

**FY 2007 PERFORMANCE EVALUATION REPORT (PER)
OCTOBER 1, 2006, THROUGH SEPTEMBER 30, 2007
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 thirty-eight Performance Objectives (POs) identified in the Fiscal Year 2007 (FY 2007) Performance Evaluation Plan (PEP). Based on the identified need to improve the Performance Evaluation Process to better drive performance necessary to achieve NNSA goals and to properly account for the large performance money at stake, the structure of the PEP was modified this year. The individual site PEPs are now a combination of base, stretch and multi-site performance measures.

The conceptual framework of the FY2007 PEPs consists of:

- A PEPs that reflects "a more demanding customer";
- A proactive role for HQ in partnership with the Site Offices; and
- A uniform approach among NNSA HQ organizations and site offices (within the constraints of each site's contract).

The desired outcomes of this new PEP structure include:

- M&O behavior that is more performance oriented with balanced risk management;
- Achievement of NNSA "demanding customer" expectations of "base" and "above base" or "stretch" performance by the M&Os;
- Full performance of the M&Os in terms of mission, operations and business;
- Deployment of the contractor assurance system (CAS) by the M&Os; and
- Financial rewards to the M&Os commensurate with the level of performance.

Definition of Performance Measures:

- **Base:**
 - Level 1 and level 2 milestones contained in the FY 2007 Program Implementation Plans (PIPs) or those measures that lend themselves to the overall accomplishment of Level 1 and 2 milestones.

- **Stretch:**
 - Above and beyond that of level 1 and level 2 milestones in the PIPs and “TOP 10”.
 - Cost avoidance, cost savings, below budget, ahead of schedule, more cost effectiveness and efficiency

- **Multi-Site:** Performance objectives that apply to multiple sites and the reward is based on multi-site performance. These measures will be evaluated on an “all-or none” basis.

Performance Measure Category Breakout Values:

- 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, irrespective of performance against the stretch PO’s

Overall, NSTec’s performance during this evaluation period was deemed to be “Good”. NSTec’s performance in some areas was excellent while other areas will require additional work in the future. Areas of strong performance were: Stockpile Stewardship and other Defense Program efforts; Waste Management; Material Control & Accountability; Counterintelligence; and Contractor Assurance System. NSTec’s performance was rated as good in most of the operational areas. Overall, however, NSTec needs to be more forward thinking. They need to do a better job of self-identifying issues rather than reacting to them or waiting for the NSO to inform them they have a problem. NSTec also needs to have a better strategic focus in the areas of budget, finance, and human capital management.

II. BASE PERFORMANCE MEASURES

A. MISSION BASE

MIS07A-01.01 Stockpile Stewardship Program Objectives (NV Contributions to Level 1 & 2 Milestones)

Introduction

NSTec’s Defense Experimentation and Stockpile Stewardship Division provided exceptional support and results to the National Security Program. All milestones due to be completed in FY07 were achieved (22), with the exception of two milestones, owned by Sandia, that were carried over into FY08 and are on schedule. The delay of the Sandia milestones was not due to NSTec activities, but Sandia activities. Throughout the year NSTec proactively worked with JNPO to ensure maximum productivity, data gathering, and minimize cost impacts allowing for the successful completion of the programmatic milestones. NSTec substantially exceeded expectations in several critical areas such as diagnostic support

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to crucial Dual Axis Radiography Hydrodynamic Test facility data, diagnostic development, microchannel plate reengineering, legacy event analysis, dynamic shock experiments, and Radiographic Integrated Test Stand operations. NSTec ensured customer requirements were achieved. These activities were accomplished on schedule and within budget despite dealing with a year long Congressional Continuing Resolution. In addition, NSTec successfully reduced Accountable Classified Removable Electronic Media (ACREM) inventory from 1228 items to 83 at Los Alamos Operations. This extraordinary effort to reduce security risks was accomplished by significantly improving operational efficiencies, allowing information to be transferred to other non-ACREM media, and then destroying the ACREM items. NSTec also successfully relocated to and operated the Dense Plasma Focus (DPF) machine at the NTS. A LANL/SNL team reviewed the accomplishments to date and recommended that NSTec concentrate on proving the machine for Deuterium-Tritium operations and demonstrating the capability to generate the neutron flux. So far the DPF has performed beyond expectations. This machine will provide critical K-effective measurements needed for integral DPE and RRW related experiments.

– Achievements

Campaign 1(LLNL): LLNL SCEs research and development project supports the NNSA National Milestones identified in the Milestone Reporting Tool (MRT): #2228, #2459, #2476, and #2477.

Test Bed: Build and used the test bed to develop, troubleshoot, and validate control system modifications, software upgrades, and TUI chassis integration at the Joint Actinide Shock Physics Experimental Research (JASPER) facility. Certified the new LLNL control system using the JASPER TUI with the Surrogate Shot on 6/5/07. This test bed will also be used for testing of the new Safety Interlock System scheduled for installation in FY08.

Advance Sensor Development: Developed 24 sensors for LLNL, including a specialized sensor (developed in less than six weeks) required for time-critical experiments. Four 75mm Image Intensifiers and four optical streak cameras were also completed.

Dynamic Experiment: Modified streak cameras for JASPER evaluation testing, the High Explosives Application Facility, and other experiments for the LLNL B-Program. Provided high-speed imaging support to LLNL Flash X-ray Facility at Site 300 for cathode performance and insulator breakdown studies.

Data Analysis: Analyzed seven legacy nuclear events for specific LLNL technical requirements and developed algorithms, software, and error analysis for processing Fabry-Perot Velocimetry data. Improved performance of Statistical Based Spline Fitting Program used for analyzing legacy nuclear event data.

Campaign 1(LANL): LANL primary assessment supports the NNSA National Milestone #2228 (plutonium and subcritical experiments).

Nuclear Event Analysis (NUEX): Processed data from 17 Legacy Underground Tests: reading data traces, applying calibrations, and generating uncertainties. Data was used to as part of the Predictive Capability Framework to improve the accuracy of the codes used for weapon simulation.

Pinhole Imaging Neutron Experiment (PINEX): PINEX group processed 12 images, organized and located the files from 38 events for processing, and developed a new code for analyzing the Trebbiano Event. NUEX and PINEX analyses are part of the Predictive Capability Framework and improve the accuracy of the codes used for weapons simulation.

Reaction History: Processed 12 events: scanned documents and film, read traces, and generated composites with uncertainties.

Campaign 2 (LANL): Dynamic Shock Experiments Successfully Conducted at STL Boombox.

Successfully conducted a total of 98 dynamic shock experiments at the Special Technologies Laboratory Boombox experimental facility, enabling LANL to complete a national Level-2 milestone (#2478) on schedule and on budget.

Campaign 3 (LANL): Successful Fielding of DARHT Time-Resolved Spot Size (TRSS) Diagnostic.

Completed the development and fielding of the Dual Axis Radiographic Hydrotest (DARHT) TRSS diagnostic for both axes on time and within budget, making it the first successful time-resolved measurement of an X-ray radiographic spot at full power. TRSS diagnostic is now fully integrated into the DARHT system and is operational, characterized, reliable, and can be used without additional tungsten shielding. The LANL customer was extremely pleased. Fielding of the TRSS on DARHT was critical for LANL to complete a NNSA National Level 1 Milestone (MRT #337).

Campaign 4 (LLNL & SNL): Enhanced Diagnostic Development, Characterization, Calibration.

Reestablished Core Competency. Accomplished advances in standards-based diagnostic calibration methods and co-authored the FY07 National HEDP Calibration Accomplishment Report (MRT milestone #2522) with the NWLs for NA-113. Reestablished an Underground Test-Related core competency through analyzing and characterizing data for the National Ignition Facility (NIF) and for the Z machine. Core competency: Assessment and correction of the Electromagnetic Pulse and radiation effects that impact energy measurements. Conducted RF tests, acquired and analyzed data to characterize the interaction with Dante X-ray Spectrometer and Static X-ray Imager system components on NIF, and validated X-ray power and neutron diagnostic operation on Z after its refurbishment to higher power. Efforts ensured X-ray and neutron diagnostics would be operational in the harsh environment anticipated for future Inertial Fusion Ignition and weapon secondary experiments (part of Campaign 4 and the National Ignition Campaign).

Campaign 4 (SNL): Microchannel Plate Re-engineering and Calibration. Completed next-generation characterization/calibration of reengineered micro-channel plate (MCP) X-ray pinhole camera backs for upcoming, first Z power evaluation shots. Improved SNL's core diagnostic reliability from sub-standard to state-of-the-art. X-ray pinhole cameras using these MCPs are the most critical X-ray power diagnostic in measuring Z Machine performance upgrades and in supporting SNL and LANL Campaign 4 and Inertial Confinement Fusion experiments. Characterization runs revealed a larger-than-anticipated improvement of 100,000 times more sensitivity for the upgraded MCP detectors. This enables SNL (and potentially users at other NWLs) to detect X-ray image features previously not achievable.

Campaign 5, Test Readiness. All TR Milestones Completed. Completed and transmitted the Test Scenarios and Capability Assessment Report to NNSA Headquarters (MRT #2490) on schedule and on budget. Successfully completed the Physical Assets Report on September 25, 2007, as scheduled (MRT #2491). In addition, developed a plan and negotiated with NSO and NNSA HQ to move the U-233 presently located at Oak Ridge National Laboratory to Y-12 (originally planned to move to NTS). Successful negotiation was completed in the first quarter of FY07 (MRT 2493). Successfully achieved all NNSA Headquarters-assigned Milestones and Performance Objectives on schedule and within budget.

