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"Sludge Slinging - No matter how hard it tries, the Bush administration cannot silence one of the nation's leading experts on coal mining's poisonous legacy."

By Ted Williams

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Toxic avenger: Miming engineer Jack Spadaro has dedicated his life to preventing spills.
Photograph by Katherine Lambert

Coal mining is a nasty business, especially in water-rich West Virginia, Virginia, Kentucky, Tennessee, and Pennsylvania. Precipitation, running off the stumps of mountains hacked down by coal companies or up from deep mines, picks up sulfuric acid, coal dust, and heavy metals that magnify through the food chain. But that's just what flows unimpeded into streams. Because Appalachian coal is associated with all manner of impurities, it must be washed with chemical flocculants before it can be burned. The rinse water is even worse than the runoff - blacker, more viscous, more toxic. "Sludge" it's called.

Like "overburden," the industry's word for everything that isn't coal, sludge is dumped on streams - except usually not on purpose and never legally. Coal companies attempt to

contain it by damming up valleys. Sometimes the dams fail; more often the impounded sludge blows out through old mine shafts. Almost all of the 653 active sludge reservoirs in the United States are in Appalachia, and 230 of them are built over underground mines.

The danger to fish, wildlife, and people is enormous, but lessons aren't being learned, precautions aren't being taken, and federal culpability is being denied. Meanwhile, the Bush administration is trying to do away with the few rules that control sludge production and "mountaintop mining," as the administration and industry like to call it, or "mountaintop removal," as everyone else calls it. But thanks to a smart, tough mining engineer named Jack Spadaro, the White House appears to be learning one important lesson about the dangers of uncontrolled coal extraction: Few political messes are harder to cover up than sludge spills.

But first some history. On February 26, 1972, a dam owned by Pittston Coal Company failed, sending a tidal wave of sludge through 17 communities along Buffalo Creek in Logan County, West Virginia. One survivor - Patty Adkins, now of Barboursville - told me this: "The water kept getting higher. And we saw all this debris - heaters and furniture and car parts. Then we heard this loud noise, and all this water came rushing around the bend, breaking loose houses and carrying them off. We saw an old couple in their truck get washed away. The McCoys' house had washed down and lodged at the train trestle, and these two men pulled out a woman's body. They put her beside the tracks, and one of the men took his raincoat off and covered her up. My sixth-grade teacher, Mrs. Ramey, and her husband died." In all, 125 people were killed and 4,000 left homeless. Pittston blamed God, claiming it was His "act." Although the company settled with the victims for \$25 million, it settled with the state for just \$1 million in a deal accepted by then governor Arch Moore, later convicted for taking a bribe from another coal company.

Spadaro, at this writing employed by the U.S. Department of Labor's Mine Safety and Health Administration (MSHA, pronounced "EM-sha"), is among the leading experts on sludge spills. At the time of the Buffalo Creek tragedy, he was a 23-year-old instructor at West Virginia University's School of Mines, one of the world's top institutions for training mining engineers. "Right then," he says, "I made a pledge to dedicate my life to doing whatever I could to prevent this type of thing from happening again." There had been all sorts of warnings, such as failures at this and every other sludge dam along the creek. For at least four years valley residents had been warning officials the dam was unsafe. As staff engineer for the commission assigned by the governor to investigate the disaster, Spadaro wrote the report. But during the process he got crosswise with the

commission chair, Jay Kelley, who, according to Spadaro, wanted to take it easy on Pittston and who, as dean of the School of Mines, was also Spadaro's boss. So in order to protect his voice on the commission, Spadaro resigned from the university. No one except the governor could fire him from the commission, and he stayed on, not equivocating, not excusing, not retreating. Eventually eight commissioners agreed with Spadaro that the fault lay with Pittston, not God. Kelley wrote the one-man minority report.

Spadaro never bought into the notion that environmental regulators shouldn't also be environmental advocates. Two years later, on his own time, he helped found Save Our Mountains, one of the first groups to oppose mountaintop removal.

