



**NEVADA SITE OFFICE**

**FY 2010 Performance  
Evaluation Report**

**OCTOBER 1, 2010, THROUGH SEPTEMBER 30, 2010**

**for**

**CONTRACT NO. DE-AC52-06NA25946**

**with**

**NATIONAL SECURITY TECHNOLOGIES, LLC**

**FY 2010 PERFORMANCE EVALUATION REPORT (PER)  
OCTOBER 1, 2009 THROUGH SEPTEMBER 30, 2010  
CONTRACT NUMBER DE-AC52-06NA25946  
NATIONAL SECURITY TECHNOLOGIES, LLC**

**I. EXECUTIVE SUMMARY**

This Award Fee Report includes an assessment of National Security Technologies, LLC's (NSTec) overall performance, responsiveness, senior management involvement, partnerships and teamwork in support of the National Nuclear Security Administration (NNSA) Nevada Site Office (NSO) Strategic Initiatives and site priorities against twelve Performance Based Incentives (PBI) (including Multi-Site performance measures) and twenty three Performance Objectives (POs) identified in the Fiscal Year 2010 (FY 2010) Performance Evaluation Plan (PEP). The PEP was a combination of base, stretch and multi-site performance measures with breakout values as follows.

- Base Fee = 60%
- Stretch Fee = 30%
- Multi-Site Fee = 10%

Fee under this PEP is earned commensurate with performance as measured by the aggregate percentage of success in achieving the base performance targets as a category and then the stretch performance targets as a category. In order to be eligible to earn any of the stretch pool fee at risk, the base performance must be at least 85% or higher in each performance category (Mission, Operations, Management), irrespective of performance against the stretch performance measures.

The overall performance of during this period was deemed "Very Good." For Fiscal Year (FY) 2010, NSTec's performance was excellent in some areas, while other areas still require additional work to satisfy NSO's expectations, especially in areas that have continued to be of concern from previous rating periods. Key achievements included:

- establishment of the Nevada Center for National Security as a cooperative program between various Agencies and organizations to plan and execute assigned national security missions;
- successfully completing 14 of 17 stockpile stewardship and 28 of 29 site level two milestones;
- demonstrated leadership in the NNSA Governance reform initiative;
- continued maturation of their formalized contractor assurance system;
- successfully executing a vast array of non-proliferation experiments;
- continued successful execution of Environmental management activities, including projects funded under the American Recovery and Reinvestment Act (ARRA); and
- continued emphasis regarding cost control and cost reductions.

While General Management performance is rated “very good,” there remain several weaknesses that indicate continued improvement in the area of general management is still needed to fully demonstrate outstanding performance. This includes enhancements in nuclear safety to include the nuclear safety culture and cost estimating as well as continued improvement in quality control and assurance.

It is significant that NSTec, like last FY, completed the year without any known major safety or security issues. However, it is noted that the DOE Office of Enforcement is investigating potential safety issues concerning NSTec’s Device Assembly Facility/Criticality Experiments Facility (DAF/CEF) fire penetration seals. The investigation is in process with resolution expected in FY2011, therefore, any performance impact will be addressed during the FY2011 performance period.

**II. ESSENTIAL PERFORMANCE MEASURES**

**MEASURE 1.0: MISSION ESSENTIAL – NNSA & EM**

**Execute the NA-10, NA-20, and NA-40 assigned work in a timely and cost effective manner to ensure the National Security missions are met.**

<b>PBI</b>	<b>1.1 Campaigns/DSW Level 1 &amp; 2 Milestones</b>	<b>Met</b>
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<b>1.2 Nonproliferation Test &amp; Evaluation</b>
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**Introduction**

The contractor provided excellent field technical support and results to the Nonproliferation Test & Evaluation Program as demonstrated by the customer surveys. The Nonproliferation Test & Evaluation Complex (NPTEC) was operated and maintained in an excellent manner to support the customers’ requirements.

**Achievements**

There are three major areas in this measure: complete and execute NA-22 projects; maintain the NPTEC; and achieve an average rating of “satisfied” or better on customer surveys. The contractor exceeded customer technical requirements and expectations for the NA-22 sponsored Garibaldi test and maintained/operated the NPTEC test facility in an excellent manner to obtain critical experimental data. The Garibaldi field displays were defined, identified, procured and installed in a timely manner to meet externally driven timelines. The contractor also performed in an outstanding manner for the Department of Homeland Security (DHS) ARCAM/LACIS tests setting up the test locations and delivering chemical releases and ground truth as requested. The Work-for-Others JIEDDO project was also conducted by the NPTEC with field set up, explosive handling and training performed in an excellent manner. All customer surveys were rated “Highly Satisfied” confirming the contractor’s excellent support to their missions.

**Weaknesses**

While the interactions between the fielding team and the customers were excellent, there is room for improvement in the communications between NSTec Project Management and the NSO.

### 1.3 NNSA/OST Project

#### Introduction

NSTec provided excellent support and results to the NNSA/Office of Secure Transportation (OST) training evolutions at the NTS during FY 10. They substantially exceeded expectations in several key areas such as facility readiness, de-confliction of land/roadway usage through the Operations Coordination Center (OCC), and overall operations support to ensure NNSA/OST requirements were met and or exceeded.

#### Achievements

NSTec interfaced with NNSA/NSO and NNSA/OST to develop an accurate SOW and estimate for all NNSA/OST activities at the NTS during FY 10. Once the SOW and cost were agreed upon and funding was in place, NSTec made ready all necessary facilities at the NTS for the NNSA/OST operations. NSTec scheduled all NNSA/OST activities with the OCC and de-conflicted any issues quickly if/when they arose. All NNSA/OST activities were conducted on schedule and within the estimated cost. Detailed cost reports were prepared by NSTec and delivered to NNSA/OST on a monthly basis in support of the NNSA/OST NTS projects.

#### Weaknesses

None identified.

### 1.4 NERP Readiness & Effectiveness

#### Introduction

The contractor provided exceptional support and results to the National Security Program. They substantially exceeded expectations in several critical areas and were engaged to ensure customer requirements were achieved.

#### Achievements

RSL provided exceptional support through its deployments during the FY10. Real-world deployments, such as the Search Response Team deployment to Pahrump, NV, at the request of authorities were handled well and to the satisfaction of the local authorities and NNSA/HQ. Moreover, the National Security Special Events such as the U.S. State of the Union Speech, the Super Bowl, the Las Vegas NASCAR race, and others were done exceptionally well.

The International Search and Consequence Management Workshop in May 2010 involved 92 foreign emergency response managers from 27 countries being given demonstrations of the NNSA emergency response assets and procedures at the Remote Sensing Laboratory North (RSL-N). The difficulty of dealing with so many foreigners in sensitive areas was handled smoothly and received kudos from the NNSA/HQ customer. RSL scientists led the way in developing exercise information for a nuclear detonation in a major U.S. city. The National Level Exercise-10 (NLE-10) exercise for the Department of Homeland Security was the first time these data were developed in such detail for a full-field exercise, and the RSL scientists did an excellent job of developing these data.

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A mark of the status of the RSL emergency response programs is interest of the press. The ABC Broadcasting Company did a “Nightline” presentation of the response assets of RSL-Andrews, and the local CBS station in Las Vegas did a news presentation on the Federal Radiological Monitoring and Assessment Center (FRMAC) program.

The Aviation Program of RSL was singled out by the General Services Administration (GSA) as the best small aviation program in the U.S. government. This was announced in 2010 and was based on their performance in 2009. They have also won this award in 2004 and 2007. This remarkable string of awards indicates how well the program is managed.

### **Weaknesses**

None identified.

## **1.5 DAF Projects & Readiness**

### **Introduction**

The contractor had excellent performance towards completing the Device Assembly Facility (DAF) initiatives as outlined in the DAF Integrated Schedule and Project Execution Plans, increased the availability and usage of DAF capabilities and resources, and implemented the DAF Documented Safety Analysis (DSA) FY2009 update within 90 days after Safety Evaluation Report (SER) issuance including completion of an Independent Verification Review (IVR).

### **Achievements**

The contractor completed the tasks identified in the DAF Fire Suppression System Stand-Alone Unit (SAU) project baseline. The main milestone was to award the SAU contract, which was accomplished four days ahead of schedule. The contractor also completed the tasks associated with the Tank Refurbishment project baseline schedule. Regarding the tank project, the contractor expanded the scope to evaluate the feasibility of procuring a new tank. The evaluation was successful as procuring a new tank is a newly discovered feasible option.

The contractor had excellent performance towards closing open DAF issues. Throughout the year the contractor provided weekly status reports to NSO during face-to-face meetings where issue details were discussed. The contractor and NSO established 102 open issues as the baseline for measuring FY10 performance. Of the 102 baseline issues the contractor closed over 92 issues. Closure of the remaining issues was either deferred to be addressed as part of the ongoing Configuration Management effort, deferred until a Nuclear Explosives Operation (NEO) missions is identified, or deferred until the DSA update SER is issued by NSO. It must be noted that in addition to managing the closure of over 90% of the issues baseline the contractor closed over 190 additional DAF issues from either Management Self-Assessment (MSA), Contractor Operational Readiness Review (CORR), Operational Readiness Review (ORR) or other readiness reviews and their associated extent of condition reviews. Those additional issues were FY10 issues, which were outside the original 102 baseline (all 102 were identified prior to start of FY10).