DSW (LANL): RITS Operations Approved above 10 MeV. The Radiographic Integrated Test Stand (RITS) was approved for operations above 10 MeV. RITS is the only relevant test bed for the Atomic Weapons Establishment (AWE) Hydrus Inductive Voltage Adder (IVA) and will be able to replicate their

IVA output to within 15%. RITS milestones are crucial in collaborations with the AWE, the National Laboratories and NTS.

– Areas Requiring Improvement

None Reported.

MIS07A-01.02 Stockpile Stewardship – Other

Introduction

NSTec’s Defense Experimentation and Stockpile Stewardship Division provided exceptional support and results to the National Security Program. NSTec substantially exceeded expectations in several critical areas such as Phoenix HHT1, Thermos Pu Experiments, Barolo preparation, NTS Powder Gun, JASPER shots, ZR Containment Chamber validation, Test Readiness, the JASPER Trigger Unit Interface (TUI), and LANL diagnostic support. These activities were accomplished on schedule and within budget during the year long Congressional Continuing Resolution, while ensuring customer requirements were achieved.

– Achievements

Target a, BEEF: Successfully executed the first LLNL Helical Hydro Test (HHT1) on schedule, within budget, and with 100% of the data successfully recorded for future analysis. NSTec provided the control system, pulsed power diagnostics, Faraday Rotation, New Generation Seed Bank, Initiation System, timing system, auxiliary systems, high-speed video imaging, PM-10 monitoring, and support services. This extraordinary effort allowed LLNL to meet a national NNSA Level-2 Milestones (#2228 and #2476). Additionally, the unqualified success of HHT1, as exemplified by the exceptional data quality, has allowed LLNL to “leapfrog” the previously planned HHT2 experiment and proceed directly to the FFT2 experiment.

Target b, Thermos: Successfully conducted full Thermos series of 12 Plutonium experiments within the planned 12-week schedule, yielding excellent, high-quality data on all channels in each experiment. Established a new record by conducting two experiments per week for the last eight shots and it was the first time the U1a complex had been kept in experimental readiness for 12 continuous weeks. The high-quality data included VISAR data, Photon Doppler Velocimetry (PDV) data, radiographic images, and Cygnus diagnostics data. The Thermos series of experiments was significant due to the quantity of data obtained and quality of data provided on material damage required to improve simulation codes. The outstanding data quality allowed for a more aggressive schedule and greater data return, enabling the data output to be doubled. In addition, the Cygnus radiographic sources reached a significant milestone by achieving its 500th shot. NSTec received numerous commendations from LANL, indicating that the Thermos experimental data quality exceeded all experimenter expectations. NSTec was also requested to deliver four Thermos inner chambers to LANL. This was an unfunded requirement, which NSTec was able to meet and delivered the units ahead of schedule.

Target c: Barolo Dynamic Plutonium Experiments (LANL): In coordination with LANL, NSTec is preparing for the Barolo Dynamic Plutonium Experiment scheduled for FY 2009 by developing staffing plans and schedules; engineering designs for the fielding emplacement; developing the Hazards Analysis to complete the required Documented Safety Analysis; fabricating equipment and hardware; and

characterizing, testing, and calibrating diagnostics. LANL made the determination that the Powder Gun experiments would have priority over Barolo and thus NSTec has focused its efforts there.

Target d: Powder Gun Experiments: NSTec successfully executed Powder Gun experiments at Ancho Canyon by fielding diagnostics and recording data for projectile velocity and tilt directly relating to the gun performance. Overall the gun performed as required, allowing the next phase for the project at NTS to move forward. Mining has begun in U1a to support the Powder Gun using innovative techniques to augment the rockbolt/shotcrete ground support. NSTec's role in fielding the gun, designing and building specific diagnostics, and recording data to prove the gun's performance has successfully validated the gun design standard and allowed LANL to complete the NNSA National Level-2 Milestone #2228. The data collected from the NTS Powder Gun shots at Ancho Canyon will benefit Barolo Photon Doppler Velocimetry (PDV) because the shots are testing the most current PDV system that will be fielded at the NTS.

Target e, JASPER: Successfully completed four Plutonium and seven surrogate materials shots at the JASPER facility with 100% data recovery for all shots. NSTec was responsible for diagnostics preparation, fielding, data acquisition and operations at JASPER. PDV Equation of State data with Plutonium targets were recorded. According to NNSA HQ, JASPER has been one of the most productive, cost-effective experimental facilities in the NNSA Complex.

Target f, Z Machine SNM Experiments: The highly successful plutonium Integrated Compression Experiments (ICE) on Z relied on NSTec engineering, procurement, and system validation while interfacing with the Z platform within the SNL experiment Quality Assurance Plan. NSTec also developed the Quality Assurance Plan for SNL. In addition, NSTec successfully supported SNL's Z Plutonium experiments, as part of the national Dynamic Plutonium Experiments program. This support included modifying the mechanical design to interface with new hardware to validate containment at significantly higher magnetic pressures. This began the process to reestablish SNL's authorization basis for subsequent Plutonium shots.

Target g Test Readiness (TR): NSTec successfully accomplished the transition of the TR Program testing knowledge to current NSTec staff and reduced the subcontractor staff without adverse impact program. The TR Program staff is more versatile now than it was at the beginning of the fiscal year with the addition of personnel who have replaced existing subcontractors. Those personnel have experience in the following areas: former nuclear weapons testing program; Atlas, Jasper, and U1a; personnel database management and reporting requirements; the Decision Support System; diagnostics support for weapons tests, and the sub-critical experiments program.

Target h, Common Control System: The system upgrade was successfully completed and surrogate materials experiments on JASPER validated the state-of-the-art TUI built by NSTec. The TUI was designed, built, and installed on schedule and on budget. TUI validation upgraded the JASPER control system, enabled significant improvement in film quality, and allowed LLNL to meet the national NNSA Level-2 milestone (#2459) by certifying the Trigger Unit Interface for use on Special Nuclear Material experiments. This upgrade will be one of the elements that will be necessary to bring the JASPER Facility into compliance as a nuclear facility.

Target i: LANL diagnostics: Cutting edge diagnostic capabilities, expert data acquisition and operational expertise made NSTec an integral part of the laboratories' successful DPE, DARHT, Z, NIF, PRAD, and Powder Gun initiatives. Support included four major areas of NSTec expertise: Physics and Analysis, Instruments, Data Acquisition, and Detector Development. Highlights include enhanced

analysis techniques; significant instrumentation hardware design, development, and modification; improvements to data acquisition software; and specialized detector design, fabrication, modification, and calibration.

– Areas Requiring Improvement

None Reported.

MIS07A-02 Criticality Experiments Facility

Introduction

NSTec made satisfactory progress in executing the Criticality Experiments Facility. The work performed by NSTec was accomplished under budget as indicated by the cumulative Cost Performance Index (CPI) of 1.04. They completed several interim milestones ahead of schedule. However, the overall execution of the work is behind schedule, with respect to the performance measurement baseline, as indicated by the cumulative Schedule Performance Index (SPI) of 0.92. NSO expects NSTec to be more proactive in identifying issues and/or avoiding issues rather than relying on NSO or simply reacting once an issue surfaces.

– Achievements

NSTec completed the Material Access Area boundary move and initiated construction mobilization on the scheduled date of May 14, 2007.

Demolition work in Building 310 began on May 21, 2007 ahead of the scheduled date of June 5, 2007.

Core drilling in Building 304 began on June 4, 2007 ahead of the scheduled date of June 5, 2007. Core drilling in Buildings 302 and 310 started on June 25, 2007

Core drilling in Building 304 was completed on September 20, 2007 ahead of the scheduled date of September 30, 2007. Core drilling in room 117 was completed on September 20, 2007.

Completed demolition work in Buildings 302 and 304 on September 20, 2007 and Building 310 on September 28, 2007 ahead of the scheduled date of September 30, 2007.

NSTec performance of the CEF work is under budget with respect to the performance measurement baseline as identified by a cumulative Cost Performance Index (CPI) of 1.04 at the end of FY 2007.

– Areas Requiring Improvement

Critical Decision – 3C work to erect a temporary facility was completed behind schedule. As a result, the relocation of the CEF Project staff to the site, which was scheduled for February, was not completed until June. This resulted in additional cost to the project.

NSTec performance of the CEF work is behind schedule with respect to the performance measurement baseline as identified by a cumulative Schedule Performance Index (SPI) of 0.92 at the end of FY 2007. This is primarily due to the following issues.

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The early procurement of long lead items, which was in Critical Decision – 3B in 2006, is behind schedule with only half of the procurements completed at the end of FY 2007. The projected delivery of the last of the long lead items is more than eight months behind schedule. In addition, the procurement of all other materials needed by construction was initiated too late to meet the construction schedule. As a result, NSTec is currently projecting at least a two month slip in the construction schedule.

NSTec engineering did not complete the Fire Protection/Fire Alarm designs on schedule. This has impacted the procurement of materials for these systems and construction work by at least three months.

Continual delays in the development and approval of work packages and change packages has delayed construction work.

MIS07A-03 Facility & RTBF Operations

Introduction

This performance measure was to ensure availability of critical Readiness in Technical Base and Facilities (RTBF) facilities. Throughout the year the contractor maintained the facility availability rate greater than 98%, significantly exceeding expectations.

– Achievements

Throughout this Fiscal Year, NSTec maintained the key RTBF facilities (U1a complex, DAF, JASPER, Baker Site, BEEF) in a state of readiness to perform mission work. There were no unplanned outages that caused the facility to be unavailable for scheduled work that exceeded one day. NSTec maintenance ensured all systems were up and running and no programmatic work was delayed.

