

MNM Fatal 2013-22

- Other (Drowning)
- December 10, 2013 (Kentucky)
- Sand & Gravel Mine
- Dredge Deck Hand
- 27 years old
- 4½ years of experience

Overview

On December 10, 2013, the victim, age 27, drowned when he fell into the Ohio River. He walked onto barge MEM 611 to measure the amount of material in the barge (take a draft reading) when he lost his footing and fell into the river. A tugboat (Patsy M) was attached to the barge and the tugboat pilot, saw the victim the water. He disconnected the tugboat from the barge to rescue the victim who was approximately 20 yards down river when he disappeared below the surface of the water.

The victim had been taking a break in the break room on Dredge IV when the dredge foreman called on the radio for a draft reading. The dredge foreman was in the control room loading the barge and needed a draft reading to determine if the barge was ready to be moved. The victim left the break room and walked to the barge. The tugboat pilot saw him get on the barge, but did not watch him as he traveled to the other side of the barge to obtain the draft reading. Typically, miners had to manually check the readings several times each shift to ensure the barge was being loaded correctly.

Overview

The accident occurred due to management's failure to ensure that a competent person examine each working place at least one each shift for conditions which may adversely affect safety or health. Accumulations of snow and ice were not removed from the deck of the barge. The snow and ice on the barge covered the barge rigging which created an additional slipping and tripping hazard.

Management also failed to enforce a life jacket policy. Persons interviewed stated miners were known to forget or refrain from wearing their life jackets and had to be frequently reminded. Several spare life jackets were available in the break room. The victim's life jacket was lying in a chair next to his cell phone. Additionally, management failed to provide a safety belt and line to ensure the victim could not fall into the river.



Root Cause

Root Cause: Management failed to provide a safe work environment for the miners on the barges. Specifically, the operator failed to identify the hazard of snow and ice accumulation on the barge decking. This accumulation also covered the hidden danger of slip and trip hazards. Additionally, management failed to enforce a life jacket policy.

Corrective Action: The barges at this mine have been under a Section 103(k) order since December 10, 2013, and have been the subject of an ongoing investigation. On March 21, 2014, the operator implemented a safe and effective means of having miners obtain draft readings and sampling on the barges. These new procedures incorporate a fall-arrest system to prevent a miner from falling into the river while obtaining draft readings and samples. These new safety measures on the barges include the following:

- The wearer's name should be written on or securely affixed to his/her Approved Personal Flotation Device (PFD),
- Promptly after a barge arrives alongside Dredge IV, the condition of the barge walkways shall be determined. Any hazardous conditions shall be properly abated by the responsible Competent Person before any employee uses the walkway for any reason other than hazard abatement.

Root Cause

- No activity by any employee on or along the barge outboard walkway is permitted unless the fall-arrest system described below is utilized.
 - Employees must wear and securely buckle an approved fall-restraint belt equipped with the appropriate lanyard secured to the belt before boarding a barge for this purpose.
 - A barge coaming clamp shall be affixed to the upper rim of the stern coaming, with the semi-circular back of the clamp positioned against the coaming rim. The clamp must be affixed sufficiently far from the outboard edge to cause the lanyard to be taut when the employee is in position to take the draft reading. The taut lanyard must prevent access to any point less than twelve inches from the outboard edge.
 - After the coaming clamp is affixed, the lanyard carabiner is to be snapped onto the coaming clamp. The employee then may take the outboard draft reading.
 - Correct location of the coaming clamp, securely affixed to the coaming rim, restrains the employee from getting too close to the outboard edge, but allows for safe access to obtain a barge draft reading from the outboard stern area of the barge.

Root Cause

- Upon completion of the task, the carabiner must be unsnapped from the coaming clamp. If another coaming clamp is available for use at the bow end of the barge, the clamp must be left affixed to the coaming rim until no further readings will be taken at the stern corner of the barge. If another coaming clamp is not available, the coaming clamp shall be removed and carried to the bow.
- The process shall be duplicated at the bow of the barge by affixing a coaming clamp to the rim of the bow coaming in a similar manner and attaching the lanyard.
- Access to the outboard walkways is to be accomplished by using the bow and stern decks of the barges.
- At no time will a miner travel the outboard walkway while it is attached to the dredge. This 'red zone' will be off-limits.
- All coaming clamps must be removed from the barge before the barge leaves the vicinity of the dredge.

Best Practices

- Task train all persons to recognize all potential hazardous conditions and ensure they understand safe job procedures for elimination of the hazards before beginning work.
- Always wear a life jacket where there is a danger of falling into the water.
- Remove snow and ice from work areas.
- Ensure safe access is provided where persons are required to work or travel. Maintain three points of contact.
- Install and use lifeline tie-off runs and fall protection.
- Provide communication devices and establish procedures requiring persons to alert coworkers when they are outside the dredge's handrails.