SAFETY POST

Monthly Recap of Company-wide Safety Improvements | **DECEMBER 2024**

ELEVATING SAFETY: FALL PROTECTION ENHANCEMENTS

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COMMON FALL PROTECTION PERMIT MISTAKES

Our safety culture reflects our unwavering dedication to protecting our people. Every decision, system, and process is designed with one goal: ensuring every team member goes home safely. Fall protection is no exception—it's one of the most complex safety challenges. By addressing past issues, refining permits, and enhancing SOPs, we're taking bold steps to safeguard our teams, anticipate risks, and set a new industry standard. Putting our people first is the standard we uphold.

Through our review of the Fall Protection Permit, we've identified recurring issues that impact fall protection effectiveness:

- **Miscalculating Fall Distances:** Misinterpreted charts and unaccounted factors, like horizontal lifeline sag or kneeling positions, lead to clearance errors.
- **Using Gear Outside Of Its Limitations:** Misuse or misunderstanding of equipment capabilities creates unsafe practices.
- **Combining Multiple Systems Under One Permit:** Covering multiple systems with one permit increases confusion and increased risk.
- **Lack of Supporting Documentation:** Critical data from the instructions for use or engineering details for non-standard tie-offs must support the Fall Protection Permit.

To train our teams on these common issues, use the Qualified & Competent Person Fall Protection Training.

UPDATED FALL PROTECTION PERMIT

Updated permit addresses current gaps and improves fall protection planning:

1. **Clearer Chart Instructions:** Simplified guidance for accurate fall distance calculations.
2. **Focus on Worst-Case Scenario Clearance Calculations:** Accounting for sag in horizontal lifelines, kneeling, and swing fall hazards.
3. **System-Specific Permits:** Individual permits for each system ensure focused inspections and approvals.
4. **Required Documentation:** Mandates fall clearance charts and engineering review for non-standard anchorage points.

These updates turn the permit into a proactive tool that identifies hazards, mitigates risks, and protects employees at heights.

ENHANCED STANDARD OPERATING PROCEDURES (SOPS)

We've expanded and refined 13 SOPs, now available in the Fall Protection Toolkit, covering scenarios like:

- **Restrained & Fixed Lines:** Preventing workers from reaching hazards.
- **Ladders & Transfers at Heights:** Ensuring stability and safe transitions.
- **Working Near Shafts & Slopes:** Specialized tie-offs for challenging environments.
- **Improvised Anchorages:** Procedures for non-standard tie-offs with required approvals.
- **Fall Rescue Guide:** Suggested fall rescue equipment for rescue planning and execution.

These SOPs simplify complex challenges, equipping teams with clear, actionable steps to ensure safety in all conditions.

PUTTING PEOPLE FIRST

Safety is embedded in our culture. The updated permits, SOPs, and training address past gaps, anticipate future risks, and reinforce our industry-leading commitment to safety. With these tools and a people-first mindset, we execute every task with confidence and care. This is the standard we've built—and the standard we must always uphold.

All Sr. Safety Managers have been informed on the recent Fall Protection enhancements. If you have any questions or need further clarification about these updates, please reach out to your Sr. Safety Manager or one of our Fall Protection subject matter experts (SMEs).

Fall Protection SMEs:

- Andrew Cowart
- Jason Mark
- Wes Renton
- John Cloutier
- Ben Snow

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SHARED LESSONS AND IMPROVEMENTS FROM RECENT POTENTIAL FATALITY EVENTS

Full incident summaries can be reviewed by clicking on the *project name

UTILITIES

Incident Report: JBER Runway Extension

Utility Strike: While digging exploratory test pits with an excavator to facilitate testing on installed waterline, crew struck a buried six-inch poly natural gas line causing a release of gas.

- Dig Permit process must be followed, signatures must not be added if verifications are not complete.
- Excavation work plans need to contain appropriate amount of detail including location/depth of excavation and location/depth of existing utilities.

Incident Report: Mill Creek Combined Cycle

Near Miss: During an investigation into the potential presence of coal ash at another site, an excavator operator was informed they might need to relocate to remove it and decided to track the excavator to the suspected location. While traveling, the operator crossed under a 12kV power line without curling the boom, resulting in contact with the line.

- Introduced a checklist-driven audit aligned with OH powerline procedure requirements to verify and maintain field compliance.
- Create a General Arrangement (GA) drawing overlaying overhead powerlines, voltages, and clearances onto the site layout, integrating it into procedural guidelines for improved safety and clarity.

Incident Report: Magnolia Power

Near Miss: While manually relocating a scaffold rack, a crew member lost grip, causing the rack to fall onto coiled temporary wiring. The rack's leg cut through the insulation on two 480V lines, creating an arc. The lines were carrying 200 amps to a 300-amp breaker.

- Exposed electrical lines must be elevated whenever possible to reduce hazards.
- Hard barricades around live electrical components may only be removed with proper authorization.

CRANES / LIFTING & RIGGING

Incident Report: TFC Texas Borders Farm

Near Miss: While setting a bollard panel, one tube of the bollard was not welded and fell to the ground.

- Ensure continuous training and adherence to panel inspection SOPs, including consistent verification of approved markings on panels before setting.
- Establish a backup plan for internal inspections.

Incident Report: Magnolia Power

Recordable: During the pre-lift of a HRSG Penthouse structure, the rolling blocks caused the lower spreader bar to roll off the center of gravity, leading the right-side horsehead to slip off the spreader bar and fall to the ground approximately 30 feet to the ground.

