

**DEPARTMENT OF THE ARMY**

**U.S. ARMY CORPS OF ENGINEERS**

**COMPLETE STATEMENT**

**OF**

**LIEUTENANT GENERAL TODD T. SEMONITE  
COMMANDING GENERAL AND CHIEF OF ENGINEERS**

**BEFORE THE**

**COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS**

**UNITED STATES SENATE**

**ON**

**CLEANING UP THE COLD WAR LEGACY**

**MARCH 29, 2017**

Chairman Barrasso, Ranking Member Carper, and distinguished members of the Committee, I am Lieutenant General Todd Semonite, Commanding General and Chief of Engineers. I appreciate the opportunity to appear before you today to address the U.S. Army Corps of Engineers (Corps) activities in cleaning up the cold war legacy.

The Corps fully supports the Department of Defense's (DoD) stated commitment to protect the environment for several reasons: to ensure that our nation has the land, water, and airspace we need for military readiness; to protect the health of the military and civilian personnel and their families who live and work on our bases; to ensure our operations do not affect the health or environment of surrounding communities; and to preserve resources for future generations. Throughout the nation's history, DoD has used land across the United States to train Soldiers, Airmen, Sailors and Marines, and to manufacture and test new weapons to ensure the nation's military readiness. When this land was no longer needed for DoD activities, the Department cleaned up the properties using the best practices available at that time and returned it to private or public uses. Today, DoD is responsible for the environmental restoration (or cleanup) of these properties in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The Corps is involved in three programs addressing those past activities. First, as part of the Defense Environmental Restoration Program (DERP), DoD through the Army has delegated execution responsibility to the Corps for the Formerly Used Defense Sites (FUDS) Program. The second program executed by the Corps is the Formerly Utilized Sites Remedial Action Program (FUSRAP). In 1997, using the FUDS program as a model, Congress transferred the management and execution of FUSRAP from the Department of Energy (DOE) directly to the Corps to address the environmental remediation or control of sites where the Manhattan Engineer District or Atomic Energy Commission activities were performed during the 1940s, 1950s and 1960s. Third, the U.S. Environmental Protection Agency (EPA) has been partnering with the Corps for environmental cleanup support at large and complex Superfund sites since 1982. EPA relies on the Corps for its environmental engineering expertise and we provide about \$225-300 million per year in remedial design and remedial construction support to the EPA's Superfund projects across the country.

The theme of this hearing is "Cleaning Up Our Cold War Legacy," and I'm sure we will talk about specific projects tied to that era. It is important to also note that the cleanup programs the Corps has been entrusted to execute represent an even broader history of our Nation. In FUDS, we are cleaning up munitions from the World War I and World War II era, to include beaches in Hawaii where our Marines practiced storming the beach before Iwo Jima. In FUSRAP we are helping to clean up our atomic energy era that kept our Nation secure. And in our support to Superfund, we are helping to clean up from an industrial base that fueled our country's economy.

Through the FUDS and FUSRAP programs, the Corps is responsible for approximately 5,400 cleanup sites. In order to make the most impact, we continually reassess these cleanup programs to ensure we address the highest risk sites first. At the same time, we are committed to completing cleanup, or achieving “Response Complete” at all of our sites. Response Complete is when active cleanup actions are complete and only monitoring remains. In addition to this work, we also support the Army and Air Force in cleaning up sites on active installations, and we provide a wide variety of environmental remediation support and technical advice to a number of other Federal partners at sites across the country. The Corps and DoD are dedicated to protecting human health and the environment by investigating and, if required, cleaning up contamination and munitions hazards that may remain on these properties. The Corps has made significant progress in the cleanup of FUDS and FUSRAP sites, such that over 65 percent of our FUDS sites and approximately 20 percent of our FUSRAP sites have now reached Response Complete. I am proud of the work that the Corps has accomplished in delivering these programs to the nation and we remain committed to achieving the cleanup program goals established by DoD and the Army. None of our successes would have been possible without the expertise of our state, local, and Federal partners and through collaboration with the cleanup industry and the non-DoD landowners. Our success is also predicated on the investment in groundbreaking environmental technology that is used throughout DoD and shared with the EPA, DOE, other agencies and the private sector, saving taxpayer funding. Our focus remains on continuous improvement in these cleanup programs.

We execute the work for our DoD and EPA partners within the structure and framework of the budget, statutory authorities, and policies developed for these programs. The Corps supports our DoD and interagency partners in ensuring the health and safety of communities, reducing DoD’s overall \$28 billion environmental cleanup liability as of the end of fiscal year 2015 so that funds can be invested back into readiness, and returning property back to communities so that they can put it back to use in growing their local economies.

