W.Va. Mine Safety Lab Creates Disasters to Train

VICKI SMITH, Associated Press

JULIAN, W.Va. (AP) — Orange flames lick at the roof of the coal mine, heat building and visibility dropping as smoke begins to fill the underground passageway. Then, with the push of a few buttons on a hand-held remote, the flames flicker out, the smoke dissipates and the lights come on. The roar of fire is replaced by the trickle of nearby water.

This is the magic of the Running Right Leadership Academy, a $23 million training complex dedicated to teaching miners how to avoid injury and death in any disaster, and in one of the most dangerous work environments. Alpha Natural Resources calls it the only facility of its kind in the world, a place where crises can be created but controlled, giving miners realistic preparation for the day they hope will never come.

Born of a landmark $210 million settlement with the U.S. Department of Justice over the Upper Big Branch mine disaster, the academy officially opens Thursday. Virginia-based Alpha gave The Associated Press exclusive access as it ramped up for opening day.

The goal is to prepare every employee for a crisis "so they're not experiencing it for the very first time when it happens," says Cheryl Stapleton, Alpha's director of learning and development.

"You need to know how to operate safely, but productively and efficiently," she says. "In today's economic challenges, we think that's what's going to be necessary to really drive this business forward."

The center has virtual simulators to learn welding and how to run the continuous mining machine or drive the oversized dump trucks at surface mines. From nearby computer monitors and keyboards, instructors throw out hazards the operators will eventually encounter, from rain, fog and mud to engine fires and tire blowouts.

To help miners feel comfortable and concentrate on learning, Alpha has used things from the underground environment in the decor. Rusty roof bolting plates are anchored into the ceiling of the lobby, where a dryer basket from a coal preparation plant is topped with glass for a coffee table and industrial plugs have been fashioned into chandeliers.

The floors mimic worn wood so no one worries about scuffing them. Classrooms are named after coal seams and identified with the control panels from equipment. Mine examiners scrawl the date, time and their initials on a long charcoal-gray wall when they finish class — the same way they sign their inspection books.

But the crown jewel is a 96,000-square-foot simulation coal mine, which is slightly smaller than an average Wal-Mart. Instructors can create fire, floods, roof falls, worker injuries and more. Its walls are metal and it sits aboveground, but it mimics a real mine — one with built-in floor drains and fans, and surveillance cameras so people can watch from a classroom.

For now, the 10-acre complex in southern West Virginia is open only to Alpha employees — as many as 200 a day by year's end. But in time, other companies will use the facility federal prosecutors say assembles the world's best technology in one place.

"Until you see it," said U.S. Attorney Booth Goodwin, "you really can't grasp how important it is."

Rescue teams have long conducted tabletop exercises, practiced in mock mines the size of two classrooms or competed in open fields using maps and string to represent tunnels. Now, they can rehearse in a lab with eight entries and seven crosscuts, tunnels that mirror a working mine down to the 20- by 20-foot "pillars" holding up the roof.

"What's going to take place here is, quite honestly, the best mine-rescue practice you could be involved in," said Dave Green, captain of Alpha's Coal River East mine-rescue team, who will use the facility to practice. "It's very exciting."

Keith Hainer, senior vice president of Alpha's operations performance group, said the scenarios Alpha can create will be limited only by instructors' imaginations.

"I am very confident it will save lives and reduce accidents and injuries," he said.

But the academy is more than a training center. It's good business. Fewer violations and accidents mean fewer interruptions to production and a fatter bottom line. It's also a critical component of changing a culture.

"It's a tangible, outward sign of the commitment we think we're making," said Kevin Crutchfield, chief executive officer of the nation's third-largest coal supplier and the company that bought what was long considered the industry bad boy, the former Massey Energy Co.

Massey owned Upper Big Branch when a massive explosion ripped through its underground corridors in 2010, killing 29 men in the worst U.S. coal mining disaster in 40 years.

The blast was preventable: Four investigations found that worn and broken cutting equipment created a spark that ignited accumulations of coal dust and methane gas. Broken and clogged water sprayers allowed what should have been a minor flare-up to become an inferno.

The federal Mine Safety and Health Administration said the root cause was Massey's "systematic, intentional and aggressive efforts" to conceal life-threatening

problems. Managers even maintained two sets of pre-shift inspection books — an accurate one for themselves, and a sanitized one for regulators.

MSHA said miners who dared question hazards were threatened with firing.

Crutchfield says Alpha has invested tens of thousands of hours in replacing a culture of fear with one of respect. Since the Massey buyout in June 2011, employees have turned in more than 1 million anonymous cards to report concerns.

"When they see you listen to that voice, you begin to see a culture where the fear is erased," he said. "It's about trust. We want people to believe and know they are empowered to make the call, and if it's unsafe, they'll do that.

"It's easy to say that," Crutchfield said, "and it's another thing to actually build a culture."

MSHA chief Joe Main says the numbers tell the story: From 2007 through 2009, MSHA had 14 Massey mines listed as potential pattern violators, a label assigned to mines singled out for higher scrutiny because of chronic safety problems.

In 2010, four Massey mines made the list. By 2011, only one Massey operation was on the list, and last year, none met the criteria.

Alpha runs 55 mines and 18 preparation plants in West Virginia, and about 45 mines and seven loadout facilities in Virginia, Kentucky, Pennsylvania and Wyoming. It still has problems, Main said, with three fatalities since the Massey takeover.

However, "I think there's a cultural shift that we're beginning to see take shape with those numbers," he said. "There's a lot of trends that are showing that mine safety is going in the right direction, and Alpha seems to be a part of that."

In a real mine, instructors can't knowingly create a hazard to test their workers' ability to recognize and fix it. Here, they can create a roof fall, tear down a ventilation curtain or place a dummy under a shuttle car.

They will, Stapleton says, push miners to their emotional and physical limits — but flip on the lights if someone panics.

The continuing criminal probe of Upper Big Branch has put two former mine officials behind bars, and a third awaits sentencing. Prosecutors appear to be moving up the ladder toward former CEO Don Blankenship but won't comment on either their targets or timeline.

The settlement spared Alpha criminal prosecution and wiped out 370 violations related to the disaster but kept individuals on the hook. Alpha agreed to pay $35 million in fines and invest $80 million in safety training and the deployment of state-of-the-art safety equipment in its mines.

"We wanted to not just have the company write a check to the government and go

on down the road," said Assistant U.S. Attorney Steve Ruby, "but to use it as a constructive opportunity to really innovate in the area of mine safety."

The mine lab, he said, is "exactly the sort of thing we were hoping to accomplish."

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