– Areas Requiring Improvement

None Reported.

MIS07A-04 Device Assembly Facility Readiness

Introduction

The intent of this performance objective was for NSTec to provide the project management, engineering, maintenance, and construction support to successfully accomplish DAF missions and to support the implementation of the DAF DSA. NSTec support in these areas was outstanding and directly resulted in the successful accomplishment of the approved DAF missions. NSTec also met all expectations on expense funded projects.

NSTec DAF project Management has been highly responsive to the facility and NSO management and aggressively supports the safe and efficient accomplishment of the mission work at the DAF. Project controls support was also highly responsive in the maintenance of the DAF Integrated Schedule which required frequent, detailed, and accurate communication with all DAF users.

– Achievements

All DAF mission areas including: DAF Integrated Schedule, Nuclear Explosive Operations planning, TA-18 Material staging, Sandia Material staging, Nuclear Material Handling and Measurement received

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outstanding support from NSTec. The DAF integrated schedule provided a valuable tool for the facility and users in identification of resource requirements various evolutions, deconflicting activities, and communicating priorities among users. NSTec provided expert input to the development of the DAF Nuclear Explosive Operation Plan and participated in various follow on discussions keeping the effort on track. For TA-18 Material Staging, Sandia Material Staging, and the Nuclear Material Handling and Measurement efforts NSTec Nuclear Operations personnel completed a qualification program for nuclear material handlers directly supporting the successful accomplishment of mission activities. In addition NSTec has developed a Fissile Material Handlers (FMHs) certification program. This will eliminate the future requirement for Laboratory supplied FMHs.

NSTec met expense funded project expectations at the DAF. NSTec completed the crack monitor installations; redesigned the Assembly Cell Drains; Completed DAF Chiller System turnover; in addition to completing the diesel generator radiator evaluation, evaluated the air inlet and initiated a design change; and developed and issued procurement specifications for tritium monitors and waste isolation valves. In addition, NSTec identified a vendor to repair/replace fixtures on several high mast lights and initiated work on an NSO request to test CEF concrete cores.

– Areas Requiring Improvement

None Reported.

MIS07A-05 Device Assembly Facility Readiness

Introduction

The intent of this performance objective was for NSTec to provide Device Assembly Facility (DAF) readiness enhancements by addressing known facility maintenance issues with the roof, expansion joints, the water supply tank, and the fire suppression system water supply lines. At mid-year there was concern that NSTec would not meet the performance targets, however, in September NSTec Project Team met or exceeded performance expectation by demonstrating an aggressive, well coordinated, and outstanding effort to complete this performance objective.

– Achievements

NSTec evaluated several roof replacement systems to address the water infiltration issue. Over the course of the evaluation and cost estimating it was found that the cost would exceed a General Plant Project threshold and become a line item project. The performance expectation was altered and NSTec continued with the development of the Roof Geomembrane Specifications for procurement and initiated the preparation of Line Item Project CD-0 package for approval. From the evaluation it was noted that the roof grading and rodent burrows were contributing factors to the issue. NSTec initiated an effort to regrade the roof to aid in water run-off. This resulted in the discovery that the as-built design was not in accordance with the design drawings. The NSTec (and LLNL) organization reacted quickly to this and generated, reviewed, approved, and procured material to initiate the repair. NSTec demonstrated outstanding sustained effort despite various setbacks. NSTec also completed expansion joint repairs; completed the evaluation of the fire suppression water supply lines and made recommendation to Facility Management; and in addition to preparing the DAF water storage tank inspection, testing, and maintenance requirements, NSTec developed the replacement tank specifications and an RFP. The water tank evaluation also included a cost estimate that indicates that a PC-3 qualified replacement will require

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a line item project. NSTec is now postured to initiate a Line Item Project CD-0 package for this effort.

– Areas Requiring Improvement

None Reported.

MIS07A-07 National Security Response Program

Introduction

The intent of this performance measure was to measure the ability of NSTec and the Remote Sensing Laboratory (RSL) to respond to radiological emergencies with the emergency response assets located at RSL-Andrews and RSL-Nellis funded by NA-40. NNSA/NSO judged NSTec readiness in two ways: (1) maintenance of effective support activities such as exercise support, equipment development, and readiness metrics, and (2) actual deployments to national responses.

RSL excelled in several areas this year: exercise demonstrations of readiness, a strong technical integration program demonstrated by NNSA/HQ increase in TI funding levels for FY08, and successful deployments for real national issues. In addition, NSTec successfully instituted the assess readiness management system (ARMS) program during FY07 to provide a metric for the readiness of each of the response programs of NA-42. NSTec consistently shows a readiness posture that is acceptable to headquarters and is quick to resolve issues from a temporary situation that would lower the readiness grade.

– Achievements

One of NSTec's most notable achievements during FY07 was winning the DOE Best Small Aviation Program of the year, as well as winning the title across the Federal Government for the second time in three years. This award is open to all aviation programs in the U.S. Government with less than 20 aircraft in their fleet. The NSTec support manager, (b)(6) also won the DOE award for being the best support manager for an aviation fleet. These awards are an indicator of the management excellence of RSL in this area.

Several real-world deployments were executed expertly. They were performed safely, successfully, and with no major mishaps. Among these deployments were:

- An aerial survey of the Portsmouth Gaseous Diffusion Plant was completed searching for a lost radioactive source;
- A search team supported a nearby FBI office and deployed within hours by helicopter;
- A RAP deployed by helicopter to Needles, CA, to support the California Highway Patrol with an overturned truck containing ²³⁸Pu; and
- A team from RSL-A boarded a vessel at sea, supporting the U.S. Coast Guard, investigating a potential radioactive shipment.

In addition, several national exercises were successfully supported. The NSTec participation was lauded by NSO and by NA-42. The strength of NSTec capabilities and expertise has become a national asset for the country, so much so that NNSA/ NA-46 has asked NSTec to aid the IAEA in the design of an international exercise to held in Mexico City.

– Areas Requiring Improvement

None Reported.

MIS07A-09 Complete TRU Subproject

Introduction

This performance measure identified the desired level of performance related to disposition the remaining LLW/MLLW drums in the inventory, the preparation of data packages for the remaining TRU/MTRU drums, venting of the oversize boxes, and the development of a lifecycle baseline for the closure of the project in FY 2008. NSTec exceeded expectations by accomplishing the tasks described in this measure and by having a positive impact on the mission of the TRU sub-project. In addition, NSTec disposed of legacy waste during the year at a cost savings to the DOE.

– Achievements

The contractor exceeded expectations for the disposal of LLW on-site as well as shipment of all MLLW off-site for treatment, the preparation of the data packages and the development of the baseline for the completion of the project. In addition, NSTec consolidated waste from holding containers and shipped waste streams for treatment, thus incurring a cost savings for the project. Contracts for the shipment of MLLW drums off-site for shipment were procured allowing the drums to be shipped by the end of the Fiscal Year.

The contractor adequately provided characterization activities for the remaining TRU waste drums to prepare the drums for off-site shipment. The contractor performed RTR and ISOCS at the Area 5 RWMC. By the end of the FY there were 4 drums that required ISOCS data. RTR was completed on schedule.

– Areas Requiring Improvement

The contractor was assigned the task to size reduce and repackage the 58 oversized boxes in November 2006 but a Baseline Change Request was not submitted and approved by NSO until April 2007. This effort took extensive planning and scheduling beyond what was anticipated. The major cause of delay was that the scope wasn't fully defined prior to NSTec re-baselining.

The task of venting the 58 oversized boxes by May 30, 2007 was not completed. The contractor had problems measuring the thickness of the oversize boxes which lead NSTec to use a venting tool that could not vent all of the boxes, leaving 12 boxes without a path forward. Although the contractor was able to vent 46 of the 58 oversized boxes, the contractor was required to find a new technology that could be used to vent the remaining 12 boxes. The coordination between the NSTec TRU Project and the NSTec nuclear safety analysts caused delays in making a decision and incorporating the new technology into the nuclear safety basis to allow the work to continue. At the end of the Fiscal Year the 12 boxes had not been vented and page changes to the safety basis had not been submitted.

MIS07A-11 Complete ER Project Milestones

Introduction

NSTec exceed expectations by submitting all 17 Industrial Site documents due this year prior to the regulatory milestones date. This enabled DOE to meet all regulatory milestones with the state of Nevada

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under the Federal Facility Agreement and Consent Order. All milestones were completed within EMIS cost and schedule thresholds (CPI or SPI greater than or equal to 0.9). All documents produced adhered to the approved FFACO document outlines. All FY07 FFACO UGTA milestones and deadlines were completed on time and met all technical qualifications. Each support item and/or deliverable met quality expectations and was accepted by the UGTA Federal Sub-Project Director and NDEP as applicable. The NSTec Soils project staff worked well with other contractors to complete 16 preliminary assessments. The work has helped establish the framework for how the soils project will remediate soils sites in the future.

– Achievements

The following documents were provided prior to the regulatory deadline:

The Corrective Action Plans for CAUs 145, 151 and 139.

The Closure Reports for CAUs 516, 537, 536, 484, and 300.

