EM Story Transcript

On July 16, 1945, at the Trinity Site in New Mexico, the United States government conducted the first test of an atomic bomb.

Less than a month later, a U.S. military aircraft dropped an atomic bomb on the Japanese city of Hiroshima.

Three days later, the U.S. dropped an atomic bomb on the Japanese city of Nagasaki.

Six days later, Japan announced its surrender, bringing an end to World War II, a conflict in which more than 70 million people died.

The road to development of the atomic bomb began in 1939 when Albert Einstein wrote a letter to President Franklin Roosevelt advising him that Nazi Germany might be conducting research to develop atomic bombs. He suggested that the U.S. should do the same.

In 1942, the U.S. government launched an effort to develop the first atomic bombs, this effort was later called the "Manhattan Project."

Conducted in secret, the Manhattan Project would eventually employ more than 130,000 people at research and production sites located across the U.S.

These sites included the Los Alamos research site in New Mexico and production facilities at Hanford in Washington State and Oak Ridge, Tennessee.

Following World War II, tension and competition grew between the United States and the Soviet Union. This rivalry between the two world powers came to be known as the Cold War.

The Cold War soon escalated into a nuclear arms race, in which both the U.S. and the Soviet Union developed large numbers of nuclear weapons.

The U.S. expanded nuclear weapons research and production, building such sites as the Savannah River Plant in South Carolina, the Idaho National Laboratory, and the Rocky Flats Plant in Colorado.

The prospect of mutual mass destruction from these nuclear weapons deterred direct conflict between the adversaries.

In the late 1980s and early '90s, the Soviet Union and its influence over its allies collapsed, effectively ending the Cold War.

During the Cold War, the U.S. nuclear stockpile reached more than 30,000 nuclear weapons.

Research and production of these weapons resulted in large volumes of nuclear waste and materials.

They consist of some of the most dangerous materials known to mankind, including liquids, sludge, solids, and equipment contaminated with plutonium and other radioactive elements.

Some of these substances have low levels of radioactivity, while others have high levels that require shielding, such as lead, concrete and steel.

There are more than 1.5 million cubic meters of radioactive solid waste and 88 million gallons of radioactive liquid waste.

The total amount of radioactive waste to be dispositioned would fill the Louisiana Superdome.

Nuclear weapons research and production also left behind nuclear materials, which include plutonium, uranium and nuclear fuel.

Cold War research, production and storage methods also led to the contamination of soil and groundwater at locations across the country.

And thousands of nuclear, radioactive and industrial facilities required decontamination and demolition.

In 1989, The U.S. Department of Energy created the Office of Environmental Restoration and Waste Management, later renamed the Office of Environmental Management.

EM's mission is to complete safe cleanup of nuclear waste, materials and facilities left over from five decades of nuclear weapons development and government-sponsored nuclear energy research.

EM runs the world's largest nuclear waste cleanup effort.

EM sites are located in 35 states and involve a total of 2 million acres of land…

…an area the size of Rhode Island and Delaware combined.

More than 30,000 workers, including scientists, engineers and technicians are employed in this cleanup effort…

…and the annual EM budget appropriated by Congress is more than $5 billion.

Headquartered in Washington, D.C., EM's focus is to clean up nuclear waste, materials, buildings and facilities.

Nuclear waste cleanup involves the storage, retrieval, characterization, treatment, packaging, transport and disposal of radioactive waste.

Nuclear materials cleanup involves safely packaging radioactive materials for disposition.

…and facility and site cleanup involves the decontamination, demolition, and removal of facilities and buildings; soil and groundwater remediation; and other highly technical cleanup activities.

EM workers daily perform complex, "first-of-their-kind" tasks each day under challenging conditions and manage materials that will remain radioactive for thousands of years.

Safety is our top EM priority. EM ensures its workers have the experience, expertise, and training needed to perform each of their tasks safely.

EM firmly believes its workers deserve to go home as healthy as they were when they started their workday.

EM's ultimate goal is to reduce the risk to the public and environment posed by nuclear waste and materials, soil and groundwater contamination and aging nuclear weapons research and production facilities.

To achieve this goal, EM invests in and deploys robust, state-of-the-art technology, equipment, and systems…

…and focuses on complying with state and federal laws, regulations, and agreements for environmental protection, occupational and nuclear safety, transportation and disposal.

EM has made substantial progress in its cleanup and risk reduction effort, completing cleanup of the Rocky Flats site located near Denver, Colorado…

…and the Fernald site near Cincinnati, Ohio.

Clean up of these sites were completed decades ahead of schedule, saving taxpayers billions of dollars.

More than three-quarters of Cold War low-level waste has been safely disposed of in engineered landfills such as the one at the Nevada Test Site.

More than 100,000 containers of transuranic waste have been safely disposed of in a stable geological formation 2,150 feet below the surface at the Waste Isolation Pilot Plant in New Mexico. This waste was safely transported from other nuclear weapons sites.

. . . nearly all plutonium, uranium residues, and spent nuclear fuel have been packaged for long-term safe storage and disposition . . .

. . . nearly 2,000 nuclear, radioactive and industrial facilities have been decontaminated and demolished or converted for industrial use . . .

. . . and more than 6,000 areas containing contaminated soil and groundwater have been cleaned up.

While EM has made substantial cleanup progress, much work remains and challenges lie ahead.

Chief among these is elimination of more than 88 million gallons of liquid radioactive waste stored in more than 200 aging underground tanks. Most of this waste is planned for disposition in "glass" or a concrete-like form.

To address these challenges, EM created the world's greatest nuclear cleanup organization composed of the best and brightest employees, leading-edge equipment and facilities, and disciplined safety and project management processes.

EM will continue to focus on risk reduction and cleanup that is safe, environmentally responsible, cost effective, efficient and prioritized . . .

. . . and engage the public, tribal nations, regulatory agencies, state and local governments and other stakeholders in developing cleanup strategies and making cleanup decisions

EM is proud to perform its cleanup mission, recognizing its importance to America.