Written Statement of William "Ike" White Senior Advisor for the Office of Environmental Management Before the Subcommittee on Energy and Water Appropriations United House of Representatives May 11, 2022

Chairwoman Kaptur, Ranking Member Simpson, and Members of the Subcommittee, it is an honor to appear before you today to represent the Department of Energy's (DOE) Office of Environmental Management (EM).

EM's mission represents the government's strong commitment to cleaning up the environmental legacy of the national defense programs that helped end World War II and the Cold War. EM's vital mission does not just address past legacy, though, it also helps to support and enable DOE's ongoing national security and scientific research missions.

The Fiscal Year 2023 budget request of \$7,643,202,000 for EM reflects the Biden Administration's strong commitment to advancing the cleanup mission and preparing for sustained success, maintaining national security priorities, and supporting communities most impacted by the environmental legacy of the past.

Record of Results for the Environment

Over the last 30 years, EM has made significant progress, completing cleanup the environment at 92 out of a total of 107 sites. EM's significant accomplishments to date have included completing demolition of the Plutonium Finishing Plant, a facility that produced two-thirds of the nation's Cold War-era plutonium at the Hanford Site in Washington state; completing the removal of the former uranium enrichment complex at Oak Ridge in Tennessee; completing the Advanced Mixed Waste Treatment Project at the Idaho National Laboratory where 65,000 cubic meters of legacy transuranic waste were processed and disposed; completing construction and initiating operation of two depleted uranium hexafluoride (DUF6) conversion plants at the Portsmouth Site in Ohio and the Paducah Site in Kentucky; opening the world's only deep geological repository for transuranic waste generated from atomic energy defense activities at the Waste Isolation Pilot Plant in New Mexico; and completing construction on the entire tank waste treatment system at the Savannah River Site in South Carolina, enabling significant progress in how the Department tackles one of its largest environmental and financial liabilities at that site.

New Era of Cleanup Success

These accomplishments are enabled by the significant investments Congress has made in the EM program and have ushered in tangible results for communities and the environment in a safe, effective, and responsible manner. Even as EM continues to grapple with a global pandemic, the program achieved a set of impactful accomplishments at sites across the country.

At the Y-12 National Security Complex in Oak Ridge, Tennessee EM demolished the Biology Complex. EM also advanced deactivation and demolition work at the Oak Ridge National

Laboratory (ORNL) with demolition of the Radiological Lab's West Cell Bank and the Tritium Target Preparation Facility now complete. ORNL and Y-12 house hundreds of excess contaminated facilities that comprise the largest inventory of high-risk buildings in the DOE complex. Collectively these efforts are reducing risks, stabilizing facilities, and paving the way for advancing cleanup and providing land for research and national security missions. At the Hanford site in Washington state, EM is treating radioactive and chemical waste from large underground tanks for the first time ever on a large scale, and we are progressing towards initiation of the Direct Feed Low Activity Waste (DFLAW) project that will convert into glass or vitrify this waste for disposal. At the Savannah River Site in Aiken, South Carolina we are now processing record amounts of tank waste and recently broke ground on the important Advanced Manufacturing Collaborative facility that will provide essential space for mission work and facilitate academic, industry, and community collaboration in state-of-the-art laboratory space. The Advanced Manufacturing Collaborative will bring cutting edge innovations to help meet the needs of the EM cleanup mission and create an environment to develop a diverse and talented next generation workforce.

The EM team in Idaho recently completed buried waste remediation helping to protect the Snake River Aquifer. More than 200 transuranic waste shipments were received last year at the Waste Isolation Pilot Plan (WIPP) in New Mexico. This includes shipments from Los Alamos National Laboratory, where the EM team certified and completed 30 shipments to WIPP last year.

Cleanup activities at the Brookhaven National Laboratory in New York are complete with demolition of the 320-foot-tall red-and-white High Flux Beam Reactor exhaust stack, restoring the areas skyline. Lastly EM has initiated demolition activities on the first of three massive former gaseous diffusion plants that will be taken down at the Portsmouth Site in southern Ohio. Site crews have now completed 65 percent of the X-326 Process Building demolition project.

