Aiken, S.C. — There is a phenomenon known as the lottery winner’s curse, where those who suddenly strike it rich do not live happily ever after. If the experience at the Savannah River Site here is any guide, something like it may threaten the winners of stimulus bonanzas.

Earlier this year, the nuclear site won one of the biggest pots of stimulus money, $1.6 billion, to accelerate its cleanup of radioactive waste left behind after decades of producing materials for the nation’s nuclear weapons stockpile. But the pressure to spend the money quickly and effectively has led to a series of bitter disputes among officials that burst into public view this fall after the tensions reached critical mass.

At the heart of the dispute is the question of whether officials in Washington or at the site can do a better job managing the cleanup. The tensions have spurred a wide-ranging investigation by the Department of Energy’s inspector general and a host of bitter accusations, including one that led to an inquiry into whether one stimulus official had really threatened another by saying she wanted to shoot him.
They have also raised questions not only about one of the biggest stimulus projects, but also about the oversight and operations at one of the country’s biggest nuclear sites as it grapples with the complex question of the cleanup.

Some advocates of cleaning up the nation’s nuclear legacy, a mammoth task that is expected to take decades and cost up to $260 billion to complete, said they feared that problems at such a prominent stimulus project could make it more difficult to get financing in the future.

“It raises the question of credibility,” said Leo P. Duffy, who was the first to lead the Department of Energy’s environmental management program when it was created by President George Bush in 1989.

The issue also demonstrates how the stimulus program’s tight deadlines can put pressure on government officials and contractors and reveals the tensions that can arise when officials in Washington increase their oversight to see that the money is spent correctly, which often strikes officials on the ground as meddling.

Built just as the cold war heated up, Savannah River produced 40 percent of the plutonium in the nation’s weapons stockpiles and is now largely focused on nuclear disposal. The stimulus money is being used to reduce the site’s contaminated areas by 40 percent, paving the way for new uses, including a possible energy park one day.

The difficulties at Savannah River began over the summer. The Department of Energy warned of weaknesses in the site’s proposed stimulus plans, redirected some money from one private contractor to another and increased oversight. Some officials at the site bristled at what they saw as improper interference from Washington.

A series of disputes followed, prompting the Energy Department’s inspector general investigation. There were also a few accidents at the site; stimulus work was briefly halted this summer after an acid spill injured several workers.

Finally, in one of the odder episodes, a stimulus official was barred from the site last month while an outside investigator looked into an accusation that she had threatened one of her superiors by saying she wanted to shoot him. The Aiken Standard recently lamented in an editorial that the troubles were “unprecedented in the 50-plus-year history of the facility.”

Inés R. Triay, the assistant secretary for environmental management at the Department of Energy, said the government and the contractor that operates the site had taken steps to make sure the program was on track to meet its goals of finishing the work by the end of 2011.

“Every time that headquarters strengthens its oversight role, there’s a tension that gets created between headquarters and the field site,” Dr. Triay said in a telephone interview from Washington. “That’s a natural tension. It brings out the passion and commitment of all involved to get the job done.”

A recent visit to the site showed that the cleanup was well under way. Workers hired with stimulus money were preparing to load drums of depleted uranium oxide, a byproduct of weapons production, onto special rail cars for shipment out of state. Other workers rifled through drums of waste contaminated with plutonium — by hand, but with their hands protected by gloves that reached through a protective plexiglass barrier — to remove liquids and aerosols so the waste could meet the guidelines to be accepted at a deep underground depository in New Mexico.