

Atomic energy pioneers regret lost chances

It's important to secure the memories from the pioneers before they are lost.

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In the early days of the Cold War, a small team of U.S. scientists watched as nuclear energy powered four light bulbs for the first time.

These atomic pioneers thought they had helped solve the nation's long-term energy needs and had beat the Soviets to the punch as well.

More than half a century later, few people are clamoring publicly for more nuclear energy despite high oil prices, and the Russians are even disputing who won the race to atomic power.

"If anybody had asked me then how much of our electricity in the year 2000 would be generated by nuclear power, hell, I would have said 75 percent or more," said Leonard Koch, 84, one of a handful of men present at the birth of nuclear power.

"It's one of the things that hurts me, letting this thing go down the drain," he said in an interview.

Koch was part of a team of young scientists at the Experimental Breeder Reactor-1 (EBR-1) in a remote Idaho desert that first lit the bulbs with nuclear power in December 1951. In the upbeat spirit of the times, the nearest tiny settlement to the reactor renamed itself Atomic City.

The isolated setting was intentional as the nuclear project was top secret. Researchers had few specifics on Soviet plans, but project director Walter Zinn sought to be first.

"He wanted to stay ahead of anybody or everybody who was working on reactors," chemist Kirby Whitham, 84, told Reuters.

Because of secrecy, the celebration in 1951 was muted. "We knew it was a historic moment because Zinn told us," Whitham said. "He brought out a bottle of champagne for the whole crew, which only left everyone with a small glass."

The names of Whitham, Koch and 14 other nuclear energy pioneers are written on a wall in chalk behind a protective panel at EBR-1, which has long since become a museum.

One of the four original light bulbs is on display in the modest brick building. Outside are two engines made during a discontinued effort to build atomic-powered airplanes, symbols of the era's enthusiasm for all things nuclear.

RIVAL RUSSIAN ATOMIC CITY

Not mentioned in the displays is a Russian city outside Moscow called Obninsk, which also calls itself "Atomic City" and claims to be the true nuclear pioneer. The Obninsk reactor started providing power to the town in 1954, a year before EBR-1 started sending power to nearby Arco, Idaho.

"In the nuclear age you can't really pick anyone to be No. 1 in the peaceful atom. I think the times just overlap so much," said Paul Josephson, author of "Red Atom", a history of the Soviet's peaceful nuclear programs.

"There really is no technological breakthrough or feat. When Russian and American scientists met in Geneva in '56, they were happy and surprised and excited to find that they were all basically on the same page."

The Soviets did have a major impact after the 1986 Chernobyl disaster raised global concerns about nuclear safety -- a blow that still rankles the original EBR-1 scientists.

"If you want to write a good story, you sure as hell can write a good one about the contrast between the reactor that was built at Idaho and the reactors that were built in Russia," said pioneering researcher Reid Cameron, 83.

"Everybody worries about reactors just because of what happened in Russia and they're just completely so different it's a joke," he said in an interview. "Naturally, I'm biased over the subject but I don't understand why we aren't pursuing nuclear energy like we did the Manhattan Project."

Nuclear power from 103 reactors now provides about 20 percent of U.S. electricity. But no new nuclear power plants have been ordered since the 1979 incident at Three Mile Island, Pennsylvania, amid strong public opposition.

Even following the 1,000th U.S. soldier's death in oil-rich Iraq and complaints about higher gas prices, calls to expand nuclear energy receive scant attention. Idaho Gov. Dirk Kempthorne is one who sees an expanded future, and some nuclear advocates are hopeful the Bush Administration will boost the industry, whose operators include Exelon and Entergy.

"I think it is going to become a political reality that you have to have nuclear as an energy source ... I don't know what the ideal mix is.

"Is it safe? Ask the Navy," the governor said, referring to the operation of nuclear submarines.

The home to EBR-1, the Department of Energy's Idaho National Engineering and Environmental Laboratory (INEEL), is still researching nuclear energy, now focused on a new generation of reactors after having built 52 reactors over the years. Of these, 13 are still in operation.

Kathryn McCarthy, INEEL's director of nuclear science and engineering, said it will probably take at least 10 to 15 years before the United States overcomes public skepticism and opens any new nuclear power plants.

"The nuclear industry has not done a good job of educating the public in general," she said. "It will require a lot of up-front work, a lot of public outreach."