

# National Park Service Department of the Interior

## Manhattan Project National Historical Park Oak Ridge, Tennessee



April 2020

### Manhattan Project History in April

- Fencing of the reservation completed on April 1, 1943 and Oak Ridge, TN was closed off to public access.
- On April 5, 1944 the first sample of reactor produced plutonium arrives from Oak Ridge, TN. Emilio Segre immediately began monitoring its spontaneous fission rate. By April 15 he made a preliminary estimate of a spontaneous fission rate of over 50 fissions/kg-sec (due to Pu-240 contamination), far too high for gun assembly. The report was kept quiet due to limited statistics, and observations continued.
- President Harry Truman learned of the existence of atomic bomb development from Secretary of War Henry Stimson on April 13, 1945.

### Check Out the Free, Curriculum-based On-Line Program Correlated to Tennessee Learning Standards and Crafted for Grades 9 to 12.

The Teacher's Guide and lesson plan on U.S. Involvement in World War II through the lens of the Manhattan Project National Historical Park in Oak Ridge, TN.

can provide material to help instructors and parents create a learning experience for students at home. Check out <https://www.nps.gov/mapr/learn/curriculum-materials.htm>.



**Building the Secrets of the Manhattan Project.** Beginning construction in 1943 and finished in 1945, the K-25 gaseous diffusion plant in Oak Ridge was the largest building in the world at the time. Employing over 12,000 men and women from all walks of life, the K-25 plant was 1,000 feet wide and over one-half mile long. Designed and constructed in secret for the Manhattan Project, the primary role of K-25 was to separate uranium-235 from heavier uranium-238 atoms.



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This process required enormous amounts of manpower and electrical power, as well as assistance from the neighboring Y-12 plant. The separated uranium-235 was used in the Little Boy atomic bomb dropped on Hiroshima, Japan on August 6, 1945.

After World War II, the K-25 plant remained in operation and was the only gaseous diffusion plant in operation during the Cold War. The plant was deactivated in 1987 and demolished in 2017 due to environmental concerns.



**We encourage all ages to build a version of the K-25 plant out of your own building blocks and post your creations on our Facebook page! No design is too big or too small, too right or too wrong! Use the hashtags #ManhattanProject #GetCreative #LetsBuildTogether. Have fun and we can't wait to see what you come up with!**

### Park Visitor Center Desk at the

Children's Museum of Oak Ridge  
461 W. Outer Drive, Oak Ridge, TN 37830  
(865) 482-1942

or visit us at:

[www.nps.gov/mapr](http://www.nps.gov/mapr)  
<https://twitter.com/MnhntnProjectNPS>  
[www.facebook.com/ManhattanProjectNPS](https://www.facebook.com/ManhattanProjectNPS)  
[www.instagram.com/ManhattanProjectNPS](https://www.instagram.com/ManhattanProjectNPS)

**Eventually This Difficult  
Time Will Pass.**

**In The Meantime Join Us  
On The Web Or On Our  
Social Media Accounts.**