The Secretary of Energy
Washington, DC 20585

December 31, 2014

The Honorable C.L. "Butch" Otter
Governor, State of Idaho
State Capitol
P.O. Box 83720
Boise, ID 83720

Dear Governor Otter:

I appreciated the opportunity to discuss with you yesterday the Department of Energy's nuclear energy mission work in Idaho, as well as cleanup issues. I am committed to the Department's work in the State of Idaho, and I would like to follow up with you my thoughts on these two distinct, major efforts underway at the Idaho National Laboratory (INL).

The Department's nuclear energy missions at the INL have been and will continue to be critical to our work and to the future of nuclear energy. The Department's vision for the INL as the Nation's lead laboratory for nuclear energy research is for it to continue evolving as the preeminent, internationally-recognized nuclear energy research, development and demonstration laboratory. The INL has taken a comprehensive approach to nuclear fuel cycle research and has developed an unmatched set of capabilities. During my visit to the INL in August, I was particularly impressed with the progress that has been made since my previous tenure at the Department as Undersecretary of Energy – progress that would not have been possible without the strong support of the State of Idaho – and with the comprehensive approach to nuclear fuel issues. We also appreciate the efforts of the Leadership in Nuclear Energy (LINE) Commission, highlighting the important contributions INL is making in support of Idaho's economic growth and our Nation's energy security.

From the beginning, the State of Idaho has been a staunch supporter and key partner in the overwhelmingly successful Center for Advanced Energy Studies. That partnership has been extremely beneficial for the state universities in Idaho as well as the Department. The State's recent support for the restart of the Transient Reactor Test Facility (TREAT) for improved accident-tolerant fuel development will be essential to the success of this high-priority program for the Department. The Department also continues to make new investments in state-of-the-art facilities, such as the Irradiated Materials Characterization Laboratory and high-end material examination equipment at INL to support our nuclear energy programs.

The January 2011 Memorandum of Agreement allowing research quantities of commercial spent nuclear fuel at INL was yet another key component of our joint commitment to the Department's nuclear energy missions and the INL. It is an essential underpinning of the nuclear fuels program that we have all committed to for the long term. To that end, we need your continued support to allow research quantities of

commercial fuel to be shipped to Idaho. Beginning in 2015, DOE seeks to bring two shipments of research quantity fuel to the INL in support of the Office of Nuclear Energy's research mission.

The first desired shipment, proposed for receipt in the June 2015 timeframe, consists of one cask of 25 spent fuel rods, totaling 40-50 kg of heavy metal. INL's unique research capabilities will enable work to be conducted on the technical, economic, and non-proliferation aspects of electrochemical recycling of commercial light water reactor fuels, and for fuel performance studies for the nuclear industry.

The second desired shipment, proposed for the January 2016 timeframe, consists of one cask of 25 spent fuel rods, totaling 40-50 kg of heavy metal for research in support of a High Burn-up Dry Storage Cask R&D project with the Electric Power Research Institute (EPRI). This research with EPRI supports critical on-going work by the commercial nuclear power industry to maintain safe storage of spent nuclear fuel at utility locations around the U.S.

The funding associated with these research projects is expected to be about $10-20M annually to the INL through approximately the end of this decade.

Although the shipments would not begin for several months, extensive planning and up-front logistics must be made to ensure the safety of those shipments to INL, should they be allowed. Due to our utility partner's plant operations schedule, DOE must take title to the fuel by noon on January 9, 2015. The Department will need an indication of support from the State of Idaho prior to this time to move forward with this important research. DOE stands ready to work closely with the appropriate State officials to provide additional details of these proposed shipments and address any questions. If this commercially-imposed deadline is missed, we will suffer a two year delay in this project.

Your support of INL's researchers and unique capabilities has been instrumental in the commercial industry's confidence to conduct this research in Idaho. The research from these projects is highly important to the nation's nuclear industry and aligns very well with the type of work envisioned when the MOA was approved in 2011.

The cleanup work from decades of government-sponsored nuclear research and development and the important work performed at INL to protect our country during the Cold War is distinctly separate, but just as important to the Department. I want to assure you that I take these obligations seriously, and I am committed to completion of the cleanup mission.

We have had great successes at Idaho – over 200 buildings and structures, including three nuclear reactors, the largest hot cell in North America, and facilities at the fuel reprocessing complex have been decontaminated and decommissioned since the start of the Environmental Management (EM) program 25 years ago. In addition, we have exhumed all but 1.13 acres of targeted buried waste, and anticipate completing this effort at least a year ahead of its completion milestone.

As we discussed, operating the Integrated Waste Treatment Unit (IWTU) is a top priority for the Department and we remain focused on treating the sodium bearing waste in a safe and environmentally protective manner. There have been significant issues with IWTU, and DOE has worked hard to address them, including enhancing the startup testing process with additional resources and experts providing their experience on fluidized bed operations.

Starting on December 2nd, the IWTU began processing simulated waste to determine plant readiness for processing of highly radioactive waste. Over 35,000 gallons of simulated waste have been processed, at rates of 1.2 gallons per minute to 2.5 gallons per minute, including over 7,000 gallons of simulated waste with solids added to simulate the worst case conditions anticipated during radioactive operations. To date 73 of the 84 acceptance criteria required by the simulated waste test have been demonstrated. Following the completion of the current simulant test, an inspection and maintenance outage is necessary.

The outage is designed to address necessary maintenance, equipment issues identified during the simulant run, and to conduct equipment safety inspections. Following the outage, we will reinitiate simulant testing in order to verify two critical items before commencing radioactive operations: (1) any necessary equipment upgrades and (2) the plant operational envelope. These two items are sequential: first, to validate the equipment upgrades, followed with the verification of the plant operational envelope. The verification of the plant operational envelope is one of the most critical steps in the start-up process for ensuring that potential transient conditions are identified and overcome during operations. Once these items are completed we can commence radioactive operations.

The IWTU is one of the challenging, first-of-a-kind engineered facilities that DOE must design and run for radioactive operations, and we must be fully confident of safe operations when we "go hot." The Department will continue to work with the Idaho Department of Environmental Quality and keep them apprised of the progress.

I can assure you that I am committed to the start-up and safe operation of the IWTU facility, along with completing the cleanup of the legacy wastes left behind from the Cold War.

If you have any additional questions, please feel free to contact me or Mr. Brad Crowell, Assistant Secretary for Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,

Ernest J. Moniz

Happy new year – one in which we can advance our mutual interests!