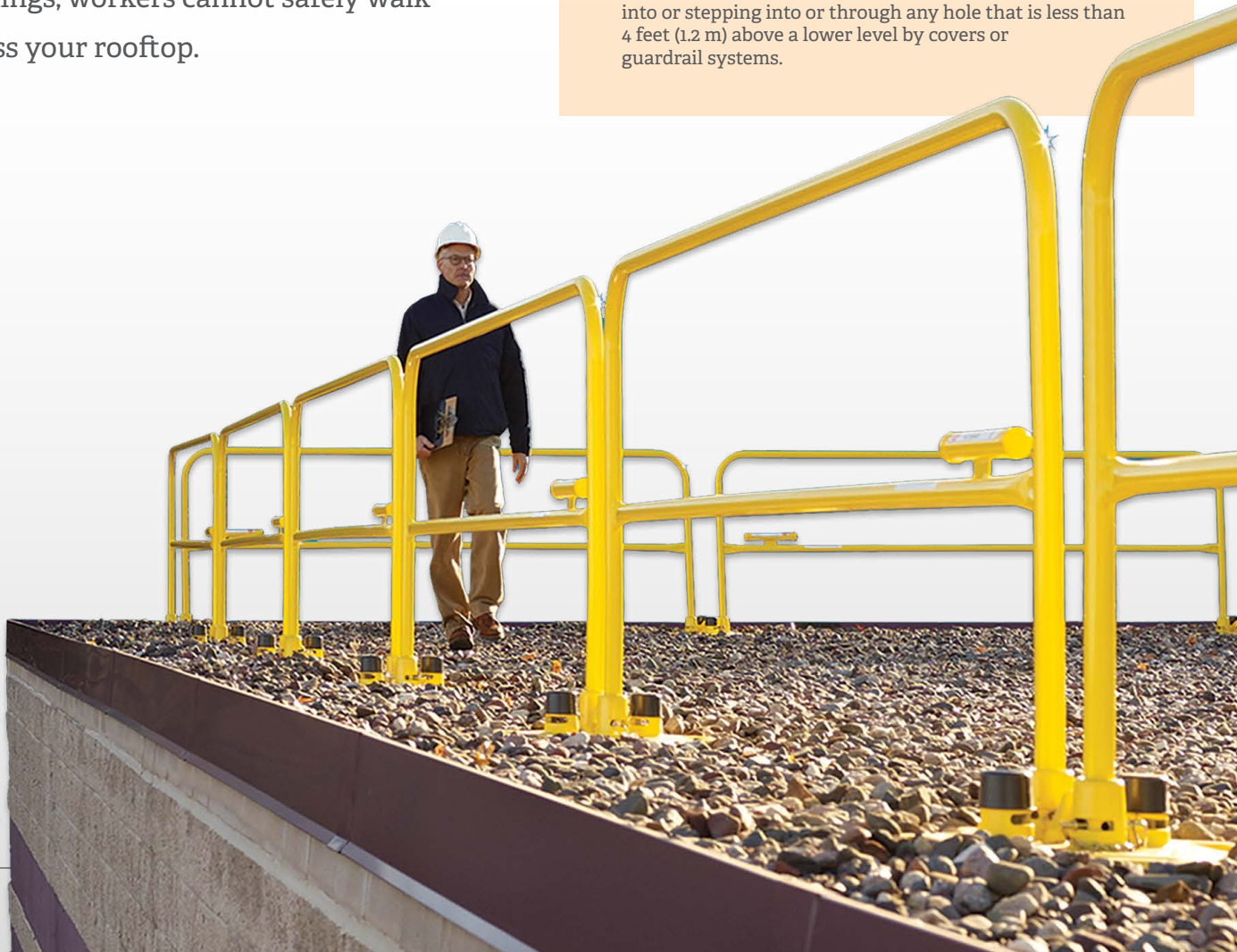
Overall, you want to make sure that once someone has accessed the roof, they can easily navigate their way around – at any time of day or night. To protect rooftop workers, take these steps:

- 1. Check the Lights.** Do you have any lighting on your rooftop? If you already have a railing system, are there warning lights along the rails to ensure safe nighttime work?
- 2. Look at the Topography.** If there are no rails surrounding hatches and other protrusions and no screens to cover openings, workers cannot safely walk across your rooftop.



Related OSHA Regulations:

- **Ea1910.22(c)** - Access and egress. The employer must provide, and ensure each employee uses, a safe means of access and egress to and from walking-working surfaces.
- **1910.28(b)(1)(i)** - Employer must ensure that each employee on a walking-working surface with an unprotected side or edge that is 4 feet (1.2 m) or more above a lower level is protected from falling by one or more of the following:
- **1910.28(b)(1)(i)(A,B,C)** - Guardrail systems; Safety net systems; or Personal fall protection systems, such as personal fall arrest, travel restraint, or positioning systems.
- **1910.28(b)(5)(i)** - The employer must ensure each employee on a runway or similar walkway is protected from falling 4 feet (1.2 m) or more to a lower level by a guardrail system.
- **1910.28(b)(3)(ii)** - Each employee is protected from tripping into or stepping into or through any hole that is less than 4 feet (1.2 m) above a lower level by covers or guardrail systems.



ROOFTOP PROTECTION YOU CAN COUNT ON

Whether it's your own employees, contractors, or even people who you don't anticipate on your rooftop, you are responsible for their safety. BlueWater builds fall protection systems to the highest OSHA standards – so you can rest easy about the safety of your people. And focus on other things that are equally important for day-to-day operations.

**Contact a BlueWater Fall Protection Specialist
or your local representative:**

**Share a link to this Guide with your colleagues:
www.RooftopSafetyAudits.com**

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