In 1981 he offended another bureaucrat - J. Steven Griles, then in charge of the Interior Department's Office of Surface Mining (who went on to become George W. Bush's Deputy Secretary of the Interior, after working as a mining lobbyist). Spadaro, who had transferred to the OSM, signed off on a decision to close a coal-preparation plant. "There were serious environmental problems there," says Spadaro. "But I was told by the regional director to vacate the closure order. I refused." Spadaro and his lawyer, Hope Babcock (who went on to become Audubon's general counsel), met with Griles. "He was so angry he was almost spitting," Spadaro recalls, "but he couldn't fire me." Instead Spadaro was suspended for 30 days sans pay. But he made agency brass even madder by winning an appeal through the Merit Systems Protection Board and making the OSM cough up his back pay.

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Although Spadaro continued to anger certain of his superiors by doing his job and by exercising his First Amendment rights, he managed to get performance evaluations that basically alternated between "outstanding" and "exceeding standards." In 1992 he won Interior's highest honor, the Merit Service Award. In 1993 Interior named him Engineer of the Year. In 1997, his first year as superintendent of MSHA's National Mine Health and Safety Academy, in Beckley, West Virginia, he won the prestigious Bravo Award. The person who hired Spadaro - Davitt McAteer, MSHA's former director (officially known as "assistant secretary of mine safety and health") - calls him "a good man." Celeste Monforton, who served as special assistant to the director, calls Spadaro "a great guy [who] did a tremendous job." She told me that "he really brought the academy into the 21st century."

When I met Spadaro, at the West Virginia capitol building on February 17, 2004, he was receiving yet another award - for "public service" from the West Virginia Environmental Council. Over the phone he'd spoken as softly as Mister Rogers, so I was surprised to encounter a big, square-shouldered, former football star with a Paul Bunyan beard. That evening, at a reception for award winners, Spadaro complained about the lack of regulations for sludge impoundments. And he condemned mountaintop removal. "There's no need for it," he said. "It's just cheaper for the companies."

Patty Sebok of Coal River Mountain Watch, who had just received the Environmental Council's award for "environmental courage," who lives beside a sludge-polluted stream, and who is married to an underground miner put out of work by mountaintop removal, presented Spadaro with a whistle, saying: "We want you to keep blowing this long, hard, and loud." Then the crowd broke into a chant of "Bring back Jack. Bring back Jack." But from what?

Well, on June 4, 2003, Spadaro was placed on "administrative leave" - a prelude to termination. Then, on October 1, he was informed that he would presently be fired for "abusing his authority," taking "unauthorized" cash advances, and generally failing to follow "instructions" and "procedures." He gave me his two-inch-thick response to the charges so I could read his side of the story.

Meanwhile, he would show me some sludge reservoirs, but no one can see them from the ground. Like the people who permit and encourage them, they're all in high places, and the companies gate access roads. So I turned to SouthWings, a group of volunteer pilots who show journalists and others the tracks of industry as they exist on the landscape instead of glossy promos. Our pilot, Sue Lapis, had flown me over these same coalfields in 2001. With us in the Cessna 182 was the Ohio Valley Environmental Coalition's Janet Fout - perceived as Freddy Krueger by mountaintop removers everywhere - who had stepped to the podium after Spadaro to receive the Environmental Council's Mother Jones Award. Fout and her outfit are only just beginning to realize how many allies they have across America. Recently a woman from Ohio called the council's office to complain about flooding caused by the removal of overburden from coal seams. She'd been referred by the Department of the Interior.

Five minutes out of Yeager Airport I was again reminded that mountaintop removal is itself a euphemism for mountain-range removal. "Almost level, West Virginia," proclaim the bumper stickers. I noticed major progress toward that end just in the past three years. As far as we could see and in all directions, the mountains of the

Cumberland Plateau were being clear-cut, along with the most diverse and productive temperate forest on earth, home to 1.5 million life-forms per acre, not counting microbes. Four thousand feet below us, draglines, bulldozers, trucks, drills, and detonation crews chipped away at mountains like Mr. Tooth Decay and his henchmen in the old Colgate Dental Cream ads. "We're wiping out whole ecosystems," said Spadaro. "Everything from I-64 south to Kentucky will be gone."