## **Weaknesses**

None identified.

### **1.6 JASPER and CEF Declaration of Readiness**

#### **Introduction:**

Performance Target 1: NSTec aggressively worked to meet this target, but did not complete construction by the end of FY 2010. The contractor was able to complete removal of the contaminated secondary confinement chamber (SCC), but did not complete installation of the new SCC. In addition, NSTec expended significant resources to perform rework upon rework on work control activities between procurement, engineering, construction, and the project.

Performance Target 2: NSTec did not declare readiness for CEF to commence operations as a hazard category 2 nuclear facility by March 4, 2010. NSTec actively worked to address issues identified in the CORR. However, the declaration of readiness was delayed by four months.

#### **Achievements**

Performance Target 1: A number of positive actions were taken at the Joint Actinide Shock Physics Experimental Research (JASPER) facility and NSO has noted positive trends including fewer issues identified by quality control; new issues entered and tracked in CaWeb; and a new management team appointed. Though NSTec worked aggressively to complete construction activities by the end of the FY, NNSA/NSO does not consider construction is complete. Key items that remain open include:

- Pressure and vacuum tests of the SCC have not been performed
- Construction work packages and some demolition work packages remain open
- Significant items have been placed on a punch list

Performance Target 2: The CEF CORR, conducted in December 2009, did not confirm operational readiness of the CEF Project. Consequently, a supplemental CORR had to be performed to confirm readiness. Following the CORR, NSTec management devoted considerable attention and resources to develop and implement corrective actions to the issues. NSTec adopted and implemented a new readiness process utilized by the Highly Enriched Uranium Manufacturing Facility (HEUMF) Project. NSTec made considerable changes to the maintenance management processes and tracking systems. NSTec clarified the roles, responsibilities, and accountabilities for the Safety Management programs. In addition, NSTec issued a number of Timely Orders as compensatory measures to improve Conduct of Operations, Systems Engineering, and Quality Assurance (QA)/Quality Control (QC).

The follow-up CORR was successfully completed on June 11, 2010. The additional CORR delayed the NNSA ORR and submittal for approval of CD-4. NSTec declared readiness to commence CEF operations as a hazard category 2 nuclear facility on July 6, 2010. The NNSA ORR was successfully completed on July 29.

## **Weaknesses**

The work control process is too complicated and expensive. Between October 2009 and January 2010, approximately seven work packages were completed. JASPER had to establish a “war room” in order to force the process to work.

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There is discontinuity between construction, engineering, and procurement. Numerous “tags” exist throughout the JASPER facility. These tags indicate that the parts being used do not meet the QA requirements and are only being used to allow work to continue. The lack of spare parts at the JASPER facility has been an on-going problem and has contributed to work-arounds and schedule delays.

NSTec needs to develop, implement, and maintain improvements in Conduct of Operations, Systems Engineering, Maintenance, and QA/QC to effectively support nuclear operations at NNSS.

<b>1.7 RTBF Planning</b>
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**Introduction**

The contractor accomplished this task in an excellent manner exceeding almost all of the performance criteria in support of the Readiness and Technical Base Facilities (RTBF) planning. The documents were prepared and delivered on or ahead of schedule meeting all requirements.

**Achievements**

Performance Target 1 required NSTec to submit Revision 1 of the FY-10 Site Execution Plan (SEP) 20 business days after receipt of the final FY-10 funding. This was submitted on schedule and identified a balanced, executable program covering facilities’ operations and Program Readiness. The document identified there would be minimal carry-over into FY-11 and clearly and concisely identified potential issues the RTBF elements would face as a result.

Performance Target 2 required NSTec to deliver the FY 2011-2020 RTBF Facility Ten Year Integrated Plan by 7/15/2010. This plan was a significant improvement over those submitted in prior years. Each of the major RTBF facilities developed a comprehensive plan identifying requirements and needed investments to support the facilities over the life of the plan. This effort was recognized with a FY 2010 DP Award of Excellence.

Performance Target 3 required NSTec to deliver Revision 0 of the FY 11 SEP on or before August 20, 2010 or as otherwise specified in HQ guidance. The preparation of this SEP required significant effort on the part of NSTec to develop a balanced program due to the delta between the requirements case and the available funding in addition to addressing the potential impact to the program given the anticipated FY-2012 budget. The resulting product presented the issues in a clear, concise manner.

**Weaknesses**

None identified.

<b>PBI</b>	<b>1.8 Environmental Restoration Project</b>	<b>Met @ 96%</b>
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<b>PBI</b>	<b>1.9 Waste Management Operation</b>	<b>Met</b>
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**MEASURE 2.0: MISSION ESSENTIAL – American Recovery and Reinvestment Act (ARRA)**

**Complete ARRA work associated with environmental restoration and low-level waste/mixed low-level waste (LLW/MLLW) disposal and meet all ARRA reporting requirements.**

<b>PBI</b>	<b>2.1</b>	<b>ARRA – Environmental Restoration Project</b>	<b>Met</b>
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<b>PBI</b>	<b>2.2</b>	<b>ARRA – Waste Management Operation</b>	<b>Met</b>
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**MEASURE 4.0: OPERATIONS ESSENTIAL**

**Construct, operate, and maintain facilities and infrastructure in a safe, secure, efficient and compliant manner to support the missions of the Nevada National Security Site (NNSS).**

<b>PBI</b>	<b>4.1</b>	<b>Fire Stations Construction Performance</b>	<b>Met</b>
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<b>PBI</b>	<b>4.2</b>	<b>Energy Management</b>	<b>Met</b>
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<b>PBI</b>	<b>4.3</b>	<b>Work Management Improvement</b>	<b>Met</b>
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<b>4.4</b>	<b>Emergency Management</b>		
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**Introduction**

NSTec planned and executed an excellent Emergency Management Program. Several first-of-a kind emergency management exercises (Sidewinder, Dark Sun, Active Shooter) during the year were well-planned and excellently executed below cost, within scope and ahead of schedule. NSTec was successful in portraying a realistic scenario and establishing participation of external agencies such as the Federal Bureau of Investigation (FBI), North Las Vegas Police Department, and other municipal police agencies. NSTec implemented a process to ensure sustained qualifications of the Emergency Response Organization (ERO). This has vastly improved the ability to have the appropriate qualified cadre available for duty. Overall, the emergency management functional exercises and the full-scale exercise(s) exceeded expectations based on the established FY10 plan. NSTec also exceeded expectations in planning work for FY11.

**Accomplishments**

NSTec accomplished the intent and/or goals of all applicable NNSA/HQ Program Implementation Plans (PIPs). NSTec completed five (5) sub-tasks to accomplish this performance target which included: revising a critical training and qualification program; standardizing high-hazard facility-level emergency management programs; developing and implementing processes to collect data for use in metrics and program improvements; and supporting and participating in cross-learning activities across the complex. These accomplishments were executed below costs, within scope and ahead of schedule.

NSTec has developed a universal template for use by NSO contractors and tenant organizations in developing coordinated and consistent Pandemic Plans which ultimately rolled into one (1) consolidated

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pandemic plan. The NSTec developed, consolidated pandemic plan, NSO-EOC-PLN-103, satisfied the objective of a universal pandemic template. Individual Company pandemic plans are covered under the consolidated pandemic plan. The plan was done within costs, exceeded expectations and was ahead of schedule.

NSTec demonstrated continuing improvement in program effectiveness. Three (3) sub-tasks were completed to support this objective which involved Local Emergency Director training improvements and developing a process and associated procedures for use of an Unmanned Aerial Vehicle (UAV) as a tool during emergencies and periodic testing of the GeoCast Alerting System. The successful demonstration of the use of the UAV to provide better situational awareness to emergency responders during an emergency management exercise conducted in January 2010.

### **Weaknesses**

None Identified.

## **4.5 Project & Construction Management**

### **Introduction**

Readiness in Energy Technical Basis and Facilities projects (RTBF), Facilities and Infrastructure Recapitalization Program (FIRP) projects, Work for Others (WFO) projects, and Energy Savings Performance Contract (ESPC) project were executed in accordance with scope cost and schedule baselines. NSTec demonstrated effective procurement for two DAF projects which was an emphasis area. Consideration of risk management, effective procurement, and integration of safety into design was evident. NSTec exhibited excellent project management skills related to the ESPC project to ensure energy management objectives would be realized. Project management activities were implemented in accordance with requirements allowing projects to be constructed and started up in a safe manner.

### **Accomplishments**

NSTec's procurement was very effective in issuing a Request for Proposal (RFP) for a new DAF water tank concurrently with the refurbishing the existing tank. This action resulted in a very favorable bid for the new tank that resulted in a cost savings of several million dollars. NSTec has done an excellent job of managing the Stand-Alone Fire Suppression Project that resulted in an award to a subcontractor ahead of schedule. NSTec's proactive management of the Fiber Optic Line installation project resulted in a quality and timely RFP package that was issued immediately after receiving the NDOT Right-of-Way permit.

