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¶ BC-APN--Beleaguered Brookhaven, Adv27,1462
¶ For Release Sunday, July 27
¶ †By LISA M. HAMM
¶ APN SUNDAY ILLUSTRATIONS: Subscribers get 5 photos, NY365-NY369.
From AP Newsfeatures
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¶ 07-14-1997 13:13
Doc: 00051192 DB: research_d_97_3_4 Date: Mon Jul 14 13:13:48 1997
*** Version history. (* = this story, F = final, S = semifinal) ***
BD6F55SJ00 07-14-1997 13:13:48*F BC-APN--Beleaguered Brookhaven, Adv27:APN
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†Radiation leaks at award-winning lab alarm Long Islanders

†By LISA M. HAMM

†Associated Press Writer

- ¶ UPTON, N.Y. (AP) _ Eileen Selig says "no" whenever her 6-year-old daughter asks to take a bath. She makes her children brush their teeth with bottled water.
- ¶ Although scientists at neighboring Brookhaven National Laboratory say it's safe, the 36-yearold mother of two is terrified that radiation leaking into the groundwater from the plant will reach her family and give them cancer.
- ¶ Ms. Selig had lived contentedly for six years here on eastern Long Island _ until 1995. That's when the award-winning scientific research lab announced a plan to dump radioactive waste into the Peconic River as part of a sewage treatment upgrade.
- ¶ "I opened the newspaper and found out we were living on a Superfund site," says Selig, of North Shirley.
- \P That was just the beginning. Since then, progressively more disturbing reports have been surfacing about radioactive leaks, mishaps, sloppy practices and lack of accountability at the plant $_$ just 60 miles east of New York City.
- ¶ Public opposition has grown so loud that Brookhaven was forced to revise not only its sewage-treatment plan, but its management as a whole.
- ¶ A legion of neighbors, environmentalists, politicians and health officials have come to believe that the renowned research facility is sacrificing the community's health and a New York summer playground at the altar of science.
- ¶ Brookhaven officials insist the damage is minimal.
- ¶ "We've contaminated the aquifer," acknowledges Bob Casey, head of the plant's safety and environmental division, referring to the underground water system. "But we have not created conditions that are harmful to health."

- ¶ Helen Caldicott, an Australian pediatrician who founded the Nobel Prize-winning Physicians for Social Responsibility, says that's untrue.
- ¶ "There's gross irresponsibility, scientifically and medically, there," says Ms. Caldicott, who lives at the eastern tip of Long Island.
- ¶ Brookhaven lies in the Pine Barrens, 100,000 acres of fragile woodlands atop the sole drinking water source for Long Island's 2.7 million residents. It lies near one of the largest metropolitan areas in the world and its beaches and natural beauty attract thousands every summer weekend.
- ¶ For most of its existence, Brookhaven went about its business virtually beholden to no one. Opened by the Energy Department in 1947, the lab was operated by Associated Universities Inc., a group of nine northeastern universities.
- ¶ As a federal entity, it didn't have to meet state or local regulations; as a research facility it was exempt from Nuclear Regulatory Commission oversight. The DOE indemnified it from liability, paying any fines levied by the Environmental Protection Agency.
- ¶ On its secluded 5,300 acres, scientists quietly earned four Nobel Prizes for discoveries on the basics of matter, treatments for cancer and other breakthroughs using high-tech atom-smashing machines. Brookhaven scientists also have researched ways to battle heart disease and improve environmental cleanup technologies.
- ¶ But Brookhaven lost its low profile in a big way in January when it revealed it had measured a radioactive substance called tritium at 11 times the safe drinking-water standard in groundwater near one of its nuclear reactors.
- ¶ Subsequent accounts revealed that tritium had been leaking for 12 years, reaching 30 times the safe level and forming a radioactive plume almost 2,000 feet long. The source is believed to be a 68,000-gallon pool where spent fuel rods from the plant's High Flux Beam Reactor are stored until they can be shipped for reprocessing.
- ¶ Other radioactive materials such as strontium-90, cesium-137 and cobalt-60 _ and chemicals with names such as trichloroethane and ethylene dibromide _ also have made their way into the groundwater.
- ¶ None of the Brookhaven officials interviewed could say what tritium does to harm humans, and in what quantities.
- ¶ Caldicott says there is no such thing as a safe dose of radiation _ even tiny concentrations strengthen and become potentially lethal as they travel up the food chain.
- ¶ Tritium, because it resembles water, invades the body's water molecules and combines in DNA, where once bound into organic molecules it becomes up to 300 times more toxic, Caldicott says.
- ¶ At the headwaters of the Peconic, the plant is in a state-designated groundwater protection area. As white-tailed deer nibble grass beside wells installed to determine the extent of the leak, Richard Amper, head of the Long Island Pine Barrens Society, worries about wild animals.
- ¶ "They can tell their employees not to drink the water, but they can't tell the deer or the red fox or the fish." he says.
- ¶ In 1980, Brookhaven was placed on the state's list of Inactive Hazardous Waste Disposal Sites. In 1989, the EPA designated it a Superfund hazardous-waste cleanup site, citing 28 problems that needed attention.
- ¶ Among recent incidents that have plagued the plant was the recent contamination of six lab workers who were exposed to small doses of radioactive chlorine while preparing to use a research reactor, the Energy Department said.
- ¶ But beyond the potential danger, what has really enraged residents and state officials has been the lab's apparent disregard for their concerns.
- ¶ "It seems that every time you pick up a paper, you're finding that the DOE has been withholding results and there's another contamination, or the tritium has risen to higher levels than initially disclosed," says Marc Carey, a spokesman for New York Attorney General Dennis Vacco, who is investigating.
- ¶ William Gunther, head of Brookhaven's office of environmental restoration, acknowledges that officials ignored tritium found near the reactor in 1985 and 1986, giving higher priority to problems closer to the boundary.
- ¶ The county health department persuaded Brookhaven officials to sign an agreement in 1987 to adhere to environmental standards. But plant officials insisted the reactor's storage pool

