

MNM Fatal 2015-12

- Machinery
- July 10, 2015 (Ohio)
- Construction Sand and Gravel
- Superintendent
- 50 years old
- 26 years of experience

Overview

On July 10, 2015, William J. Roell, Superintendent, age 50, was killed while operating a dredge at this sand and gravel operation. Roell and another miner were attempting to dislodge the clamshell bucket from the bottom of a lake when the dredge capsized. The miner was injured when he was thrown from the dredge as it capsized, but was able to swim to shore. Divers recovered Roell from the motor control center (MCC) room in the submerged dredge eight days later.

The accident occurred due to management's failure to consult with the manufacturer or follow its recommended safe procedures when attempting to dislodge the dredge bucket from the lake bottom. As a result, the dredge was used beyond the design capacity intended by the manufacturer. In addition, mine management participated in the removal of the dredge's pontoon overload sensors, knew about its unfastened pontoon hatches and did not correct these conditions before continuing to operate the dredge. These modifications directly impacted the stability of the dredge and contributed to the cause of the accident. Finally, mine management failed to provide task training to miners in accordance with the manufacturer's recommended safe procedures for dislodging or recovering a dredge bucket.



Root Causes

- **Root Cause:** Management policies and controls were inadequate. Mine management participated in the removal of the dredge's pontoon overload sensors and knew about its unfastened hatches and did not correct these conditions before continuing to operate the dredge.
- **Corrective Action:** Management is working with Rohr representatives to possibly refurbish and use the dredge. If the dredge is salvageable or a replacement dredge is to be used, the mine operator will establish and implement written safe operating procedures to ensure that all of the dredge safety devices are in place and maintained according to the manufacturer's specifications at all times while the dredge is operating. The dredge operators and crews will be trained in these safe operating procedures.

Root Causes (cont.)

- **Root Cause:** Management policies and controls were inadequate. The dredge had been modified and used beyond the design capacity intended by the manufacturer. Mine management failed to consult with the manufacturer or follow its recommended safe procedures when attempting to dislodge the dredge bucket from the lake bottom.
- **Corrective Action:** If the dredge is salvageable or a replacement dredge is to be used, the mine operator will establish and implement written safe operating procedures to ensure that the manufacturer's recommended methods are used to dislodge or recover the dredge bucket from the lake bottom. The dredge operators and crews will be trained in these safe operating procedures.

Root Causes (cont.)

- **Root Cause:** Mine management failed to provide task training to miners in accordance with the manufacturer's recommended safe procedures for dislodging or recovering a dredge bucket.
- **Corrective Action:** If the dredge is salvageable or a replacement dredge is to be used, the mine operator will train the dredge operators and crews in the manufacturer's safe procedures for dislodging or recovering the dredge bucket from the lake bottom.

Best Practices

- Always wear a life jacket where there is a danger of falling into the water.
- Ensure that machinery components are blocked against hazardous stored energy prior to performing maintenance or repairs.
- 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.
- Examine and test all safety devices on a regular basis and ensure that they are operating properly.
- When non-routine tasks or problems occur, conduct a risk analysis before starting the task to ensure that all hazards are evaluated and eliminated.