A billboard encouraging secrecy among Oak Ridge workers.
Photo by James E. Westcott, Official US Army Photographer for the Manhattan Project
American Museum of Science and Energy • www.amse.org

"July 16, 1945, the day when the sky exploded above Alamogordo, New Mexico, was one of the most significant in the 20th century. Robert Oppenheimer prophetically said, 'We knew the world would not be the same.' The Manhattan Project truly did change the world and, for many of us in New Mexico, we felt that change personally. This park tells an epic story of extraordinary scientific achievement and profound historic impact, and ensures that its complicated lessons will be remembered."

— U.S. SENATOR TOM UDALL
New Mexico

106 SUCCESS STORY

Collaborative Effort Leads to Unique National Park in Three States

Hanford, Los Alamos, Oak Ridge

THE STORY

In 1938, German and Austrian physicists split uranium atoms, proving that mass can be converted into energy, and ushered in the prospect of atomic weapons. While the U.S. government began research in 1940, it was not until 1942 that President Franklin D. Roosevelt authorized production of an atomic bomb, fearing the Germans were racing to develop such a weapon. Creation of a uranium weapon was a massive and complex undertaking, involving many federal agencies, universities, and private industries. Coordinating it all was the newly created Manhattan Engineer District of the U.S. Army Corps of Engineers, which concentrated its work at three primary sites. The process of separating "bomb-grade" uranium, U-235, from the more abundant U-238 took place at Oak Ridge, Tennessee. Due to uncertainty that U-235 could be produced on an industrial scale, the Manhattan Engineer District built a second facility at Hanford, Washington, where in nuclear reactors, neutrons from the fission of U-235 were absorbed by U-238 to create plutonium, for use in a bomb. Enriched U-235 and plutonium were sent to Los Alamos, New Mexico, where the bombs were designed, developed, and constructed. By 1945, the secret project had employed 130,000 workers and cost $2.2 billion.

The Manhattan Project helped bring an end to World War II and ushered in the Atomic Age. It became the organizational model for the achievements of American "big science" in the late 20th century. Without the Manhattan Project, the Department of Energy (DOE), with its national laboratories for research and development, would not exist in its present form.

THE PROJECT

In 1990, as DOE shifted its mission emphasis from defense programs to environmental management, it began independent evaluations of decontaminating and demolishing ("D and D") their Manhattan Project sites at Oak Ridge, Hanford, and Los Alamos. On a structure-by-structure basis, DOE launched a wide-ranging effort that threatened many of the significant properties associated with the Manhattan Project.

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Photos: Above, a billboard from Oak Ridge (photo courtesy American Museum of Science and Energy, photo by Ed Westcott); Right, housing at Oak Ridge; main technical area at Los Alamos (photos courtesy DOE)

Photos: Left, Hanford Engineer Works—the plutonium manufacturing areas; Above, restored Building 516 at V Site, Los Alamos (photos courtesy DOE)

THE 106 PROCESS

DOE was responsible for conducting the Section 106 process under the National Historic Preservation Act (NHPA). Section 106 requires that federal agencies identify historic properties and assess the effects of the projects they carry out, fund, or permit on those properties. Federal agencies also are required to consult with parties that have an interest in the fate of the property when adverse effects are likely to ensue.

In 1990, as part of its NHPA responsibilities, DOE convened its first Cultural Resources Management forum at Los Alamos, with the participation of the Advisory Council on Historic Preservation (ACHP). By the mid-1990s, the three facilities had entered into Programmatic Agreements with the ACHP and relevant State Historic Preservation Officers calling for identification and management of historic properties. However, DOE's efforts did not yet address the scale and national significance of the Manhattan Project sites as a cohesive entity.

In 1998, DOE formed a headquarters executive-level "Corporate Board on Historic Preservation" that promulgated a list of DOE National Historic Landmark-quality "Signature Facilities" associated with the Manhattan Project and addressed the question of how to interpret development of the atomic bomb during World War II. In 2001, DOE commissioned a study by the ACHP to make recommendations on managing DOE's historic facilities to preserve the legacy of the Manhattan Project. Included was the idea of a national park comprised of signature facilities at each of the three sites. Senator Jeff Bingaman (NM) and Representative Doc Hastings (WA) subsequently introduced legislation directing the National Park Service (NPS) to study a potential Manhattan Project National Park. In 2004, DOE Secretary Spencer Abraham issued "The Strategic Plan for History and Heritage Resources Program," incorporating many of the ACHP's recommendations. That same year, supported by citizens' groups like the B-Reactor Museum Association and the Atomic Heritage Foundation, the "Manhattan Project National Historical Park Study Act" was enacted. In 2014, Public Law 113-291 created the Manhattan Project National Historical Park, to be co-managed by the NPS and DOE. This innovative multi-state park will be unique, as some designated facilities will continue to operate within a high-security perimeter as critical nuclear research and development continues today.

THE SUCCESS

Faced with the numerous individual Section 106 obligations for the "D and D" process, DOE undertook a broader assessment of preservation and management needs of these exceptionally significant historic properties. DOE continues to implement its heritage resources strategic plan, providing funding for ongoing research, written history, and preservation planning. Signature facilities at all three sites have been protected, and controlled public access has begun at Hanford and Oak Ridge. With the creation of the national park, the future preservation of significant Manhattan Project properties is assured and will allow the public to understand and appreciate the massive effort that ushered in the Atomic Age.

For more about Section 106 and the ACHP go to **www.achp.gov**

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