The SAFER Reports for CAUs 408 and 121

Seven Post-Closure Monitoring Reports for Multiple CAUs

NSTec provided excellent field support to SNJV on several projects. They responded within one day to provide a back hoe and operator for additional soil sampling on CAU 166. They also supported the assembly of the shredder and helped obtain the air permit for CAU 565. There were numerous support request changes asked of NSTec by SNJV on this CAU which were handled well by NSTec. NSTec also provided excellent support in knocking down and size reducing the High Bay of the Super Kukla Facility. This difficult job was done safely and efficiently, resulting in a cost savings for both contractors. NSTec also completed the removal of depleted Uranium contaminated soil and performed confirmation sampling on schedule at the Tonopah Test Range. This effort was conducted under snowy conditions with temperatures ranging from -15 to 15 degrees F. By using on-site TTR resources negotiated by NSTec with the Air Force and Sandia, significant funds were saved removing two rockets at CAU 496 and providing a variety of work for CAU 484.

NSTec provided unplanned and competent input at the Technical Working Group meetings regarding changes in CAU requirements due to input from NDEP. This input helped with the significant changes made in 3 CAU's and overall re-development in much of the UGTA baseline. This effort will contribute to the FY08 re-baselining.

NSTec participated with NSO in briefing the State on the proposed Soils strategy. The State was pleased with the strategy and as a result, the Soils project is moving forward.

– Areas Requiring Improvement

NSTec should look for opportunities to work more efficiently. Working more efficiently would allow EM to accelerate the ER schedule by moving outyear work into the current year, thus closing sub-projects earlier.

Introduction

National Security Technology, LLC (NSTec) can-do attitude significantly exceeded expectations for this Sub-Project. Further, while accomplishing all non-incentivized tasks, the contractor kept the project on schedule and on budget. Finally, NSTec accepted and disposed of waste in accordance with the NTS WAC, state permits, authorization basis, and the task plan.

– Achievements

NSTec disposed of 943,993 ft³ of LLW and MLLW in 1265 shipments. This volume of waste equates to 102% of the final FY-2007 forecast. This waste was disposed safely, meeting all federal, state, DOE, and NSO requirements. For example, NSTec received six remote-handled, high dose rate radioactive drum shipments that were safely accepted and disposed.

NSTec's Disposal Operations project management performance was outstanding. This was evidence by cumulative CPI and SPI performance numbers being close to 1.0 all year. In addition, early in the fiscal year, NSTec quickly got an understanding of the generator fee process and, as a result, had only \$77.00 of carryover at the end of the FY-07 (prior year carry over was over \$1,000,000). This was done in their first year as the M&O. This accomplishment is outstanding.

NSTec increased LLW and MLLW disposal ability by 20% (300,000 ft³ [see MIS07A-14- STRETCH]) without adversely impacting Safety. The contractor further aided generators by providing efficiency disposal volumes early in the FY. The generators immediately understood the outstanding offer and took advantage of it. NSTec met regularly with new and current generators to aid them in characterizing, packaging, and disposing their LLW/MLLW.

The continuing resolution adversely impacted generators' disposal programs. One generator dropped its FY-07 forecast by 300,000 ft³ resulting in an approximate \$4 M shortfall. Because of NSTec's outstanding interactions with the generators, they were able to secure replacement LLW/MLLW volumes from other generators (West Valley and Y-12).

Further, via the contractor's quick understanding of the generator fee process, NSTec was able to encourage the generators to move their disposal volume from the latter half of the FY to 1st half. This movement increased work efficiency at the Disposal Facility. It also allowed generators to increase their disposal volumes in the latter half of the FY if needed. As a result, West Valley and Y12 were able to increase their disposal volume by 300,000 ft³ (i.e., replacing the shortfall stated above).

NSTec developed and implemented a successful closure strategy that will allow NSO to fill-in the low spots of the A-5 RWMC 92-Acres and the effort will be accomplished using Disposal Operations staff. This should substantially lower the closure cost for the RWMC when it comes time to close in FY-10/11. At the same time, the contractor is digging disposal capacity using Operations Staff vs. construction staff. The potential combined cost impact (savings) is greater than \$5.0 M.

– Areas Requiring Improvement

None Reported.

B. OPERATIONS BASE

OPS07A-15 Environment, Safety, & Health

Introduction

Overall, NSTec has made significant progress implementing Integrated Safety Management at the NTS and other work locations. This performance measure is very complex because of the numerous environment, safety and health (ES&H) functional areas it covers. Integrating ES&H at 34 work locations has been a significant challenge undertaken by NSTec. As NSO missions become more complex, NSTec will need to focus on those areas that require a higher degree of continuous improvement. Overall, NSTec performance significantly exceeded expectations in the following areas: Environmental Management Systems, Metrics, Worker Safety and Health (10 CFR 851), Long-Range ES&H Assessment Plan, and Fire Protection. In the areas of Notice of Violations, Unexploded Ordnance, Aviation and Mine Rescue Safety; the contractor exceeded expectations. Finally, the following areas are where the contractor met expectation: quality assurance, radiation protection, and electrical safety. Overall, NSTec was plagued by work planning and execution issues resulting in unplanned exposures to radiation and electrical hazards and an electrical safety program which was not integrated or complete. However, these issues are far outweighed by the abundance of good to excellent performance across numerous safety management functions.

Achievements

Target 1 – Environmental Management System

NSTec exceeded expectations through their excellent record of protecting the environment and maintaining compliance with regulations and permit conditions. NSTec continued its excellent record of holding monthly Senior Management Reviews which reviewed environmental targets, objectives, and action items, and review environmental compliance, permitting, assessments, companywide issues tracking system findings, and concerns. Examples include:

- An awareness plan for ISO 14001 Environmental Management System awareness was developed by NSTec. Thirty-one employees were trained in both ISO 14001 and ISO 9000 with the goal of training all NSTec employees next year.
- In the management of 58 environmental permits, NSTec did not receive any Enforcement Actions related to poor performance.
- In 15 Environmental Protection Oversight inspections this fiscal year, NSTec has only received one environmental finding. This resulted from the HS63/64 assessment, and it reflects the lack of complete implementation of the EMS.
- The NTS Environmental Report and National Emissions Standards for Hazardous Air Pollutants reports were excellent and NSO received positive feedback from both the state of Nevada and U.S. EPA Region IX.
- NSTec led the effort to disposition drums in the Area 1 Sub-dock. These organizational efforts brought together the needed expertise from other departments, resulting in the identification and disposal of approximately 20 drums of non-hazardous waste. The remaining drums require

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characterization. NSTec was able to obtain funding from the Environmental Management program for the characterization, which has begun.

- Two Clean Water Act-related plans completed for North Las Vegas (NLV)—the Storm Water Pollution Prevention Plan and the Spill Prevention Control and Countermeasure (SPCC) Plan. By moving thousands of pounds of excess metal from the North Las Vegas Facility (NLVF) resulted in a Condition of No Exposure and enable us to drop out of the Storm Water permit. Secondly, by closing an excess tank, NSTec was eligible for self-certification of the SPCC plan. Both of these initiatives resulted in cost savings.

In conclusion, NSTec performed excellent in this area and exceeded expectations.

Target 2 – Radiation Protection.

NSTec was successful in improving its Radiation Protection program to effectively meet 10 CFR 835 requirements. The NTS Radiobioassay Program administered by NSTec was re-accredited by the DOE Laboratory Accreditation Program (DOELAP) during FY07. The NTS External Personnel Dosimetry Program administered by NSTec successfully passed all performance categories and an on-site assessment of the program by DOELAP assessors found no program deficiencies. Many program procedures and technical basis documents were revised and improved. NSTec made significant progress in resolving a long-term problem with the disposal of transuranic sources by developing an implementation plan with four options for the disposal of these sources; implementation of one or more of these options in FY08 will result in a significant reduction in the inventory of sealed and unsealed transuranic sources at the NTS.

During the year, NSTec increased the number of RCTS with Q clearances by 12% while the number of Human Reliability Program (HRP) certified RCTs increased by approximately 50%.

In the Demarcation Program, NSTec performed excellent. Radiological postings, boundaries, and fencing were verified and maintained for 179 radioactive soil sites, which is 33 more sites (approximately 20%) than planned. Improvements in efficiency gained from previous years' experience resulted in the ability to evaluate more sites within the authorized budget.

Target 3 – Electrical Safety

Despite having an unusually high number of events at the beginning of the year, NSTec experienced a reduction in electrical safety-related incidents during the last two quarters of FY 07. Safety professionals inspected 78 facilities and found 65 issues. In addition, NSTec issued an Arc Flash bulleting for the purpose of increasing employee awareness of arc flash related hazards and proper methods of protection, during electrical work. Additional training in the form of group briefings and presentations were also completed by the NSTec Authority Having Jurisdiction and safety professionals. The increase employee knowledge of arc flash hazards is evident throughout NTS. Finally, NSTec created an Electrical Incident Review Team composed of seasoned and highly experienced electricians, electrical engineers and safety professionals. The group was tasked to review all NSTec electrical related incidents and assessment findings and to provide recommendations to management. The team completed a very comprehensive report that included several recommendations that will greatly enhance electrical safety at NTS.

Target 4 – ES&H Metrics.

NSTec reduced its Total Recordable Case rate by approximately 20% (1.85 to 1.53). In addition, the Lost Workday Case Rate was reduced by 16% from 0.32 to 0.27. Finally, the Restricted Workday Case Rate was reduced from 0.25 to 0.16, a reduction of approximately 33%. In addition, the number of TSR violations; Safety SSC Degradation; Reportable Radioactive Airborne effluents; Reportable Radioactive Liquid Effluents; and NPDES Permit Excursions were zero. Other than minor environmental permit excursions and reportable hydrocarbon releases to the environment, the contractor performed excellent.

Target 5 – Notice of Violation or Administrative Penalties.

