

Asphalt Plant Supervisor Dies after Falling down a Drag Slat Conveyor

SUMMARY

On April 22, 2017, a 58-year-old supervisor/plant operator employed by a hot mix asphalt manufacturer died after he slid down the cover of an inclined asphalt storage silo conveyor and then fell down a stairway, landing 67 feet below on concrete.

The supervisor and a coworker were setting up to do maintenance at one of their employer's asphalt production plants. They planned to replace two chain head sprockets located at the top of the conveyor that brings asphalt to two storage silos. In order to replace the sprockets, they first had to chip-off the asphalt that had built-up around the sprockets.

Their work area was located above the silos on a 50-degree inclined conveyor 67 feet above the ground. The sprockets were located beneath a hinged lid on the cover of the conveyor box. The workers used an aerial lift to ascend to the work area where they set up their equipment on a work platform adjacent to the conveyor box lid.

The platform did not extend over the conveyor. The coworker opened the lid and then went down to a lower platform to hand up equipment to the supervisor. The supervisor then took off his personal fall protection even though the employer required it for the task. He then climbed over the platform railing onto the inclined conveyor cover. Presumably, he supported himself using the hinges of the lid cover or conveyor slats as foot holds while he prepared to chip-off the asphalt with a pneumatic chisel. An employee working in another part of the plant saw the supervisor sliding down the conveyor. The coworker and the employee who saw him fall rushed to the scene and found him unconscious. He was airlifted to a hospital, where he died four days later.



Asphalt storage silos and the drag slat conveyor down which the supervisor slid and fell while performing maintenance on the upper part of the conveyor.

RECOMMENDATIONS

Washington State Fatality Assessment and Control Evaluation investigators concluded that to protect employees from similar hazards, employers should:

- Provide a way for workers to safely inspect and maintain conveyors.
- Apply principles of Prevention through Design (PtD) to existing and new facilities, structures, equipment, and procedures to identify and eliminate safety hazards to workers. Ensure that bale storage areas are designated and access limited to authorized employees.
- Provide fall protection and ensure that workers use it when necessary.
- Perform a job hazard analysis (JHA) of conveyor and similar maintenance tasks.
- Evaluate the safety management and safety culture within their organization and make a commitment to injury prevention.

SHARP Publication # 52-46-2020_summary. The full version of this investigation report, along with the detailed recommendations and discussions section, can be found at: www.lni.wa.gov/safety-health/safety-research/files/2020/52_46_2020_AsphaltPlantSupervisorFall.pdf

The Washington State Fatality Assessment and Control (WA FACE) program is one of many workplace health and safety programs administered by the Washington State Department of Labor & Industries' Safety & Health & Research for Prevention (SHARP) program. It is a research program designed to identify and study fatal occupational injuries. Under a cooperative agreement with the National Institute for Occupational Safety and Health (NIOSH grant# 2U60OH008487), WA FACE collects information on occupational fatalities in WA State and targets specific types of fatalities for evaluation.

More about WA FACE can be found at: www.ni.wa.gov/safety-health/safety-research/ongoing-projects/work-related-fatalities-face#waface