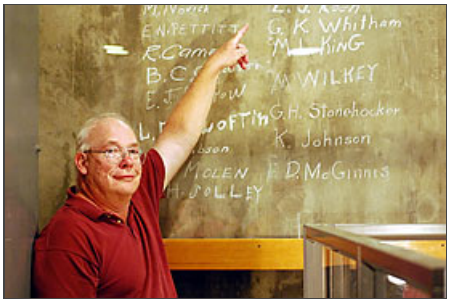
Between Memorial Day and Labor Day, more than 7,100 visitors toured the Experimental Breeder Reactor-I National Historic Landmark, where nuclear fission generated the world's first usable amount of electricity.

EBR-I draws visitors, praise from across the nation and beyond

By John Howze, *INL Communications & Governmental Affairs*

They come from across America and the world, stopping at a small, decades-old building tucked away in the remote eastern Idaho desert. They usually stay for an hour or two, perhaps write a note in the visitors' log, and then quietly leave.

But if you talk to them, you'll find that many, if not most, visitors to Experimental Breeder Reactor-I come away fascinated, surprised and delighted to have discovered this special combination of history, technology, engineering and nuclear power on their journey through Idaho. The National Historic Landmark, which is operated by Idaho National Laboratory, is the place where nuclear fission first lit light bulbs.

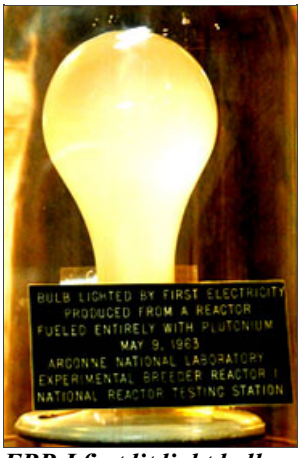


George Motsegood, visited EBR-I in August with his wife, Kathleen.

Barbara Pittman, from Broadus, Mont., and her friend Georgine Curtis of Idaho Falls brought Georgine's three sons. They had trouble tearing the boys away from the remote manipulators when the time came to leave.

"This museum is marvelous," said Pittman. "When you see the manipulators and all the equipment, you realize they could not just purchase it; they actually made these things to do what needed to be done. It was the first time for everything. It's really quite interesting, and when you think about what they did, wow!"

Curtis was surprised to discover EBR-I so close to her Idaho Falls home. "I've lived here several years and this is my first time to visit. I found it very fascinating," she said. "You should keep the museum open all year long. I think a lot more people would come and see it."



EBR-I first lit light bulbs on Dec. 20, 1951; the next day it generated enough electricity to power the entire facility.

Between Memorial Day and Labor Day this year, more than 7,100 visitors toured the place where the world's first usable amount of electricity was generated from nuclear fission.

In July, typically the busiest month, more than 2,500 people took the EBR-I self-guided tour. Before the end of August, the facility had seen visitors from more than 20 states as well as New Zealand, Canada, Japan, Belgium, Australia, Switzerland, Germany, Denmark, the Netherlands, Austria, Great Britain and France.

In talking with several visitors as they toured the facility, EBR-I tour guides discovered that the National Historic Landmark is something of a hidden gem. It had some special appeal to nearly every visitor, if not before they arrived, at least by the time they left. Whether it was history, technology, engineering, nuclear power, sheer human achievement of something new and remarkable — almost everyone visiting EBR-I got a "Wow!" feeling and left the place pleased with their tour experience.

After all, it was here on Dec. 20, 1951, that a team of scientists, engineers and support personnel first generated enough electricity from a pile of fissioning uranium to light four light bulbs. The next day, they generated enough electricity to power the entire EBR-I facility.

Just a few years later, in 1955, another reactor on the INL site generated enough power to light up an entire town — making history as the small city of Arco, Idaho, became the first on earth to be entirely powered by energy from atoms.

The reactor not only pioneered the atomic production of electricity — which now supplies some 20 percent of America's electric power — it also demonstrated that a reactor could generate more atomic fuel than it consumed. EBR-I did this by bombarding uranium base material with excess neutrons that otherwise would have been absorbed by shielding. That turned enough of the uranium

into plutonium, also a reactor fuel, to more than compensate for the fuel EBR-I burned up.

Some visitors merely stumble upon EBR-I as they travel to or from Craters of the Moon, the national monument barely an hour away. Others, though, have known of EBR-I for a long time. Eventually this fascinating place draws them to drive out and visit. And few are disappointed by what they find.

"I recently retired, and we have been touring through Canada and parts of the Northwest," said Lynn Vincent, a visitor in June. "I worked for Wisconsin Power, which operates some nuclear plants, and visiting this place is something I've wanted to do for a long time."

Mary and Lynn Vincent were among EBR-I visitors from more than 20 states and 13 countries in 2010.

Some visitors even have personal ties to EBR-I. Occasionally a former worker still stops by. More frequently, a visitor has some tie to one of the original EBR-I team, or they worked at other nuclear facilities in the United States at about the same time EBR-I was in operation.

One such visitor is George Motsegood, from Illinois.

"I worked at the Clinton Power Station of Illinois Power," said Motsegood, who visited in August with his wife, Kathleen. "It was a 985 MW electrical BWR – boiling-water reactor — with a General Electric turbine. GE made the boiling-water reactors, too. I worked there with Leonard J. Koch, a mechanical engineer who is one of the names on the chalk board here at EBR-I. I worked with him for more than 10 years, until he retired, both at Illinois Power and at GE."

Brian Buck of Salt Lake City was fascinated, too. "The exhibits are very well done," he said. "I'm glad I stopped. I travel through on business to and from Challis, (Idaho). But this is my first time to stop here. Quite frankly, I'm impressed."

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