



MSHA's Accident Prevention Program Safety Idea

Safety and
Health are
Values!

"Know Your Ropes" (A Sequel to "Wire Rope Safety")



A wire rope may look good on the outside but could be hiding corrosion on the inside. Internal corrosion of a wire rope is a dangerous condition. It diminishes the rope strength and leads to premature failure. Mine operators often use rock salt and calcium chloride to remove ice buildup from the slope. When these salts dissolve, the brine created can penetrate the rope and accelerate corrosion.

Consider the following to minimize wire rope corrosion and increase the life of your ropes:

- Use an ice melter such as Calcium Magnesium Acetate (CMA) or Sodium Acetate, instead of rock salt or calcium chloride, to minimize the corrosive impact of deicing.
- Apply a wire rope lubricant with a corrosion inhibitor to protect your slope rope from environmental attack.
- Drain water accumulations in the slope so the rope is not dragged through it.
- Enhance your wire rope inspections with electromagnetic nondestructive testing (NDT). NDT examines the entire rope whereas the caliper method only tests specific points.

[Also see: [MSHA Program Information Bulletin No. P00-11](#)]

Rusty Ropes can be the PITS so... "Know Your Ropes!"

If you have a tip you would like to pass on, you can email it to
zzMSHA-MinersTips@dol.gov.

If your tip is selected, you will receive credit in this space.

Issued: 04/28/2006

Tag # AP2006-S91088