I will now outline the Corps role in the FUDS and FUSRAP cleanup programs, report on our investments and progress, and describe the Federal, state, and local partnerships we have established to ensure we are able to execute our cleanup programs as efficiently and effectively as possible.

## **FUDS**

As far back as the 1970s, DoD began identifying sites requiring environmental cleanup. Congress passed CERCLA in 1980, which provided a national framework for cleanup of contaminated sites. In 1986, the Superfund Amendments and Reauthorization Act (SARA) established DERP (Title 10 of the United States Code ~ 10 USC §§2700et. seq.). DERP identifies how DoD will

fund and implement cleanup using the CERCLA cleanup framework. Under the DERP statute, FUDS are generally defined as properties that were formerly owned by, leased to, or otherwise possessed by, the United States and under the jurisdiction of the Secretary of Defense prior to October 1986. Under the FUDS Program, DoD is responsible for addressing the release of contamination as a result of previous DoD activities.

Our cleanup sites are broken into three categories: the Installation Restoration Program (IRP) which addresses the cleanup of hazardous substances; the Military Munitions Response Program (MMRP) which addresses unexploded ordnance (UXO); and the Building Demolition and Debris Removal (BD/DR) program that removes unsafe buildings and structures.

The scope and magnitude of the FUDS Program are significant. A total of 10,103 former DoD properties have been evaluated for the FUDS program since the establishment of DERP. The Corps has identified 5,357 cleanup sites at 2,716 different properties where cleanup actions are required. The FUDS program has been funded by Congress through DERP with approximately \$7.1 billion through FY2016. The remaining cost to complete for the FUDS program is currently projected as \$11.8 billion. As of September 30, 2016, the Corps has achieved Response Complete at 2,512 of the 3,104 IRP and BD/DR sites (81 percent) and at 1,001 of the 2,253 MMRP sites (44 percent). During FY2016, the Corps achieved Response Complete at 103 cleanup sites. Of the total 5,357 cleanup sites, 3,513 are now either closed out or in monitoring status.

Cleanup at many of the remaining sites is more complex and requires additional time or a remedy based on more advanced technology. To that end, the Corps is supporting DoD investments in technology and partnering with fellow Federal agencies, state regulators, and industry stakeholders to cut costs and increase efficiency in our cleanup efforts. One example of this is the recent successes in fielding the Advanced Geophysical Classification technology at multiple MMRP sites to allow us to better discriminate between hazardous unexploded ordnance and harmless scrap metal without the need to dig up every object.

Although significant progress has been made, the large volume of work remaining means that the Corps cannot work at every site simultaneously. The Corps determines the priority of all remaining cleanup sites, nation-wide, on the basis of risk to human health and the environment in partnership with states and the regulators in accordance with the principles established by the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC). Then, working together with our environmental regulatory partners and, in some circumstances the EPA, the Corps refines the sequence in which the cleanups will be conducted. By cleaning up the “worst first,” we reduce the risks to human health and expedite the return of properties to productive use. Due to the large number of MMRP sites remaining, DoD, in partnership with state environmental regulators, established an interim risk management goal for FUDS which

requires well-planned, coordinated actions to increase awareness of the potential risk posed by these sites until cleanup activities can begin.

The Corps has implemented a program to notify landowners and other users of the property of potential hazards. Public notification and education about potential hazards are being carried out in a systematic and recurring process. Members of Congress are also notified when these notices are sent to their constituents. For example, if there is unexploded ordnance concerns at a site, the public is educated about how to report anything suspicious. The education program is known as the 3R's of explosives safety -- "Recognize, Retreat and Report." The public is also provided access to information about FUDS in their area through local information depositories and websites about the FUDS Program and for specific projects where work is currently underway. For FUDS program information see: [www.FUDS.mil](http://www.FUDS.mil).

Another challenge we face for FUDS is in Alaska, where we currently have 176 remaining cleanup sites (140 IRP and 36 MMRP) with an estimated cost to complete of over \$1.7 billion. Alaskan FUDS work is logistically challenging. Many Alaska FUDS are isolated from the limited Alaskan road system. Equipment and workers are often flown and/or barged to the project locations with limited infrastructure available to support cleanup operations. Additionally, due to the arctic climate, the field season is limited. To maximize the field season, investigation work is often done concurrently with cleanup. Large sites under investigation are broken into smaller projects with achievable remediation solutions. Using these approaches the Corps has achieved Response Complete at 219 of the 395 cleanup sites (55 percent), representing an investment of \$948 million since 1984.

