

Arm Amputated by Tractor Power-Take-Off¹

California NURSE Project²

SUMMARY : CASE 191-012-01

A farm laborer was feeding the cows on a dairy farm. He drove a tractor which pulled a feed wagon. Inside the wagon a large metal screw (or auger) turned, mixing the feed and pushing it out. This screw in the wagon was connected by a driveshaft to the *power-take-off* unit at the back of the tractor. The driveshaft spun rapidly between the tractor and the wagon, and was not covered or guarded.

The worker got off his tractor to check the driveshaft, leaving the tractor idling and the shaft still turning. When he reached across the shaft to pull a lever on the tractor, his shirt sleeve was caught by a joint in the shaft. The worker was wrapped around the shaft, his arm was ripped almost completely off, and his neck was fractured. The worker survived, but lost his arm.

How could this injury have been prevented?

- All power take off units and shafts must have guards, shields, and sleeves.
- Check equipment before using it.
- Turn the power off and wait for the machine to stop moving before fixing it.
- Give workers safety training.
- Do not wear loose fitting clothing around machinery.

The NURSE (Nurses Using Rural Sentinel Events) project is conducted by the California Occupational Health Program of the California Department of Health Services, in conjunction with the National Institute for Occupational Safety and Health. The program's goal is to prevent occupational injuries associated with agriculture. Injuries are reported by hospitals, emergency medical services, clinics, medical examiners, and coroners. Selected cases are followed up by conducting interviews of injured workers, co-workers, employers, and others involved in the incident. An on-site safety investigation is also conducted. These investigations provide detailed information on the worker, the work environment, and the potential risk factors resulting in the injury. Each investigation concludes with specific recommendations designed to prevent injuries, for the use of employers, workers, and others concerned about health and

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2. NURSE Project, California Occupational Health Program, 2151 Berkeley Way, Annex 11, Berkeley, CA 94704.