



Department of Energy  
National Nuclear Security Administration  
Washington DC 20585

January 22, 2018

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR STEVEN J. LAWRENCE  
MANAGER  
NEVADA FIELD OFFICE



FROM: WILLIAM I. WHITE  
ASSOCIATE PRINCIPAL DEPUTY ADMINISTRATOR

SUBJECT: National Security Technologies, LLC (NSTec)  
DE-AC52-06NA25946  
Fiscal Year 2018 Award Fee Determination

The National Nuclear Security Administration (NNSA) has completed its assessment of NSTec's performance of the contract requirements for the period of October 1, 2017 through November 30, 2017, as evaluated against the criteria defined in the Performance Evaluation and Measurement Plan (PEMP). Based on assessments provided in the NNSA Performance Evaluation Report, incentive fee amounts are as follows:

	<u>At Risk %</u>	<u>Available</u>	<u>Final</u>	<u>Percent</u>
FY18 PEMP	100%	\$4,601,115	\$4,371,059	95%

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

SPP (Fixed Fee)	<u>\$ 748,781</u>	<u>\$ 748,781</u>
<b>Total Summary</b>	<b>\$5,349,896</b>	<b>\$5,119,840</b>





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National Nuclear Security  
Administration

*National Security  
Technologies, LLC*

Performance Evaluation  
Report (PER)

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NNSA Nevada Field Office

Evaluation Period:  
*October 1, 2017-November 30,  
2017*

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January 25, 2018

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## Executive Summary

This Performance Evaluation Report (PER) provides the National Nuclear Security Administration (NNSA) assessment of National Security Technologies, LLC (NSTec), performance of the contract requirements for the period of October 1, 2017 through November 30, 2017, as evaluated against the criteria defined in the Performance Evaluation and Measurement Plan (PEMP). The NNSA took into consideration all input provided (e.g. Contractor Assurance System (CAS), Program Reviews, etc.) from NNSA Program and Functional Offices both at Headquarters and in the field.

Overall, NSTec's performance against the defined criteria during the two-month close-out period for this contract was excellent earning NSTec a rating of 95%. NSTec made significant contributions to the enterprise by effectively performing across all of their mission lines while continuing their management focus on operational excellence and keeping their focus on continuing an emphasis on cultural change. NSTec safely and securely achieved mission results; successfully kept the leadership team together and focused through the contract transition; continued strong engagement with the Nevada Enterprise (NvE), corporate parents and employees; and made lasting personnel and infrastructure investments in the NNSS. Performance against the criteria is summarized below.

### **Criterion 1.1: Achieve site mission deliverables while supporting and enabling the overall DOE/NNSA mission**

NSTec exceeded expectations on 17 nuclear weapons mission milestones and four infrastructure milestones by successfully working through constrained funding, evolving priorities, and contract transition to advance the Stockpile Stewardship and national security programs for NNSA and enable deliverables by the incoming Management & Operating (M&O) contractor and the National Laboratories. For example, the Joint Actinide Shock Physics Experimental Research (JASPER) facility successfully completed developmental experiments testing new systems, one surrogate experiment and preparation work for the the installation of new Flash X-ray and Continuous Wave. In addition, NSTec started a series of reliability tests on Dense Plasma Focus. One milestone was delayed and the revised milestone was assessed to be red at the time of the transition to the incoming M&O contractor.

NSTec successfully hosted the international exercise for render safe operational teams from the United States and partner countries over a three-week period. NSTec, along with an NNSA Laboratory, successfully demonstrated and exceeded expectations with the high explosive proof of principle and detonation. NSTec performed extremely well executing an airborne hyperspectral test in October 2017. NSTec also provided outstanding support to the Comprehensive Test Ban Treaty (CTBT) pillars of International Data Center, International Monitoring System, and On-Site Inspection by hosting the Visual Observation and Radionuclide Techniques Training Course for the third cycle of OSI trainees including 58 participants from 38 countries at the NNSS. The NSTec Emergency Communications Network (ECN) staff also provided outstanding technical support to the Federal Aviation

Administration mission during the Puerto Rico Hurricane response leveraging satellite bandwidth during operations and readying deployment staff and adding mobile kits to support the response.

For the DOE Environmental Management (EM) mission, NSTec continued reducing the inventory of radioactive waste and classified component disposition throughout the country, including successful receipt and disposal of shipments of high dose Type B casks and providing the Air Force a 95% cost avoidance through acceptance and disposal of classified components. The construction of the new Resource Conservation and Recovery Act mixed waste disposal cell continued ahead of schedule and the management and construction support to Underground Test Area Project in three Corrective Action Units were successfully integrated between contractors to complete early tasks under budget.