The FIRP program included the Area 12 Protective Interruptive (PID) electrical projects that are being competed in a satisfactory manner. The Area 27 Water Pump House project is progressing on schedule and within budget.

The ESPC Delivery Order 2 project was managed in an outstanding manner. The project Manager has worked diligently to ensure the Energy Conservation Measures are installed to meet the contract performance objectives. This has been a challenge and the NSTec project team has exceeded customer expectations.

## **Weaknesses**

Communication between NSTec Engineering and the Facilities and Infrastructure organizations need improvement in order to increase confidence in completing projects on schedule and within budget.

NSTec achieved the construction of the P300 Water Well project on schedule; however a significant amount of time was required by the Federal Project Director and NSO management to accomplish this work on time. This project exceeded the budget and additional funds had to be requested from the customer due to NSTec Engineering over designing the well.

<b>PBI</b>	<b>4.6</b>	<b>Facility Management</b>	<b>Met</b>
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<b>4.7 Configuration Management</b>
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## **Introduction**

While NSTec met or exceeded most of the targets for this performance measure, considerable improvement in configuration management at the nuclear facilities is needed. NSTec significantly exceeded the criteria for one target, met the criteria for two targets, and did not meet the criteria for the other target. NSTec needs to implement actions to improve engineering and configuration management processes in order to maintain the configuration of systems in a reliable manner to support operations and planning.

## **Achievements**

Performance Target 1: NSTec successfully completed efforts to improve the configuration management process. This was accomplished through the issuance of Company Directive CD-ENGR.002 “Configuration Management for Facilities and Infrastructure” and the establishment of a Governing Configuration Change Control Board. These improvements were implemented on the Fire Station projects which resulted in a 50% decrease in the configuration management documents and a 47% reduction in the budgeted man hours to complete exceeding the 25% target. NSTec significantly exceeded the criteria for this target.

Performance Target 2: NSTec implemented a number of processes to improve the timeliness and quality of engineering products. An Engineering Work Management Center was established to enhance control and accountability of engineering work. NSTec issued Organization Procedure OP-ENGR.001 “Performing Level 1 and Level 2 Engineering Support” to provide cost effective engineering for small scale modifications. In addition CD-ENGR.003 “Replacement Item Evaluation” was issued to increase cost effectiveness. The effectiveness of these changes will be evaluated in the future. NSTec met the criteria for this target.

Performance Target 3: NSTec implemented a number actions to improve the staffing and qualifications of the Cognizant Systems Engineers (CSE) to adequately implement configuration management at the DAF. NSTec hired four Operations Technicians, additional Nuclear Planners, and three additional CSEs. NSTec conducted an assessment of the CSE training and qualification program which identified areas for improvement. Timely Order TO-NOPS-05-2010 Cognizant Engineer Mentoring Boot Camp was established to provide knowledge and skill enhancement on the depth of system knowledge and

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supporting core/facility competency areas. However, two NSO assessments identified issues that clearly indicate that the CSE qualifications do not fully meet the requirements of DOE O 420.1B. In addition, one of these assessments identified a number of issues in the NSTec Systems Engineering program for the nuclear facilities. NSTec did not fully meet the criteria for this target.

Performance Target 4: NSO identified the three nuclear start-ups as the top priorities for FY 2010. As a result, the resources required to address the corrective actions identified in this target were reassigned and the corrective actions were delayed. However, a number of configuration management issues were addressed as part of the nuclear start-ups. In addition, NSTec developed a new Project Execution Plan for the gap analysis program and conducted Engineering Review Boards (ERB) to approve the walk-down strategy for Safety Systems. Considering the priorities established by NSO, NSTec met the criteria for this target.

### **Weaknesses**

NSTec needs to develop and implement actions to improve systems engineering and configuration management necessary to fully support nuclear operations and facilities.

NSTec CSE training needs to be updated to include all training requirements of DOE O 420.1B, and training requirements identified in NSTec Procedure OP-NENG.004.

NSTec needs to fully implement the various NSTec procedures related to CM, Timely Orders, and the CSE program.(CD-ENGR.002, OP-NENG.004, TO-NOPS-04-2010)

NSTec needs to execute the new Project Execution Plan for the gap analysis program to address Chief of Defense Nuclear Safety (CDNS) concerns.

## **4.8 Environment, Safety, & Health**

Overall, NSTec exceeded many of the significant award fee criteria and has met overall cost, schedule, and technical performance requirements of the contract under this measure. Performance is rated Very Good, falling just short of excellent.

### **4.8A – Environmental Protection and Compliance**

#### **Introduction**

NSTec performed very well in this sub-measure exceeding many of the significant award fee criteria for performance of an effective environmental protection and compliance program. In particular, NSTec exceeded criteria for demonstrating compliance with applicable laws, standards, and regulations, and enhancing their Environmental Management System (EMS). Of note, some environmental documents did not exceed criteria for document quality requiring rework beyond minimal editing. However, this quality trend was positively addressed throughout the performance period.

#### **Achievements**

NSTec continues to enhance its effective EMS. They have continued to successfully maintain their ISO 14001 certification for their EMS program. Semiannual independent audits conducted by Lloyd's Register

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Quality Assurance Limited as part of ISO 14001 certification maintenance, indicate that the NSTec EMS is fully implemented, effective and demonstrates continual improvement. Where areas of improvement were identified, NSTec took aggressive action to improve. In addition, NSTec identified and routinely tracked performance against site-specific objectives and measurable targets that contribute to the achievement of DOE Sustainable Environmental Stewardship goals established for the NNSS. Current year and multiyear targets are tracked monthly by NSTec senior management.

Other items of note include the following: NSTec coordinated and participated in the multi-organizational analysis of DOE Order 450.1A, "Environmental Protection Program," per the Nevada Enterprise (NvE) Governance process; NSTec worked as part of a cooperative venture between the U.S. Geological Survey, Nevada Department of Wildlife, and NSO in support of the Mountain Lion study at the NNSS.

One letter of noncompliance was received for an air permit deficiency noted by a regulator at the North Las Vegas facility. NSTec addressed the deficiency in a timely manner ensuring additional enforcement action was not taken by the regulator. Concerning spill reporting, NSTec experienced three reportable releases to the environment. All reporting requirements were met by NSTec, the spill sites were remediated and corrective measures were taken to correct and prevent recurrence of the incident.

NSO noted several instances of documents and reports containing errors, inconsistencies, or requiring rework beyond minimal editing. Where these errors were identified timely corrective actions were taken. Overall, the contractor has notably improved their environmental compliance program during the course of the evaluation year. Issues of quality early in the period have been rectified with recent environmental reports exceeding criteria for quality, accuracy and timeliness. Further, the contractor has fostered openness and transparency of their environmental program through their Environmental Leadership Council monthly meetings (DOE staff are invited participants), staff level routine interactions, and through shared corrective action status tracking and resolution of environmental issues.

### **Weaknesses**

None Identified.

## **4.8B – Safety and Health**

### **Introduction**

In FY 10, NSTec exceeded many of the significant criteria and has met overall safety and health performance requirements of the contract resulting in a Very Good score. Overall, throughout FY 10, NSTec has successfully maintained a safe and health work environment through sound operations performed in an efficient and effective manner in support of mission objectives.

### **Achievements**

**Target 1 - Improve Safety and Health Performance.** Performance indicators (i.e., Total Recordable Case (TRC) Rate and the Days Away from Work, Restriction or Transfer (DART) Case Rate ) are on a downward or stable trend, when compared to the previous Fiscal Year.

In FY 10, NSTec experienced a slight increase in both TRC Rate and the DART Case Rate, when compared to the previous Fiscal Year. At the end of FY 10, NSTec cumulative average TRC was 1.41,

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which is approximately 12 % higher than the FY 09 average (1.26). At the end of FY 10, NSTec cumulative average DART was 0.54 which is approximately 10% higher than the FY 09 average (0.49). Both rates however, are well below comparable 2008 industry rates, based on similar North American Industry Classification System (NAICS) Code and continue to meet DOE Voluntary Protection Program (VPP) participation criteria. Both rates also continue to reflect a downward trend since 2006. The performance target was met.

**Target 2** - Effective implementation of the Opportunities for Improvement (OFIs) identified by the DOE Office of Worker Safety and Health Assistance (HS-12) VPP report of February 2009.

The DOE VPP report identified 11 OFIs. During FY 10, NSTec successfully implemented 8 opportunities for improvement identified by HS-12. Successful implementation was achieved by the end of the 2<sup>nd</sup> QT. One OFI has not been yet completed. No additional NSTec actions were required for the last 2 OFIs. The performance target was exceeded.

**Target 3** - Maintain Safety and Health compliance by having no worker safety and health related enforcement actions during the fiscal year.

NSTec did not receive any notices of violations or administrative penalties related to worker safety and health during FY 10. The performance target was met.

**Target 4** – Integrate Industrial Hygiene Data Management System (DOEHRS) into current program with emphasis on creating Similar Exposure Groups (SEGs).

