



Fiscal Year (FY) 2023 Performance Evaluation Summary

Contractor: National Technology and Engineering Solutions of Sandia, LLC (NTESS)

Contract: DE-NA0003525

Evaluation Period: October 1, 2022 – September 30, 2023

Basis of Evaluation: FY 2023 Performance Evaluation and Measurement Plan (PEMP)

The FY 2023 PEMP for this contract is available at: <https://www.energy.gov/nnsa/articles/fy2023-performance-evaluation-and-measurement-plan-national-technology-engineering>

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 Delivery: Nuclear Weapons	Very Good	87%	\$3,825,546	\$3,328,225
Goal-2: Mission Delivery: Global Nuclear Security	Excellent	95%	\$ 956,386	\$ 908,567
Goal-3: Mission Innovation: Advancing Science and Technology	Excellent	100%	\$1,434,580	\$1,434,580
Goal-4: Mission Enablement	Very Good	89%	\$1,912,773	\$1,702,368
Goal-5: Mission Leadership	Excellent	91%	\$1,434,579	\$1,305,467
Total Award Fee		91%	\$9,563,864	\$8,679,207

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

	Available	Final
Fixed Fee	\$23,909,660	\$23,909,660
SPP (Fixed Fee)	\$10,215,000	\$10,215,000
Total Fixed Fee	\$34,124,660	\$34,124,660
Total Fee (Award Fee and Fixed Fee)	\$43,688,524	\$42,803,867

NTESS earned an overall rating of Excellent (91 percent) for FY 2023, exceeding almost all of the objectives and key outcomes under the PEMP goals, generally meeting overall cost, schedule, and technical performance requirements with accomplishments that significantly outweighed issues. NTESS earned Excellent ratings for Goals 2, 3, and 5, and Very Good ratings for Goals 1 and 4. Specific observations for each goal are provided in the following pages.

Accomplishments:Goal 1

- Completed the W80-4 Pre-Production Engineering Gate review, garnering NNSA authorization to proceed into the next phase.
- Supported the W87-1 program entry into the next phase and completed the W87-1 Conceptual Design Review.
- Completed the Cycle 28 Annual Assessment to ensure confidence in the reliability and safety of the stockpile.
- Completed the W88 ALT 940 program Qualification Engineering Release, delivered the Flight Production one month early.
- Increased production output of War Reserve components compared to FY 2022 while meeting all Limited Life Component commitments; delivered many components ahead of schedule and realized significant cost savings to multiple modernization programs.
- Exceeded expectations by developing a management tool to identify Polyfluorinated Substances industrial demand issues and conducting product substitute research.
- Successfully implemented an equatorial line-of-sight capability for the Z Machine, contributing to a multi-year effort to enable a new class of high-energy-density diagnostics.

Goal 2

- Provided international nuclear and radiological security support, to include improving capabilities in the areas of physical protection, countering uncrewed aerial systems, radiation detection, communication/networking technologies, and equipment testing for international counter nuclear smuggling operations.
- Provided key support to several Cesium Irradiator Replacement Projects and international irradiator replacements, exceeding the NNSA Defense Nuclear Nonproliferation 2-Year Goal.
- Demonstrated outstanding project leadership of the multi-lab Priority Research Objectives for Arms Control Technology Innovation, Verification and Evaluation venture and arms control testbed.
- Led the implementation of the Quality Assurance activities for the United States (US) High Performance Research Reactor Project and criticality analyses for the Surplus Plutonium Disposition program.
- Completed nonproliferation focused track II initiatives with the Middle East, including the Arms Control and Regional Security Working Group; provided tools to global partners in arms control and advanced reactor safeguards, enhancing inspections and physical security.
- Provided excellent support for the planning and implementation of several international and domestic engagements on behalf of the Office of Nuclear Export Controls' International Nonproliferation Export Control Program.
- Supported the Nuclear Emergency Support Team missions and response to Russia's War on Ukraine; provided expertise and input to the development of tools, techniques, policies, and procedures to ensure a robust response capability for Nuclear Forensics Operations.
- Contributed to the successful launch of the Global Positioning System III-06 space vehicle with the Ground Burst Detector III payload and transition of operations to the US Space Force.
- Effectively supported Nuclear Threat Science counter proliferation priorities by participating in program reviews and publishing product sets.