The contractor did not receive any Notice of Violations or Administrative Penalties during the course of the year. In the management of approximately 60 environmental permits and operation and maintenance of numerous nuclear facilities, the contractor performed Good.

Target 6 – Unexploded Ordnance (UXO) Capability.

NSTec has identified unexploded ordnance (UXO) as a significant safety concern for NTS work activities. NSTec developed and implemented an UXO response capability for the NTS which included documenting the critical elements of the UXO program. This program includes the ability to respond to UXO/small arms munitions reports and conduct minimal surveys to support project work. There were no significant project delays related to the timeliness of NSTec response to potential UXO reports. Also, NSTec developed UXO awareness training courses to ensure employees recognize and react to the inherent hazards of unexploded ordnance. NSTec also coordinated with other NTS users to ensure training was available to all users. To assist with tracking UXO reports, NSTec has developed a database that documents location, type, quantity, and the identification of personnel reporting the ordnance and final disposition of the UXO. NSTec effectively coordinated with NSO and Nellis Air Force Base Explosive Ordnance Disposal (EOD) to ensure all reported UXO was properly controlled and disposed of. NSTec provided an innovative solution using Unmanned Aerial Vehicle's (UAV) for detecting unexploded ordnance at the NTS. This innovative capability was pursued for its' potential to be a cost-effective, environmentally friendly method for UXO surveillance.

Target 7 – Worker Safety & Health Program.

NSTec demonstrated their commitment to safety. One big initiative was the preparation of the 10 CFR 851 Worker Safety and Health Program Plan. The document was well written and thorough. As the rest of NNSA struggled with the occupational medicine functional area, NSTec provided initiative solutions to address some of the inconsistencies found in the Rule. In addition, NSTec developed two critical management processes. The first was the flow down of requirements to sub-contractors and the second was the identification of de minimus Rule violations. NSTec continues to be requested by EFCOG or NNSA/HQ to provide technical assistance to new or existing contractors for implementing the Rule in a cost effective manner.

Target 8 – Aviation Safety.

NSTec demonstrated their rigorous and proactive aviation safety program by exceeding expectations through the year. Administrative and safety program recommendations contributed directly to RSL Aviation receiving the DOE and Federal Aviation Program Award for best aviation program. Also, NSO and NSTec Aviation Operations Section received the Federal Aviation Program Award for the best aviation program in the small program category (20 or less aircraft). To enhance safety, NSTec

developed an Aviation Safety Improvement Alert form for NTS airspace users, which improved real-time identification of hazards and aviation safety management. One issue identified by NSTec Aviation Safety Officer (ASO) was risk management and flight paths were not clearly articulated. NSTec authored and implemented the Risk Matrix Manual. NSTec completed over 20% more aviation safety operational surveillances that were originally scheduled. Also, NSTec initiated an agreement with NSO to conduct parallel and simultaneous investigations of aviation-related security infractions to mutually identify root causes and minimize repeats.

Target 9 – ES&H Long Range Assessment Plan.

NSTec has completed all of its scheduled FY 07 LRES&H assessments (40) by July 31, 2007. By accelerating the schedule by approximately 20% allows NSTec to assign oversight personnel to other functions. The assessments were well written, thorough, well-organized and contained over 1500 lines of inquiry. By providing these detailed ES&H assessments allows NSO to focus on other high hazard work activities.

Target 10 – Quality Assurance/Systems.

NSTec has continued to meet milestones established in their Quality Assurance Plan (QAP) Implementation Plan on time or ahead of schedule. The contractor has implemented a management briefing forum called the Quality Management System. This meeting is attended by senior management and exhibits a clear commitment to improve their quality program. Key performance metrics have been agreed upon between NSTec and NSO to effectively monitor the quality program's key success factors. Of particular note was the metric associated with failed receipt inspections and associated Occurrence Reports that is bringing senior management attention on improving vendor qualification processes. NSTec demonstrated a strong commitment to enforcing quality requirements associated with the RadNucCTEC program. The contractor self-identified significant quality issues and took aggressive action to drive improvements. Additionally, NSTec independently identified weaknesses in the commercial grade dedication process and drove improvements to ensure that appropriate procurement, inspection, and installation controls are implemented.

Target 11 – Fire Protection.

NSTec had a proactive Fire Protection Program that continues to minimize the potential for employee harm, property damage, or destruction of historical or current structures or facilities. NSTec converted 400 Pre-Fire Plans to an updated format for medium-to-high risk occupancies and nuclear/technical/facilities/sites. NSTec completed this assignment 20% ahead of schedule. In addition, NNSA/NSO requested NSTec to provide a site-wide Fire Protection Manual to regulate all fire protection processes. The FY 07 commitment was to complete 75 percent of the manual. The Fire Protection Manual is 80% complete and under budget by 500%. Other notable achievements includes joint training and drills with the United States Air Force and Bureau of Land Management in March, May, June, and September 2007; completion of the 2007 Wildland Vegetation Assessment and developed a Pre-Incident Plan for ten radioactive contamination areas for use during wildland firefighting efforts; completed an emergency lighting assessment, fire flow water analysis, comprehensive fire protection program assessment, dense plasma focus project assessment, annual summary of fire damage experience report for the NTS, revised the Wildland Fire Management Plan, and revised the NSTec Fire Protection Plan which were all ahead of schedule; reduced Ozone Depleting Substances by 29%; and finally, prepared the 2007 NTS Fire & Rescue Baseline Needs Assessment.

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Target 12 – Mine Rescue Safety Program.

NSTec was proactive in staffing the NTS Mine Safety Rescue Team. NSTec established three teams to support underground operations at the NTS which was a 33% increase from last year. NSTec expanded Mine Safety Rescue Team capability by training with the NTS Fire Department on fire fighting strategies in an underground environment. NSTec enhanced the technical capabilities of the Mine Rescue Team, which was evident when they participated at the Colorado State Metal/Non-Metal Mine Rescue Contest in Golden, CO on June 27 and 28, 2007. NSTec won three different awards during this event. This participation has advanced the professionalism and capabilities of the NTS Mine Safety Rescue Team. To improve state-wide mine safety programs, NSTec also joined the Nevada Mining Association and assigned a safety professional miner to represent them at Association meetings. This will result in the integration of other state of Nevada mine rescue teams; thus increasing the capability of the NTS.

– Areas Requiring Improvement

Target 2 – Radiation Protection.

Identification and control of hazards is imperative for the safety and health of our employees. During the month of April 2007, eight NSTec employees experienced an unplanned internal radiation exposure when the Borehole Management Project separated a flange to access a wellhead in Area 9 of the NTS. A Root Cause Analysis (RCA) determined that the work planning failed to identify the possible magnitude of the radiological hazards and that recovery and subsequent field activities were improperly implemented. Several contributing causes also emerged through the RCA process.

On September 10, 2007 a radiological survey for release/return of a rented shear machine found that the equipment was contaminated with Cs-137. A critique was held on 9/12/07. The source of the contamination could not be immediately identified. NSTec is evaluating all previous surveys and decontamination records for this equipment to determine the most likely source of the contamination. The level of contamination found on the shear machine was below the ORPS reporting threshold for spread of radioactive contamination on-site. However, if it is determined that the source of contamination was likely from previous work performed at NTS, the event would exceed the ORPS reporting threshold for spread of contamination off-site. An initial ORPS report was issued on 9/13/07 as a management concern.

On 9/17/07, two pipefitters were disconnecting a flange within a posted Radioactive Material Area at Test Cell C in Area 25. The work was not performed under a Radioactive Work Permit (RWP), and the work on this specific system was outside the scope of the work package. Only non-radiological work was authorized under the work package. Following identification of radioactive contamination above clean area limits, the work area was posted as a Contamination Area. The NSTec Radiological Operations Manager issued a Radiological Stop Work. A management meeting was held on 9/18/07, but a formal critique of the event was not performed. The minutes of the management meeting were documented, including a statement that the situation was not ORPS reportable. The event is under review for PAAA compliance status and reporting.

Target 3 – Electrical Safety.

Marginal performance was noted during the development and execution of the Electrical Safety Improvement Plan (ESIP). The ESIP did not communicate the depth and breathe of the various

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actionable items. For example, the plan did not address the description of the issue(s) and what was the source; detailed proposed corrective actions; proposed completion dates (with appropriate justification/basis); and estimated cost for these corrective actions (with appropriate justification/basis).

NSO and NSTec jointly established a performance expectation for the evaluation of a minimum of 2,000 pieces of electrical equipment and labeling them accordingly. Throughout the year, NSTec struggled with this goal. On numerous monthly performance reviews, NSTec received an unsatisfactory performance. Despite training approximately 60 employees in non-Nationally Recognized Testing Laboratory (NRTL) evaluations, only 200 actual evaluations were reported.

Target 5 – Notice of Violation or Administrative Penalties.

The contractor had numerous unplanned exposures during the year. During the month of April 2007, eight NSTec employees experienced an unplanned exposure that exceeded the suspension limits of a radiological work permit (RWP) when the Borehole Management Project separated a flange to access a wellhead in Area 9 of the NTS. Based on a completed RCA, it was determined that the work planning process was not adequate since it failed to identify the magnitude of the radiological hazards and commensurate work controls. The RCA also identified that the training, experience, and proficiency of the radiological control technicians (RCTs) were less than adequate and resulted in improper implementation of radiological work control processes during recovery and subsequent field activities.

Also, during demolition and core drilling work in the Criticality Experimentation Facility (CEF), workers received a silica exposure in excess of allowable limits.