NSTec's target for inputting Similar Exposure Groups (SEGs) into DOEHRS database was completed by the end of the 3<sup>rd</sup> QT. Completion was achieved 3 months ahead of schedule. NSTec also completed the development of Health Hazard Evaluations (HHEs) for all NNSS high-risk facilities. The performance target was exceeded.

**Notable achievements during FY 10 include:**

NSTec received the DOE VPP Superior Star Award for superior level of safety and health performance, outreach efforts and favorable injury and illness rates.

NSTec received the prestigious DOE Outstanding Aviation Award for FY 2009. NSTec was also presented the GSA Small Aviation Unit Award for this year.

**Weaknesses**

NSTec needs to ensure that the last open OFI from the HS-12 report is effectively implemented. NSTec needs to ensure timely certification of all local exhaust ventilation systems on all facilities/activities under their purview.

While NSTec completed development of HHEs for high-risk facilities at NNSS, NSTec needs to ensure that HHEs for mid-risk facilities are completed on time, as identified in their FY 10 plan.

## 4.8C – Radiation Protection

### Introduction

NSTec implemented a highly effective radiation protection program that either met or exceeded applicable DOE regulatory requirements. NSTec's excellent radiation protection performance in support of critical and mission areas was exemplified by their outstanding performance during the Barolo and CEF ORRs. There were no radiation protection findings for either of these ORRs, and the CEF ORR singled out radiation protection performance for a noteworthy practice.

### Achievements

**Target 1 -** : Update radiation safety procedures and guides to fully implement the 2007 amendments to 10 CFR 835, and demonstrate successful implementation by July 9, 2010.

NSTec significantly exceeded the performance target by fully implementing the 2007 amendments to 10 CFR 835 effective January 1, 2010, thus exceeding the PEP and regulatory due date by six months.

**Target 2 -** Implement tracking and trending of key radiation protection program metrics to assess the health of the radiation protection program, and report results quarterly to NNSA/NSO starting with the first quarter of FY 2010.

NSTec exceeded the performance target by providing insightful analysis of tracking and trending data that was valuable to NNSA/NSO in assessing the health of the radiation protection program. NSTec successfully submitted quarterly reports on the tracking and trending of key radiation protection program metrics.

**Target 3 -** Provide a monthly report, during the partnership meeting, identifying any notices of violations, consent orders, compliance orders as described above, or administrative penalties.

NSTec met the performance target by having no notices of violations, consent orders, compliance orders, or administrative penalties related to radiation protection, during the evaluation period. NSTec provided all required monthly reports accurately and on time.

### Weaknesses

None identified.

## 4.9 Nuclear Safety

### 4.9A – Nuclear Criticality Program

#### Introduction

NSTec performed at a satisfactory level in maintaining a DOE O 420.1B compliant Criticality Safety Program at the NNSS. While NSTec did meet the performance criteria for this objective, failure to meet NSO deadlines and poor planning of the assessment did not demonstrate a commitment to establishing and maintaining a high quality Criticality Safety Program.

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## **Achievements**

Performance Target 1: NSTec submitted a set of criticality safety metrics to NSO in November 2009. In July 2010, NSO transmitted a letter to NSTec requesting that a revised set of metrics be submitted to NSO in August 2010. NSO had not received this revised set of metrics as of the end of September. NSTec met the criteria for this target.

Performance Target 2: NSTec hired two new Criticality Safety Engineers in FY 2010. One of these individuals is a senior-level Criticality Safety Engineer. By the end of FY 2010, this individual had completed all of the required qualifications possible. The remaining qualifications are pending completion of the required security clearances and facility access. NSTec met the criteria for this target.

Performance Target 3: NSTec submitted a revised CD-NOPS.001 “Nuclear Criticality Safety Program” document to NSO for approval in November 2009. NSO approved the document with two conditions of approval and established a deadline to submit a revised document in February 2010. NSTec submitted the revised CD-NOPS.001 addressing NSO conditions of approval in June 2010, four months late. NSO approved this revised document in July 2010. In addition, NSTec submitted, and NSO approved, a plan for the implementation of DOE-STD-3007. NSTec met the criteria for this target.

Performance Target 4: NSTec submitted a plan for the assessment of the Criticality Safety Program at the DAF in November 2009. An independent assessment of the Criticality Safety Program at the DAF was conducted in August 2010 by four external Criticality Safety Engineering experts. The final report was issued in September. While the assessment was completed, poor planning and coordination of the assessment limited the effectiveness of the assessment. NSTec met the criteria for this target.

## **Weaknesses**

NSTec needs to identify and implement actions necessary to establish and maintain a high quality Criticality Safety Program.

NSTec needs to submit the revised set of criticality safety metrics to NSO.

NSTec needs to coordinate with the national laboratory users to improve interactions and effectively integrate the multiple programs.

## **4.9B – Nuclear Safety Analyst Training Program**

### **Introduction**

The contractor partially met schedule and technical performance requirements as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period. The contractor’s performance associated with development and implementation of the safety analyst training and qualification process was satisfactory. One of the applicable performance measures was completely met, one of the performance measures was partially met and one of the measures was not met.

## **Achievements**

The contractor identified seven resident nuclear safety analysts by October 30, 2009. These seven Nuclear Safety Analysts were trained in accordance with the NSTec Nuclear Safety Analyst Training Program by September 15, 2010. The contractor identified four non-resident nuclear safety analysts by January 29, 2010. Two of the four non-resident Nuclear Safety Analysts were trained in accordance with the NSTec Nuclear Safety Analysts Training Program by September 15, 2010; however, the goal was to have them trained by June 30, 2010. Furthermore, one of the nonresident safety analysts was qualified as a nuclear safety manager.

## **Weaknesses**

No progress was made on Performance Goal #3 due to competing priorities (e.g., Criticality Experiments Facility startup). The contractor did not establish or implement a process to incorporate lessons learned and best practices into the existing NSTec Nuclear Safety Analyst training program. The contractor failed to train all four of the non-resident safety analysts due to competing priorities (e.g., CEF startup).

## **4.9C – Nuclear Facility Safety Basis Documentation**

### **Introduction**

The contractor met a majority of cost, schedule and technical performance requirements as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period. Three of the applicable performance measures were met, and one of the measures was not met. In general, the contractor's performance was satisfactory and most nuclear facility safety basis documents were developed and submitted for approval as necessary to support mission and regulatory compliance requirements.

### **Achievements**

Significant deliverables associated with this measure included the Area 3/5 Radioactive Waste Management Complex (RWMC) DSA annual update, Onsite Transportation Safety Document (OTSD) annual update, DAF DSA/Technical Safety Requirements (TSR) Rev 3, DAF Fire Suppression System (FSS) Justification for Continuing Operations (JCO), CEF DSA Addendum/TSR CN-2, Barolo DSA/TSR, JASPER DSA/TSR Conditions of Approval (COA) resolution package, DAF DSA/TSR CN-10 and 12, DAF Stand Alone Unit FSS safety basis strategy/procurement specifications, and various Potential Inadequacy in the Safety Analyses (PISAs) and associated Unreviewed Safety Question (USQ) Determinations. In general, these documents were developed in accordance with approved methodologies and peer-reviewed to ensure adequate quality. When a safety basis strategy (SBS) was developed, the documents were, in most cases, consistent with the NNSA agreed upon strategy.

The contractor implemented several quality improvement initiatives to address weaknesses associated with safety basis documentation, including development of a safety basis strategy process to facilitate early communications; implementation of timely orders to address significant USQ-related deficiencies; and reorganization of their nuclear safety organization to optimize cost-effective safety basis development and review efforts. Due to the limited implementation duration, it's been difficult to measure effectiveness associated with these initiatives. Considering recent performance, NNSA/NSO believes the safety basis strategy process, as implemented, resulted in excellent cooperation/coordination across all affected organizations. A course of action was selected based on a critical consideration of risks and potential consequences and a better understanding of alternative solutions. Although late in the evaluation period,

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the NSTec leadership team actively engaged in discussing viable alternatives and developing solutions that implement a graded approach to achieve compliance in a reasonable manner. The end of year rating associated with this performance measure reflects these positive actions and desirable behaviors.

### **Weaknesses**

The contractor did not always implement a graded approach that resulted in cost effective safety analysis and DSA content, nor did the contractor proactively manage the organization to enable efficiencies and implement effective solutions associated with safety basis issues. In some cases, nuclear facility safety basis documents submitted to NNSA for review and/or approval contained issues that required rework to resolve regulatory or process-specific non-compliant conditions. Management needs to remain vigilant and not bypass effective processes established to correct previously identified performance shortfalls (e.g., safety basis strategy). Finally, the contractor did not complete Performance Measure #4, which required development of a technical report that would have identified specific formal process improvements (with associated implementation schedule) necessary to prevent recurrence of previously identified issues.

## **4.10 Security Operations**

### **Introduction**

NSTec exceeded many of the significant award fee criteria as noted below. In addition, they met overall cost, schedule, and technical performance requirements of the contract. The NSTec security program continues to mature in a very positive manner and is rated Very Good.