NSTec was selected as a Research and Development 100 Award recipient for 2017 for their significant breakthrough in Geometrically Enhanced Photocathodes for Improved High-Energy Efficiency X-Ray Detectors. NSTec also successfully fielded the first ever demonstration of X-ray Doppler Velocimetry (XDV) on a Sandia laser that recorded better than expected results.

NSTec successfully completed the cyber testing of the Argus Line Item Project systems and received authority to operate. The Device Assembly Facility (DAF) Argus 30-day burn-in requirement was completed within 30 days with no reset of the burn-in clock. This was a critical milestone for acceptance of the Argus system at DAF. In addition, the NNSA Annual Project Review (APR) for Argus was successful, with only a couple of minor findings and also confirmed the project as ahead of schedule and under budget.

**Criterion 1.2:** Complete the required facility and safety enhancements in order to execute the Subcritical Experiment (SCE) according to the National SCE Program Plan

NSTec exceeded expectations by completing the activities and operations to support successful execution of a subcritical experiment (SCE). To do this, NSTec successfully completed the corrective actions from the Federal Operational Readiness Review to complete the final steps of the startup of U1a as a nuclear hazard category (HC) 2 facility and received federal authorization to start in October. To specifically support the Vega assembly and device transport, NSTec completed the required analysis and multiple procedure changes, implementation and verification for the Onsite Transportation Safety and DAF documents for national laboratory Device Response Evaluation. In addition, NSTec successfully completed SCE fielding and execution activities to maintain execution schedule, such as significant support to the Containment Evaluation Review Panel, experiment assembly and transportation at DAF and to U1a, and the full U1a diagnostic system set-up including timing dry runs with radiography and detonator runs.

Concurrent with the U1a Complex nuclear HC 2 transition, NSTec also successfully completed key milestones to support current and future SCEs such as completion of

infrastructure upgrades for numerous U1a Complex safety systems and startup of the new enhanced LINAC capability at DAF. The SCE assembly was successfully delivered and inserted into the confinement vessel. In addition, NSTec continued U1a Complex Enhancements Project (UCEP) detailed.

**Criterion 1.3: Demonstrate commitment to and execution of efficient & effective business operations and contract transition priorities**

NSTec leadership exceeded expectations by successfully retaining their entire Senior Management team throughout all contract transition activities and focused on delivering mission and operations safety, securely, effectively, and with high quality. Specifically, the management team superbly led the organization through the most difficult portion of transition: employment interviews/offers and selections for current management and staff's future positions. Even though the entire management team was affected, the management team remained deliberate and focused on delivering safe and secure mission execution. When issues arose, NSTec's management team was proactive to lead solutions for the NvE Community to minimize mission impact.

Through transition, the leadership team continued targeted improvements to business operations, delivered sound financial management, completed investments for site infrastructure for greater reliability and sustainability, and provided effective ESSH&Q to enable the mission. In addition, the NSTec Parent Organization Oversight Committee remained involved in operations with their assesment on Transportation Safety – Receipt, Transfer, and Shipping of Nuclear Material. The assessment characterized the program as “exemplary.” NSTec also underwent a DOE Office of Aviation Management external audit of the NSTec aviation program with a specific focus on Unmanned Aircraft Systems (UAS) safety. The were no findings and high praise for the safety programs in place at both Remote Sensing Labortories and NNSS flight operations. NSTec leadership was also proactive during the mass casualty, October 1, 2017, active shooter incident at a Las Vegas music festival, successfully initiating and completing a full accountability process with 99.9% accountability within nine hours and offering Employee Assistance to those impacted.

NSTec continued to build on FY 2017's strong mission performance, execute strategic infrastructure projects and make targeted continuous improvements. NSTec improved aging infrastructure and ensured customers could accomplish national security missions, provided strong construction management and nuclear/non-nuclear facility operations and maintenance and site maintenance in a safe, secure, and compliant manner. While concentrating on execution, NSTec continued to address issues, reduce risk, enhance employee engagement, and resolve issues. Corporate involvement and investments delivered benefits for planning and execution of mission and with NSTec leadership engaged stakeholders at all levels (customers, state, regulators, NNSA). In addition, NSTec's leadership continued to display exceptional transparency in their performance. NSTec management provided outstanding integration across the organization and the NvE community, as well as transparent communication, that demonstrated a commitment to

operational excellence as evidenced by safe, secure, efficient and effective mission execution and mission execution enablement.