Fall Protection Systems Anchored to Wood-Framed Structures Prove Effective in Practice

Fall protection: Structural efficacy of residential structures for fall protection systems

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Overview

Some have argued that compliance with OSHA fall protection standards in wood-framed, residential construction projects is impossible or prohibitively expensive. They contend that existing wood-framed structures lack anchorage points sufficient to satisfy the standard or to protect workers in the event of a fall. To evaluate these claims, researchers examined 14 fall incidents or near misses documented by a framing contractor who has employed fall protection devices in residential and light commercial construction since 2007.

Key Findings

- In each of the 14 cases, a Personal Fall Arrest System (PFAS) anchored to a wood-framed structure arrested or averted a worker's fall from a height of eight feet or more. None of the workers involved were seriously injured.
- The frames and trusses that served as anchor points were standard-issue, not specially modified. No costly special engineering services were required.
- Contrary to a popular misconception, OSHA does not mandate that a PFAS system must be capable of supporting a 5,000 pound load; it is sufficient that it support double the anticipated load. Today's PFAS devices employing self-retracting lanyards can limit peak loads during a fall event to approximately 700 pounds, making it possible to anchor the PFAS to many conventional wood frame structures and trusses and still achieve compliance.

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http://bit.ly/1SNcCVJ

 Production of this Key Finding was supported by Grant OH009762 from the National Institute for Occupational Safety and Health (NIOSH). The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH.

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