The contractor also exceeded most significant award criteria for delivering secure classified and unclassified Information Technology (IT) capabilities to the NNSS. This included the execution of a five million dollar IT enhancement project funded in early December which was completed on time and under budget.

### **Achievements**

NSTec Security, in collaboration with Stockpile Stewardship has completed a major milestone to enhance the information protection program. Over the past ten months 100% of the classified testing data archives, consisting of over 3,400 documents, were reviewed for retention. This extensive review has resulted in identification of over 400 documents which can be destroyed. Since the archives represent the bulk of the classified documents in the inventory, this review will result in the reduction of Nevada's classified holdings footprint by 10%.

NSTec Security, in collaboration with Stockpile Stewardship and Nuclear Materials Management has completed a major milestone by completing measurement and repacking of the TA-18 materials. This project required dedication and coordination from the receipt of the material, to the movement and handling of the material, and ultimately the measuring of materials and closing out the open Shipper/Receiver agreements.

The contractor allocated five million dollars to the Information Services Division (ISD) in December of 2009, nearly one quarter into the fiscal year. In this short amount of time ISD was able to execute an IT enhancement plan that significantly increased communication capabilities at the NNSS, piloted new technology designed to reduce future costs and energy consumption, as well as supported the migration of

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Navarro-Interra, Wackenhut Services Inc. (WSI), and National Oceanic & Atmospheric Administration/Air Resources Laboratory off of the DOE Corporate Operating Enterprise (DOECO) network. This significant achievement was done in concert with various contractors at the NNSS as well as DOE HQ and completed on time, and within budget.

The contractor assumed additional scope of work and funding to provide additional cyber security services to NNSS contractors. This transition went smoothly without disruption to the NNSS cyber security program. The contractor for the first time has a bona fide program baseline allowing for costs to be easily accounted for and defensible.

### **Weaknesses**

Strategic IT planning does not appear to be in coordination with the long term NvE mission objectives. The NSTec developed IT strategic plan is NSTec centric and lacks the integration of other NNSS contractors.

The contractor needs to leverage existing technologies to automate processes currently being done by personnel. For example the use of an automated vulnerability scanner and configuration compliance manager was unused or poorly configured throughout most of the year providing no benefit to the government.

## **4.11 Counterintelligence**

### **Introduction**

The contractor provided excellent support and results to the Counterintelligence (CI) Directorate. They have substantially exceeded expectations in several critical areas and ensured that CI requirements were achieved.

### **Achievements**

Program deliverables have significantly exceeded expectations for budget and schedule. The contractor served as the Acting Senior Counterintelligence Officer (SCIO) from Oct 2009 until February 2010, when he was appointed as the SCIO because of his outstanding performance.

The contractor supports all DOE/NNSA interests in Nevada under the DOE CI, Las Vegas Field Office (LVFO). This performance measure requires the contractor to “Detect, deter, and mitigate foreign intelligence collections and espionage efforts and international terrorist threats against NNSA personnel, classified and other sensitive programs, and information architecture”, and they have exceeded expectations.

During this period of performance, the contractor:

- Provided daily CI oversight to all related entities associated with the NNSA/NSO, NTS, and the Office of Civilian Radioactive Waste Management.
- Provided briefings and debriefings:
  - Provided 58 New Hire Orientation Briefings to 571 individuals.
  - Provided 62 CI/CT threat briefings to 47,334 individuals.
  - Provided 88 joint CI/Security/OpSec briefings to 3,573 individuals.

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- Provided 568 briefings and 173 debriefings of DOE/NNSA Nevada individuals traveling outside the country or hosting foreign nationals.
- Conducted monthly joint briefings with the Nevada Intelligence Center for the NNSA/NSO Executive Staff during their Executive Intelligence Briefings.
- Organized a joint DOE/USIC “Insider Threat” Working Group
- Co-hosted the Annual FBI Domain Symposium
- Initiated and co-chaired the SAWG

**Weaknesses**

None Identified.

**MEASURE 6.0: INSTITUTIONAL & BUSINESS MANAGEMENT ESSENTIAL**

**Operate as an integrated organization that makes effective use of resources, demonstrated through key metrics, to achieve cost, scope, and schedule efficiencies across all organizational elements while successfully accomplishing NNSA/NSO mission & operational requirements without compromising quality, safety and security.**

The General Management (GM) objective is global in nature and considers activities important to NSO that require NSTec senior management to work collaboratively, both internal and externally to the organization, in order to achieve the desired results. The performance objectives for this measure include “demonstrated ability to operate as an integrated organization that makes effective use of resources, demonstrated through key metrics, to achieve cost, scope, and schedule efficiencies across all organizational elements while successfully accomplishing NSO mission and operational requirements without compromising quality, safety, and security.” The intent of this measure is to clearly demonstrate how NSTec senior management worked together, during the rating period, to achieve these objectives within a strategic framework of enhancing the long-term viability of the Nevada National Security Site (NNSS) to expand its mission base to a true national security asset for the nation.

The overall performance of NSTec's senior management during this period was deemed "very good." For Fiscal Year (FY) 2010, NSTec's GM performance was excellent in some areas, while other areas still require additional work to satisfy NSO's expectations, especially in areas that have continued to be of concern from previous rating periods.

Key highlights for this year include:

- the renaming of the Nevada Test Site to the Nevada National Security Site (NNSS), signaling a formal recognition of NNSA and other Agencies utilizing the site for expanded national security missions;
- establishment of the Nevada Center for National Security as a cooperative program between various Agencies and organizations to plan and execute assigned national security missions;
- successfully completing 14 of 17 stockpile stewardship and 28 of 29 site level two milestones;
- demonstrated leadership in the NNSA Governance reform initiative;
- continued maturation of their formalized contractor assurance system;

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- successfully executing a vast array of non-proliferation experiments;
- providing government wide leadership in the areas of emergency response, emergency management, continuity of operations, and first responder training;
- demonstrated leadership and innovation in support of critical sensitive programs through both the Remote Sensing and Special Technologies Laboratories;
- successfully supporting key international, multi-Agency security events including Fall Classic, the International Search and Consequence Management Conference, and BACCHUS;
- continued improvement of project management processes, such as earned value management, which was effectively demonstrated by the successful completion of various projects including a key line item project delivered ahead of schedule and under budget;
- continued successful execution of Environmental management activities, including projects funded under the ARRA;
- And continued emphasis regarding cost control and cost reductions as demonstrated by several initiatives. These include establishing an indirect baseline that incorporates risk criteria, innovatively working towards addressing the Nevada portion of the NNSA pension issue, as well as aggressively pursuing cost avoidance and cost saving strategies in health care, busing, and telecommunications.

These are examples of successful activities completed during the performance period that demonstrate NSTec's ability to satisfy key aspects of this measure.

While performance against this measure is rated "very good," there remain several weaknesses that indicate continued improvement in the area of general management is still needed to fully demonstrate outstanding performance against this measure. For example, there were issues uncovered during the nuclear start-up of three activities during the rating period. Throughout this process, evidence was uncovered that demonstrated weaknesses in quality control and assurance, as well as conduct of operations, highlighting long-standing cultural and operational issues surrounding safety in the day-to-day operation of NSO's nuclear facilities. While NSTec's management now understands these issues and is aggressively pursuing operational and systemic fixes, many of these concerns have been raised by NSO in previous rating periods. Continuation of these issues indicates weaknesses in the ability of the contractor to proactively analyze operational information to identify emerging areas of concern and provide the appropriate level of management attention to those issues before they become significant concerns requiring unplanned resource utilization to correct.

Another weakness which is a subset of the first, is evidenced by the fact that areas of concern in quality control and assurance, engineering, nuclear safety, work control, and estimating have been identified by NSO in several of the past performance ratings of NSTec and were still areas of concern throughout the current rating period. While corrective actions were initiated, the continuation of similar issues in the same functional areas, coupled with the results from the nuclear start-up activities during this rating period, demonstrate that the corrective actions instituted were not effective.

While senior NSTec managers have demonstrated some success in working towards integrating their management efforts and resources to enhance the long-term viability of the NNSA, this philosophy does

not seem to be flowing down to many of the individuals responsible for actually performing work. The best example of this concern was the inability of multiple senior NSTec managers working together, through their on-site presence and enhanced oversight processes, to recover JASPER work activities to meet NSO expectations. The senior NSTec managers responsible for both the operations and construction activities fully engaged in recovery efforts through commitment of their personal time and their organizational resources, but the anticipated results were not fully achieved. This indicates that further work remains to better integrate planning, engineering, construction, and operational resources, to achieve formality of operations and establish a nuclear safety culture that is results oriented, that would result in exceeding NSO expectations in general management.

## **MEASURE 7.0: OTHER BUSINESS ESSENTIAL**

### **7.1 Contractor Assurance System (CAS)**

#### **Introduction**

NSTec's performance at establishing the foundation for a functional and transparent contractor assurance system (CAS) which enables continuous mission performance and operational excellence was Very Good. A NSTec Joint Assessment Schedule provides NNSA/NSO the annual "road map" of planned NSTec assessments across the company. NSTec provided an evaluation ahead of schedule of NSTec employee feedback programs and associated data analysis demonstrating their effectiveness. The NSTec "dashboard" system for web based transparency has now been implemented at very little cost to the government and independently recognized as a value added tool. CAS Metrics continue to be updated and posted on the NNSA portal in a timely manner.

