Mine Blast Releases Lethal Gas



A miner was killed and a co-worker received serious lung damage when a blasting operation released deadly sulfur dioxide (SO2).

The workers prepared the explosives and then set off the blast from a refuge station. They did not realize the rock contained sulfides. Within minutes, the gas began seeping into the refuge station through openings around the door. They decided to run to a nearby shaft station in an effort to reach breathable air. One worker collapsed and died at the shaft station. The other ran back to the refuge station and stayed there until he was rescued. He suffered permanent injury to his lungs.

Lack of information was the primary cause of this incident, according to investigators. They said underground workers and supervisors were not well-enough informed about the mineral content of the rock to be blasted. Listed as a secondary cause was improper procedure in seeking emergency refuge. Investigators recommended better communications between engineering and geology workers and underground workers about how to identify rock types. They also recommended training in emergency refuge procedures.

Gases produced by blasting can injure or kill. Mine workers carrying out blasting must be aware of ventilation systems and where the blast gases will go. Ventilation systems must be monitored regularly. Communication procedures must be followed to ensure the safety of all workers including technicians and contractors. Workers must be trained in the hazards of exposure to blast gases such as nitrogen oxides and sulfur dioxide.

While the hazards in mining may be different from those in your workplace, the recommendations are worth noting. You have to learn about any hazard you might be exposed to in using, handling, storing, disposing of or transporting any equipment or substance. And you need to know what to do to save yourself in an emergency.