

## Fire Suppression System Initiative



One of two identical rock trucks that recently burned. The fire suppression systems on the trucks failed.

On September 7, 2018, [a miner was burned when a fire occurred on the rock truck he was operating](#). At the time of the accident, the miner was hauling spoil material from the pit to the dump site. As he was positioning the truck at the dump site, a bulldozer operator saw a fire near the engine compartment and operator's cab. The bulldozer operator radioed the miner operating the truck. After stopping the truck, the miner evacuated but received burns as he traveled down the stairs which are beside the engine compartment. The miner was transported to a hospital and a burn center for treatment, but he died from his injuries five days after the accident.

During the investigation, MSHA checked the manually-activated fire suppression system. Based on statements made during the investigation, the fire suppression system did not function when activated. A properly functioning fire suppression system may have saved this miner's life.

About 2 weeks later, 2 additional fires occurred. A fire occurred at the same mine on another rock truck of the same make and model. No one was injured, but again, based on statements, the manually-activated fire suppression system did not function when activated.

A non-injury fire also occurred on a hydraulic shovel. The automatic fire suppression system activated but it did not extinguish the fire.

It is the responsibility of mine operators to ensure that adequate and effective fire protection equipment, which includes fire suppression systems, is provided. Also, it's the responsibility of mine operators and miners to ensure that fire

hazards on surface vehicles are adequately eliminated and/or mitigated.

MSHA personnel will look at fire suppression systems on these types of surface mining vehicles. They will check critical portions of fire suppression systems and will discuss key requirements of proper installation and maintenance of these systems. Fully compliant systems adhere to the requirements in National Fire Protection Association (NFPA) 17 and 17A (Standards for Dry and Wet Chemical Extinguishing Systems), the system manufacturer's recommendations, as well as 30 CFR.

MSHA wants operators to contact manufacturers when necessary and check their fire suppression systems to ensure they will operate in case of a fire.

If a fire does ignite, it is imperative that miners have a means to dismount equipment quickly and safely. MSHA encourages manufacturers of surface vehicles, as well as mine operators, to develop and install evacuation methods that allow a miner to stay away from areas of the vehicle where, historically, fires have started. Such areas include the engine and battery compartments and hydraulic hoses.

MSHA is preparing a PowerPoint presentation and checklist to help the mining community evaluate fire suppression systems. It will be posted on our website. Thorough pre-operational examinations and required maintenance are critical to finding and removing fire hazards related to combustible fluids, brake systems, electrical cables and connections, and other materials.

Adequate task training must be performed so equipment operators and mechanics will be able to maintain equipment, respond correctly to alarms, use fire suppression systems properly, and safely dismount equipment in an emergency. Mine operators should provide refresher training as needed.

[Fire Suppression System Initiative Presentation](#)

[Fire Suppression System Initiative Checklist](#)