

FATALITY NARRATIVE

Deck Engineer on Barge Struck by Crane Counterweight

Industry: Marine construction

Task: Welding repairs to a guard rail on a barge

Occupation: Deck engineer

Type of Incident: Struck by





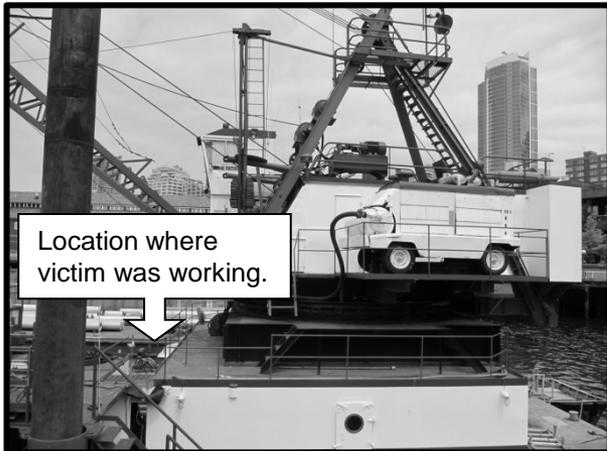
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On June 24, 2010, a 26-year-old deck engineer and apprentice heavy duty repair mechanic died when she was struck by the counterweight of a barge mounted crane.

She was employed by a marine construction company where she had worked in the company shop doing maintenance and mechanical repair work for the past 10 months. The day of the incident was her third day on the job as a deck engineer.

The victim and a crane operator were working from a crane barge in support of a crew working at a job site to replace pilings underneath a pier. The crane operator was picking waste pilings from the water and placing them on an adjacent barge and then lifting new pilings to workers in the water.

The victim was welding a guard railing on the barge's upper deck when the crane operator rotated the crane to make a pick of pilings from the water. The crane's counterweight struck her in the head and neck, pinning her against the railing.



Crane and upper deck of barge where the deck engineer (victim) was welding a railing.



Upper deck of barge where victim was welding a broken railing.



Crane counterweight which struck victim.



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Requirements

For work involving floating cranes/derricks and land cranes/derricks on barges pontoons, vessels, or other means of flotation, employers must ensure that the hazard areas within the swing radius of the rotating superstructure of a crane where there is the risk of an employee being struck or pinched/crushed by the superstructure are addressed according to the requirements of WACs 296-155-53400(42) and 296-155-54400:

- Train employees how to recognize these hazard areas.
- Erect and maintain control lines, warning lines, railings or similar barriers to mark the boundaries of the hazard areas.
- Clearly mark the hazard areas by a combination of warning signs (such as, “Danger – Swing/Crush Zone”) and high visibility markings on the equipment that identify the hazard areas. In addition, train employees so they understand what these markings mean.
- Ensure that before an employee goes to a location in the hazard area that is out of the view of the operator, the employee must inform the operator.
- The operator must not rotate the superstructure until informed in accordance with a prearranged system of communication that the employee is in a safe position.
- Lockout/tagout the crane when workers need to perform repair work that will expose them to the hazards of being struck by the crane or its load. WAC 296-155-56200(7)(b)(i,ii)



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Recommendations

- Hold a daily pre-work safety meeting to break down each task and identify the potential hazards so the site supervisor, crane operator, and work crew are all aware of the hazards and are able to implement safe working practices when performing their tasks.

-The crane operator was making a pick while the victim was welding a guard railing on the barge's upper deck.

- Consider having an experienced employee work alongside a new or inexperienced employee so as to provide on- the-job training on how to work safely in a potentially hazardous environment.

-The day of the incident was her third day on the job as a deck engineer.

Statewide Statistics: This was number 48 of 89 work-related fatalities in Washington State during 2010, and was number 5 of 7 construction-related fatalities. This bulletin was developed to alert employers and employees of a tragic loss of life of a worker in Washington State and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.

Developed by WA State Fatality Assessment and Control Evaluation (FACE) Program and the Division of Occupational Safety and Health (DOSH), WA State Dept. of Labor & Industries. The FACE Program is supported in part by a grant from the National Institute for Occupational Safety and Health (NIOSH). For more information, contact the Safety and Health Assessment and Research for Prevention (SHARP) Program, 1-888-667-4277.

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