



Northern Region Coal Seam Fires Safety Alert

In the past few years coal seam fires have become an issue and hazard for the wildland fire management. Coal seam fires burn throughout the world. Coal fires are as ancient and as widely distributed as coal itself. People have reported fires in coal beds close to the earth's surface for thousands of years—in fact, Australia's Burning Mountain, once thought to be a volcano, sits atop a coal seam that has been on fire for some six millennia. These fires can be ignited by human activities or naturally by lightning strikes, wildfires, and spontaneous combustion. Coal fires can be a serious problem because of hazards to health and risk the safety of personal from toxic fumes such as carbon monoxide, sulfur dioxide, hydrogen sulfide and methane.

Wildland firefighters are not equipped or trained for coal seam fires and should not attempt to extinguish such fires with hand tools and engines. Report the location of a coal seam to ICP or a supervisor.

If lives or vital resources are threatened, suppression on coal seam fires should be contracted out to teams with a background in this field. Putting water on coal seam fires is useless. Mitigation crews will need to excavate the burning coal seam spread the hot material into a "quench" pit and mix it with soil and water to cool. The area can be reclaimed by backfilling the seam and re-vegetating the disturbed area.

Some signs of a coal seam fire:

- Rotten egg smell (hydrogen sulfide gas), smoking white ash, continuous or non-continuous lines of what appears to be smoldering black rock (coal), flame may or may not be visible. Will not go out.
- Avoid low lying terrain in known coal seam fire areas – ravines, gully's, and draws especially early in the morning when air temps are cool. Gas tends to sink when air is cool and will accumulate in low lying areas.

DONT:

- Do not depend on sense of smell to detect coal seam fires. At high concentrations the sense of smell will be almost immediately overwhelmed or become numb. At lower levels the sense of smell will slowly deteriorate as levels build in the blood stream.
- Do not attempt suppression until qualified personal and equipment are on the scene.
- Do not attempt suppression of any kind if it appears the coal seam may be burning in or around other mining waste or farming waste i.e.: animal fecal material or animal carcasses. The combination of materials will likely create other hazardous chemical reactions.
- Do not stand down wind of coal smoke under any conditions especially during suppression operations.

If individuals are exposed to coal ash, smoke, or vapor, shower/wash as soon as possible. Have the individuals exposed, trade in their PPE for fresh PPE. Individually bag PPE that has been contaminated

Have an Assigned Resource Advisor on units where there may be the likelihood of coal seams, and active or abandoned coal mine operations.