

## 25th Anniversary Celebration

**Time Line of Events** 



## OAK RUDGE OPERATIONS

1977 - R. J. Hart is **ORO** Manager since 1972.

1986 - The High Temperature Materials Laboratory (HTML) completed at ORNL enabling research on developing ceramics and high-temperature superconducting materials.







1983 - Joe LaGrone becomes ORO Manager.



1991 - ORO starts operation of the **Toxic Substances Control Act (TSCA)** Incinerator at K-25.

















199 ORC

1977 - Department of Energy (DOE) takes over from ERDA.

1984 - Martin Marietta Energy Systems replaces Union Carbide.



Martin Marietta Energy Systems, Inc.



1987- Uranium enrichment operations at K-25 permanently shut down.

1994 – Y-12 "Project Sapphire" team brings 1,300 pounds of enriched uranium to Oak Ridge from Kazakhsta **USEC** assumes operation of Portsmouth and Paducah Gaseous Diffusion Plants





 J.C. Hall selected to manage Martin Marietta and Lockheed ge to form Lockheed Martin Corporation.



1999 – G.L. Dever selected as the first female ORO Manager. Vice President Al Gore participates in the SNS ground breaking ceremony in Oak Ridge on December 15, 1999.



1997 – K-25 Site is renamed
East Tennessee Technology Park (ETTP).
BNFL contract signed for major environmental cleanup project. Bechtel Jacobs is named Management and Integration contractor for Oak Ridge Environmental Management program.



When completed in 2005, the neutron research facility will produce the world's most powerful pulsed neutron beams for researchers worldwide.













1996 – Jim Hall establishes a Federal Task Force for Reindustrialization. DOE signs first reindustrialization lease.



1998 - BNFL begins cleanup of three large uranium processing buildings at ETTP. DOE and Y-12 employees assist in Project Auburn Endeavor to remove enriched uranium from Republic of Georgia. Reindustrialization efforts result in over \$800 million in savings and creates over 500 new jobs. **ORO** selects architectengineering/construction management for the **Spallation Neutron Source** (SNS) project.









## TIME LINE

- 1942 Army Corps of Engineers selects Oak Ridge (OR) site for Manhattan Project.
- 1943 Construction begins on uranium enrichment facilities at Y-12 and K-25 Plants. E.I. DuPont de Nemours operates X-10. Tennessee Eastman Company operates Y-12. Carbide & Carbon Chemical Co. operates K-25. Graphite Reactor at X-10 operates for first time.
- 1944 Production of uranium-235 by electromagnetic separation process begins at Y-12.
- 1945 Production of U-235 by gaseous diffusion method begins at K-25. End of World War II, hastened by development of atomic bombs. Monsanto Chemical Company operates X-10.
- 1946 Atomic Energy Act signed by President Truman. First radioisotope for medical use shipped from Oak Ridge to St. Louis Hospital. Oak Ridge Institute for Nuclear Studies established to facilitate university access to Oak Ridge facilities.
- 1947 AEC takes over from Manhattan Engineering District. ORO formerly established. Oak Ridge Operations managed by Walter J. Williams out of AEC Headquarters.
- 1948 Carbide & Carbon Chemical Co. operates X-10, which is named Oak Ridge National Laboratory (ORNL), Biology program established at ORNL, using mice to estimate radiation effects.
- 1949 J.C. Franklin manages ORO and is succeeded by R.W. Cook. City gates opened. The Oak Ridge American Museum of Atomic Energy opens. Operation of Y-12 passes from Tennessee Eastman to Carbide & Carbon Chemical Co.
- 1950 Oak Ridge Institute for Nuclear Studies opens Cancer Research Center.
- 1951 S.R. Sapirie selected as ORO Manager. Construction begins on Paducah Gaseous Diffusion Plant (GDP).
- 1952 Paducah GDP first production of enriched uranium. Construction of Portsmouth GDP begins.
- 1953 World's most powerful computer, ORACLE, installed at ORNL. AEC approves plans for OR downtown shopping
- 1954 ORNL's experimental aircraft reactor is tested.
- 1955 ORNL "swimming pool" reactor is showcased at United Nations Atoms-for-Peace Conference.
- 1956 First experimental bone-marrow transplants in mice is performed at ORNL "Mouse House,"
- 1958 Oak Ridge Research Reactor begins 30 years of research and isotope production.
- 1961 ORNL is established as center for production of transuranium elements.
- 1963 Graphite Reactor shut down after 20 years of operation at ORNL.
- 1965 High Flux Isotope Reactor and Molten Salt Reactor begin operation at ORNL.
- 1966 New AEC building construction begins. HFIR begins operation at ORNL providing unique capabilities in transuranium isotope production, neutron scattering, and material irradiation.
- 1969 K-25 begins toll enrichment for all nuclear power plants in the world.
- 1972 R.J. Hart becomes ORO Manager, World's first successful freezing, thawing, and implantation of mouse embryos achieved.
- 1975 Energy Research and Development Administration (ERDA) replaces AEC. American Museum of Atomic Energy moves into new facility, and in 1978 becomes the American Museum of Science and Energy.
- 1977 Department of Energy (DOE) takes over activities from ERDA.
- 1980 ORNL opens three user facilities: accelerator lab, neutron research facilities, and environmental research park.
- 1983 J. LaGrone becomes ORO Manager.
- 1984 Martin Marietta Energy Systems, Inc. operates DOE-owned facilities in Oak Ridge.
- 1985 Weldon Spring Site Remedial Action Project initiated.
- 1986 The High Temperature Materials Laboratory (HTML) completed at ORNL, enabling research on developing ceramics and high-temperature superconducting materials.
- 1987 Uranium enrichment operations at K-25 permanently shut down. Human genome studies begin at Laboratory. Construction begins on a site that is now known as the Thomas Jefferson National Accelerator Facility.
- 1991 ORO starts operation of the Toxic Substances Control act Incinerator at K-25.
- 1993 United States Enrichment Corporation (USEC) assumes operation of Portsmouth and Paducah GDPs.
- 1994 Y-12 "Project Sapphire" team brings 1,300 pounds of enriched uranium to Oak Ridge from Kazakhstan.
- 1995 J.C. Hall selected to Manage ORO. Martin Marietta and Lockheed Corporations merge to form Lockheed Martin Energy Systems, Inc., to operate OR facilities.
- 1996 Jim Hall establishes a Federal Task Force for Reindustrialization. DOE signs first reindustrialization lease. Lockheed Martin Energy Research, Inc. operates ORNL.
- 1997 K-25 Site is renamed East Tennessee Technology Park (ETTP). BNFL contract is signed for major environmental cleanup project. Bechtel Jacobs Company, LLC, is named management and integration contractor for Oak Ridge EM program.
- 1998 BNFL begins cleanup of three large uranium processing buildings at ETTP. DOE and Y-12 employees assist in Project Auburn Endeavor to remove enriched uranium from Republic of Georgia. Reindustrialization efforts result in over \$800 million in savings and create over 500 new jobs.
- 1999 G. L. Dever selected as ORO Manager. The American Museum of Science and Education celebrates 50th Anniversary.
- 2000 Groundbreaking signals the start of construction on the Spallation Neutron Source project. UT Battelle, LLC operates ORNL. BWXT Y-12 operates Y-12, which is renamed Y-12 National Security complex. National Nuclear Security Administration begins operations. Y-12 National Security Complex separates from ORO.
- 2002 Weldon Spring Site project completion.