During the testing of security equipment at DAF, NSTec employees were exposed to levels of carbon monoxide above the Immediately Dangerous to Life and Health.

Target 6 – Unexploded Ordnance (UXO) Capability.

Insufficient progress in development of the program was noted by NNSA/NSO during this performance period. One delay in program development was due to NSTec determining UXO included expended small arms ammunition. NNSA/NSO had to issue a policy letter to NSTec clarifying the definition of UXO, which does not include expended small arms ammunition. In addition, final submittal of a NTS UXO abatement plan did not occur until after May 31, 2007. NNSA/NSO originally directed NSTec to submit a plan on or before November 30, 2006.

Target 7 – Worker Safety & Health Program.

One significant challenge that hampered NSTec was the lack of formal and documented management processes for: 1) determining if a sub-contractor was regulated by 10 CFR 851; and 2) identification and reporting of de minimus Rule violations.

Target 10 – Quality Assurance/Systems.

The draft Core Company Documents that implement the DOE O 414.1C and 10 CFR 830 Subpart A did not meet expectations. The approach of grouping Safety Class and Safety Significant systems into one quality grade imposes too much rigor on Safety Significant systems and will result in higher than necessary cost.

Introduction

The performance objective required NSTec to improve the nuclear safety management infrastructure to effectively and efficiently comply with the requirements of 10 CFR 830, Subparts A and B, in support of NTS mission objectives. The objective consisted of the following seven individual performance targets. In general, NSTec met the standard of performance established for the Nuclear Safety performance objective. Although most initiatives, tasks, and activities were accomplished in a satisfactory manner consistent with regulatory requirements, the performance target related to Criticality Safety was not met.

– Achievements

Target 1. Documented Safety Analysis (DSA)/Technical Safety Requirements (TSR)

NSTec developed the following nuclear facility/activity safety basis documents:

- Annual update of the Area 5 Radioactive Waste Management Complex (RWMC) safety basis.
- Annual update of the Area 3 Radioactive Waste Management Site (RWMS) safety basis.
- Area 5 RWMC DSA/TSR page changes to support venting of oversize waste boxes.
- Preliminary DSA (PDSA) to support Visual Examination and Repackaging Building (VERB) modifications in preparation for processing of 58 oversized waste boxes.
- NTS onsite Transportation Safety Document (TSD), Chapters 1 through 8.

Overall, NSTec performance with respect to the deliverables above met expectations for the safety basis performance objectives identified in the PEP. With the exception of the specific issues documented below (Areas Requiring Improvement), safety basis documents were developed and maintained in accordance with 10 CFR 830, Subpart B, and applicable DOE directives and regulatory standards. In general, adequate approval bases existed for timely approval of Safety Evaluation Reports (SERs) with minimum Conditions of Approval (COAs).

Target 2. Defense Nuclear Facility Safety Board (DNFSB) Tracking

Work necessary to satisfy the objective related to identification and tracking of DNFSB issues, commitments, and deliverables was of high quality and completed in a timely manner. NSTec provided adequate technical support to implement the Nuclear Materials Management Program throughout the review period.

Target 3. Unreviewed Safety Questions (USQ)

NSTec obtained NNSA/NSO approval of CD-NENG.019, “Unreviewed Safety Question Process” which applies only to nuclear facilities/operations under their operational control. Accordingly, NSTec met the performance target to develop and implement a site-wide Unreviewed Safety Question (USQ) procedure and associated site-wide USQ training/qualification.

Target 4. Onsite Transportation Safety Document (TSD)

NSTec met the NTS Onsite Transportation Safety Document (TSD) milestones in accordance with the NSTec PER 11-13-07

baseline schedule. The final deliverable during the review period consisted of chapters 1-8 (draft) for the “nuclear” TSD, and Chapters 1-7 (draft) for the “non-nuclear” TSD. Based on a preliminary review, the quality of the deliverables appeared to be very good. Throughout the review period, NSTec was very responsive to NNSA/NSO direction and recommendations, especially with respect to supporting upcoming stockpile stewardship missions.

Target 6. Quality Assurance

Although no significant progress was made for the first six months, constructive discussions were eventually held with NSTec management and the technical POC to ensure NNSA/NSO expectations related to this performance measure were well understood. NSTec management understood the scope of effort necessary and initiated actions to ensure the quality assurance requirements of 10 CFR 830.122 will be met when conducting activities that affect, or may affect, nuclear safety of future Subcritical Experiments (SCEs). All applicable functional areas (e.g., training, procurement, maintenance, configuration management, work control, etc...) relied upon to safely perform SCEs were evaluated for adequacy of implementation. NSTec was proactive in assigning a QA professional to oversee procurement and commercial grade dedication activities related to U1a and JASPER safety SSCs to support upcoming experiments.

Target 7. Fire Protection

The FY07 NTS Fire Protection Manual commitment was met and under budget by \$161,000. The level of detail in the supporting procedures is adequate and overall quality of the documentation is good. The NSTec Fire Marshal maintained effective and positive communications with the NSO fire protection engineer during the manual development effort.

– Areas Requiring Improvement

Target 1. Documented Safety Analysis (DSA)/Technical Safety Requirements (TSR)

NSTec submitted a final Preliminary DSA (PDSA) to support Visual Examination and Repackaging Building (VERB) modifications in preparation for processing of 58 oversized waste boxes. Several significant issues related to the design were identified during the technical review, indicating that the 10 CFR § 830.122(f)(2) regulatory requirement to incorporate applicable requirements and design bases into design work was not met. The PDSA did not provide sufficient assurance that the appropriate nuclear safety design criteria have been incorporated into the design.

Based on unexpected delays associated with completion of the final design and PDSA revision, the comprehensive annual update of the Area 5 RWMC safety basis did not include incorporation of VERB PDSA content.

With respect to a page change package submitted to support venting of oversize waste boxes, NNSA/NSO agreed with the proposed methodology and control set; however, the reliability and technical justification of certain proposed administrative controls was questionable due to weaknesses in the base assumptions or conditions which could not be met.

Target 5. Criticality Safety

A draft Criticality Safety Program (CSP) document and implementation plan were submitted to NSO for review and approval on July 27, 2007. The review team identified a number of significant comments that required resolution prior to NSO approval of the CSP. Review comments were provided to NSTec on August 15, 2007. On September 7, 2007, representatives from NSO, NSTec, and Omicron met to discuss and resolve NSO comments on the draft NSTec CSP document and associated implementation plan. During the meeting, it became apparent that neither Omicron nor NSTec personnel understood that the CSP needed to be approved by NSO before the end of September in order to meet expectations of the PO. Contractor staff present at the meeting informed NSO that the FY07 PEP had been revised and no longer required NSTec to have the program developed and implemented during FY07. Follow-up inquiries during the month of September resulted in no evidence that a change to the FY07 PEP had been made and approved. Consequently, the NSO evaluation of NSTec performance against the FY07 Criticality Safety Performance Measure is based on the original verbiage in the FY07 PEP.

On 9/27/07, NSTec informally submitted a revision of the CSP document for NSO review. However, the revised implementation plan will not be submitted until October 2007. Therefore, the earliest that NSO can approve the NSTec CSP will be October 2007 with implementation in the following months. For the reasons discussed above, NSTec performance on the Criticality Safety Performance Measure for was below the standard of performance established in the FY07 PEP.

OPS07A-19 Facilities & Infrastructure

Introduction

Performance measures for FY07 were selected to improve planning effectiveness by requiring the establishment of realistic budget planning targets. Specific incentives were selected to drive the achievement of national goals, such as, deferred maintenance reduction, and Energy Policy Act targets. Configuration management was incentivized as a site-specific issue to address weaknesses in infrastructure configuration management.

Overall NSTec achieved a level of performance that exceeded expectations. Throughout the year, NSTec successfully managed the planning and execution of facility related activities and overcame challenges including personnel shortages, organizational changes, and customer expectations. With minor exceptions, NSTec met NSO's expectations for non-incentivized activities and have exceeded expectations in the area of facility management process improvement.

– Achievements

NSTec managed, planned, and executed maintenance program for facilities and infrastructure that balanced resources versus priorities. NSTec instituted major program changes that departed from previous practices that have already demonstrated benefits to NSO. NSTec's restructuring of the maintenance organization to the "Zone" concept demonstrably increased the accountability and management of those areas, as well as, instituted policies that enhanced the ability of craft workers to work in areas that were traditionally outside of their purview. The "Zone" concept clarified roles and responsibilities for maintenance and resulted in an improved interface with NSO.

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NSTec demonstrated through their performance actions that the area of maintenance is managed under a continuous improvement philosophy that strives to break through legacy barriers that have been part of the culture at the Nevada Test Site. NSTec personnel continuously seek to understand the requirements and policy of the NNSA and are responsive to NSO's expectation of planning documents being executable versus purely theoretical.

NSTec personnel represented NSO at national facility related symposia in a competent and proactive manner, as well as, chaired groups that represented all DOE and NNSA site across the nation. Overall, NSTec has shown demonstrable improvement over the organization inherited from the previous M&O, and has been able to evolve the maintenance program despite a host of legacy issues.