#### **Accomplishments**

NSTec provided NNSA/NSO unfettered access to the NSTec Joint Assessment Schedule to monitor completed self-assessment status. A review of the NSTec Joint Assessment Schedule indicates a broad span across the entire organization. NSTec also implemented the Capital Asset Management Prioritization (CAMP) prioritization system for planning FY11 self assessments instilling a risk-based approach to focus assessment resources on the most critical aspects of nuclear and non-nuclear work performance. This risk-based approach has been incorporated into company procedures effective 8/25/10. NNSA/NSO continues to have access to the NSTec issue tracking system (caWeb) to monitor corrective action progress.

NSTec submitted a report ahead of schedule on employee feedback programs and associated data analysis demonstrating their effectiveness. Fourteen employee feedback programs were analyzed and shown to contribute to an effective employee feedback program.

The NSTec "dashboard" system for web based transparency of CAS information has now been implemented; NNSA/NSO access, initially slow, has improved somewhat. The Dashboard was reviewed by the NSO Effectiveness Review and was credited as an effective and value-added tool. NSTec is making considerable efforts to utilize metrics to drive management decisions. In addition, NSTec has aggressively pursued outside training expertise to help staff and managers develop and improve metrics. This training workshop was attended by NNSA/NSO and found to be excellent.

## **Weaknesses**

While any self assessment report can be obtained upon request, a long-standing issue has been easy web access to self assessment reports by title. Hence, transparent access to completed assessments remains weak and improvements are not expected until FY11.

## **7.2 Procurement**

### **7.2A – Procurement End State**

#### **Introduction**

The Contractor demonstrated Very Good performance in its efforts to ensure an effective and compliant procurement process that contains all elements necessary to meet applicable federal laws, regulations, policies, and procedures in a timely manner to support customer deliverables and strategic objectives.

#### **Achievements**

The Contractor instituted an effective monthly assessment process.

The Contractor's cumulative Purchase Order file compliance average for FY10 exceeded the target of 98%, with a score of 99.4%.

The Contractor took the initiative to revise its Buyer's Checklist for both the Solicitation and Award stages of an acquisition. The Contractor modified several key forms, such as its Sole Source Justification Form. These actions removed outdated requirements and ensured that new requirements were integrated into the procurement process.

The NSO Contracting Officer (CO) found no instances of the nine major non-compliance errors that were listed in the Contractor's Desktop Instruction No. DE-FC20.112 entitled "Management Self Assessments" during the monthly reviews of the Contractor's files. The CO's monthly reviews were in addition to a review of the "mandatory" subcontract files—for which the current threshold is > \$1M for competitive actions and > \$250K for non-competitive actions.

The Contractor developed a P-Card Checklist for all Cardholders to strengthen their understanding of procedures as a result of issues found with less experienced Cardholders.

#### **Weaknesses**

The Contractor fell just short of their FYE 10 Goal for cumulative P-Card compliance, with the Contractor finishing the FY at 95.4% against a Goal of 98%.

The NSO CO occasionally found areas where improvements needed to be made with regard to Procurement File Compliance, with all of these areas being considered as minor.

## **7.2B – Supply Chain Management Center (SCMC)**

### **Introduction**

The Contractor demonstrated excellent performance through its continued support of all of the Supply Chain Management functions. The Contractor significantly exceeded or exceeded expectations for almost all of the Performance Targets (as in five of the six) that had been established in the Performance Evaluation Plan (PEP) for this Performance Objective. The Contractor finished at 97.5% of the Fiscal Year End (FYE) Goal that had been established for the one remaining Performance Target – with this percentage still representing an improvement from the previous year's percentage.

### **Achievements**

The Contractor increased its e-Procurement tool utilization and significantly exceeded the FYE Goals established by the NNSA Supply Chain Management Center (SCMC) for e-Sourcing Activities—and thereby significantly exceeded the Performance Target. One such SCMC e-Sourcing Activities Goal involved completing 20 e-Auction/Sealed Bid by Rank events in FY10 using the using the e-Sourcing tool. A second SCMC e-Sourcing Activities Goal was to award \$30M of FY10 completed events through use of the e-Sourcing tool. Through use of the e-Sourcing tool, the Contractor completed more than 68 e-Auction/Sealed Bid by Rank events against a Goal of 20 events in FY10. More than 35 other e-Sourcing event types were completed, which brought the total number of e-Sourcing events completed in FY10 to more than 103—thereby far exceeded the SCMC Goal of 20 events. Secondly, the Contractor awarded greater than \$33M through the use of the e-Sourcing tool in FY10, finishing the FY at more than 110% of the Goal of \$30M.

The Contractor actively supported all of the SCMC initiatives. This was evidenced by its membership and active participation amongst all of the commodity, oversight, and leadership teams within the SCMC. The Contractor significantly increased its utilization of SCMC-developed acquisition tools over previous years' utilization. The Contractor's users completed 438 e-Store transactions by FYE—which far exceeded the SCMC Goal for FY10 of 300 e-Store transactions. This was done using the Fuels, Antivirus, Lab Supplies, Grainger, and Sandia Office Supplies catalogs.

The Contractor enhanced commodity demand management activities by developing and monitoring the Key Procurement Status tool to provide early warnings from customers for notable or urgent requirements.

The Contractor supported the multi-site training initiative established by the SCMC site leadership. Two training sessions were conducted in which the Contractor's procurement personnel were participants, covering topics such as the Davis Bacon/Service Contract Act and Cost Analysis.

### **Weaknesses**

The Contractor fell just short of meeting the Performance Target for the SCMC FYE Goal for "Paperless Contracting" (i.e., the % of transactions sent electronically to suppliers finishing the FY at 74.1% against a FYE performance Goal of 76%, which equaled 97.5%. While this SCMC Goal was not met, the Contractor's performance did increase from the previous FYE's Goal of 71% for this same metric and more than 600 transactions shifted toward more cost-effective buying. The Contractor stated that unpredictable, complex purchase volume increased substantially to counter further improvement within this performance metric.

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### **III. STRETCH PERFORMANCE MEASURES**

Based on the achievement of an aggregate score above 85% on the Base Performance Measures, NSTec is eligible to earn stretch fee. The following is a summary of NSTec's performance against the FY08 Stretch Performance Measures.

#### **MEASURE 3.0: MISSION STRETCH**

##### **3.1 JASPER Program Execution**

###### **Introduction**

NSTec failed to meet NNSA/NSO's expectation to conduct an experimental program at the JASPER facility in FY 2010. The JASPER project experienced multiple, significant re-plans and the project completed the fiscal year significantly over budget and behind schedule. The overall cost, schedule, and technical performance requirements as defined and measured against Performance Measure 1.6 for the award-fee evaluation period have not been achieved.

###### **Achievements**

A cost, scope, and schedule baseline was developed by NSTec and received concurrence by the Nevada Site Office in October 2009. During the last quarter of FY2010, progress was accelerated but the performance targets, as written, were not achieved this fiscal year.

The reality of what was needed to restart JASPER as a nuclear facility after replacement of secondary confinement chamber was not well understood when the initial estimates were built. The contractor insisted on separate cost, scope and schedule baselines for the JASPER Facility Return to Operations and the JASPER Documented Safety Analysis/Readiness Projects. Because the baselines were not fully integrated and realistic, the recovery project was significantly behind schedule and over budget almost from the inception. To recover, NSTec in coordination with the Joint Nevada Program Office and Lawrence Livermore National Laboratory submitted a significant baseline change request (BCR), essentially a re-plan of the project, in March 2010. The BCR slipped the first hot shot from September 2010 to March 2011 and significantly increased the total project budget. As of September 30, 2010, the recovery remains significantly behind schedule and over budget compared to the latest baseline.

###### **Weaknesses**

The goal of NSO management for all projects is to have a single, integrated project baseline. The baseline must be reality based which will allow NNSA/HQ and the site office to make informed decisions regarding projects at the Nevada National Security Site and across the complex. The M&O Contractor must execute the integrated schedule mitigating all risks and impacts to getting the work completed, especially in the area of work control.

## **3.2 TA-18 Backlog MC&A Validation & Verification Measurement**

### **Introduction**

NSTec performed this work in an excellent manner and exceeded the stretch goal by completing the measurements two days ahead of the 30 day stretch goal.

### **Achievements**

The target requires NSTec to eliminate the backlog of Material Control and Accountability (MC&A) measurements of TA-18 material and to achieve the stretch goal, accelerate by 30 days the scheduled completion date. NSTec developed and maintained a schedule for the work. NSTec maintained the schedule in an exceptional manner and dealt with several unanticipated events including the requirement to pack and ship some items and the receipt of other items along with facility issues that impacted the work. A baseline change control process was established at the start of the work, which required NSO approval of any changes. Changes were properly addressed through the baseline change control process and an exceptional effort was made to keep NSO apprised of the progress. Every measurement activity required a criticality safety evaluation (CSE). Completing these CSEs involved coordination within NSTec and with the laboratory to ensure proper documentation was in place prior to the work starting. Throughout the development of the CSEs, the measurement project team maintained close coordination with the individuals developing the CSEs to ensure the schedule was maintained. Close coordination was also required with the DAF to deconflict this activity with other mission work. This was a challenging activity, which NSTec accomplished in an exceptional manner.