The Corps is committed to working with state regulators, the EPA, and other Federal Agencies on cleanup issues at FUDS. The Corps recognizes the benefit of these partnerships and participates in all three DoD established working groups to communicate and collaborate with Federal and State regulators on important issues at the national level. One of these working groups, called the FUDS Forum, is focused on DoD's partnership with State regulators on topics specifically related to the FUDS Program. Since FUDS properties are no longer under DoD control, many unique challenges can arise during the cleanup process. The FUDS Forum provides an opportunity to discuss and develop solutions in concert with our regulatory partners.

A recent example of these partnerships is at the FE Warren Atlas Missile Site 3 in Wyoming. In FY 2016, the Corps leadership was able to engage directly with the Director of the Wyoming Department of Environmental Quality, to negotiate the approval of the Decision Document for the site so that \$4 million could be expended for the treatment of groundwater contamination near the source area. This agreement will also make possible the investment of an additional \$8 million

in FY2017 for new work at the leading edge of the plume so that contamination will not continue to spread.

The Corps also values local community input and recognizes the importance of public involvement at FUDS that require environmental restoration. Restoration Advisory Boards (RABs) can be formed to provide the local communities with forums to discuss cleanup issues or concerns with the Corps and the State and Federal regulators. RABs include members from the local communities and reflect the diverse interests in the communities that are impacted by the cleanup activities.

To date, the Corps has made significant progress toward creating an inventory, assessing DoD responsibility, and addressing FUDS liabilities. While the mission was massive to begin with, through tremendous effort we are now within sight of having successfully addressed nearly 90% of the IRP and BD/DR sites and almost 50% of MMRP sites in the FUDS inventory in the next few years. For the work that remains, DoD and the Corps are committed to completing these efforts and ensuring that protective, permanent solutions address any remaining environmental restoration requirements.

## **FUSRAP**

The Formerly Utilized Sites Remedial Action Program (FUSRAP) was initiated in 1974 to identify, investigate, and if necessary, clean up or control sites throughout the United States contaminated as a result of the Nation's early atomic weapons and energy programs. These activities were conducted by the Manhattan Engineer District (MED) or Atomic Energy Commission (AEC) who are both predecessors of the U.S. Department of Energy (DOE). Congress transferred responsibility for administration and execution of cleanup at eligible FUSRAP sites to the Corps in the Energy and Water Development Appropriations Act of 1998 [Public Law 105-62, 111 Stat.1320, 1326].

We continue to address these responsibilities, which include sites referred after 1998 under a Corps of Engineers/DOE Memorandum of Understanding, and sites added to the program by Congress. When executing FUSRAP, the Corps follows the investigation and response framework of the CERCLA, as amended, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

The FUSRAP Program prioritizes objectives and phases of work that best support the overall program goal of eliminating demonstrable threats to public health, safety, or the environment. Funding priority is generally given towards previously awarded contracts to continue design, removal, or remediation, especially for projects in the construction phase. There are 24 sites currently in the FUSRAP program and two other sites that have been determined as eligible for consideration and are awaiting a final determination as to whether

they will be included in FUSRAP. The Corps has completed remediation of nine sites since the program was transferred.

The Corps is committed to informing and involving the public as it progresses through the decision-making process for each site. Response actions are coordinated with the EPA and/or state environmental regulatory agencies on all sites. FUSRAP has two programmatic Memorandums of Understanding (MOU): one with DOE and one with the Nuclear Regulatory Commission (NRC).