Spadaro pointed out failing valley fills sloughing off the sides of Kayford Mountain, where I'd righted Patricia Fraker's gravestone, knocked off its base by shrapnel from what is thought to be mankind's single biggest nonnuclear explosion - just one of many by which this mountain is being converted to a 70-square-mile stump. "These fills start failing as soon as they're created," said Spadaro. "The companies riprap water channels, but the rocks are always too small and they wash out." During the Carter administration, valley fills had to be compacted every four vertical feet as they filled up, and they were limited to 250,000 cubic yards. Spadaro wrote those rules; but when Ronald Reagan came in, Griles and his colleagues virtually did away with them. Today some valley fills contain 500 million cubic yards of mountain rubble, and there's no compacting. Two thousand miles of streams have been obliterated. And rule reduction continues under George W. Bush, whose OSM, again under Griles, proposes to do away with the last major impediment to mountaintop removal: the regulation that prevents valley fills and other mining activity within 100 feet of perennial streams.

"This is just outrageous," declares Ben Stout of Wheeling Jesuit University in Wheeling, West Virginia, who studies sludge reservoirs and mine runoff. "The administration is pulling the rug out from under the Clean Water Act. I really think in 20 years eastern Kentucky and southern West Virginia are going to be humanly uninhabitable. That's even without considering the ecosystem component. Humans are not going to be able to live in this region where there's no potable water. . . . Insects are indicators of stream health. With valley fills, which obliterate streams, insect mortality is 100 percent. And in watersheds with longwall mining, we've found a 50 percent reduction in both numbers and species. You kill rivers by cutting off their fingers. Headwater streams provide linkage with the forest. Insects convert leaves and sticks to fats and proteins - very scarce commodities in the woods. These fats and proteins are available to almost everything - salamanders, frogs, birds - and at a time in the spring when these neotropical migrants are coming back. It's a mass emergence. Lose the insects and you lose the linkage."

Impressing Fout and me as much as the valley fills were the sludge reservoirs, enormous deltas of coal dust spreading from intake pipes into black stews of grime, grit, toxic flocculants, and heavy metals. All perched directly over communities, one over an elementary school. At 143 mph, it took us 10 minutes to fly around Massey Energy Company's Brushy Fork sludge reservoir above Whitesville. The dam, made by blowing up a mountain for fill, is 950 feet high. The only evacuation route is the road toward the dam.

Brushy Fork is a Buffalo Creek blowout waiting to happen. The rock formations under the dam have not been checked for fractures. And Massey has been cited by the state at least 37 times for permit violations, such as failure to monitor the reservoir, failure to control erosion, failure to control sediment, and failure to control pollution.

Sludge spills can be prevented with monitoring, maintenance, and enforcement, yet they continue on a regular basis. In the Ohio River watershed there have been 13 spills on the Little Coal River since 1997; 6 on the Big Coal River since 1987; 13 on the Big Sandy River since 1994; 4 on the Levisa Fork since 1972; 9 on the Tug Fork since 1972; and 3 on the Gauley River since 1970.

Whistleblowers who survive-the effective, legitimate ones like Spadaro-don't go just a little public. He is blowing his whistle as if his bird dogs were running deer.

The worst occurred on October 11, 2000, when Massey's Big Branch sludge reservoir in eastern Kentucky (designed by the same engineers who designed Brushy Fork) collapsed into the underground mine it straddled, blowing 310 million gallons of sludge out the side of the mountain and down 110 miles of the Big Sandy River system, obliterating riparian habitat; killing millions of turtles, snakes, frogs, salamanders, mussels, and fish, including imperiled paddlefish; polluting public water supplies; clogging water-treatment plants; flooding houses; and shutting down schools, restaurants, and laundries. The sludge spread over valleys like lava. Twigs stuck in it remained upright, moving along with the flow. It was the worst environmental disaster in the history of the eastern United States. The governor of Kentucky declared 10 counties a disaster area. Massey blamed God, claiming it was His "act."