### **Weaknesses**

None identified.

## **3.3 JASPER TRU Waste**

### **Introduction**

NSTec demonstrated excellent performance and exceeded the expectation to complete the life-cycle basis for JASPER Transuranic (TRU) waste by January 31, 2010. This was accomplished ahead of schedule and under budget.

### **Achievements**

NSTec delivered a plan for the JASPER TRU Waste Disposal Project ahead of the scheduled target date for this stretch measure. The contractor coordinated with the Carlsbad Field Office and Los Alamos National Laboratory personnel to develop the life-cycle basis for characterization, shipping, and disposal of the current inventory of the JASPER TRU Waste. The Life Cycle Basis was produced as a formal project plan containing all elements: project description, process, Work Breakdown Structure (WBS), WBS dictionary, and resource-loaded schedule. The quality of the plan was such that the NNSA/NSO TRU subject matter experts had no significant comments. The plan was provided to the campaign programs for incorporation into the FY 2012 through FY 2016 budget request.

**Weaknesses**

None identified.

<b>PBI</b>	<b>3.4 Waste Management Operation</b>	<b>Met</b>
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**MEASURE 5.0: OPERATIONS STRETCH**

The NNSA/NSO will subjectively evaluate the contractor’s leadership and management, effectiveness, initiative, and responsiveness in accomplishing assigned work and improving overall performance.

<b>PBI</b>	<b>5.1 Fire Stations Construction Performance</b>	<b>Met</b>
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<b>5.2 Energy Management</b>
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**Introduction**

NSTec's performance was excellent in the development of the Green House Gas (GHG) baseline. The intent of this performance measure was for NSTec to develop methodologies for baselining green house gases (GHG) in anticipation of government-wide initiatives for GHG reduction. Since this PO was proactive in anticipating the requirement to track GHGs, NSO was able to be very responsive to DOE/HQ data calls and positioned NSO to have a superior understanding of GHG output and potential areas for reduction.

**Achievements**

NSTec used innovation in the absence of specific guidance from DOE/HQ to generate estimates for various sources of GHG emissions. NSTec used inventive techniques to estimate employee commuting distances through the use of a zip code database and by employing sampling methods to determine the emissions due to business travel. Overall, the GHG baseline will be a key product towards the achievement of a 28% reduction by FY2020.

**Weaknesses**

None Identified.

<b>PBI</b>	<b>5.3 Work Management Improvement</b>	<b>Met</b>
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<b>PBI</b>	<b>5.4 Electronic REOP Process Improvement</b>	<b>Met</b>
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## **MEASURE 8.0: BUSINESS STRETCH – Indirect Cost Management**

Execute programs and deliver on commitments while keeping indirect cost below the approved FY 2010 Indirect Baseline, savings must be demonstrated and validated.

### **Introduction**

NSTec's overall performance on indirect cost management was very good. NSTec did an excellent job of managing indirect costs in FY 2010 by coming in \$404K under budget. They also developed some effective tools to help manage indirect costs and rates. NSTec did not meet our expectations with respect to identifying cost savings or efficiencies.

### **Achievements**

NSTec efficiently executed the FY 2010 indirect work scope under their contract – actual costs were \$171.298M or \$398K below the approved indirect baseline of \$171.696M. These savings were validated by the NNSA/SC Office of Field Financial Management.

NSTec developed a Risk Prioritization Process (RPP) to help provide an objective, mission-based approach to indirect cost management. The outcome of the RPP was a prioritized database that provides risk scoring information to help drive the efficient use of indirect resources in support of direct programs.

NSTec developed an out-year indirect rate strategy which aligns to the Federal Budget Cycle. The outcome of the strategy is published out-year rates that can be used to estimate funding requirements with greater accuracy and thus reduce programmatic risk in future years. Another outcome has been the ability to understand and identify major variables and take strategic steps to mitigate indirect rate/cost impacts on direct programs.

NSTec conducted reviews of all indirect work scope. These reviews provided insight into the mission and structure of each organization, the requirements driving the work, applicable benchmarks, and the capacity and capability of the workforce.

### **Weaknesses**

There were no cost savings or efficiencies identified as part of this fee measure even though this was an expectation that was specifically identified in the performance targets of this measure..

#### IV. MULTI-SITE PERFORMANCE MEASURES

<b>MS-01 Science</b>		
<b>1.1</b>	<b>NIF</b>	<b>Not Met</b>
<b>1.2</b>	<b>DP mission-related science experiments</b>	<b>Not Met</b>
<b>MS-02 Enterprise Integration</b>		<b>Met</b>
<b>2.1</b>	<b>Enterprise Reengineering</b>	<b>Met</b>
<b>2.2</b>	<b>IT Strategic Planned Targets</b>	<b>Met</b>

#### V. AWARD TERM INCENTIVE (ATI) PERFORMANCE MEASURES

<b>ATI-01 – Mission Work</b>	<b>PASS</b>
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##### Introduction

The objective for this measure was for the Contractor to execute the Stockpile, National Nuclear Emergency Response, Nonproliferation, Counter Terrorism, and Environmental Management programs and projects in an effective manner to ensure that each of the mission groups are utilizing common processes and resources, eliminating redundancies in operational and management structures, and demonstrating increases in operational efficiencies and cost saving through agreed upon metrics that will be validated by an independent third party (such as the Service Center). The transformational goal of this ATI is to create an organizational structure within the M&O that can perform additional mission work, reduce indirect costs, and demonstrate these traits through metrics without an increase in the base full time equivalents from the previous fiscal year. The Contractor has exceeded many expectations against the criteria used to evaluate their performance under this ATI and has therefore received a passing score for this award term incentive measure.

##### Achievements

NSTec successfully executed a wide range of complex experiments in support of the Stockpile Stewardship mission requiring extensive coordination with Join Nevada Program Office (JNPO) and the Laboratories. These experiments included Bacchus and its confirmatory at U1a, Phoenix experiments at Big Explosives Experimental Facility (BEEF), and support to the Laboratories at National Ignition Facility (NIF), Dual-Axis Radiographic Hydro Test (DARHT) Facility, and Z machine. Particularly noteworthy is NSTec’s role in supporting NIF operations where qualified personnel are on duty 24 hours a day. Data recovery from Bacchus was outstanding as was the data from the various experiments conducted at BEEF. NSTec successfully completed analysis of selected underground nuclear tests and developed various diagnostic systems to meet laboratory requirements and executed a series of experiments at the STL Boom Box providing critical data on material properties. NSTec has been very

successful in eliminating internal stovepipes through the consolidation of various diagnostic and technical organizations. Personnel are now assigned to activities as required including support to WFO.

The contractor provided exceptional support and results to the National Emergency Response Program. The RSL participated in several real-world deployments, such as the Search Response Team deployment to Pahrump, NV, and, the National Security Special Events such as the U.S. State of the Union Speech, the Super Bowl, the Las Vegas NASCAR race. All were accomplished in an exceptional manner.

The International Search and Consequence Management Workshop in May 2010, held at RSL-N, involved 92 foreign emergency response managers from 27 countries. NSTec successfully integrated between program, security, NSO, Wackenhut Service Inc. (WSI) and Professional Analysis, Inc. Corporation (PAI). This was exacerbated by the difficulty of dealing with so many foreigners in sensitive areas and was handled smoothly and received kudos from the NNSA/HQ customer. RSL scientists provided exercise information for the DHS-sponsored, NLE-10 full-field exercise. The data simulated effects of a nuclear detonation and was the first time these data were developed in such detail. RSL scientists did an excellent job of developing these data.

The Aviation Program of RSL was singled out by GSA as the best small aviation program in the U.S. government. This was announced in 2010 and was based on their performance in 2009. They have also won this award in 2004 and 2007. This remarkable string of awards is indicative of the excellent management of the program.

Vehicle Borne Improvised Explosive Device Full Mission Characterization (VBIED FMC), aka “Deathstalker” represents a multi-year WFO program executed on behalf of Department of Homeland Security Science & Technology, Explosive Division. This year, NSTec successfully completed the first Deathstalker test series (Cab Overpressure). To accomplish this NSTec’s Homeland Security & Defense Application Division’s, Remote Sensing Laboratory, and Special Program Department assembled an integrated NSTec team consisting of Sr. Scientist, Engineers, Technicians, and Operations Specialist from RSL, STL, and multiple groups within Defense Experimentation & Stockpile Stewardship. This effort also required close interaction with the following agencies and organizations: FBI, Bureau of Alcohol, Tobacco and Firearms (BATF), selected State and Local Bomb Squads, National Bomb Squad Commanders’ Advisory Board, Hazardous Devices School, and Department of Defense (DOD) representation from Asymmetrical Warfare Office, TSWG, and NAVEODTECDIV. This program is credited with accomplishing “first ever” full assessment of “actual VBIED mission execution”, where US First Responders and Bomb Squads employ their equipment in realistic and high hazard threat environments.

