



SAFETY FLASH



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SAFETY FLASH NO.: VW-004-2018
LOCATION: TVA/G·UB·MK Valley Wide

PAGE: 1 of 1
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Construction Industry Fatality **Personal Fall Arrest Systems (PFAS)**

Overview

- Kiewit Power Constructors shared information on a recent fatality in Seattle, WA. A foreman lost his footing while working from a light-rail concrete girder, falling approximately 33 feet to the ground. The worker was wearing a DBI SALA Nano-Lok fall protection system with a web lanyard. The web lanyard was severed by the edge of the concrete pier cap.

Findings

- ANSI Z359.14, Safety Requirements for Self-retracting Devices for Personal Fall Arrest and Rescue Systems, indicates a sharp edge is not rounded and has a radius of no more than 0.005" (.13mm).
- Comprehensive fall protection plans should address applicable leading/sharp edge risks, including:
 - Increased fall distance (workers attached at foot level fall further than when anchored at shoulder height or above.)
 - Lock-up speed (when anchored at foot level, SLR velocity out of the housing does not achieve the required acceleration (4.5 ft/sec) until the workers' D-ring passes over the leading edge and below the level of the anchor. The worker falls approximately 5 feet before the SLR engages to arrest the fall.)
 - Increased fall arrest forces (greater impact on the body due to falling further)
 - Increased potential for swing hazards (with the lifeline strung tight over a sharp edge, pendulum effect results in sawing back and forth on the lifeline.)

Recommendations

- Review this safety flash with all G·UB·MK manual/non-manual employees.
- Ensure PFAS anchorage is not positioned such that the connector (lanyard) is exposed to sharp edges during use and in the event of deployment as fall arrest.
- Make "Fall Arrest System" application/use as an observation focus item during fall 2019 outages then periodically thereafter.

Contact for further Information: G·UB·MK Health, Safety, and Environmental
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Note: The purpose of this distribution is to disseminate information in a quick & timely manner. It does not represent the complete resolution of the incident or issue. Action items & complete investigation may still be pending.