## IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF SOUTH CAROLINA AIKEN DIVISION

SAVANNAH RIVER SITE WATCH, TOM ) CLEMENTS, THE GULLAH/GEECHEE SEA ) ISLAND COALITION, NUCLEAR WATCH ) NEW MEXICO, and TRI-VALLEY ) COMMUNITIES AGAINST A RADIOACTIVE )	No. 1:21-cv-01942-MGL
ENVIRONMENT,  Plaintiffs,  v.  )	DECLARATION OF NNSA DEPUTY ADMINISTRATOR, MARVIN ADAMS, IN SUPPORT OF DEFENDANTS' POSITION ON REMEDIES
UNITED STATES DEPARTMENT OF ENERGY, JENNIFER GRANHOLM, in her official capacity as the Secretary, The NATIONAL NUCLEAR SECURITY ADMINISTRATION and JILL HRUBY, Administrator,	
Defendants. )	

## I, MARVIN ADAMS, declare the following:

- 1. I serve as the Deputy Administrator for Defense Programs at the National Nuclear Security Administration (NNSA). In this role, I am responsible for the design, manufacture, certification, transportation, and maintenance of the Nation's nuclear weapons stockpile, and for its safety, security, and reliability.
- 2. I first served DOE as a physicist at the Lawrence Livermore National Laboratory (LLNL) in 1986, and I remained engaged with the U.S. national security enterprise even after leaving LLNL in 1992 to become a professor of nuclear engineering at Texas A&M University. I was a tenured full professor for many years, until the U.S. Senate confirmed my appointment to my current role in April of 2022. In the past three decades I have served on the President's Council of Advisors on Science and Technology, the Stockpile Assessment Team of the Strategic Advisory Group for U.S. Strategic Command, the JASON defense advisory group, and many other review and advisory bodies related to national security.
- 3. The purpose of this Declaration is to provide the Court with important information on the national-security impact that would be caused by any delay in our pit production mission at Los Alamos National Laboratory (LANL) in New Mexico or at the Savannah River

Site (SRS) in South Carolina. The statements and professional judgments made herein are based on my professional experience and personal knowledge of information made available to me as NNSA Deputy Administrator for Defense Programs. I provide only non-classified information in this declaration, but my personal knowledge and opinions are based on both unclassified and classified information.

- 4. I have reviewed General Cotton's and Administrator Hruby's declarations, and I agree that enjoining any critical-path work, which would delay pit production at LANL and/or SRS, would pose an unacceptable risk to national security. General Cotton's Declaration, for example, spoke at length about the deterioration in today's international security environment and the geopolitical drivers that increase the importance of executing the ongoing modernization of the United States' nuclear weapons programs as quickly as can be achieved.
- 5. A key component of a nuclear warhead is the plutonium pit. When a pit is compressed by explosives inside a warhead or bomb, it reaches a configuration that can sustain a rapidly growing supercritical fission chain reaction, which is the first step of the nuclear explosion.
- 6. General Cotton's Declaration correctly notes that all warheads in the U.S. stockpile will eventually contain new plutonium pits, which we plan to manufacture at Los Alamos and Savannah River. As of the end of Fiscal Year 2023, there were 3,748 warheads in the U.S. nuclear stockpile.
- 7. NNSA is required to meet a challenging warhead delivery schedule, with two warhead types in production in Fiscal Year 2025 and five more scheduled to enter production at various points in the next 12 years. A similarly challenging schedule continues for decades. The requirements these warheads must meet differ from those met by existing warheads. In some cases, existing pits that might seem be available for reuse are not well suited to the new requirements or are not available in the needed quantities. This is one reason pit manufacturing is needed without further delay.
- 8. A second reason pit manufacturing is needed without further delay is that we must replace old pits before they age to the point that we can no longer certify their ability to perform as required. Pit performance degrades over time. The damage caused by radioactive decay of the plutonium changes the properties of the material, which in turn degrades the performance of the weapon. There is no concern about reliability today, but concerns will develop as existing pits continue to age.
- 9. If we were unable to replace pits before aging phenomena called their performance into question, the effectiveness of our nation's nuclear deterrent would suffer, with substantial negative impact on U.S. national security.

- 10. Because it will take several decades to replace all existing war reserve plutonium pits, it is important to start producing new pits without further delay. We are racing against aging phenomena that are in progress every minute of every day.
- 11. We have already experienced setbacks and schedule delays on the SRS project, arising from a variety of factors, including supply and workforce problems associated with the pandemic. Nuclear construction and operations are complicated processes and were not made easier by the pandemic. The delays already incurred have eliminated any schedule margin we had. Further delays would pose serious risk to the nation's nuclear deterrent.
- 12. If the Court believes an injunction is necessary, the injunction that appears to be most effective and, simultaneously, least harmful to national security is precluding NNSA from introducing or producing nuclear material at the Main Processing Building at SRPPF.
- 13. If the Court believes some construction must be enjoined, I understand that NNSA experts have identified up to five projects that they believe could be the subject of a narrowly tailored injunction. It is my professional opinion that outside of the five specific projects identified, all other activities ongoing today at SRPFF must continue uninterrupted or we will face further delays in re-establishing critical manufacturing capability. Achieving the required SRPPF pit production capacity without further delay is essential for sustaining the effectiveness of our Nation's nuclear deterrent and ensuring that our nuclear weapons will remain safe, reliable, and effective ten, twenty, thirty, forty, and fifty years from now.
- 14. In sum, time is of the essence in establishing pit production capacity because of warhead requirements, plutonium aging, and the evolving geopolitical landscape. Delaying the restoration of this capability would introduce significant risks to national security and would ultimately lead to significant cost increases, which would be born by American taxpayers. DOE, NNSA and the Department of Defense agree that there is an urgent need to move forward with alacrity to maintain the effectiveness of the nation's nuclear deterrent.

I declare under penalty of perjury, pursuant to 28 U.S.C. 1746, that the foregoing is true and correct to the best of my knowledge, information, and belief.

Executed this 12<sup>th</sup> day of December 2024.

Dr. Marvin L. Adams

Deputy Administrator of the National Nuclear

Security Administration