NSTec Test & Evaluation (T&E) worked with other NSTec departments, NSO, WSI, PAI and DHS, to provide estimates for security improvements for the Radiological/Nuclear Countermeasures Test and Evaluation Complex (RNCTEC). This collaborative effort produced better quality estimates with lower implementation costs.

There are other collaborative efforts underway within NSTec: T&E and the NSTec Radiological Control Department routinely work together to ensure use of isotopes during testing is authorized and compliant; T&E is currently collaborating with DHS, DHS customers, and other NSTec departments to develop a  
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program to efficiently ship source material around the country including using their certified package handlers to other facilities to perform packaging operations; and working with NSTec Stockpile stewardship, NSO, and the DAF management to support a Nuclear Safety R&D project.

NSO Facility Representatives validated NSTec's safe performance of mission work on drilling operations and site preparation for the Source Physics Experiment in Area 15, and bulkhead demolition and clean-up activities at the U12U Tunnel for the ITD-1 Project. Drilling operations and clean-up activities on these two projects have been performed safely and without incident.

For environmental management activities, NSTec effectively and efficiently completed FY10 major scope including those funded under the ARRA. This included completion of the demolition of Reactor Maintenance, Assembly and Disassembly building in Area 25. This demolition of an approximately 50,000 square foot radioactively contaminated building was completed under budget and ahead of schedule. A second major ARRA-funded demolition at the Area 26 Pluto Facility has been initiated and is scheduled for completion in early FY11.

Major drilling activities supporting the characterization of groundwater contamination was completed for several wells (ER-20-4, ER-EC-13, etc). While meeting technical objectives, safety and health challenges have led to cost and schedule performance behind overall expectation.

Waste management programs at the Area 5 Radioactive Waste Management Complex continue to be performed effectively and efficiently meeting the needs of the DOE complex for low level and mixed low level waste disposal. Of note, the state approved a Resource Conservation and Recovery Act Part B permit authorizing design and construction of a new lined mixed waste landfill. NSTec was aggressive in award of a small business contract for design and construction of this new landfill. Current construction is ahead of schedule for this new landfill. Finally, NSTec showed considerable innovation in developing a closure plan for the 92-acre waste area. This plan was accepted by the state and will result in a substantial cost reduction for implementation of this closure.

NSTec efficiently executed the FY 2010 indirect work scope under their contract – actual costs were \$171.298M or \$398K below the approved indirect baseline of \$171.696M. These savings were validated by the NNSA/SC Office of Field Financial Management. NSTec is pursuing additional initiatives in the areas Union Training and Power that is projected to yield annual savings of over \$2M.

NSTec developed a Risk Prioritization Process (RPP) to help provide an objective, mission-based approach to indirect cost management. The outcome of the RPP was a prioritized database that provides risk scoring information to help drive the efficient use of indirect resources in support of direct programs.

### **Weaknesses**

During the year, engineering and construction efforts did not produce the desired results in returning JASPER to a state of readiness. While changes and latent defects were outside NSTec's control, problems with engineering and construction did not produce the desired effect. Lack of completed work packages caused work-arounds that resulted in additional cost.

The Work for Others program experienced problems with engineering cost estimates that required seeking additional funds from the sponsor.

*NSTec PER 11-24-10*

**Introduction**

The objective of this measure was for the contractor to support the development, implementation, and operation of an oversight model that will embrace the Secretary of Energy's initiative on contractor oversight built on the framework of the current Kansas City Oversight concept for non-nuclear activities. The transformational goal of this measure is to place more responsibility and accountability on the M&O contractor to operate the Nevada Test Site in a manner that embraces industry standards for conducting non-nuclear activities and streamlines transactional oversight on high hazard and nuclear activities, while maintaining mission accomplishment in a safe, secure, cost effective, and environmentally friendly manner. The Contractor has met most expectations against the criteria used to evaluate their performance under this ATI and has therefore received a passing score for this award term incentive measure.

**Achievements**

NSO agrees with the NSTec self assessment narrative for this award term incentive. Northrop Grumman, NSO and NNSA Service Center have completed rigorous assessments of the NSTec CAS implementation and effectiveness, and concluded the CAS is presently adequate to provide the necessary foundation for a successful transition to the new governance model.

NSTec established and is maturing a performance metrics system that is accessible to federal staff. That system is being driven to maturity as evidence by two significant NSTec initiatives: 1) The Trending and Analysis Forum-a group established to develop, implement, and monitor metrics for monitoring performance; and 2) Hosting training on developing performance metrics (which was attended by NSO representatives).

In September, an NNSA assessment team concluded that the NSTec CAS is sufficiently effective to support NNSA/NSO oversight on systems rather than transactions for non-nuclear activities that are less than highly hazardous, subject to completion of collective action for the two findings in CAS Element 1, Assessments.

**Weaknesses**

One area of lingering weakness identified during the recently completed NNSA/NSO/SC assessment of CAS effectiveness correlate well with NSO observations throughout this performance year and with the results of the Northrop Grumman Parent Organization Oversight Committee assessment:

NSTec struggles to execute planned assessments, particularly management self assessments, in the time period allocated and planned. In some cases this causes NSO to adjust its own oversight strategy to accommodate these unplanned changes. However, NSTec is doing a better job of keeping NSO apprised of these changes when they occur, and has demonstrated senior management commitment to identifying the cause for this weakness and correcting it.

**Introduction**

The objective of this measure was to assure that the Contractor is poised to manage changing missions, uncertain budgets, and the impact of the ARRA, through the management of critical skills and the overall skill mix that is essential to bringing work to the Nevada Test Site. The Contractor has exceeded most expectations against the criteria used to evaluate their performance under this ATI and has therefore received a passing score for this award term incentive measure.

**Achievements**

The contractor aggressively developed comprehensive measures throughout the year to more effectively evaluate their performance against the intent of this measure. Initial measures were limited to recruitment activities and reducing the time it takes to fill critical positions. They expanded these measures to include attracting and retaining critical needs.

NSTec filled 57% of vacant positions in 45 days, exceeding the goal of 50% in 45 days.

NSTec's FY 2010 acceptance rate for job offers was 82%, exceeding the goal of 80%. This includes both external and internal job offers.

NSTec’s supervisor ratio was approximately 1:9 throughout FY 2010, exceeding the goal of 1:8.

NSTec’s FY 2010 employee turnover rate was 5.6%, exceeding the goal of 6%.

Completed training qualifications were consistently above 92% throughout FY 2010, ending the year at 93.4. This exceeded the goal of 92%.

NSTec developed a Human Capital Management (HCM) Plan. The HCM plan is a useful tool to aid management in making human capital decisions.

**Weaknesses**

NSTec filled 88% of vacant positions in 90 days, falling short of the goal of 90% in 90 days.

<b>ATI-04 – Contractor Assurance System (CAS)</b>	<b>PASS</b>
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**Introduction**

The objective for this measure was for the contractor to maintain a functional and transparent CAS and demonstrate that CAS processes drive continuous mission performance and operational excellence. The transformational focus of this measure was to instill effective trending and analysis in the contractor CAS so that NSO can effectively transition to the Kansas City Oversight concept, right-size federal oversight, and validate an increase in overall execution effectiveness (as defined by meeting cost, scope, schedule, safety, and security targets) across both mission and functional activities. The Contractor has met expectations against the criteria used to evaluate their performance under this ATI and has therefore received a passing score for this award term incentive measure.

**Achievements**

The NSTec CAS annual report was provided by the due date, July 1, 2010. Considerable effort was expended by NSO to help many NSTec personnel understand how to analyze data. This networking produced improved teaming among the various mission and functional area personnel. The document was found to be reasonably helpful to NSO CAS mission/functional area leads, based on the collective analysis of individual federal evaluations. Federal qualitative ratings on the report indicated a mean value of 79%.

NSTec instituted a new trending and analysis (TAF) initiative focused on metrics and caWeb data analysis. The TAF periodically reviews NSTec metrics and provides real-time feedback to the metric owner. The TAF also piloted a suitable evaluation process for new/revised metrics and a reporting process to senior management.

**Weaknesses**

Some NSTec personnel identified as leads for a mission or functional area were reluctant to “data mine” the caWeb database to perform a comprehensive analysis of past issues. Such “data mining” was necessary because the caWeb data base and data input methodology does not provide for adequate issue categorization. Hence, sorting on the limited caWeb data fields available will only result in a subset of the data of interest. The contractor has correctly identified the categorization of caWeb issues as a major impediment to any meaningful efficient collective data analysis. This challenge has been jointly proposed as a FY11 PEP Measure.

<b>ATI-05 – NNSA Business Management Advisory Council</b>	<b>PASS</b>
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The objective under this measure was for the Contractor to support and participate in the NNSA Business Management Advisory Council (BMAC) during FY2010. Further, the Contractor was required to build a plan and execute the steps necessary to achieve the business management improvement goals established by the BMAC and measure its performance against NNSA federally concurred metrics within Supply Chain, Financial, Personal Property and Contractor Human Resources functional teams.