Goal 3

- Achieved several major technical advances through Laboratory Directed Research and Development (LDRD) that directly support DOE/NNSA mission priorities and provide enduring benefits to the Nation; successfully collaborated with Triad National Security, LLC and Lawrence Livermore National Security, LLC to implement a new Interlaboratory LDRD pilot program.

- Completed final design qualification testing of major components for, and the assembly of, the Mk21 Arming and Fusing Assembly.
- Advanced the hypersonic weapon development program by supporting multiple flight tests, undertaking additional unplanned work scope, and developing very low-cost glide body concepts.
- Successfully delivered an open-architecture aviation security solution to enable a new screening platform with rapid threat mitigation capabilities to address evolving aviation security threats.
- Delivered pioneering Technology Transfer capabilities in partnership with other national laboratories, industry, and academia.
- Leveraged expertise in earth sciences to provide geotechnical analysis, rapid modeling, and optimization solutions for the DOE Strategic Petroleum Reserve program.

Goal 4

- Proactively prepared for future stockpile mission needs by achieving the restart of the Annular Core Research Reactor (ACRR) Neutron Radiography Facility operations after almost a decade of being unavailable due to a lack of mission need.
- Completed the first experiments in over 20 years using safety-class credited containment at the ACRR, advancing scientific knowledge of fissile material properties in support of mission operations.
- Recognized by DOE and NNSA for supporting the development and growth of small businesses through the Mentor Protégé Program.
- Contributed to the Advanced Sources and Detectors project Critical Decision (CD)-2/3 approval and consolidation of the digitizer procurement, achieving significant cost savings.
- Successfully completed the Emergency Operations Center construction within cost and schedule.
- Successfully achieved CD-1 for the Power Sources Capability project and made progress towards CD-2.
- Successfully awarded engineering support subcontracts for the Combined Radiation Environments for Survivability Testing nuclear facility and reactor.

Goal 5

- Completed the Management and Operating Authorizing Official Designated Representative Pilot Project that demonstrated enhanced NNSA/NTESS cybersecurity collaboration and reduced time to review/approve cybersecurity documents required for mission operations.
- Helped jumpstart the DOE Data Analytics Working Group's efforts in developing the Enterprise Data Analytics Framework by providing key data analytics insights.
- Shared valuable lessons learned across the enterprise from its three-year A-123 Site-Centric Pilot Program to implement a business process approach for testing internal controls.
- Implemented a multi-year People & Culture Strategy to increase hiring and retention, yielding positive improvements by increasing promotion opportunities and expanding university education programs to further develop critical skillset talent pools.

Issues:

Goal 1

- Did not meet overall cost, schedule, and technical performance baseline requirements of the Mobile Guardian Transporter.
- Missed key intermediate deliverables for the W87-1 program and experienced technical challenges in component testing, resulting in increased schedule risk.
- Experienced issues with the Joint Test Assembly development programs, and as a result could not meet performance, cost, and schedule objectives for multiple weapons systems.

Goal 2 and Goal 3

- None

Goal 4

- Experienced a higher undetected defect rate compared to FY 2022 in final product submittals for NNSA acceptance, increasing risk of impacting next assembly.
- Did not consistently address identified deficiencies across minor construction project execution portfolios, increasing risk to mission due to delays in the implementation of corrective actions.
- Experienced issues with the West End Protected Area Reduction project, resulting in substantial cost increases and schedule delays.

Goal 5

- Did not consistently demonstrate performance results through the institutional use of the performance assurance system.
- Though the Technical Security Program (TSP) has not been fully implemented, NTESS achieved progress by meeting several TSP Implementation Plan milestones.