

Accident left Superior miner determined to improve safety

Superior resident Frank Florez can tell you a lot about working in the copper mines. He can explain the importance of backfilling a stope, recall what it's like to work in a smelter, and discuss the ups and downs of managing a mine.

But ask him about his most memorable mining experience, and Florez turns deadly serious. On Dec. 3, 1961, a fire broke out inside the Magma Copper Mine, ultimately shutting down production for several months. While, thankfully, no one was killed, several men were injured, including Florez, who was a demolition supervisor at the time.

Florez, who was on the 3,000 level of the mine at around 9:30 a.m. checking on his motor crews, was the first to spot the nearly transparent, blue-gray haze as it floated through the Number Six shaft. "The odor alerted me that this was something different than a dust cloud; it smelled like burning insulation or burning wax," Florez remembers.

After tracing the haze back as far as he could go, he called the mine's general manager to report a possible fire. Florez was taken aback when the response he received showed more skepticism than alarm. "Apparently he didn't believe me, so it was an hour and a half or two hours before the safety department came," Florez says.

He decided not to wait for the safety inspector and began notifying all the crews under his supervision to vacate the mine. By the time the inspector arrived, the transparent, blue-tinted haze had turned into a thick layer of smoke.

"It was around noon that they finally decided to turn the stench on," says Florez, referring to an odor that is pumped rapidly through the ventilation systems to alert those working underground of a problem and signaling them to get out as soon as possible.

Frank remained underground with a handful of men to try to prevent the fire from consuming more oxygen and filling up the compartments with deadly carbon monoxide. Their efforts proved fruitless, so Florez and the others decided it was time for them to get out as well.

The men were riding up out of the shaft on a sinking crosshead, which is a platform with rope going up center for the men to hold on to. The crosshead hit a loose guide joint, spilling all five men into the long shaft below them. Florez suffered a fractured pelvis and spent three months in the hospital in Superior.

Florez could have been angry about the wasted two hours and the skepticism of his superiors. Instead, he was grateful that no one—including himself—was killed.

"The Magma mine was a complicated shaft system and it took a half-hour to 45 minutes to get down to your working place," he points out. "It was a mile between the Number Six and the Number Three shaft, where you could get out. We were lucky that we didn't kill a lot of miners."

Nonetheless, the delay in getting control of the fire cost the mine company dearly. Production was shut down completely for about two months, with only limited production possible for nearly a year.

"They had to corral the fire by sealing off a lot of the working areas," Florez says. "It left the Magma mine in very poor shape."

Escaping a nearly deadly mining catastrophe by the skin of their teeth might have left most men leery about returning to the mines. But Florez not only was determined to return, he had some definite ideas about things that could, and should, be improved.

“It was one of the most harrowing incidents in my career,” he admits. “But I made a personal decision that if I ever was a manager of this mine, I would change the system of how we controlled getting out of the mine. If you couldn’t reach the mine foreman or mine supervisor, you would make the decision to call the compressor house and have them turn the stench on in order to get the people out. Even an employee, and not just a supervisor, could do that.”

True to his promise, when Florez was promoted to a position high enough, he implemented the new emergency notification procedure. Florez initiated other safety improvements as well. “In some of the working places, sometimes the dust was so high in sulfur that the blasting would ignite the dust and cause a flash fire, charring the surface of many of the support timbers. To eliminate the flash fires, foggers were placed in the mines and activated just prior to and directly after a demolition blast. The additional moisture in the air prevented the dust from igniting.

“We also put monoxide indicators up at the compressor house where there was always an employee,” Florez adds. “After each blast, the monoxide would peak, and then drop down. If it didn’t drop down, the compressor operator would notify my department and we’d try to trace out where the monoxide was coming from. We had a program of safety there that would give us ample warning because most of these fires would be slow starting.”

Florez eventually reached the rank of mine superintendent at Magma, retiring from the mine in 1992. He recalls the heyday of the mine, when it employed 1,400 men from Superior as well as Mesa and Tempe. Florez was born in Hayden, Ariz., but has spent the last 50 years of his life in Superior and has many fond memories of taking the family to dinner at the Triple X restaurant on paydays, of having to drive to Mesa to find a department store, and of tossing back a few rounds with his friends at one of Superior’s bustling local bars. “There were more than a half-dozen bars, and they were all making a good living,” he says with a laugh.

Florez also remembers with sadness when the mine was closed down from 1982 to 1986 when the price of copper hit rock bottom.

“It came all of a sudden; we gave them only two weeks notice,” Florez says. “It was a very serious economic blow to the town, as well as the surrounding towns. In 1982, the recession was quite severe and you just couldn’t get a decent job to support your family anyplace. There were a lot of miners who had to leave town, and there was a lot of family hardship.”

Frank stayed on for a time as caretaker of the mine, and tried to stay busy—if not physically, then mentally. “Even after we closed the mine, I never lost interest in improving operations. I thought on it every day. I wasn’t just sitting there with my feet up on the desk reading the paper,” he says.

While many men from that era might have raised their children on war stories, Florez, who was in the Navy from 1946 to 1948 but enlisted after World War II was over and never left American soil, raised his six children on stories about working in the mines.

The end result of those colorful tales was that four of his six children—sons Frank Jr., Gene and David, and daughter Gail—worked at the Magma mine when it was reopened from 1986 until 1992. Only one, David, returned to the mine when it reopened briefly, but then left the industry for good after Magma closed once again in 1996. Frank Jr. also spent some time in the San Manuel mine, located northeast of Tucson. His other two children—daughters Jackie and Diane—never fell under the spell of blasting into the earth looking for that buried copper treasure.

If he could pass along one piece of advice to a company involved in a new a mining venture, it would be to listen to those who have “been there and done that.”

“It’s the men at the firing lines, day in and day out, who can have ideas about how to improve things,” he points out. “Sometimes outsiders come in and they think they’re smarter, they won’t listen to experience. But there are a lot of things that an old-timer like me can still do to help, because some of the things I thought out and engineered and laid out still apply today.”

Florez hopes that, in the end, he will be remembered as a firm but fair mine manager, someone who cared about the safety as well as the professional development of his men, and someone who continually worked to make a good mine even better.