Performance metrics

1. Corporate Facilities Management

a) Facility Condition Index (FCI)

NSTec exceeded expectations by achieving an FCI value which was 0.56% lower than the FY06 baseline value. The FY06 FCI value was 7.86%; the FY07 FCI value was 7.30%. As stated in the FIMS database October 2007 snapshot the FY07 Replacement Plant Value (RPV) was \$1,723,536,697; and the Deferred Maintenance (DM) was 125,539,911. Therefore, the FY07 FCI (DM/RPV) is 7.30% for all Mission Critical and Mission Dependent, Not Critical Facilities. This information will be included in the FY09 Ten Year Site Plan. This outcome puts NSO slightly ahead of the planning targets for achieving the corporate deferred maintenance reduction goal in FY09.

b) Actual / Planned Maintenance Index (A/PMI)

NSTec exceeded expectations by maintaining the actual to planned maintenance funding index between the acceptance bands of 96% to 104%. The cumulative ratio of actual to planned maintenance at the end of August is 99.75%. At this cumulative level, the total year end ratio will remain within the goal range. The final value for the index will not be available until the completion of the year-end reconciliation late in October 2007.

2. Maintenance Execution

a) Staging and Kitting Enhancement

This process packages the necessary supplies for preventive maintenance activities and stages the kit near the craft resulting in the craft being able to spend more time in the field rather than spending time in the warehouse collecting their own supplies. Efficiencies have already been realized through resource sharing between personnel in Bldg. 160 that perform similar job functions in the Main Shipping and Receiving group and the Material Coordination group. In addition, a consequence of the consolidation of warehousing areas means that materials delivered and processed at the Main Shipping and Receiving Warehouse are simply moved to the other side of the facility that now supports maintenance.

NSTec performed a time study for determining time spent by craft without the benefit of the staging and kitting activities being implemented. The time study determined that craft spent, on average, 36 minutes doing warehouse activities required to performing a work package. This time is completely avoided using the staging and kitting concept. A number of additional timesavings are realized with the establishment of a centralized warehouse and having warehouse staff perform tasks that would otherwise pull craft away from the field. These additional timesavings were determined using assumptions for the frequency of the

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activity and how much time would be saved. The NSO Maintenance Functional Manager reviewed NSTec's assumptions and found them to be on the conservative side. Overall, between the measured time avoided and the additional efficiencies inherent in the staging and kitting process, the potential time saved per work package is about 67 minutes. This amount of time saved brings this metric into the significantly exceeds expectations category.

b) Infrastructure System Configuration Management

NSTec implemented four Infrastructure System Control Boards, which significantly exceeds expectations for the objective.

c) Preventive Maintenance (PM) schedule compliance

NSTec achieved a preventive maintenance schedule compliance rate of 99.2% for Mission Critical facilities, and completion rate of 98.7% for Mission Dependent, Not Critical facilities. Both of these values are at the level of significantly exceed expectations.

3. Energy Management

The overall energy usage against the 2-3% target through August was 6.8%. NSO expects that the final power usage for September will not appreciably change the fact the cumulative energy reduction to date greatly exceeds the expectation for the PO and the value to satisfy the reductions specified in Executive Order 13423. NSO will not be able to confirm that this performance objective has or has not actually been met until the first week of November 2007.

– Areas Requiring Improvement

While areas such as maintenance planning and execution are performing at a high level, the areas of facility data management did not meet NSO expectations. Throughout the year, numerous instances occurred where facility data was erroneous, incorrectly reported, or simply not validated to ensure that NSO is receiving the most appropriate data for a given purpose. Specifically, the FY06 year-end actual maintenance value for direct-funded facilities was over-reported to DOE/HQ by \$10 million or about 66%. This error was not detected in time to be changed before it was forwarded to the GSA where it became the value of record for FY06.

Contrary to the FY07 Task Plan, which states, "Ensure through data validations, that all facilities and infrastructure data in Condition Assessment Information System (CAIS) and Facility Information Management System (FIMS) is consistent, accurate, and current to support NNSA/NSO and NNSA/Headquarters management objective." NSO encountered numerous instances where NSTec provided data without data validations being performed.

NSTec failed to address the AMSO concern communicated in November 2007, regarding high value assets (e.g. U1a underground) not being recording in the DOE FIMS database. An implementation plan was provided to AMSO but not implemented.

OPS07A-21 Construction Project Management

Introduction

By year end, NSTec was delivering good performance after getting off to a shaky start. Major progress
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was made on B3 and Mercury Highway line item projects and NSTec responded well to external cost escalation factors on the Fire Stations. Security Infrastructure Projects were performed on schedule and within budget. Significant Improvements were made in project management systems applications. A fully functional Yucca Lake Hangar project was substantially completed and accepted by the sponsor.

– Achievements

Line Item Projects: After cost escalations issues threatened the Fire Stations project, NSTec worked closely with NSO to revise the strategy, gained NNSA funding approvals, and underwent an EIR to maintain a viable project which is in the process of being re-baselined. NSTec did outstanding work in preparing and supervising a design-build project for B3 which is being constructed on time and within budget. This was especially notable considering the bidding climate in Las Vegas. The Mercury Highway project provided a demonstration of NSTec good performance with the successful completion of an IPR and approval of Critical Decision 1. Both B3 and the Mercury Highway met or exceeded all performance targets and milestones. All projects integrated safety and costs were re-estimated at key decision points.

RTBF/Security Infrastructure general plant projects: NSTec delivered an outstanding Live Fire Shoot House on time and within budget which gained significant recognition from the user, WSI, who considers it one of the best facilities of its kind. Likewise, the Live Fire Shoot House project progressed well within performance requirements for completion in early FY08. NSTec overcame serious institutional challenges at the DAF in ensuring good progress on security upgrade work. Both the EOC and NTS Road Upgrade RTBF projects were done well within budget and schedule.

Project Management Systems Application: Largely as a result of the lessons learned from the RNCTEC project, NSTec devoted a substantial effort to improve project management systems applications. The centerpiece of this effort was the Project Management Improvements Initiative (PMI) which addressed the deficiencies identified in a comprehensive Project Management self-assessment by NSTec. Extensive PM training was conducted, a PM Database was developed, and a PM office and PM council were established. More details of the PMI's success are addressed in OPS07A-22 including a survey of local contractors. Other improvements included expansion of the Lessons Learned program and development of a new Engineering Design Manual which will improve the quality of in-house designs. While continually challenged with cost containment and some quality issues, NSTec completed a good, functional Yucca Hangar Complex which met sponsor requirements. The important FIRP program, including Ramp, continued as an area of excellence with projects being delivered to meet all requirements.

NTS Reconfiguration: NSTec delivered a draft Mission Need Statement on the Mercury Complex reconfiguration.

– Areas Requiring Improvement

Procurement issues resulted in projects delays that adversely affected the B3, the Shoot House and Yucca Lake projects.

Low Construction Subcontractor competition for work at the NTS has adversely affected project costs and NSTec's survey of potential contractors identified a lack of outreach to potential bidders.

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NSO expects NSTec to be more proactive in identifying issues and/or avoiding issues rather than relying on the Federal staff or simply reacting once issues surface.

OPS07A-23 Emergency Management

Introduction

In 2007, NSTec Emergency Services and Operations Support (ESOS) fulfilled all requirements of this performance objective. In doing so, they effectively planned, executed, modified – as necessary, and updated the Emergency Management Program – always working in concert with the NSO EM Program Manager to adjust priorities and objectives along the way. Their performance in 2007 included incorporation of the requirements of DOE O 151.1C “Comprehensive Emergency Management System” on schedule and under budget. This performance was achieved despite reduced budgets and personnel resources showing positive leadership and creativity by NSTec ESOS management.

– Achievements

All work was completed by NSTec with regard to implementation of DOE 151.1c. This entailed developing a new screening process for all facility Emergency Planning Hazards Surveys (EPHSs), revising all NSTec facility EPHSs in accordance with the process, revising numerous NSTec ESOS procedures and instructions, revising the Emergency Planning Hazards Assessments for five NSTec hazardous facilities, and training the Emergency Response Organization on updated requirements. The estimated budget for this effort heading into FY 07 was \$347k; however, NSTec completed the requirements at a cost of \$281k for a savings of \$66k. This effort was completed on schedule and under budget.

During FY 2007, NSTec ESOS significantly enhanced the NTS capabilities for detection and ultimately combating wildland fires by installing four cameras at various points on the NTS and remoting the video from those cameras into the NTS Emergency Management Center with the option of also sending the live video to the NSF Emergency Operations Center. All four cameras were fully operational by 9/12/07. These cameras have already proven very useful as a NST duty manager, monitoring the output of these cameras, recently detected a small brush fire in area 12 of the NTS. Fire and rescue was dispatched to the scene and the fire was extinguished before it got out of control. The wild land camera installation project was completed on schedule and within budget constraints.

During FY 2007, NSTec ESOS completed revisions and modifications to the C4VAS system that met and exceeded all performance measure requirements. NSTec routinely developed and/or implemented improvements to the system to make it more useful and effective for the Emergency Response Organization. The system was also installed in the NSF EOC during FY 2007 allowing the EOC cadre to have access to the C4VAS data during emergencies or exercises. The C4VAS upgrade project was completed in January 2007, well ahead of schedule and within budget constraints.

– Areas Requiring Improvement

None Reported.

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OPS07A-25 NTS Operations

Introduction

NSTec was commissioned to review the current NNSA/NSO work control process that applies to all tenants that perform contact work for NSO facilities to identify opportunities for improvement and to recommend increased efficiencies measures. The output to this performance measure was to issue a recommendation report to NSO by January 31, 2007. In addition, NSTEC was commissioned to utilize the results of this assessment review and develop a key document that outlines a single integrated work control process effectively streamlining the process by September 15, 2007. The requirements to meet this performance objective have been significantly exceeded and completed ahead of schedule.

