Testimony of William "Ike" White Senior Advisor for the Office of Environmental Management Before the Subcommittee on Strategic Forces Committee on Armed Services United States Senate May 22, 2024

Chairman King, Ranking Member Fischer, 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; it also helps support and enable DOE's ongoing national security and scientific research missions.

The Fiscal Year (FY) 2025 budget request of \$8.2 billion 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.

35 Years of Progress

For nearly 35 years EM has been entrusted with the largest environmental cleanup effort in the world – addressing the substantial environmental liability from decades of nuclear weapons production and nuclear energy research. From an original 107 sites, some dating back to the Manhattan Project Era and the birth of the Atomic Age, EM has cleaned up 92 sites, leaving just 15 to go.

EM's significant accomplishments just in the past few years 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; and completing construction of 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.

Transformational Results

Enabled by the significant investments Congress has made in the program, EM has delivered accomplishments and capabilities that have transformed the environmental cleanup mission. Game-changing tank waste treatment capabilities are in place to address EM's largest environmental liability. With start-up of the Salt Waste Processing Facility, a full suite of tank waste treatment capabilities is in place at the Savannah River Site. Since 2020, EM has more than doubled tank waste treatment capability at the Site. The Integrated Waste Treatment Unit has treated over 68,000 gallons of tank waste in Idaho since the start of operations in 2023. EM has also treated over 800,000 gallons of radioactive and chemical waste from large underground tanks at the Hanford Site where work is progressing towards initiation of the Direct Feed Low

Activity Waste (DFLAW) project that will convert this waste into glass for disposal. Both Waste Treatment Plant melters have been heated to operational temperature and the first containers of nonradioactive test glass have been poured.

EM progress extends well beyond the tank waste mission. Demolition efforts across the EM enterprise have resulted in risk reduction and have opened up opportunities for conservation, economic development, scientific research, and national security priorities. Removing an entire enrichment complex at the Oak Ridge Site has led to a significant increase in ongoing demolition work at the Oak Ridge National Laboratory and Y-12 that is freeing up future mission capabilities for the National Nuclear Security Administration (NNSA) and the Office of Science. The Nevada National Security Sites has completed demolition of four buildings that supported development and testing of nuclear rocket engines during the Cold War Era. This year, EM plans to complete demolition of Building 3901 and four ancillary structures at the Engine, Maintenance, Assembly, and Disassembly Facility and will continue to reduce the overall cleanup footprint in Nevada in Fiscal Year 2025. In addition, work at the West Valley Demonstration Project's Main Plant Process Building has progressed with more than 9,000 tons of debris from the demolition disposed in 2023. This priority will continue this year and will further advance under the Fiscal Year 2025 budget request.

Shipments and waste emplacement doubled at WIPP in Fiscal Year 2023. This includes shipments from the Los Alamos National Laboratory, where the EM team certified and completed 59 shipments to WIPP, surpassing the Fiscal Year 2023 goal of 40 shipments.

Steady Progress Planned for Fiscal Year 2025

The Fiscal Year 2025 budget request reflects the Administration's strong commitment to cleaning up the environment in communities that supported or continue to support weapons programs and government-sponsored nuclear research. Key investments position EM for sustained achievement as the program continues to drive risk reduction, progress skyline changes, and ramp up efforts to tackle tank waste while enabling DOE's vital national security and scientific research missions.

Protecting the environment by addressing radioactive waste stored in underground tanks at Hanford, Savannah River, and the Idaho National Laboratory is a top priority for EM. The budget request advances commissioning and startup of Hanford's 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 in 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.

EM is focused on moving the entire Hanford tank waste mission forward, recognizing that additional delays bring greater environmental risks, exacerbate the impacts of already aging infrastructure, and increase costs. DOE, the Washington State Department of Ecology, and the U.S. Environmental Protection Agency recently announced a landmark agreement that proposes

a realistic and achievable holistic path for advancing the Hanford tank waste mission. The FY 2025 budget request is consistent with the agreement which will enable EM to progress Hanford's high level tank waste mission via a direct-feed approach and achieve risk reduction while continuing to explore alternative treatment technologies for low-activity waste, including grout. Through the agreement and pursuit of an EPA variance, DOE will have a stronger path forward for out-of-state grout disposal through at least 2040. Enabling a path to off-site grout is responsive to recommendations from the National Academies of Science, the General Accountability Office, Congress, and others. EM has also developed a Research and Development Roadmap to guide investments in additional technology options to accelerate the Hanford tank waste mission. This year, EM is planning to initiate installation of equipment for the Test Bed Initiative Demonstration project, which has the potential to safely pretreat low-activity waste from Hanford tanks, solidify the waste, 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 tank waste, the request will enable EM to continue meaningful cleanup progress across the Hanford Site, including transferring radioactive capsules to safer dry storage, advancing work in and around the 324 Building, and treating another 2 billion gallons of contaminated groundwater.

