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ROCKY HORROR SHOW

WHY CAN'T ROCKY FLATS' PLUTONIUM BE CLEANED UP? IT'S AGAINST THE RULES

By [MICHAEL D. LEMONICK](#)

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Nov. 27, 1995

AS A LONGTIME BUREAUcrat, Mark Silverman knows the usual rules of the game: cover your flanks, avoid making decisions, bury all problems under layers of paperwork. As the manager of the Department of Energy's Rocky Flats nuclear-weapons plant, though, Silverman also knows he's sitting on a time bomb. Until production was stopped in 1989, the plant--just 16 miles from downtown Denver, Colorado--manufactured plutonium components for the nation's nuclear weapons. Enough radioactive waste remains on the premises to cover a football field to a depth of 20 ft.

Silverman, a West Point--trained engineer, had no question about how to proceed at Rocky Flats. As soon as he took over two years ago, he plunged into a vigorous effort to clean the place up. There was, he learned, just one problem: most of what he wanted to do was against regulations.

Last July, for example, when Silverman set about dismantling five old guard shacks, he ran into a federal requirement that the buildings first be offered up as housing for the homeless. When he tried to streamline a rule requiring nine separate signatures before visitors could enter the old production facilities, he was blocked by red tape. After a mishap occurred during the draining of three small plutonium storage tanks in 1994, he found that the job couldn't resume until the entire building had been scoured and 150 workers had been retrained--a process that would have taken five years and

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cost millions of dollars.

It's the same story at weaponsmaking complexes across the U.S. As officials go about the post-cold war business of deactivating sites in six states, they face a mountain of regulations. Elaborate safety precautions set in place years ago for active bomb production are hindering cleanups. So are bloated payrolls, micromanagement by regulators and intense congressional oversight. Beyond that, a sense of excessive caution, born of past foul-ups and scandals, has led to even more rules.

But no site is more choked by red tape than Rocky Flats, in part because of its severe contamination problems. Plutonium is so toxic that inhaling a fraction of a gram can be fatal. At Rocky Flats there are 14 tons of this silver-gray metal spread all over the place. Aging buildings are tainted by plutonium spills from leaking pipes, valves and containers, and from compartments known as "infinity rooms" because their level of radioactivity is so high. Barrels of radioactive waste are stacked 15 ft. high. Fields contaminated with radioactive oil are covered by only a layer of asphalt. Now that suburbs have crept within three miles of the plant's perimeter, the plutonium that has periodically leaked into the air and nearby streams poses new dangers.

It may be impossible to handle large quantities of plutonium without some leakage. And without a national depository for high-level wastes, there is no place to send much of the site's dangerous material. But the people who ran Rocky Flats in the late 1970s and 1980s were frighteningly careless. Things were so bad, in fact, that federal agents raided the facility in 1989 and eventually shut it down. A grand jury later voted to indict plant operator Rockwell International for violating environmental laws. (Federal prosecutors and Rockwell agreed in the end to a plea bargain: the most serious charges were dropped, and the company paid an \$18.5 million fine.)

Silverman arrived in 1993, aiming to make short work of his Herculean task: draining liquid plutonium from leaking containers, venting drums of hydrogen to prevent explosions, baking plutonium metal for storage in sealed vaults. But he and cleanup contractor Kaiser-Hill ran into a brick, or rather a paper, wall. Of the 250 cleanup "milestones" set by the EPA and Colorado's Department of Health and Environment, only two dozen spelled out concrete action. The rest mostly involved producing one report after another, generating much paper but no progress. Scores of internal policy directives, set in place by the DOE itself, further impeded the effort. "The people who wrote these procedures had little idea of how things actually worked," says Silverman. "They were more worried about going to jail

than about plutonium risks."

SILVERMAN'S RESPONSE TO MANY OF these hurdles has been to ignore them. After the draining mishap, he went ahead and emptied the three problem plutonium tanks without upgrading the entire building, and he retrained just 12 workers instead of all 150. He slashed the number of signatures needed to get visitors into high-security areas from nine to three. Ignoring bureaucratic protocol, he and Kaiser-Hill excavated toxic soils from an area known as Ryan's Pit without preparing exhaustive studies. Silverman bristles at the seemingly arbitrary personnel rules he's supposed to follow. "Why does it take 16 people to move a single barrel from one building to another?" he asks rhetorically.

If Silverman's behavior is bizarre for a bureaucrat, the reaction of his bosses is even more surprising: they're going along with it. Regulators have met with the Rocky Flats management team to rewrite and simplify the cumbersome rules, and the DOE has approved Silverman's plan to further cut the facility's 4,878-person work force. Admits Assistant Energy Secretary Thomas Grumbly: "We have created a paperwork jungle over the past 50 years."

Now the agency is considering a proposal by Silverman and Kaiser-Hill to seal up Rocky Flats once and for all. By the year 2010 or so, most of the major buildings would be demolished, the plutonium consolidated and sealed behind thick layers of concrete. All but 300 acres of the 6,500-acre site would be decontaminated and released for other uses, including recreation and commerce. The ambitious plans face opposition from local activists. But even Silverman's critics pay him grudging homage. Says Ken Korkia of the Rocky Flats Citizens Advisory Board, a watchdog group: "He has taken charge and assumed responsibility." If anyone can get the job done, it seems, it's the improbably unbureaucratic Mark Silverman.

--Reported by Richard Woodbury/Rocky Flats

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