

2014-11-20

WMEA Tucson, AZ Group 4

6 People 3 Miners & 3 Vendors

Group Leader

Monte Wilke Westmoreland Coal; Western Energy Co... Colstrip. Montana, USA

A.J. Kuntz Falkirk Mining
Justin Sandlin WES, Western Electrical Services Inc.
Shayne Kapptie Trapper Mine
Craig V. Fredrich Caterpillar Global Mining
Brian Clark Mining Electrical Services

SAFETY ITEMS:

Arc Flash seemed to be the main topic for the day:

A.J. Kuntz Arc Flash Demo Trailer

Remote Switches-

Time Delay Close...

Craig Fredrich OCB in Australia.... A rope was used to trip the OCB... OCB blew up when opened... The blast moved a concrete block wall, but the only injury was one employee running over the other employee when the blast occurred.... No serious injuries....

Shayne Kapptie 7200 volt Cable damage from being struck by rock... plug also damaged... OCB oil everywhere... could not determine why the failure occurred to the extent it did....

Brian Clark 13kV breaker fed from bottom, not to the top as normal... Electricians discharged the energized side by mistake... PPE was worn and no serious injuries were received from the arcing.

Squirrel caused an outage to the mine.. an arrester failed as well...

NEW INNOVATIONS & TECHNOLOGY:

Craig Fredrich Automation: Fully automated and remote operating of Dozers, Drills etc.

Communications between machines....

Trucks to shovel...

PROBLEMS & SOLUTIONS:

Monte Wilke **Problem:** Parallel Ground Path that does not allow a ground monitor to detect an open grounding conductor (First discovered at Rosebud Mine in 1999). Violated 77.803 & 77.903.

Our solution: MSHA has approved our proposal to Utilize Parallel Ground Path Isolators & Insulation to isolate boxes from earth to force the monitor sensing current through the cable ground path back to the monitor. We are currently making the modifications as the parts needed arrived

All: Problem: OBMA and his administration... War On Coal... No Quick Solution

All: Problem: How to get more miners to attend WMEA Conferences...

Solutions: Offer an MSHA refresher in addition to the meeting...
(May have to add a day to the meeting)...
More training topics-. Perhaps classes

Monte Wilke **Problem:** Unexplained ground fault trips in switchgear feeding draglines from a pole line... could not find ground faults on any machine. Neutral Grounding Resistor grounding did not indicate a ground fault (No voltage drop across neutral grounding resistor...) remote zero sequence ground fault detection had to be set up to 1.6 amps from normal .5 amp on a 4 amp neutral grounding resistor system to prevent nuisance ground fault tripping to draglines.

Solution: Utility Substation was completely de-energized while changing both 12 MVA transformer voltage taps. The ground currents at the substation re.-note ground well were monitored. With the entire substation de-energized, 0.6 amp AC was recorded at both the ground well conductors. A jumper was noticed connecting the neutral of a circuit from xfmr 1 and the neutral from xfmr 2. The current in that jumper was measured and found to be 1.2 amps ac. When the jumper was removed between the two grounds, the currents at the ground well dropped from 0.6 amp to 0.1 amp. The current in the overhead ground conductor was induced from the overhead US kV transmission line.- and as long as there was a ground loop, the current was 1.2 amps.. Opening the ground loop reduced the current to 0.1 amp. I

FUTURE MEETING TOPICS: j

Monte Wilke Invite MSHA to address the group while in Denver....

All: Classes to draw more miners to attend....

FUTURE MEETING SITES:

Las Vegas....
Salt Lake City
Reno Nevada

Need more Metal/Non-Metal mines to attend... Locations to attract them...