In South Carolina, the Fiscal Year 2025 budget request supports continued efforts to fully utilize Savannah River Site capabilities to continue waste processing and tank closure activities. The budget request also supports continued progress in disposition of nuclear materials stored at the Savannah River Site, storage and disposition of site-generated waste, cleanup of contaminated soils, groundwater, streams and associated wetlands, and the deactivation and decommissioning of legacy facilities.

At the Idaho National Laboratory, the request supports continued 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. The request also supports progress toward key cleanup priorities, including continued treatment and shipping of transuranic waste to the Waste Isolation Pilot Plant, decontamination and demolition of facilities at the Subsurface Disposal Area (SDA), initiation of construction of an engineered cap over the SDA, and further evaluation of the treatment options for calcine waste.

Support for National Security Missions

In addition to reducing environmental risks at these and other sites across the complex, EM progress is supporting national security priorities, enabling scientific research, establishing opportunities for conservation and clean energy development, and boosting community efforts to build strong economies and create jobs.

In recognition of the role the Savannah River Site will play in the National Nuclear Security Administration's pit production mission, EM will transfer site management responsibilities to NNSA in FY 2025, while remaining focused on completing the remaining legacy cleanup activities at the site. EM and NNSA are committed to a successful transition that keeps national security priorities, as well as the long-term outlook for the site and community at the forefront. Perhaps nowhere are the opportunities to support national security and research priorities more evident than in Tennessee where large-scale cleanup operations are firmly underway at the Oak Ridge National Laboratory (ORNL) and the Y-12 National Security Complex. Building on previous demolition work, EM transferred the 18-acre Biology Complex at the Y-12 National Security Complex to the NNSA, which is using it to build a new Lithium Processing Facility. In 2023, EM tore down the Low Intensity Test Reactor located in ORNL's central campus, marking the second reactor demolition within the span of a year. Oak Ridge is continuing deactivation at numerous high-risk facilities, including multiple former enrichment facilities at Y-12 and former reactors and isotope labs at ORNL. This year, EM will initiate demolition of the Alpha 2 Building at the Y-12 National Security Complex. Once completed, this will mark the first demolition of a former enrichment facility at Y-12. This steady progress is a part of a broader vision focused not only on cleaning up the past, but also advancing the ORNL and Y-12 research and national security missions.

The budget request supports additional cleanup of high-risk excess facilities at the Oak Ridge National Laboratory and the Y-12 National Security Complex. It also supports work to advance the Mercury Treatment Facility and a second on-site waste disposal facility, both of which are pivotal to future efforts to reduce risks, stabilize facilities, advance cleanup, and ultimately provide land for research and national security missions.

While significant progress has been made in the deactivation and decommissioning of excess facilities, EM is continuously looking at opportunities to further improve. As strategies for the removal of these facilities are refined, EM is collaborating with NNSA and the Office of Science to plan, prioritize, and achieve optimal sequencing of work to best meet both environmental cleanup commitments, as well as other overarching DOE priorities.

EM is in the midst of a significant infrastructure and modernization campaign at WIPP, a facility that just marked its 25th anniversary as the lynchpin of EM's transuranic waste mission. The utility shaft that is critical for ventilation upgrades has reached its final depth and commissioning of the new Safety Significant Containment Ventilation System is underway. Along with providing for continued WIPP operations, as well as waste characterization and transportation programs, the budget request supports continued infrastructure recapitalization projects, as well as mine modernization activities and safety upgrades in Fiscal Year 2025. Taken together, these projects will help ensure EM has the infrastructure in place to support disposal operations for years to come.

Investing in the Future

Recognizing the EM mission will span several decades at some sites, the budget request also supports efforts to foster, build, and maintain a next-generation workforce that promotes diversity, equity, inclusion, and accessibility.

Across the program, EM is ensuring resources are focused on the most urgent risks and taking an integrated and corporate approach to prioritizing all work at remaining sites. In addition, EM is constantly looking for new opportunities to drive down the overall lifecycle costs at these sites. Across mission areas, EM utilizes science-based advancements that provide opportunities to

meet cleanup commitments safely and more efficiently. 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 that will benefit EM, the NNSA, and other DOE missions. The budget request supports a more integrated approach to EM technology development, targeted R&D investments, the continued evaluation of additional treatment and disposal options, and partnerships with regulators to apply effective solutions. The budget request also supports ongoing efforts to actively engage with local communities, consult with Tribal Nations, and prioritize stakeholder engagement to ensure inclusive and transparent communication. These efforts are helping to achieve a greater degree of alignment to enable continued progress.

As the world's largest environmental remediation program, EM also has a responsibility to accomplish the mission in a way that is sustainable and that supports the future of our planet. EM aims to lead by example in areas like clean energy utilization and climate resiliency.

Whether it is boosting sustainability, building a workforce for tomorrow, investing in R&D, analyzing disposal options, reaching decisions about remaining waste streams, achieving regulatory alignment, or upgrading infrastructure, EM is preparing for the future. These multi-faceted activities are laid out in EM's annual priorities list and ten-year strategic vision as part of EM's ongoing efforts to improve prioritization, planning, and mission execution.

Conclusion

The FY 2025 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.