Fatal Accident
Unguarded Driveshaft on an Overhead Crane

A USW skilled trades maintenance worker was fatally injured when part of his personal fall arrest system (PFAS) was caught in and wrapped around a rotating driveshaft and coupling with exposed fasteners. The maintenance worker and his supervisor had just finished installing an electronic device on an overhead building rafter. As a standard practice, the crane’s bridge and trolley was being used as a work platform and both employees were tied-off for the job task. As the crane began traversing back to its access point, the rotating equipment immediately wrapped up the shock-absorbing lanyard pulling the worker off his feet and killing him instantly.

Recommendations to Prevent Recurrence:

- Safeguard all exposed shafts, couplings and other machine hazards, even if workers do not routinely work there.

- Ensure all machine safeguarding used/installed is user friendly (hinged and light weight for example) and secured in place.

- Develop Lockout/Tagout/Tryout procedures and train workers on them.

- Where possible, use aerial lifts to perform job tasks and for access/egress of overhead cranes.

- Include machine guarding hazards in all crane inspection forms.

- Increase maintenance staffing to eliminate and control hazards identified by inspections. In the above accident the “crane inspector” position was eliminated by the employer and all crane inspections were being contracted out.

- Do not discontinue the use of PFAS just because other hazards are present. Instead, eliminate and control those hazards with guarding and other measures, work with PFAS vendors to choose the right PFAS. For example, systems that protect the lanyard when not in use.