Steady Progress Planned for Fiscal Year 2023

The Fiscal Year 2023 budget request builds on these significant achievements by positioning EM for steady and sustained progress in how we tackle radioactive tank waste. Key investments are proposed to continue to drive risk reduction and significant changes across EM's portfolio of sites, as well as to continue to aid the Department's vital science and defense missions.

Protecting the environment by addressing radioactive waste stored in underground tanks at Hanford, Savanah River and the Idaho National Laboratory is a top priority for EM. The budget request enables treatment of one million gallons of tank waste through the Tank Side Cesium Removal system and supports the commencement of vitrifying this waste by the end of 2023 via the Direct Feed Low Activity Waste system. After decades of support from the local community, Congress and the workforce this transformational accomplishment is within sight.

As we prepare to begin operating Hanford's low-activity tank waste vitrification capabilities, the budget request also invests \$316.2 million to ramp up work on the Waste Treatment Plant's High Level Waste facility to be able to tackle that portion of Hanford's tank waste inventory. In parallel, EM continues to identify safe, effective, and viable options for the treatment of all

Hanford's tank waste, including supplemental low activity waste. One such approach is the proposed Test Bed Initiative (TBI) Demonstration. The proposed TBI Demonstration would address independent recommendations and comments from the Government Accountability Office, the National Academy of Sciences, national laboratories, and others to further study the potential cost, safety and environmental performance of potential treatment and disposal alternatives. Implementation of this TBI Demonstration technology on an industrial scale could have the potential to safely pretreat low-activity waste from Hanford tanks, solidify the waste in grout, and dispose of it off-site in a manner that is protective of the workers, the public and the environment.

In addition to helping solve the challenges of Hanford tank waste, the request will enable EM to continue meaningful cleanup progress to place another former production reactor into interim safe storage, transfer radioactive capsules to safer dry storage, and treat another 2 billion gallons of contaminated groundwater.

In South Carolina, the Fiscal Year 2023 budget request supports full utilization of capabilities to process tank waste. The Salt Waste Processing Facility will further accelerate the tank waste mission by increasing the processing of to 6 million gallons in Fiscal Year 2023 up from an expected 3 million gallons in Fiscal Year 2022. As a result, the Savannah River Site could complete the bulk of its tank waste treatment mission in a decade.

EM actively works with other DOE organizations to assess infrastructure needs across the Department and will continue to pursue modernizing efforts throughout the complex, including at the Savannah River Site to facilitate project completion.

At the same time, risk reduction work will continue at the Savannah River Site, including work towards disposition of remaining transuranic waste and remediating contaminated soil and groundwater.

At the Idaho National Laboratory, the request supports operations of the Integrated Waste Treatment Unit which will ultimately treat about 900,000 gallons of liquid waste by turning it into a granular solid. EM also will meet another key commitment to the state of Idaho by completing the transfer of EM-owned spent nuclear fuel to on-site dry storage.

The request will also allow EM to address high-risk excess contaminated facilities and address contaminated groundwater across the complex. EM will complete demolition of the X-326 Building and then pivot to pre-demolition activities in the second former gaseous diffusion plants that will be taken down at the Portsmouth Site over the next decade. As work advances at Portsmouth, EM will continue to transfer land for economic development, achieving the goal of returning the site to a condition where it can be used to help the community grow and thrive.

The request also supports demolition of the Main Plant Process Building at the West Valley Demonstration Project in New York as well as continued demolition work at the Engine Maintenance, Assembly, and Disassembly (EMAD) and Test Cell C (TCC) complexes scheduled to begin later this year at the Nevada National Security Site. These large and unique legacy

nuclear facilities have ties to historical nuclear propulsion rocket development and testing programs at the site.

Support for National Security Missions

In addition to reducing environmental risks at these and other sites across the complex, the EM mission benefits the Department's broader national security and scientific research missions. Nowhere is this more evident than at Oak Ridge where the successful demolition of the former uranium enrichment complex at the East Tennessee Technology Park has enabled EM to begin major cleanup operations at the Oak Ridge National Laboratory and Y-12 National Security Complex. Demolition of the Biology Complex at the Y-12 National Security Complex involved tearing down the six-story, 255,000 square-foot Building 9207 and the three-story, 65,000 square-foot Building 9210. With this project complete, EM will transfer the 18-acre area to the National Nuclear Security Administration (NNSA) later this year. The area is the planned location for the future Lithium Processing Facility. The Fiscal Year 2023 budget request supports continued cleanup of excess facilities at Oak Ridge, including the Radiological Development Lab, Bulk Shielding Reactor, and Low-Intensity Test Reactor at the Oak Ridge National Laboratory, and the dilapidated East Column Exchange (COLEX) equipment at the Alpha-4 facility at the Y-12 National Security Complex.

