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"Is the US Falling Behind on Mine Safety?"

By Chris Lo

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April's fatal explosion at the Upper Big Branch Mine is a tragic illustration that major mining incidents are still fairly commonplace in the US. Chris Lo asks mine safety consultant Jack Spadaro whether the US mining industry has learned from the mistakes of the past.



Jack Spadaro works as an independent mine safety and environmental consultant and regularly serves as an expert witness in mine safety cases.

photo of Jack courtesy Vivian Stockman

The link between government and industry has played a central role in modern economics. For the most part, this relationship strikes a healthy balance; the State has a hand in regulating and encouraging high standards and industry serves as an economic engine-room, driving market growth and employing millions of people.

It is a fragile partnership, however, and when the balance of power becomes warped, the consequences can be catastrophic.

With the 2006 Sago Mine disaster, which killed 12 miners, suffocated after being trapped following an explosion, and the recent blast which killed 29 men at Massey Energy's Upper Big Branch Mine, experts have raised concern about the lack of adequate safety equipment and planning, both to prevent accidents from occurring and to launch effective rescues in the event of an emergency.

Safety technology and legislation

The United Mine Workers of America (UMWA) released a comprehensive report on the Sago disaster, detailing a host of overlooked safety features that, if implemented, could have lessened the impact of the explosion or given the trapped miners a much better chance of rescue.

High on the list of priorities were more robust bulkhead seals, the use of tracking technologies and enhanced two-way communications systems to aid rescue efforts, effective ventilation plans and self-contained self-rescue units.

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After Sago, the US Government passed the 2006 MINER Act. The Act set out regulations for mine health and safety equipment as well as emergency response procedures. It was the most significant mine safety legislation since 1977's Mine Safety and Health Act, and was hailed by the Mine Safety and Health Administration (MSHA) as a step towards safer mines.

But legislation alone is not enough, as April's Massey explosion and the number of health and safety fines being levied against US mines after the disaster illustrate.

Jack Spadaro is a mine safety investigator with over 40 years of experience. Now working as a safety consultant, Spadaro is the former director of the National Mine Health and Safety Academy. He believes that although technology and legislation has advanced to provide a theoretical framework for safety, enforcement is the key to making that framework effective.

Spadaro notes that safety progress was made during President Bill Clinton's government in the 1990s. "There was an aggressive enforcement programme led by a man named Davitt McAteer - he was the head of the MSHA appointed by Clinton. There were no mine disasters with multiple fatalities during those years, and there was a steady reduction in the numbers of fatalities and lost-time accidents in the mines," he says.



The 1968 Farmington Mine disaster provided the impetus for the 1969 Coal Act, which legislated on worker safety.

A shift in safety policy

But the arrival of the Bush administration in 2001 led to a marked shift in mine safety policy and the direction of the MSHA. It was a shift for the worse in Spadaro's view, and no one was better placed to see its immediate effects. He was investigating the Martin County coal slurry disaster when President Bush had his inauguration in January 2001. The investigation was shut down the same day.

It was an early indication of a new policy for the MSHA, one that emphasised an advisory 'compliance assistance' role over strict regulation enforcement. In September 2001 the US mining industry suffered its first major mining disaster since 1992, at the Jim Walter Resources No 5 Mine in Brookwood, Alabama, in which 13 men were killed.

Spadaro lays the blame for the disaster directly at the doorstep of the re-vamped MSHA and its new director Dave Lauriski. "That was caused by a reduction in enforcement effort by the MSHA," he says. "Even the internal investigation by the MSHA found that the organisation's district manager had ignored serious problems at the Jim Walter Resources Mine and had allowed unsafe conditions to exist much longer than they should have."

And according to Spadaro and the UMWA, the Sago disaster hardly came out of the blue. Spadaro points to the mine's history of safety violations, many regarding substandard ventilation, and the MSHA's unwillingness to take major action against owner International Coal Group. "In 2005, MSHA local inspectors had been issuing citation after citation. One that I remember vividly just months before the explosion was by an inspector who went into the mine and was taking air measurements using an anemometer, and the anemometer did not turn at all," he laughs incredulously. "There was no air flow."

After countless disagreements with the new direction of US mining regulatory policy, Spadaro finally made his concerns known to the public. His open statements about an alleged governmental whitewash of the Martin County spill led to his dismissal from the National Mine Health and Safety Academy in 2004. He now works as an independent consultant and expert witness on mine safety and environmental issues.



Jack Spadaro was fired from the National Mine Health and Safety Academy after making allegations in the aftermath of the Martin County coal slurry disaster.

The way forward

On the subject of improving the US regulatory process, Spadaro firmly believes that enforcement needs to be put back at the top of the MSHA's priority list. The organisation's body of inspectors (which Spadaro praises as "one of the best ever") needs to be given the support and the authority to temporarily close mines that display a pattern of violation when it comes to safety and health, he says. "When I was in my twenties in the 1970s and we were dealing with unsafe coal waste dams in the aftermath of Buffalo Creek [1972 coal slurry disaster], we closed hundreds of mines until the companies began a remedial process, and that's what needs to be done nationwide."

"The system needs to be streamlined and the penalties need to be increased dramatically to serve as a deterrent."

The current system of small or easily contestable fines doesn't have the weight to be an effective deterrent, Spadaro affirms, and to change the practices of coal companies the MSHA needs to attack their collective wallet. "The system needs to be streamlined and the penalties need to be increased dramatically to serve as a deterrent. It's much cheaper for a company to keep appealing fines that are substantial and paying small fines to keep production going," he says.

Spadaro does have hope for the future, despite the crushing blow dealt by the April disaster (on which he is currently working as an expert witness). He believes the Obama administration has taken the MSHA's past failures to heart and is committed to fixing these problems down the line.

Spadaro praises Secretary of Labor Hilda Solis and the new head of the MSHA Joe Main for their advocacy of mine safety issues. The fact that Davitt McAteer, the man who spearheaded the proactive MSHA enforcement programme under President Clinton, is conducting the Upper Big Branch investigation attests to a renewed federal resolve.

Despite his confidence in the new administration, Spadaro is distinctly aware of the current situation and the monumental challenge that lies ahead, to prevent not only large-scale disasters but also the daily avoidable injuries that are taking such a toll on US mining communities. "I've been involved in mine safety and health since the 60s and the families of miners who have died in these accidents shouldn't have to go through what they've endured," he says. "It simply should not be happening."