needed no modifications, and refused to sample groundwater surrounding it until last summer, says Mary Hibberd, Suffolk County's health commissioner.

- ¶ That's when the tritium leak turned up.
- ¶ "It just seems to me arrogant to just say, `We know it's not leaking and we're not even going to test for it," Ms. Hibberd says.
- ¶ Casey concedes: "In hindsight, at this point, all of that is clearly not the way we'd do it now."
- ¶ The plant employs 3,200 people and contributes \$490 million a year to the local economy.
- ¶ Now, its aging reactor is closed indefinitely while officials try to pump the tritium from where it has leached downstream back to the reactor area. After the radioactive fuel rods are removed from the leaking pool, the lab plans to drain it and line it with two layers of steel.
- ¶ Lab director Dr. Nicholas Samios stepped down in May, succeeded by interim director Dr. Lyle H. Schwartz, who vowed to clean up the contamination and regain the public's trust.
- ¶ "A complete change in the culture here is required and I am deeply committed to starting the process," Schwartz said.
- ¶ U.S. Energy Secretary Federico Pena fired Associated Universities, saying, "There need not, and will not, be a tradeoff between award-winning scientific research and environment, safety and health. Their performance was unacceptable, inexcusable, and flat-out wrong."
- ¶ Rep. Michael Forbes, R-N.Y., and Sen. Alfonse D'Amato, R-N.Y., have asked Congress to scrutinize the lab. They also have demanded that the Energy Department restore Brookhaven's budget for environmental restoration and waste management, which was cut from \$33 million in 1996 to \$21.5 million for 1997.
- ¶ Residents recently discovered that Brookhaven failed to notify them about a contaminated-water spill in July 1995, and say they also were never notified about a small radiation leak in March 1994. Seven workers were contaminated after nuclear research equipment caught fire.
- ¶ About 225 people living within 10 miles of the lab have filed a \$2 billion class-action lawsuit against Associated Universities, seeking compensation for health problems and lost property value.
- ¶ Eileen Selig has sent her children's baby teeth off to an epidemiologist to see if they contain strontium-90.
- ¶ "My 6-year-old, she loves to take baths, to play with her water toys," Selig says. "I don't let her take baths anymore. Just quick showers."
- ¶ End Advance Sunday July 27