- KIE must be consulted whenever there is a deviation from the diagram/ plans.
- Source different end caps that use a safety and cotter pin to ensure placement of a bar inside of an end cap, or;
- Consult with engineering on modifying our current company-built end caps to include retainment capabilities.

Incident Report: KF Microsoft Data Center

Near Miss: A 63-foot H-pile was being lifted to be set and spliced onto a previously driven bottom pile when the Stab Cat Ground Release Shackle disengaged from the pile causing it to fall to the ground.

- Follow the Work Plan and address changes properly when necessary.
- Verify that our employees are properly qualified as Riggers and trained on specialized rigging equipment.
- Verify that communication during shift turnover provides clear and adequate direction.

WORKING AT HEIGHTS

Incident Report: KMX CCC Tuxpan Fase 1

Near Miss: While handling scaffolding material, a 1.5-meter scaffold pole fell through a pipe penetration to the ground.

- Implement a hole cover process to address the detailed expectations for penetrations and open holes.
- Assign responsibility by level of each structure to verify holes are regularly covered.

ENERGY ISOLATION / LOTO

Incident Report: Federal Way Link Extension

Near Miss: Live electrical disconnect switch was accessed without LOTO in place. Torque wrench was placed on the breaker lug and contacted an adjacent conduit, causing an arc flash.

- Initial LOTO lock must be placed by LOTO Authority. Other users to add their lock to the LOTO device following primary LOTO.
- NFPA 70E dictates that arc-rated PPE is used when testing for absence of voltage.
- LOTO audits must be documented and include an annual third-party audit.

TSCD

Incident Report: KMX CCC Tuxpan Fase 1

Near Miss: While leveling a pipe rack column, the crew found leveling nuts lodged in the anchor bolt holes. After removing the hold-down nuts and using a porta power to free the leveling nuts, the column tilted. The column lost vertical alignment, damaging electrical trays and conduit.

- Establish a structured competency process for porta-power and similar tools to ensure proper field usage and safety.
- Conduct additional training for Frontline Supervisors (FLS) on TSCD processes, change recognition, and safe work planning to reinforce operational safety and adaptability.

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LAST 12 MONTH'S TOP PSL 4/5 INCIDENTS BY LSA CATEGORY

Below are the Top 5 PSL 4/5 LSA Incident Categories for the last 12 months (12/1/2023 - 12/1/2024) and the total number of incidents within that category. Click here for a link to the Power BI Safety Incident Reporting site. This tool can be used to track safety trends for projects, districts, and the organization.

CRANES	6
ENERGY ISOLATION / LOTO	6
UTILITIES	5
HEI	4
LIFTING & RIGGING	4

Improved Safety Analytics Dashboard Now Live

The recent updates to the Safety Analytics Dashboard focus on improvements to make the data more robust and the platform more user-friendly. Key **updates include improved speed, scalability, enhanced user interface, simplified navigation, and expanded date range. View the Safety Analytics Dashboard now!**

1 Assessment per crew per **280** craft manhours
Over **160,000** Assessments were completed this year & over **2,500+** unique users

PROJECTS THAT UTILIZE THE DATA, SHOW A 3X REDUCTION IN SERIOUS INCIDENTS

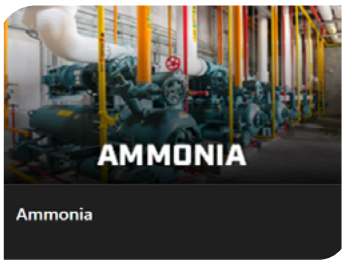
REMINDERS & TOOLS FOR THE FIELD

EXPOSURE TO AMMONIA

Following a recent incident where multiple employees were exposed to ammonia, actions were taken to develop a best practice resource. Any project that has or will have the potential for ammonia exposure, should ensure their crews are trained.

Ammonia resources can be found on the Corporate Safety SharePoint page:

- Ammonia Best Practice Training PPT
- Project Incident Information



REVISITING ELECTRICAL SAFETY BASICS

Over the years there have been a number of PSL 4 events involving LOTO of electrical energy sources. These incidents involved the failure to establish an electrically safe working condition and failure to verify absence of voltage. A safe work condition shall be achieved when performed and verified in accordance with the following:

- Follow the Energy Isolation Toolkit
- Determine all possible sources of electrical supply to the specific equipment on updated drawings.
- Apply the lock-out-tag-out (LOTO).
- All electrical equipment and systems must be regarded as live until proven dead.
- Use a properly rated voltage detector to test each phase conductor or circuit part to verify they are de-energized. This step requires the use of arc-rated PPE outlined in the below chart.
- Where the possibility of induced voltage or stored electrical energy exists, ground the phase conductors or circuit parts being de-energized with a properly rated grounding device.

Please make sure we are training our teams on these basic steps. Reference the Electrical Safe Work Procedure SOP for further information on this topic.

UNDERSTANDING HOLD POINTS

For our operations, distinguishing between best practices and true hold points is essential to keep our people safe. A **true hold point** is a critical checkpoint where work must pause or not start until verification is complete before proceeding, while best practices guide optimal methods without mandatory stops.

Visual cues improve clarity for these hold points. An example of a visual hold point is at the TFC Borders Farm project in Texas. For the proper inspection of their fence panels, a **green** dot signifies a passed QA inspection by an independent third party firm, while an **orange** dot indicates an assigned Kiewit competent person has performed their visual inspection and strength test. Prior to rigging the panel, the foreman then verifies that **BOTH** dots are present. If not, this becomes a hold point for the crew. These checks visually engage our team members at all levels.