



SEPARATING PEOPLE FROM HAZARDS

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Kee Safety: Your Fall Protection Experts

Kee Safety is the leading expert and global manufacturer of safety components and fall protection systems. We are fully committed to Separating People from Hazards. Established in 1934, Kee Safety has a proud history of engineering, manufacturing, and supplying the most trusted fall protection solutions, safety railing systems, and safe access equipment for working at height.

M A Y
2024



KEE SAFETY: LADDER & ROOFTOP ACCESS SURVEY

Enhancing Workplace Safety Through Innovative Solutions

Introduction:

Kee Safety, in collaboration with Southern Safety Solutions, conducted a thorough ladder safety inspection for Gulfstream. Attended by Jim Sharpley of Southern Safety Solutions and Joe Lima from Kee Safety, the inspection focused on structural integrity, stand-off distance, height compliance, and fall protection measures in accordance with OSHA standards. A total of 95 ladders underwent inspection, each requiring specific corrective measures for compliance. Access points, identified as one of the most frequent hazards on roofs, are deemed a "critical" risk by Kee Safety, necessitating immediate attention to ensure OSHA compliance and mitigate safety risks. Please note that no photographs were taken during the inspection.



Inspection Criteria Outline:

- Structural integrity and damage assessment.
- Minimum 7-inch stand-off as per **OSHA Code 1910.23(d)(2)**.
 - The minimum perpendicular distance from the centerline of the steps or rungs, or grab bars, or both, to the nearest permanent object in back of the ladder is 7 inches
- Height compliance with consideration for Vertical Lifeline (VLL) requirements according to **OSHA Code 1910.28(b)(9)(i)(C-D)**.
 - For fixed ladders that extend more than 24 feet (7.3 m) above a lower level, the employer must ensure [...] 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 [...] and on and after November 18, 2036, all fixed ladders are equipped with a personal fall arrest system or a ladder safety system.
- Verification of fall protection measures at ladder summit or roof access hatch, including guardrails or self-closing gates, in line with **OSHA Code 1910.28(b)(3)(iv)**.
 - Each employee is protected from falling into a ladderway floor hole or ladderway platform hole by a guardrail system and toeboards erected on all exposed sides, except at the entrance to the hole, where a self-closing gate or an offset must be used.

A detailed report containing all 95 ladders inspected, along with recommended corrective actions, is available in Excel. However, summarized findings are provided here.

Categories

1

Ladders requiring only self-closing gates for compliance:
During the inspection, **(30) ladders** were found to require only a self-closing gate at the top to meet OSHA 1910.28(b)(3)(iv) standards. Prioritizing these ladders will swiftly bring one-third of the onsite ladders into compliance.

Recommendation: Install the Universal Kee Gate at the top of each ladder. The Kee Gate features a universal mounting bracket and can be field-cut to fit any size opening.

Learn more about Kee Gate:
➤ keesafety.com/safety-gates/kee-gate



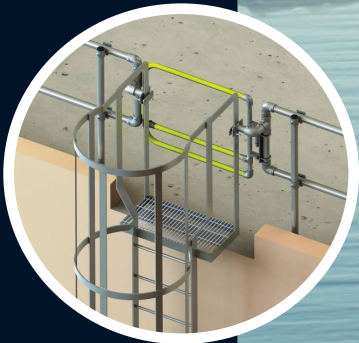
Kee Gate

2

Ladders requiring Guardrail and Self-closing gates:
During the inspection, **(37) ladders** were identified as needing guardrails on either side of the ladder and a self-closing gate in front of the ladder opening.

Recommendation: Utilize the Kee Guard Ladder Kit to incorporate non-penetrating OSHA-compliant guardrails at the top of each ladder. Depending on the layout of each area, the railing can be installed along the edge or perpendicular to the edge to guide personnel towards the center of the roof.

Learn more about Kee Guard Ladder Kit:
➤ keesafety.com/roof-railings/keeguard/keeguard-access



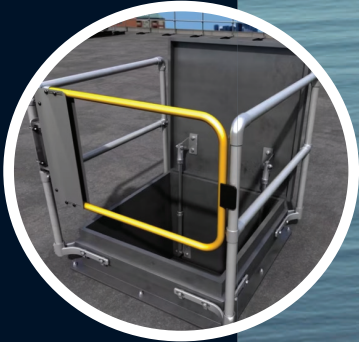
Kee Guard Ladder Kit

3

Hatches requiring rooftop guardrail and self-closing gate:
The inspection revealed **(15) roof hatches** lacking fall protection, as mandated by OSHA 1910.28(b)(3)(iv).

Recommendation: Implement Kee Hatch Railing around unprotected roof hatches. The Kee Hatch is engineered to furnish OSHA-compliant guardrails around the opening and features an integrated self-closing gate. These systems can be customized with grab-bars to facilitate access and egress for maintenance personnel.

Learn more about Kee Hatch:
➤ keesafety.com/roof-railings/kee-hatch



Kee Hatch

4

Ladders above 24' requiring Vertical Lifeline Systems (VLL):
The inspection identified **(20) ladders** exceeding 24' in height, necessitating Vertical Lifeline Systems by 2036 or upon repair/replacement in accordance with OSHA 1910.28(b)(9)(i)(C-D).

Recommendation: Install VLL systems on ladders during repair/replacement over the next 12 years or as prioritized by the Gulfstream safety team. Kee Safety advises against prioritizing these over current non-compliant access points outlined above.

5

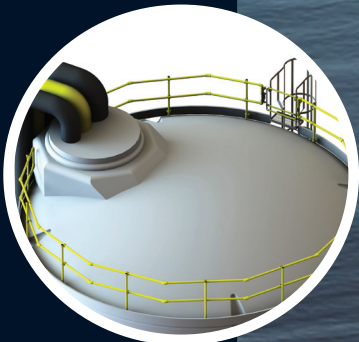
Replacement Ladders
The inspection identified **(4) ladders** requiring replacement due to structural damage or obstructions behind the rungs affecting the 7" clearance requirement.

Recommendation: If not already done, immediately restrict traffic/access to these ladders and proceed with replacement. Replacement ladders must adhere to the aforementioned requirements, with particular emphasis on clearance specifications in specific applications.

6

Custom Platforms/Other:
The inspection revealed **2 ladders** necessitating custom-designed platforms for safe access to cooling towers and external tanks.

Recommendation: Design custom Kee Platforms to ensure safe access. Kee Platforms offer a highly customizable solution without requiring welding or on-site hot-work.



Kee Custom Solutions

7

Compliant Ladders:
The inspection identified (6) ladders that are deemed to be in compliance with OSHA requirements.

Recommendation: No action required.



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Next Steps

Following the review of the executive summary and detailed report, Gulfstream will prioritize areas for immediate attention, with budgetary material pricing provided in the accompanying Excel report. Labor quotes will be available upon request, contingent upon a well-defined Scope of Work to ensure accuracy. It's essential to note that this report solely addresses rooftop access compliance, considered the initial step in achieving OSHA compliance for rooftops. However, to fully meet regulatory standards, protection for rooftop openings, the leading edge, and obstructions is also imperative. Kee Safety solutions seamlessly integrate, facilitating the comprehensive resolution of these hazards in the future.