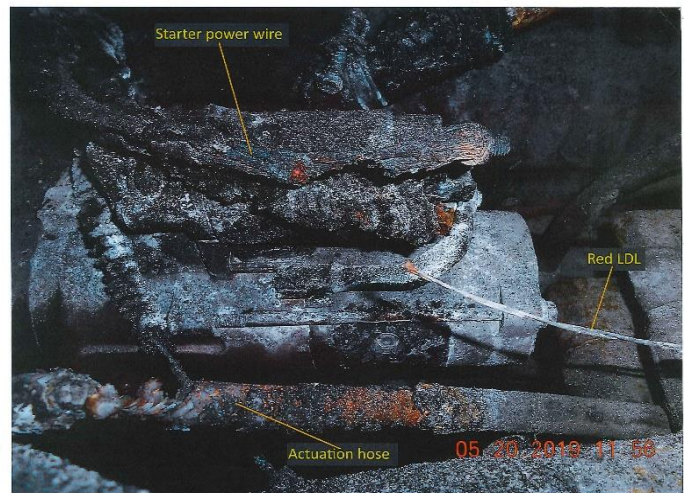


# FIRE SAFETY ALERT

## UNDERGROUND DIESEL EQUIPMENT

On May 14, 2019, a non-injury underground equipment fire occurred on a diesel-powered water car. The mine operator converted a rubber-tired personnel carrier into a water transport vehicle that was used to apply water on the underground travelways. The fire occurred while the water car was working underground and the automatic and manually activated fire suppression systems did not function properly to suppress the fire. The actuation hose was damaged as a result of routing through the engine compartment. After all available fire extinguishers were used unsuccessfully, the fire was eventually extinguished using a fire hose from the water system near the conveyor belt drive.



MSHA urges all mine operators and miners to be aware of fire hazards involving underground mine equipment and to follow the safety practices listed below:

### BEST PRACTICES

- Conduct thorough pre-operational exams and perform required maintenance. Identify and correct obvious fire hazards such as accumulations of combustible fluids or grease, leaking hydraulic and coolant hoses or fuel supply lines, cracked or blistered hydraulic and coolant hoses, damaged hydraulic hose flanges and connections at the hydraulic pump.
- Install audible and visible alarms in the cab to alert equipment operators to potential fires.
- Ensure that Manual and Automatic Fire Suppression Systems are properly designed, installed and maintained. Follow NFPA 17 and 17A and the manufacturer's recommendations and include in-depth examination and maintenance.
- Route actuation and expellant gas hoses away from the engine compartment and heat generated sources of fire, electrical wires and moving parts or ensure they are sleeved with a heat resistant fire jacket.
- Ensure that actuation hoses mounted to removable covers are secured in such a manner to prevent damage from wear and potential contact with heat sources.
- Ensure that the automatic fire suppression system's linear detection wires are properly installed and routed away from heat sources and protected from mechanical damage.
- Inspect nozzles for blockage or presence of chemical residue and ensure that all nozzles have protective caps.
- Adequately train miners in proper inspection and maintenance of mining equipment and machinery, proper response to alarms or sensors and proper operation, maintenance and inspection of fire suppression systems.