As a member of the team assigned to investigate the disaster, Spadaro accumulated compelling evidence that clears God and implicates both MSHA and Massey (a major GOP contributor). Moreover, an internal report vindicates his findings. At first the team made good progress. It interviewed almost 50 witnesses and plowed through boxes of documents. But things changed under George W. Bush. The new Secretary of Labor, Elaine Chao - wife of Senator Mitch McConnell (R-KY), among the Senate's top five recipients of coal-industry largesse - appointed former mining executive David Lauriski as MSHA's new director. Both his deputy directors

are former mining executives. On the first day of the Bush administration, the leader of the investigation team was replaced by MSHA's Morgantown district manager, Tim Thompson. According to Spadaro, among the first words out of Thompson's mouth were: "We're gonna wind down this investigation." And: "We're not going to allow any arrows to be pointed in the direction of MSHA." Thompson, however, denies this, saying he "only wanted to move the investigation along."

The team wanted to interview or reinterview at least 25 more people. "Thompson allowed us six more interviews," says Spadaro. The team had already met with an MSHA engineer who in 1994 had inspected the Big Branch sludge reservoir and written a memo about its deplorable condition, including major fractures and major leaks. To avoid a "very possible" disaster, he made nine recommendations for remedial action, such as installing devices to monitor the quality and quantity of leaking water and reevaluating concrete seals separating abandoned and active sections of the underlying mine. After MSHA's chief of technical support, Mark Skiles, had read all agency documents related to the sludge reservoir, he wrote the following to Davitt McAteer, then MSHA's director, who had ordered the review: "I would conclude from this investigation that after the 1994 failure that [MSHA] did not follow [the 1994] recommendations." Skiles's memo - undated but written on October 31, 2000, according to the Department of Labor's Inspector General - was a draft, intended only for internal use, but it got leaked to the press. Spadaro says his investigation team never saw the response - dated October 31, 2000 - until May 2001, when it seemed to appear out of the ether.

"There wouldn't have been a spill if MSHA had followed those recommendations," Spadaro told me. "Not only did they ignore them, they fabricated a response and backdated it to cover themselves." He said he had recently turned over the proof to the proper authorities. When I asked who those authorities were, he said he'd been instructed not to say, but the previous day he'd canceled an appointment with me in order to help the U.S. attorney with the criminal grand jury investigation into the spill. When I phoned Lauriski's office to get the agency's side of the story about this and all other charges by Spadaro, I was referred to MSHA's assistant secretary for public affairs, Bob Zachariasiewicz, who declined to comment, although he went on and on about Spadaro's alleged transgressions.

Zachariasiewicz also refused to answer my questions about the Skiles memo. But if MSHA's response wasn't a backdated fake, all personnel involved in drafting it should get Bravo Awards for snapping out of their bureaucratic torpor and moving at a speed never before seen in federal government. In the space of a single workday MSHA supposedly faxed or otherwise delivered Skiles's three-page document with 20 pages of attachments from Arlington, Virginia, to the agency's Pikeville, Kentucky, district office; analyzed the contents; and hatched a five-page response, which painstakingly rebuts each point. Pikeville district manager Carl Boone, who was in the office in October but was transferred two months later, can't recall whether or not he wrote the response without "going through [his] files." McAteer, who quit after Bush was elected but was on the job in October 2000, doesn't recall seeing it. The Inspector General reports that Celeste Monforton, then special assistant to the director, first saw an unsigned version of the response in April or May 2001 and questioned Bob Elam (the acting director after McAteer) about it, and that "later that same day, Elam provided Monforton with a signed copy." Monforton informed me there had been pressure on Skiles to retract his memo.

