**Protect Your Team with a** 

# ROOFTOP SAFETY AUDIT

OSHA Compliant Solutions for Common Rooftop Hazards



SEPARATING PEOPLE FROM HAZARDS





We Assess Risk Based on 2 Factors:

**Severity of Injury:** In fall protection assessment, the severity of a fall-related injury is always assumed to be **life-threatening**.

**Likelihood:** The greatest predictor for the likelihood of an accident occurring is to review the **frequency** of exposure to the hazard on the roof.

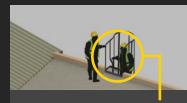
**Risk = Severity X Likelihood:** We prioritize our Risk Assessment based on the critical danger and how frequently workers are exposed.

#### **LIKELIHOOD**

POTENTIAL SEVERITY		NEAR IMPOSSIBLE	UNLIKELY	POSSIBLE CHANCE	LIKELY	ALMOST CERTAIN	Risk
	INSIGNIFICANT	L	2	က	4	5	
	MINOR INJURIES	2	4	6	8	10	Assessment Matrix
	NOTABLE INJURIES	3	6	9	12	<b>15</b>	men
	MAJOR INJURIES	4	8	12	16	20	t Ma
	DEBILITATING INJURY DEATH	5	10	15	20	25	trix

## **ROOFTOP ASSESSMENT**

Logic Based Approach to Danger Zones and OSHA's Safety Guidelines



## OSHA Code: 1910.28(b)(3)(iv) Access Points

Access points are the most frequented hazard on any rooftop. Workers are exposed to this risk twice - every time they enter and exit the roof to perform tasks. If a worker is required to access the roof 8 times per year, they are exposed to the access point hazard 16 times. OSHA requires that all ladders and hatches be secured with a self- closing gate and safety-compliant railing.



## OSHA Code: 1910.28(b)(3)(i) Rooftop Openings

Openings are critical yet often overlooked hazards. Kee Safety gives top priority to protecting all rooftop openings, including skylights as roof holes. Surprisingly, falls through skylights lead to more accidents than falls over the roof edge. Workers traversing the middle of the rooftop face the risk of missteps and falls. Ensuring proper protection of all openings is paramount for maintaining worker safety.



## Unprotected Edges

Proximity to the roof edge significantly affects the risk of accidents. As per OSHA regulations, any building where work is conducted within 15' of an open roof edge necessitates worker protection through guardrails or approved safety systems. Often, workers access the roof to service equipment, highlighting the importance of documenting if the equipment is situated too close to an unprotected edge.



## OSHA Code: 1910.5(a) Obstacles

Understanding the path that workers take across the roof is necessary for a complete fall protection assessment. Obstacles on the roof force workers to unsafely climb over or step around the obstructions, often placing workers at risk by walking too close to the roof edge and slipping off.



## ROOFTOP FALL PROTECTION

### USING AN INTEGRATED SOLUTION: A COMPLETE ROOFTOP FALL PROTECTION SYSTEM

Integrated solutions that incorporate a complete rooftop fall protection system is essential for protecting workers from falls on rooftops. This means addressing hazards such as skylights and roof openings, in addition to providing guardrails or other fall protection equipment at the edge of the roof. By implementing a comprehensive fall protection system that includes safety gates, screens, or covers, as well as proper anchor points and personal protective equipment, employers can help ensure that workers are able to safely perform their jobs without the risk of falling from height.

When access to the entire roof is required, the safest most comprehensive solution is a perimeter railing system that surrounds and protects all roof edges.

## **Rooftop Fall Protection Solutions**

Discover Rooftop Fall Protection Systems and Comprehensive Safety Solutions by Danger Zone Category.

**Access Points** 



#### **Kee Hatch**

A safety access and railing system designed for secure egress/ingress through a dedicated roof hatch. Railing protection supports safety when the hatch is open. Self-closing gate protects workers when entering and exiting the rooftop.





#### **Kee** Skylight Screens

Skylights are considered a hole in the roof: an OSHA safety hazard. The unique construction and mounting design allow the Kee Skylight Screen to be attached without penetration, maintaining the integrity of the roof and the skylight



#### **Kee Guard**

On a flat roof, a protected perimeter limits access to the leading edge. Installing a modular, free-standing railing system that does not penetrate the roof membrane provides a safe barrier to the roof edge.



#### **Safe Access Platform**

When obstacles exist on the rooftop (piping, ventilation systems, partitions between buildings or level changes) SAPs can be custom designed to provide safe access over those hazards.

## **Updated OSHA Standards**

Discussions on roof safety can be overwhelming regarding OSHA regulations, inspections, and regional standards. Kee Safety can assist you with a full understanding of the OSHA codes that are applicable to your specific rooftop safety concerns

1

Access Points: 1910.28(b)(3)(iv)

Each employee is protected from falling into a ladder way, floor hole, or ladder way 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\*

\*Chains are no longer permitted for use as a fall protection system on rooftop access points

2

**Rooftop Openings: 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:

- Covers
- Guardrail Systems
- Travel Restraint Systems
- Personal Fall Arrest System

3

**Unprotected Edges: 1910.28(b)(13)** 

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. 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.

When work is performed 15 feet (4.6 m) or more from the roof edge, the employer must: 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 (4.6 m) of the roof edge without using fall protection in accordance with paragraphs (b)(13)(i) and (ii) of this section.



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## **We Identify Danger Zones** on Your Roof

Kee Safety Fall Protection Experts perform a critical analysis of the entire rooftop surface to identify the hazards where workers are exposed to the greatest risk. This ensures that the most dangerous areas are protected immediately with state-of-the-art fall protection systems and OSHA compliant solutions.



## YOUR TRUSTED SAFETY PARTNER

#### **SAFETY WITHOUT COMPROMISE:**

KEE SAFETY'S COMMITMENT TO SEPARATING PEOPLE FROM HAZARDS

We take immense pride in engineering, manufacturing, and supplying trusted fall protection solutions, safety railing systems, and safe access equipment for working at height.



#### **MULTIFACILITY ACCOUNTS PROGRAM**

We have the capability to manage multiple rooftop safety systems on a state or national level.

- Risk assessments and hazard mitigation strategies for all your facilities
- Standardization of fall protection solutions across all locations
- Our solutions can be bundled for maximum efficiency and cost savings
- A single point of contact for your national or multifacility account

Contact our qualified Fall Protection Experts to schedule a complimentary rooftop safety assessment



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