Statement of Michael Graham
Principal Vice President, Bechtel National, Inc.
Before the Subcommittee on Financial and Contracting Oversight
U.S. Senate
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Madam Chairwoman, Senator Johnson, and members of the subcommittee, I am Michael Graham, Principal Vice President of Bechtel National, Inc., a contractor to the U.S. Department of Energy for Environmental Management work, and the lead contractor for the Hanford Waste Treatment and Immobilization Plant (WTP) project.

Bechtel is a global engineering and construction company with more than 115-years in the business. Our company has a long history of working in the private sector, but we've also worked on some very large government projects including the Hoover Dam, building Liberty Ships during WW II, and now the Washington Metro Silver Line. We have successfully designed, managed, or constructed hundreds of large-scale projects around the world including putting out the oil fires in Kuwait, constructing major motorways and high-speed rail lines in Asia and Europe (including the Chunnel), and designing and building nuclear power plants in the United States. Some of our largest endeavors have been design-build projects.

Bechtel National began operating in 1977, and among its first contracts were response efforts at Three Mile Island in 1979, and the 1981 contract with the U.S. Department of Energy (DOE) to manage the Formerly Utilized Sites Remedial Action Program, a multi-year, $2.5 billion environmental cleanup program for early U.S. atomic energy program sites.

To be sure, DOE projects are often complex and challenging. They are often one-of-a-kind endeavors. But they also present an opportunity to solve some of our country's greatest problems, many that owe their legacy to the Manhattan Project.

We are proud of our accomplishments for DOE. I have personally worked at four of the major DOE sites: Hanford, Idaho, Savannah River, and Los Alamos. For example, I led the Hanford Groundwater-Vadose Zone Integration Project to evaluate the impacts of Hanford waste on groundwater and the Columbia River.

The DOE contractor community involved in these projects works as a team to support the mission. Granted, we often compete on new procurements, bringing our best ideas and talent to the job. To date, DOE's Environmental Management program reports that it has completed cleanup of 90 of their 107 waste sites, a testament to strong industry support that works together and in partnership with DOE to solve challenging problems. Yes, we have successfully completed tough projects, but the very toughest are now upon us.

The largest and most complex DOE project is the Waste Treatment Plant in Hanford, Washington. This one-of-a-kind project includes a complex of facilities being designed and built to immobilize the highly radioactive waste stored in 177 aging underground tanks. Some of the tanks date back to World War II and 67 have been reported to have leaked. WTP will immobilize the waste using a process known as vitrification, which

mixes the solid and liquid waste with molten glass to safely isolate the waste from the environment.

In December 2000, when we entered into the contract to design and build the Hanford Waste Treatment Plant, we knew this job—which is the size of at least two commercial nuclear power plants—would be a challenge. Working closely with DOE, we have managed the challenges of new technology, uncertain waste streams from the tanks, evolving requirements, and the need to sustain a complex supply chain during periods of funding uncertainties.

The Waste Treatment Plant project today is a very different project than what we signed up for in 2000. Back then, DOE described it as a "pilot project" and one that was much smaller in scale and capability. DOE directed it be a fast-track design-build effort to address the risk of high-level waste leaking into the groundwater from the aging tanks. Glass was scheduled to be produced by 2007, with 10% of the waste being treated by 2018. A multi-billion dollar Phase II facility would be built later.

Since then, plant capacity has been significantly increased to enable DOE to eliminate the second phase. The Pretreatment capacity was increased by 40 percent and the High-Level Waste facility glass production was increased by a factor of four (4). These changes required a separate facility for laboratory work, and we recently met the "construction substantially complete" interim milestone for that facility.

These and other increases in scope were substantial factors addressed in the revised project baseline in 2006.

We are very proud of Bechtel's performance on this design-build contract overall, but like any large project we have learned many lessons along the way. Our conservative design-build approach approved by the DOE has significant built-in margin. For example, implementing revised seismic criteria in 2006 did not require any major construction rework.

Nevertheless, Bechtel, with DOE, has taken several steps to improve the design-build concept and execution. After the project was rebaselined in 2006, we deployed an earned value management system to track and manage our progress. This system has been certified and revalidated by DOE as recently as 2012. Utilizing this system, the WTP project performed to the baseline until 2011 when DOE requested that decisions regarding the waste stream and processing requirements be revisited.

Today the project is progressing more slowly than we would like. The Waste Treatment Plant design is now largely done and construction is more than 65 percent complete. Last year Secretary Chu put some parts of the project on "pause" while he assembled a team to take another look at a number of critical technical decisions. Many of these decisions are related to what would happen if the WTP receives waste outside of its waste acceptance criteria. As we have discussed with DOE, resolution of these decisions to everyone's satisfaction could have significant impacts on costs and schedule. We are confident we

can complete the job and put WTP into operation, as we work our way through these decisions.

We and the other contractors involved in this critical national mission remain fully committed to complete this project. The WTP is currently designed to safely treat most of the tank waste. We must get on with it. As you know the situation with the tanks continues to deteriorate. That is the real risk.

Thank you for the opportunity to make these remarks.