The investigating team wanted to charge Massey with 10 federal violations. But MSHA issued two. Now, because the two were relatively weak, an administrative law judge has dropped one, and the federal fine has been reduced from \$55,000 to \$5,600 - this for a spill of toxic waste about six times the volume of oil lost from the Exxon Valdez. "From January 2001 through October of 2001 there was constant intervention by top management in formulating the violations and the conclusions of the report," says Spadaro, who sat in on meetings after he'd resigned from the team. "In determining responsibility and whether there was or was not negligence, the report failed." So he refused to sign it and, on April 11, 2001, quit the team, stating in his letter of resignation that the investigation had found Massey to have "submitted incomplete and inaccurate information to [MSHA] over a number of years, but Mr. Thompson does not want to issue any violations to the company or to thoroughly discuss this shortcoming," and expressing concern about a concerted effort "to leave unreported unexamined serious defects." This kind of language did not go over well with MSHA brass.

Nor did the five complaints Spadaro filed with the Labor Department's Inspector General, nor the two whistleblower complaints he filed with the Office of Special Counsel. He charged that MSHA director David Lauriski and deputy director John Caylor had been passing out illegal sole-source, no-bid contracts to their friends. One contract, alleges Spadaro, went to one of Lauriski's pals for an academy course. "All district managers and other supervisors have been encouraged by Mr. Dave Lauriski . . . to attend these [\$1,025 per person] classes," Spadaro wrote. He told me that the government sometimes had to pay more than \$40,000 per week. "The information was nowhere near as useful to mine inspectors as the accredited 25-week-long entry-level training courses we already offered." In a memo to the Inspector General's office alleging other violations, Spadaro wrote: "Mr. Caylor threatened me and said that he would have me 'taken out of here' if I interfered with the contracts."

When I asked Monforton if she'd heard any talk from Bob Elam and others about punishing Spadaro for quitting

the Big Branch investigation and for publicly criticizing MSHA, she said: "I can't recall their exact words, but there was definitely word in the air that they were going to get Jack for doing this."

Monforton's comment rang true when I read the charges against Spadaro. Some I had to read twice to convince myself there hadn't been typos. Without exception, they call to mind the charges filed against Alice by the Queen of Hearts. First, MSHA accused Spadaro of misusing his government credit card by not getting \$22.60 in bank charges for cash advances approved before he took visiting mine officials to dinner. This despite the fact that, even though the \$22.60 had been a legitimate business expense, Spadaro had paid it back long before MSHA knew about it. Another charge was that Spadaro "abused his authority" by granting waivers for food and lodging to visiting mine-rescue teams and to an academy instructor stricken with multiple sclerosis. In fact, he had been ordered to do so and was fully authorized by an MSHA policy directive. According to MSHA, Spadaro "created the perception, if not the reality, of antiunion animus" by suggesting that a union leader employed as an industrial hygienist move her office downstairs so she could work with another hygienist on a mine-safety project. She objected, so Spadaro didn't move her.

The whistleblowers who survive - the smart, effective, legitimate ones like Jack Spadaro - don't go just a little public. Spadaro is blowing his whistle as if his bird dogs were running deer. His relationship with his superiors is chillier than ever. And they are less than enthusiastic about the kinds of projects he is working on these days - such as guiding Audubon writers around the sludge reservoirs and mountain stumps of Appalachia. On the other hand, they won't let him back into his office. They've even changed the locks, denying him access to files he needs for his defense.

There is a scene in Star Wars where Obi-Wan Kenobi says to Darth Vader (accurately, it turns out): "If you strike me down, I will become more powerful than you can possibly imagine." So it has been with Jack Spadaro, who gets more powerful with each passing day; who speaks daily with reporters, legislators, and environmental leaders across the nation; and who isn't getting fired after all. A five-month delay following a notice of termination is unheard of, but now MSHA is playing a different, safer game. On February 24, 2004, Spadaro was informed that he was being transferred to Pittsburgh and demoted one full pay grade. He's staying in West Virginia while he appeals, and advancing his radical notion that regulatory agencies should serve the public rather than themselves and industry.

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