PRESS RELEASE RECALLS 10TH ANNIVERSARY OF EBR-I

The following is the substance of a press release issued on December 20, 1961, the 10th Anniversary of the first generation of useful amounts of electricity by EBR-I. It is reprinted here because of its background information and timeliness:

The participating scientists called it a "routine" experiment, but within days it was news around the world. Ten years ago today at the U. S. Atomic Energy Commission's National Reactor Testing Station west of Idaho Falls, Idaho, the world's first useable amount of electricity was generated from atomic power. The reactor was Argonne National Laboratory's Experimental Breeder Reactor I (EBR-I), the first to be built and placed in operation at the Idaho test site. Twenty nuclear reactors now operating at this site have made vast technological contributions to an industry that was only an infant ten years ago.

With modest pride, the 16 persons present for the "experiment" chalked their names on the concrete wall above the turbine shortly after the success: W. H. Zinn, M. Novick, E. W. Pettitt, R. Cameron, B. C. Cerutti, E. J. Barrow, L. E. Loftin, C. R. Gibson, H. V. Lichtenberger, L. J. Koch, G. K. Whitham, M. L. King, G. H. Stonehocker, K. Johnson, and F. D. McGinnis. Above their names they wrote, "Electricity was first generated here from Atomic Energy on December 20, 1951. On December 21, 1951, all of the electrical power in this building was supplied from atomic energy."

Back in 1946, rolling toward peacetime applications of the atom after the war, The University of Chicago's Argonne National Laboratory, began active experimental work on a liquid metal-cooled fast neutron breeder reactor. By 1948, the feasibility of building a reactor system using high-temperature sodium-potassium alloy to carry away the heat of fission was established, and construction of EBR-I was started late in 1949.

In reality, the 1951 experiment was the culmination of a long series of experiments that had preceded it; therefore, perhaps, the matter-of-fact attitude of the men who made the news. The New York Times described it as follows: "There was a restrained excitement, but no handshaking or backslapping as the ten or a dozen men observed the manual operation that cut in on the 'house circuit' at the station and brought about the operation of the entire equipment of the station by electric power generated from atomic energy."

The local Idaho Falls Post-Register quoted the project engineer, H. V. Lichtenberger, as saying, "It was one of those things for which you have been preparing for years and you expect it to come through. When I turned the switch I guess I was more interested in how the circuit breaker would function than I was in the significance of the test."

Less than two years later, on July 4, 1953, it was announced that EBR-I had proved the feasibility of the breeding concept in which a reactor creates as much or more fissionable material (fuel) as it "burns" during operation.

Since the fuel material, U-235, exists in natural uranium ore in the small proportion of 7/10 of one per cent, it should now become possible to extend these uranium resources several hundredfold by breeding plutonium in a fast breeder reactor.

In January, 1955, the nucleus of the EBR-I staff formally became Argonne's Idaho Division. The Division pioneered and proved the feasibility of another reactor concept, the boiling water reactor, and in a series of experiments on the BORAX reactors, in July of its initial year as a division, used BORAX III to supply the town of Arco, Idaho, with all of its power requirements for a time--another "world's first." Architect-engineer for the EBR-I was the Austin Company, Cleveland, Ohio, and Bechtel Corporation, San Francisco, California, was the constructor. Total construction cost was about $2.7 million, with an additional $2.5 million spent by the Laboratory for research and engineering development over a four-year period.

Argonne National Laboratory is operated by The University of Chicago for the Atomic Energy Commission. Its main site is located 25 miles southwest of Chicago, Illinois. Dr. Albert V. Crewe is the present director of the Laboratory. Meyer Novick, one of the participants in the EBR-I design, construction, and early experiments, is director of the Idaho Division.