

NATF Redacted Operating Experience Report

Personal Injury – Mulcher Throws Object

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Topic

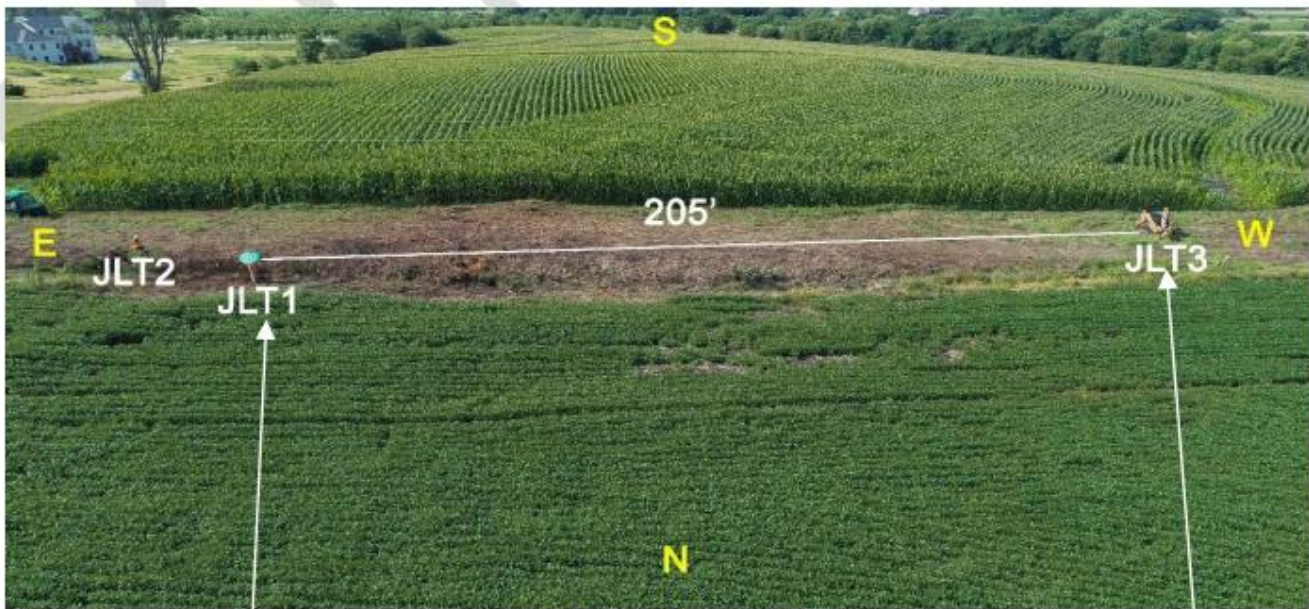
Personal Injury – Mulcher Throws Object

Description

While performing tree-clearing operations on a transmission line right-of-way (ROW), a line technician sustained a serious injury. The injured employee was struck by a metal electric fence post (approximately 18-inch long and 0.5-inch in diameter) that was forcefully ejected from a mulching attachment mounted on a skid steer.



The event occurred when the operator turned the skid steer to the right with the mulching attachment lowered and operating at full power. This action compromised the expected safety margin (assumed to be directly behind the skid steer and over 200' from the point of operation) and placed at least one of the crew members unknowingly in the line of fire. While the skid steer was turning to the right, the rotating disk in the mulching attachment struck a hidden fence post, sheared it, and propelled the cut portion like a spear over 200' into the line technician.



Overview of the Scene

JLT1 Indicates Location of Injured Teammate

JLT3 Indicates Location of Mulcher

Root Cause

Lack of a formal process that drives thorough evaluation of fitness for intended use, potential safety hazards, and effective safety controls prior to implementing use of some equipment, such as the mulcher.

Lessons Learned

1. Operators do not receive initial or recurring performance-based training on the safety hazards and operation of the mulcher.
2. Specific, approved guidance documents related to the safety hazards, operation, and maintenance of the mulcher have not been developed.
3. The effectiveness of walkdowns of work locations is limited. Searches sometimes fail to identify foreign or obscured objects.
4. Vegetation-clearing activities using the mulcher are not closely monitored to ensure that personnel and property remain outside of the mulcher line of fire.
5. Required communication between crew members and machine operators during mulching operations is not well defined.
6. Crew members deviated from the planned scope of work and did not communicate the change in plans.

Corrective Actions

Actions to Address Root Cause:

1. Require job hazard analyses to be completed before purchasing or using equipment that is used infrequently and/or poses high risks to operators or others.
2. Identify and develop training that covers safe operation and maintenance procedures, protective measures, and other related requirements before purchasing or using high-risk and/or infrequently used equipment.

Actions to Address Other Causal Factors:

1. Implement performance-based initial and refresher mulcher operator training.
2. Implement knowledge, skills, and abilities-based mulcher operator training and an associated qualification.
3. Implement approved guidance for site pre-assessments prior to mulching operations.
4. Implement specific guidance for mulcher operation, communications practices, oversight, and maintenance.

Extent of Condition

In previous evaluations, causes and corrective actions have mostly dealt with improving safe operation of a specific tool, piece of equipment, or process. In contrast to previous evaluations with like causes, corrective actions included in this evaluation are aimed primarily at the common underlying organizational and programmatic causes.