

WRTT Conference Call

August 17th, 2009

Attendees:

Marcello Calle – WY
Bill Dodd – ND
Jeff Fleischman – OSM, Casper Field Office
Lou Hamm – OSM, TIPS
Heather Luinstra – Montana AML
Vern Maldonado – OSM, Albuquerque Area Office
Marsha Murdock – Wyoming (Lander)
Elizabeth Shaeffer – OSM, Denver Field Div.
John Sieving – OSM, Casper Field Office
James Smith – New Mexico

Discussion Topic: Coal Fires – Issues, Experiences, and Solutions

Both mine-fires and outcrop-fires were discussed, including specific case examples.

Marsha Murdock coal-fire expert from Wyoming's Lander office spoke of several examples including cases that culminated in severe and dangerous subsidence, and coal waste fires.

Marsha discussed issues with delineating the fire extent and depth.

She emphasized that Wyoming has found grout curtains to be effective. Additional comments: most of our grout use has actually been sealing cracks to help damp down fires, rather than installation of extensive curtains. We did, however, use the grout curtain to make a safe area for a road to pass across an underground mine fire area.

One thing our discussion did not get into was what the actual goal in a fire abatement project is. It may be that you are only trying to slow it down, and control it, smother it and choke it down, rather than actually extinguish it. From a resource conservation view, trying to put it out may be a nice goal, but the scale of what is needed is frequently cost-prohibitive. To get at some of Wyoming's fires by trenching around them to isolate them would take an operation larger than our largest operating mines, and would require a staggering budget. If you are really trying to put it out, the job can be huge unless it is a small, contained outcrop fire. Actually digging into a mine fire is ill-advised because when you add oxygen in large amounts you go from a "cool", smoldering fire to an outright conflagration almost immediately. The larger the seam, usually the larger are the drifts and haulage ways. Large rooms are particularly dangerous to open up. In most cases these underground mines are too deep to reach from the surface. In the dry conditions of the west, too much fire front open at one time can be disastrous.

Heather Luinstra discussed seven coal fires in Montana; some include BLM land under study as proposed wilderness area. One of her issues has been the difficulty in obtaining good temperature data.

Heather has been in contact with Duane Matt about using the TIPS FLIR thermal camera for delineating fire areas.

Bill Dodd discussed coal outcrop fires and coal waste fires in North Dakota, some of which have led to prairie fires.

Bill discussed North Dakota's success with the technique of digging the fire material out, trenching around the fire area and backfilling with a mixture of the fire material mixed with clay.

North Dakota has used the TIPS FLIR thermal camera with great success, including from distances of up to one-quarter mile to delineate fire areas.

Bill also emphasized the value of a digital infrared thermometer, which can spot-check surface temperatures up to 100-feet away.

Vern Maldonado mentioned fire projects in Indian lands including the Blue Point fire covering 4 to 5 acres on Hopi land, and the Black Mesa mine that the Navajos are dealing with.

Vern emphasized that coal-outcrop monies appropriated by Congress never seem to be adequate to successfully mitigate the outcrop fires that occur each year. Bill Dodd offered an example in North Dakota where Qwest paid for mitigation to save a fiber-optic cable line when federal monies were not available to do the job immediately.

Points of Emphasis:

Historic Underground Mine Maps – To research the availability of historic underground mine maps, contact Bob McKenzie regarding OSM's Underground Mine Map Repository in Pittsburgh, PA; at 412-937-2144, or rmckenzie@osmre.gov.

Thermal Camera – To schedule use of the TIPS Thermal Camera, contact Duane Matt at 303-293-5072, or dmatt@osmre.gov.

Don't use water – Use a grout curtain, or excavate the burning material. To be effective with water requires a nearly endless supply.

AML Fires Class – NTP's AML Design Workshop on Coal Fires is a "must attend." All recommend this class very highly.

Infrared Thermometer – Get one! They're mighty handy for documenting coal fires.

Expert Consultation – Contact Steve Renner, Colorado, 970-241-0336
Dave Philbin, OSM, Wilkes Barre, PA, 570-830-1414
Bruce Stover, Colorado, 303-866-3567 x 8146

Next Call: September 21, 2009 – Title V subjects.

We will discuss a single high-priority topic for the 2010 Applied Science Cooperative Agreement solicitation.

Thanks to all! This was a GREAT session.