Today, EM is in the midst of a significant infrastructure and modernization campaign at WIPP. Last year EM began mining the West Access Drifts and completed construction of the Salt Reduction Building. The Salt Reduction Building is a key component of the Safety Significant Containment Ventilation System (SSCVS) to improve air quality in the underground portion of the site. Along with providing for continued WIPP operations, as well as waste characterization and transportation programs, the budget request supports the continued infrastructure recapitalization projects, as well as mine modernization activities and safety upgrades in Fiscal Year 2023. Shipments of legacy transuranic waste to WIPP will progress from sites across the DOE complex, including the Los Alamos National Laboratory in New Mexico, where deactivation and decommissioning of NNSA's Ion Beam Facility will be initiated in Fiscal Year 2023.

At the Lawrence Livermore National Laboratory, the removal of the Livermore Pool Type Reactor was completed. This marks a significant cleanup milestone and demonstrates EM's strong cooperation with its NNSA and U.S. Army Corps of Engineers partners while setting the stage to begin demolition of Building 280 later this year.

In addition, EM is pursuing a world-class technology development program to accelerate the overall cleanup mission, increase efficiency, and protect human health and environment. EM is leveraging the expertise of the Savannah River National Laboratory and the Network of National Laboratories for Environmental Management and Stewardship to develop innovative solutions in the fields of environmental cleanup, national security and science and energy security that will benefit EM, the NNSA and other DOE missions.

Diverse and Talented Workforce

The talented and dedicated men and women across EM are the program's greatest assets. While significant progress continues across the DOE complex, the EM mission will span several decades at some sites. With that in mind, EM is taking steps to ensure a successful and sustainable program that will enable mission completion. EM is investing to support workforce development and build a workforce that promotes diversity, equity, inclusion, and accessibility. These principles are fundamental to EM because they enable every aspect of the cleanup mission.

The budget request provides resources to build a diverse pipeline of talent and support high-quality jobs in environmental cleanup. For example, the \$56 million request in Fiscal Year 2023 supports EM's Minority Serving Institutions Partnership Program, which is designed to help build and maintain a well-trained, technically skilled, and diverse workforce. By partnering with Minority Serving Institutions and Historically Black Colleges and Universities, this program promotes the education and development of EM's next generation workforce in STEM-related disciplines.

Support for Impacted Communities

As EM makes steady cleanup progress and prepares for future mission needs, EM remains committed to addressing the responsibilities the Department has to the communities most directly impacted by the environmental legacy of the past. The FY 2023 request represents a significant investment in helping the communities that played such an important role in US history continue to grow and thrive in the future. The EM mission itself is aligned with broader environmental justice goals that lead to a vibrant future in all communities. This year, the EM Los Alamos Field Office was selected as one of five DOE pilot programs for the cross-cutting Justice40 Initiative. At its core, the Justice40 Initiative is a whole-of-government effort to lift communities by delivering at least 40 percent of the overall benefits from certain federal investments, including the remediation and reduction of legacy pollution, to disadvantaged communities.

The budget request further boosts support for the Tribal Nations, Alaska Native communities, and communities around EM sites ensuring they are safe, providing opportunities for local input into cleanup priorities and helping build a vibrant future. The request includes Payment in Lieu of Taxes funding for communities near Hanford and Savannah River to support schools, roads and other local priorities. In addition, \$40 million is provided to establish a new Community Capacity Building initiative. This grant program will provide assistance to those communities around EM sites and will be developed in consultation with community stakeholders to address their needs.

Conclusion

The FY 2023 budget request is the latest sign of this Administration's strong support for EM's vital mission. As the mission is carried out, EM is committed to continuous improvement and

making further advancements to ensure that cleanup activities are conducted in a safe, efficient, and cost-effective manner.

EM will continue to work in a collaborative manner with workers, unions, Tribal Nations, states, local communities, and Congress on opportunities to achieve shared goals of protecting the environment and preparing for future cleanup success.