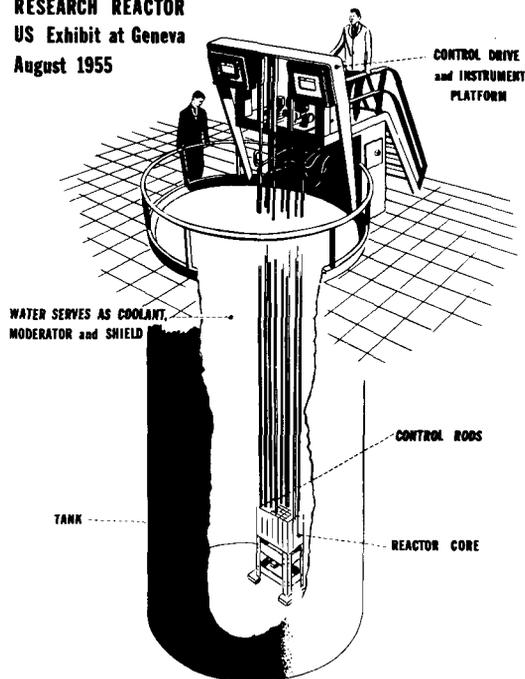


RESEARCH REACTOR
US Exhibit at Geneva
August 1955

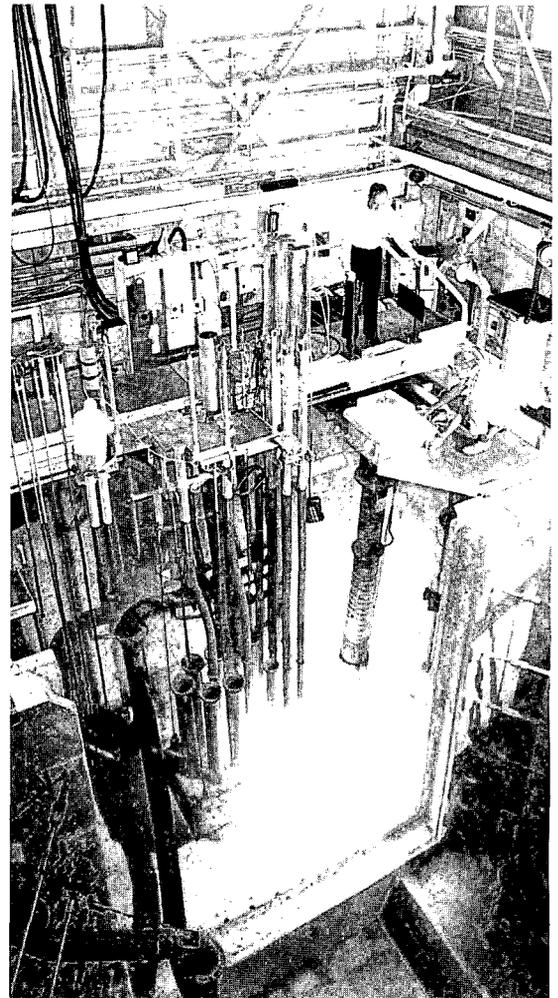


Drawing of "swimming pool" reactor designed and built for display at the 1955 Geneva Conference.

scientific meeting, organized in response to Eisenhower's "Atoms for Peace" initiative, it also became an extravagant science fair with exhibits from many nations emphasizing their scientific achievements.

Never before had the accomplishments of nuclear power been placed on such a public stage. And never before had scientists so openly presented their findings as symbols of national prestige. Just as the athletic Olympics in the post-World War II era emerged as peaceful arenas for venting Cold War animosities, the 1955 Geneva conference on the atom became a platform for comparing the relative strengths of science in capitalist and communist societies.

Because critical assessments of the exhibits, especially those brought by the Soviets and Americans, were expected, the AEC asked its laboratories for spectacular exhibit concepts. At Oak Ridge, Tom Cole's suggestion that the AEC build and display a small nuclear reactor was welcomed.



Cerenkov glow of nuclear fission in water was visible at the Bulk Shielding Reactor.

In early 1955, a Laboratory team led by Charles Winters and William Morgan designed and fabricated a scaled-down version of the Materials Testing Reactor, operating at 100 kW instead of 30 MW. The Laboratory designed it as the first reactor to use low-enriched uranium dioxide fuel. When the fuel plates were fabricated, however, a reaction between the uranium dioxide and aluminum caused the plates to distort. Jack Cunningham's team finished resetting the plates just before shipment.

After testing, the reactor was disassembled and sent by air from Knoxville to Geneva, where the