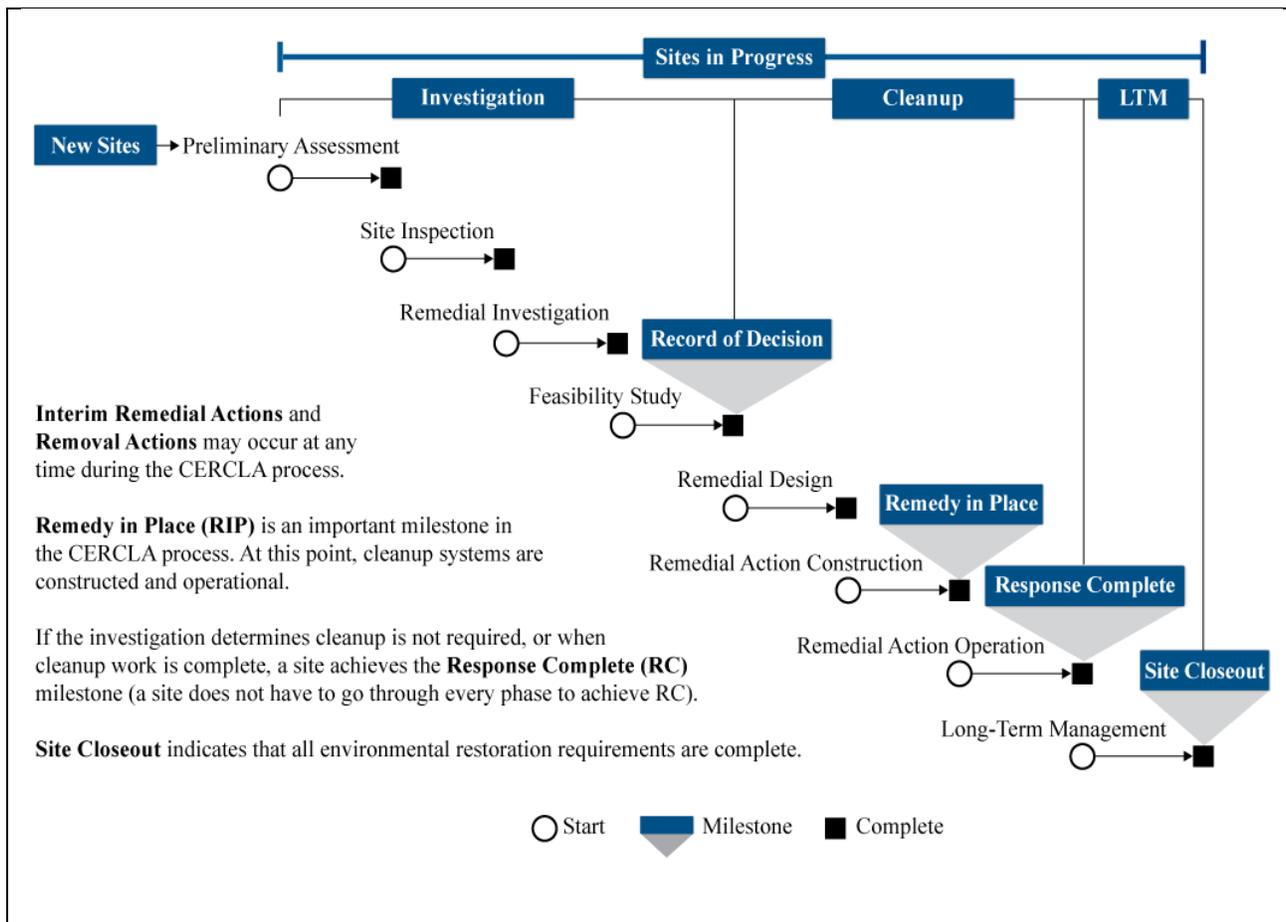
- The DOE MOU delineates the administration and execution responsibilities of each of the parties for FUSRAP. DOE determines if a site is eligible for FUSRAP and accepts long-term stewardship of the properties once the remedy is in place.
- The NRC MOU strives to minimize dual regulation and duplication of regulatory requirements at FUSRAP sites with NRC-licensed facilities and outlines coordination procedures and methods to suspend the NRC license while the Corps is cleaning up licensed material. The program currently has one site with an NRC license.

The continued presence of radioactive materials presents the potential for chronic health exposure to sensitive populations (very young, seniors and impaired health). Every year remedy completion is delayed, funding still must be spent on maintaining the site controls regardless of whether any remedial activities are taking place. For the work that remains, the Corps is committed to completing these efforts and returning these properties to DOE with protective and effective solutions that address any remaining environmental restoration requirements.

## **THE CLEANUP PROCESS**

DoD's environmental cleanup program follows the long-established and well-documented process under CERCLA and the National Contingency Plan, as shown in the figure below. While some phases may overlap or occur concurrently, environmental activities at FUDS and FUSRAP sites are generally conducted in the order shown. In addition, FUDS actions under the DERP comply with DoD Directives, Instructions, policies, and guidance.

**Figure. Environmental Restoration Process Phases and Milestones**



The Corps has a unique capability to deliver these cleanup programs due to the extensive knowledge and experience of the environmental engineers and scientists residing within our Divisions, Districts, Centers, and Labs. With over 4,000 environmental professionals, the Corps has the technical capabilities to complete the most challenging and complex environmental programs for our nation. The Corps uses competitively procured contracts with industry to assist in the performance of studies and investigations and the implementation of response actions to address the environmental response requirements at cleanup sites. This process provides for collaboration with the private sector while maintaining an arm's length, professional relationship with industry. This ensures that the best interests of the taxpayers are protected and Federal appropriations are expended effectively while making use of the expertise and resources in the private sector.

In closing, I sincerely thank the Committee for this opportunity to discuss the Corps' environmental cleanup activities for our cold war legacy. We are committed to addressing contamination resulting from past activities as we

rigorously comply with current laws and regulations to minimize new contamination.