Hazard Points and Guarding on farm equipment Fatality File

The New York AHNP and the NIOSH Division of Safety Research recently investigated five scalping incidents involving five female farm workers or farm family members. Each woman was scalped totally or partially when her hair became entangled around the rotating secondary driveline of hay baling equipment

Case No. 1

A 47-year-old woman was baling hay on a windy day. After positioning the tractor throttle on idle but not disengaging the PTO, she dismounted and walked toward the back of the tractor past a rotating secondary driveline that powered the bale thrower. This driveline was located 4 feet above ground and was guarded by a tunnel guard (i.e., an inverted U-shaped guard) that left the underside of the driveline exposed. While the woman was at the rear of the baler, her hair (which was reportedly tied back, covered with a bandanna, and tucked inside her shirt) became entangled around the driveline. The rotating driveline tore her entire scalp from her head. These injuries required extensive skin grafting and left her permanently disfigured.

Case No. 2

A 30-year-old woman was baling hay with a recently purchased used baler. After recognizing a problem with the bale tension, she reduced the tractor speed to idle, dismounted from the tractor, and walked toward the rear of the baler past the driveline of the bale thrower. This secondary driveline was shielded with a tunnel guard. As the woman bent over to adjust the bale tension, her hair (which was tied back in a long ponytail) became entangled around the driveline and her entire scalp was torn from her head.

Case No. 3

A 42-year-old woman was leaning against a tunnel guard for the rotating driveline that powered the bale thrower on a hay baler.

As she bent over to evaluate a problem with the machinery, her shoulder-length hair became entangled around the secondary driveline, and her right ear and the right side of her scalp were torn from her head.

Case No. 4

A 42-year-old woman who was baling hay walked toward the rear of the baler past the rotating secondary driveline of the bale thrower. The driveline was guarded by a tunnel guard. Her hair (reportedly tied in a bun) became entangled around the driveline and her entire scalp was torn from her head. She also received serious facial injuries that required extensive reconstructive surgery.

Case No. 5

A 12-year-old girl was walking in a hayfield while her father baled hay. Her father slowed the tractor to an idle and asked the girl to check the bale counter to see how many bales had been made. To check the counter, the girl lowered her head under a rotating, tunnel-guarded driveline that powered the bale thrower. The girl’s ponytail became entangled around the driveshaft, causing the ponytail and the attached skin to be torn from her head.