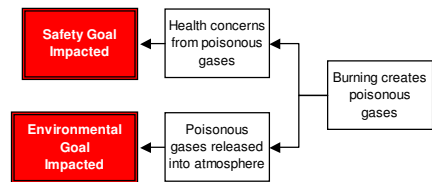


**Underground Mine Fire  
Centralia, Pennsylvania  
1962-present**

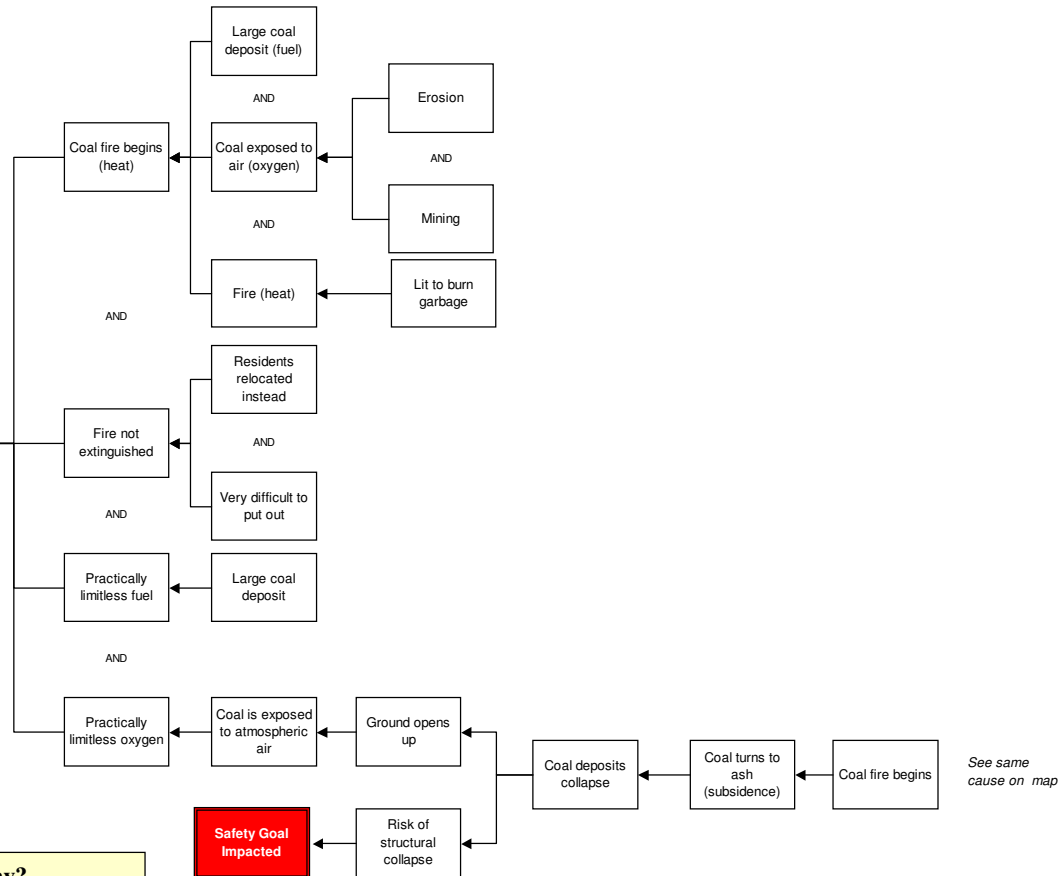
Centralia, Pennsylvania is a town on fire . . . literally. Since a fire was lit to burn garbage above an old mine entrance in 1962, the fire has spread to bored out coal tunnels that spread out underneath the town. We can visually lay out what is happening in Centralia, which has been condemned and is now populated by only a handful of loyal residents, with a cause map. A thorough root cause analysis built as a Cause Map can capture all of the causes in a simple, intuitive format that fits on one page.

Centralia has health concerns from poisonous gases released from burning. These gases are also an environmental concern. These gases are released because the fire continues to burn. What does every fire need? Heat, fuel, and oxygen. Well, the heat is provided by the fire that was lit back in 1962. The supply of fuel (coal) is nearly endless, estimated to last for 250 years. And there is a near endless supply of oxygen, as the coal is exposed to air. This occurs as the ground opens up (causing the risk of structural collapse) when the coal turns to ash, which lacks the strength to hold the ground up. The coal turns to ash as it burns.



Rather than put the fire out, which would be exceedingly difficult and very expensive, the residents of Centralia were relocated. Amazingly, towns like Centralia, with constant fires burning underneath are not uncommon. Pennsylvania itself has dozens of these fires. China and India have even more, thanks to their need for energy for rapidly growing nations and their lack of regulation.

There's not much to be done with Centralia, except wait. And the only way to prevent further Centralias are with very careful mining regulations and upkeep. Unless the government changes its mind, Centralia will continue to burn, until the coal finally runs out.



**Cause Map  
Detail Level**



Copyright ThinkReliability 2008

