Mine Safety Agency Issues Alert on Wire and Hoisting Ropes

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Saying new testing on wire and hoisting ropes showed they “no longer met MSHA’s in-service standards,” despite previously passing tests and inspections, the Mine Safety and Health Administration has issued a new safety alert on wire and hoisting ropes.

MSHA said that, although it had previously conducted wire rope nondestructive testing (NDT) and inspections on hoisting ropes, the new results triggered the safety alert. The subsequent hoisting rope testing was performed despite earlier testing that showed this equipment to be sufficient. The earlier testing did not implement NDT.

The federal agency said it is recommending that mine operators use NDT when conducting required six-month inspections of wire ropes.

It explained that NDT equipment uses magnetic or ultrasound waves to view the inner workings of the rope without cutting into it, much like a CT scan or MRI.

MSHA noted, “Loss of metallic area, flaws (broken wires and corrosion) and strength loss can be evaluated through NDT for the entire active length of a hoist rope.”

The agency outlined best practices for mine operators to maintain wire ropes, including conducting NDT and examinations. The best practices include:

- Conduct wire rope NDT at least once every six months to identify deterioration, including wear, corrosion, distortion, broken wires, and loss of metallic area.
- Review the wire rope NDT results to identify deteriorated portions of the wire rope to visually examine more frequently.
- Examine daily any part of the wire rope where a reduction of rope strength is present.
- Conduct wire rope examinations during daylight hours.
- Perform visual examinations at a rope speed no more than 50 fpm.
- Clean and remove old lubricant to conduct a thorough visual wire rope examination, particularly in high-stress sections.
- Follow the rope manufacturer's guidance for proper lubrication. Use pressure lubricators to maintain proper lubrication at the core level.
- Correct mining conditions that cause corrosion to maximize hoist rope service life.
- Install and maintain wear blocks and rollers to minimize rope wear.

Safety alerts such as this usually coincide with emphasis on the associated regulations during inspections.

Jackson Lewis attorneys are available to help clients understand and implement federal safety recommendations.
The National Operations Center serves as the firm’s central administration hub and houses the firm’s Facilities, Finance, Human Resources and Technology departments.