



## FY2021 Performance Evaluation Summary

**Contractor:** National Technology and Engineering Solutions of Sandia, LLC

**Contract:** DE-NA0003525

**Evaluation Period:** October 1, 2020 – September 30, 2021

**Basis of Evaluation:** Fiscal Year (FY) 2021 Performance Evaluation and Measurement Plan (PEMP)

The FY 2021 PEMP for this contract is available at: <https://www.energy.gov/nnsa/articles/fy21-pemp-ntess-snl-final-signed>

The Contract is available at: <https://www.energy.gov/nnsa/sandia-national-laboratories-contract>

### Award Fee Scorecard

Goal	Rating		At Risk Available	Final
	Adjectival	Percent		
Goal-1: Mission Execution: Nuclear Weapons	Very Good	85%	\$3,427,967	\$2,913,772
Goal-2: Mission Execution: Global Nuclear Security	Excellent	91%	\$856,992	\$779,862
Goal-3: DOE & Strategic Partnership Projects Mission Objectives	Excellent	100%	\$0	\$0
Goal-4: Science, Technology & Engineering (ST&E)	Excellent	100%	\$0	\$0
Goal-5: Mission Enablement	Very Good	89%	\$2,570,975	\$2,288,168
Goal-6: Mission Leadership	Very Good	83%	\$1,713,983	\$1,422,606
<b>Total Award Fee</b>	<b>Very Good</b>	<b>86.4%</b>	<b>\$8,569,917</b>	<b>\$7,404,408</b>

In addition, the fixed fee and total fee summaries are provided below:

	Available	Final
Fixed Fee	\$21,424,792	\$21,424,792
SPP (Fixed Fee)	\$10,100,000	\$10,100,000
Total Fixed Fee	\$31,524,792	\$31,524,792
Total Fee (Award Fee and Fixed Fee)	\$40,094,709	\$38,929,200

During this evaluation period, NTESS earned Excellent ratings for Goals 2, 3, and 4, and Very Good ratings for Goals 1, 5, and 6. NTESS achieved W88 ALT 370 FPU and made significant progress in the B61-12, W80-4, and W87-1 modernization programs despite numerous issues associated with legacy component-level designs. NTESS supported two DoD GPS satellite launches and achieved significant progress on the Global Burst Detector for IIF program despite technical challenges. NTESS displayed outstanding leadership in support of the Nuclear Security Enterprise and the overall national response to the COVID-19 Global Health pandemic.

Overall, NTESS earned a Very Good rating for FY2021, exceeding many of the objectives and key outcomes under the PEMP goals, meeting overall cost, schedule, and technical performance requirements with accomplishments that greatly outweigh issues.

### **Accomplishments:**

#### Goal 1

- Provided timely evaluation and disposition of multiple concerns at various stages of the W88 Alt 370 Arming, Fuzing, and Firing Assembly production, significantly contributing to the early completion of the Mark 5 Reentry Body Assembly First Production Unit (FPU).
- Executed Plutonium aging experiments through the development and application of a new stripline containment configuration, yielding critical nuclear science diagnostics data.
- Played a key leadership role in establishing the NNSA Nuclear Weapon Digital Assurance (NWDA) program; led the NWDA Core Team in producing several critical nuclear weapon cybersecurity studies and assessments.
- Completed all negotiated testing and evaluation despite COVID-19 restrictions, including several flight and laboratory tests necessary to support the annual certification of the nuclear weapon stockpile.

#### Goal 2

- Provided outstanding support in the areas of physical protection and countering unmanned aerial systems for enhanced security.
- Demonstrated leadership in fostering bilateral cooperation between the United States and all partner countries in Europe, Asia, Middle East and North Africa Region, and Sub-Saharan Africa.

#### Goal 3

- Contributed to the Nation's COVID-19 global health pandemic response, providing crucial support to the DOE National Virtual Biotechnology Laboratory.
- Developed and demonstrated high-temperature solar-thermal power generation and storage capabilities using falling particle receiver technology.
- Achieved a major scientific breakthrough by fabricating and demonstrating a revolutionary tunable superconducting qubit to advance quantum computing research.

#### Goal 4

- Maintained a robust and resilient science, technology, and engineering base in a state of readiness to provide rapid response to world events of national security importance.
- Enabled research and development projects that yielded transformational advances in science and engineering, significantly enhancing critical mission capabilities.

#### Goal 5

- Created a new Environmental Safety & Health (ES&H) Governance Board led by the Deputy Laboratories Director to share lessons learned, monitor performance, and hold organizations accountable for executing the ES&H Improvement Plan.
- Developed an integrated Emergency Action Zone system in coordination with Kirtland Air Force Base (KAFB) to standardize/expand the issuance of protective actions across KAFB and SNL.
- Achieved 226% of its strategic cost savings goal, representing 36% of the NNSA total cost savings, which significantly contributed to NNSA exceeding its goal.

Goal 6

- Displayed outstanding leadership in support of the Nuclear Security Enterprise (NSE) and the overall national response to the COVID-19 global health pandemic.
- Helped strengthen Nuclear Criticality Safety Programs across the NSE by sharing procedures, processes, charters, and other documents.
- Earned multiple DOE Secretary's Honor Awards for its service and contributions as a member of the NSE Recruitment Strategy Group, NSE Supplier Quality Working Group, Flight Experiment 2 Design and Test Team, and the Source Physics Experiment Phase II, Dry Alluvium Geology Team.

**Issues:**

Goal 1

- Experienced issues with legacy component-level designs, resulting in numerous production challenges and increasing risk of FPU and/or Initial Operational Capability delays for multiple weapon modernization programs.
- Delayed critical W80-4 system-level testing activities due to component-level design, integration, and testing issues, increasing risk to meeting program system deliverables.

Goal 2

- Incurred cost overruns due to challenges in producing the next hyper temporal focal plane array, increasing schedule risk and costs for the Global Burst Detector IIIF program.

Goal 3 & Goal 4

- None

Goal 5

- Experienced multiple issues associated with project cost estimating, planning, and execution.
- Improperly shipped devices containing Plutonium, resulting in several shipping violations.

Goal 6

- Did not consistently manage the escalation of programmatic and resource issues to ensure timely resolution of both risks and issues associated with weapon modernization programs, hindering its ability to effectively evaluate and resolve issues with the appropriate stakeholder engagement.
- Did not consistently implement safeguards and security requirements across the divisions, increasing security risk.
- Continued to experience issues in multiple functional areas with issues management and corrective actions.