

---

November 13, 2005

## The \$353 Million Cleanup

By JOHN RATHER

AS celebrations go, one of the more unusual has been under way in recent weeks at Brookhaven National Laboratory, a world-class center of advanced scientific research with a history of discharging contaminants.

The laboratory and its owner, the federal Energy Department, say all the clapping is about the successful completion of a \$353 million, 13-year phase in the cleanup of contaminants at the 5,300-acre laboratory property, one of the most contaminated sites on Long Island and a top federal priority for remediation since 1989.

"We've been working on cleanup for almost 13 years, and we feel like we have crossed a major milestone here," said Praveen Chaudhari, the laboratory director since 2003.

Energy Department and laboratory officials said that the cleanup, though still far from over, now satisfied requirements in a 1992 agreement by the Energy Department, the Environmental Protection Agency and the State Department of Environmental Conservation that set tasks and timetables.

Some 55,000 cubic yards of contaminated soil has been shipped by rail to disposal sites as far away as Utah, 8 billion gallons of groundwater have been decontaminated at 16 treatment centers, 3,000 monitoring wells have been drilled, and 8 contaminated buildings have been razed, including one that stored radioactive and hazardous waste from 1947 to 1997.

The project also involved removing Peconic River sediment, shortening by two-thirds a groundwater plume of radioactive tritium, and installing on- and off-site water-treatment equipment, part an effort to make groundwater drinkable 30 years from now. Residential areas affected by the groundwater contamination are now hooked up to public water supplies.

"We have not just turned the corner, we have made significant advances in the cleanup," said Rodrigo Rimando, the Energy Department's project director.

Leslie M. Hill, director of the laboratory's environmental restoration projects, said, "We have cleaned up the environment, and that is what it was all about." He said the cleanup shaved two years off the 2007 completion date in the 1992 agreement.

Some critics called the celebration premature and took the lab to task for contamination it caused over its 58 years of operation. "They should be apologizing for more than 50 years of abusing the environment and causing illness," said Randy Snell of Manorville, who attributes a rare cancer diagnosed in his daughter to radiation from the lab.

Mr. Snell said an investigation he undertook found 23 children living within 10 miles of the laboratory with the same type of cancer, rhabdomyoma sarcoma, which attacks muscle tissue. He said that number was many times the normal incidence of two cases per million.

The lab has long acknowledged being the source of contaminants including strontium 90, cesium 137 and, most pervasively, volatile organic compounds and solvents, but it has maintained that there was no evidence it deserved blame for cancers and other illnesses.

Its position gained backing in a report released on Oct. 7 by the federal Agency for Toxic Substances and Disease Registry. Agency scientists who examined data on contamination beyond lab boundaries found no health hazards in soil and not enough contamination in groundwater or surface water, air emissions, plants or animals to affect health.

Some critics said that the full extent of past discharges, particularly air emissions from the long-closed graphite research reactor, would never be known.

"Even experts will tell you they don't know the level of air emissions," said Adrienne Esposito, the executive director of the Citizens Campaign for the Environment in Farmingdale and a member of the laboratory's community advisory council. "The good news is that the lab is moving forward with the cleanup. The bad news is that we will never really know the truth."

Asked if the lab owed Long Island an apology for the contamination, Dr. Chaudhari, the laboratory director, replied, "It is owed an explanation, and we needed to correct things, and we have done both and worked very hard with the community."

Steve Levy, Suffolk's county executive, and some environmentalists said the laboratory deserved praise for making progress and admitting mistakes. "Normally, a wall of denial goes up," Mr. Levy said. "But in this instance they fessed up and took appropriate action."

Richard Amper, the executive director of the Long Island Pine Barrens Society and a member of the lab's community advisory panel, agreed. "Blame the lab for years of neglect and irresponsibility to the environment," he said. "But give them credit for learning from their mistakes and cleaning up their mess."

Suffolk officials said the lab had agreed to expand the cleanup of the Peconic River bed after testing by the county in 2003 found unexpectedly high levels of mercury in county parkland as far as five miles downstream from the river's source, which is on lab property.

"For the first time, a local municipality prevailed on a federal installation to assure that cleanup occurred to the level required," said Vito Minei, the county's director of environmental quality. "I am now far more confident and comfortable with our relationship with the federal government on the cleanup."

The lab and the Energy Department set out to remove mercury and traces of radioactive substances, including minute amounts of plutonium, on nearly 20 acres of river bottom. The project, carried out in cooperation with the county and the state, ended this year.

Mr. Rimando, the Energy Department project director, said the amounts of plutonium, which in even minute airborne quantities can cause lung cancer, were infinitesimal and posed very little hazard.

The major remaining work at the lab includes a \$96.8 million project to dismantle and remove the highly radioactive 700-ton core of the lab's graphite research reactor.

The laboratory must also decide by 2009 what to do about its high flux beam reactor, the source of a tritium leak that went undetected for at least a decade, until 1997.

Mr. Hill, the lab's director of restoration projects, said the tritium groundwater plume was now no closer than a mile and a half from the lab's fence and was never expected to leave the lab's grounds. It will be allowed to remain until it naturally decays to background levels, he said.

Still, not all the lab's most vocal critics have been mollified. Bill Smith of Shelter Island, the executive director of Fish Unlimited, said earlier this month that he had resigned from the lab's community advisory panel in protest.

"It became clear the lab had completely co-opted the community," he said. "The cleanup is a farce. It turned into a public-relations campaign first and a cleanup second."