NSTec significantly exceeded expectations by researching other NNSA Site Offices (Contractor and Federal Offices) and developed a baseline document to begin a full analysis of the NSTec work control process. The research identified several weaknesses and opportunities for improvement which were communicated to NSO via a final report on January 30, 2007. A working group was established that further refined and successfully initiated development of an integrated work control manual that outlined the new streamlined process on September 24, 2007 meeting both performance milestones.

– Achievements

During the first quarter of FY 2007, an NSTec Charter Group was established to conduct a review of the NSTec work control process. NSTec was able to build a team that included all divisions of the corporation to gain a complete experience based to assist in the redesign process. This redesign process resulted in some positive trends and assisted in the development of a work control manual with buy-in from each division. Additional data sources were pulsed while developing the work control manual above and beyond the scope of this performance objective that greatly enhanced the final product. The NSTec Charter Group was able to meet its first performance measure as scheduled on January 2007. The report submitted was accepted by the NSO POC without changes.

The recommendations were used to create an outline of the proposed manual. NSTec was very proactive in keeping NSO informed on the progress through monthly status meetings and impromptu visits by NSTec management. A draft of the Integrated Work Control Process Manual was submitted in July 2007, ahead of schedule. With additional review and input by NSO, NSTec was able to finalize the document and submit it to NSO in early September. A briefing was held with senior NSO management on September 24, 2007 which resulted in completion of the PO.

– Areas Requiring Improvement

None Reported.

OPS07A-28 MC&A Program

Introduction

The contractor managed an MC&A program that significantly exceeded the standard of performance established in the PEP. Their initiatives, tasks, and activities were accomplished in a manner that had a positive impact on the mission of the Nevada Site Office and were accomplished within budgeted costs.

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All other requirements were performed at the satisfactory level or above and non-incentivized efforts meet or exceeded minimum acceptable levels.

– Achievements

The MC&A topical area for NSTec facilities received Satisfactory ratings on all independent assessments, NSO surveys and HQ reviews during this period. Additionally, laboratory facilities with nuclear material holdings under the NSTec MC&A program received satisfactory ratings. This reflects a strong central program that works closely with the national laboratories to ensure material is adequately accounted for and protected in all locations under the auspices of NNSA/NSO, regardless of facility management/ownership.

MC&A assessments and performance tests were conducted in accordance with the approved schedule. Assessments were conducted over and above the approved schedule to support specific activities, such as the establishment of new Material Balance Areas (MBAs), downgrading and/or upgrading MBAs, and the Material Access Area boundary move at the DAF. Furthermore, MC&A dramatically increased performance testing through development and implementation of additional tests to support the Safeguards First Principles Initiative.

The MC&A training program was developed and fully implemented, with all personnel performing MC&A functions at NTS receiving NTS MC&A program qualifications, including laboratory personnel. The training program received certification from the National Training Center's (NTC) Training Approval Program (TAP) in December 2006. In addition, NSTec MC&A received recognition for functioning as a pilot for the NTC's revised TAP process.

The NSTec MC&A Measurement Team has been fully qualified to conduct the confirmation and verification measurements necessary for the NTS nuclear material inventory; eliminating all reliance on laboratory support that was previously needed to meet measurement requirements. Measurement equipment has been installed at the DAF, and all equipment purchased by Los Alamos National Laboratory for the NTS measurement program has been turned over to NSTec.

The entire NSTec MC&A organization was relocated into Building 23-111, and construction is underway to enlarge the Limited Area. Substantial cost savings are being attained due to an innovative approach to protecting the classified accounting system through the use of computer safes, eliminating the need to construct a vault-type room.

The NSTec MC&A program continuously met or exceeded expectations. In addition to ensuring compliance to DOE requirements, they frequently identified cost-effective alternative means to meeting requirements. In addition to the computer safes mentioned above, improvements have included the following:

- MC&A recognized existing issues with the SNM portal monitors and assumed responsibility for testing. They researched and acquired the correct test sources, and identified corrective actions for repairing the SNM vehicle monitors, which have been out-of-use for three years, and were assumed to require replacement.

- MC&A personnel observed measurements performed at Sandia for an upcoming shipment in order to avoid the need to open containers and conduct receipt verification measurements of the material upon arrival at the NTS.
- NSTec MC&A personnel assumed system administration responsibility for the nuclear material accounting database, eliminating previous reliance on Lawrence Livermore National Laboratory support.

– Areas Requiring Improvement

None Reported.

OPS07A-30 Security Operations

Introduction

The contractor provided security services that exceeded the standard of performance established in the PEP. Their initiatives, tasks, and activities were accomplished in a manner that had a positive impact on the mission of the Nevada Site Office and were accomplished within budgeted costs. All other requirements were performed at the satisfactory level or above and non-incentivized efforts meet or exceeded minimum acceptable levels.

– Achievements

NSTec Security received Satisfactory ratings on all DOE surveys and WSI assessments during this period. All previous survey sub topical areas that had been rated lower were addressed prior to this years reviews.

They decommissioned several dozen System Security Plans during this period and all new System Security Plans have been certified by the NSTec CSSM and accredited by the NSO DAA. They completed multiple vulnerability assessments and penetration tests. Weaknesses that were identified were given recommended solutions and were entered into action plans with milestones for completion. In addition, they removed administrative rights from NSTec 3000 systems, and deployed full hard drive encryption for unclassified laptops, automating delivery of encryption software for users that are part of the NSTec NTSOPS domain. Two-Factor authentication was deployed for Remote Access, & performed password cracking against NSTec network passwords.

NSTec was the first NSO organization to submit and get approved their HRP Implementation Plan (IP). NSTec increased their HRP population is now greater than 250, an annual increase of 125%. Their Occupational Medical Department is compliant with 10 CFR 712 (HRP) requirements in the medical, drug and alcohol programs.

NSTec Security personnel mounted an ongoing awareness program related to prohibited articles by publishing several articles in the Front Page, Spotlight, and other publications. In addition, they had a contest for a graphic that would communicate that cell phones with cameras are prohibited on NSO facilities.

NSTec destroyed 100 pieces of ACREM that was no longer required for operations, thus reducing their classified inventory. They reviewed 300 historical documents for possible declassification in order to

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reduce classified holdings. They also hosted the DOE/HQ Derivative Declassifiers course in order to save NSO \$7,200.

Both Security and Aviation Safety worked an airspace issue at the DAF through to conclusion and found that flight coordinates provided to a subcontractor had been in error. By determining the true cause of the incident, they were able to ensure that future flights will not be subjected to this type of error. They exhibited a true understanding of ISSM principles.

– Areas Requiring Improvement

None Reported.

OPS07A-31 Counterintelligence

Introduction

The NSTec Counterintelligence Office exceeded expectations in FY 2007 by significant and outstanding counterintelligence (CI) support to NSTec, DOE's Yucca Mountain facility, NNSA, and the United States Intelligence Community (USIC).

– Achievements

The CI Office conducted 57 annual counterintelligence refresher briefings along with the Security Awareness/OPSEC personnel, providing counterintelligence awareness information to a total of 3538 individuals. It worked closely with the Nevada Site Office (NSO) Security Staff to develop the current version of the CI portion of the Annual Refresher Briefing to cover an area of concern to the NSO Security Staff.

The CI Office's eight personnel received some type of professional CI training surpassing the enterprise CI target of 60%.

The CI office's analytical program produced 15 Intelligence Information Reports (IIRs) directly supporting USIC Collection Requirements (CRs), two of which garnered high-level interest at the State Department and the Commerce Department. The IIR reporting increased 300% from FY 2006.

The analytical program produced two CI notes and assisted in the writing of two SPOT Reports. The CI analyst participated in a joint USIC working group developing a CI related endeavor of interest to the USIC.

During the period 1 Oct 06 to 30 Sep 07, the CI Office conducted 98 personal travel briefings and 56 personal travel debriefings. In addition, it conducted 75 personal host briefings, 51 personal host debriefings along with 20 personal contact debriefings. All required briefings/debriefings were documented in a very comprehensive manner within the Counterintelligence Analytical Research Data Base.

The CI Office's site specific draft Threat Assessment submitted to the HQs was very comprehensive. Its FY 07 Baseline Awareness Plan was very comprehensive and followed HQ guidelines.

The CI Office's liaison and working relationships are outstanding and truly innovative within the CI enterprise. Noteworthy is its analyst-to-analyst coordination efforts with the Federal Bureau of Investigation (FBI), Air Force Office of Special Investigation (AFOSI), Naval Criminal Investigative Service (NCIS), Defense Security Service (DSS), Las Vegas Metropolitan Police Department (LVMPD), and U.S. Customs to facilitate the sharing of information.

– Areas Requiring Improvement

None Reported.

C. MANAGEMENT BASE

MGT07A-32 General Management

Introduction

The General Management objective is global in nature and considers activities important to NSO senior management. Performance Objectives were identified for focused evaluation. The performance of NSTec's senior management during this period was deemed satisfactory. NSTec's performance in some areas was excellent while other areas will require additional work in the future.

In the areas of Stockpile Stewardship and other Defense Program effort, NSTec performed in an overall outstanding manner. They also did very well in the areas of Waste Management, Material Control & Accountability, and Counterintelligence. NSTec's performance in the Contractor Assurance System arena also came on strong at the end of the performance period. Overall, however, NSTec needs to be more forward thinking. They need to do a better job of self-identifying issues rather and reacting to them or waiting for the NSO to inform them they have a problem. NSTec also needs to have a better strategic focus in the areas of budget, finance, and human capital management.

Achievements

Complex Transformation

During this FY, NSTec consistently exceeded expectations in support of Complex Transformation. They provided knowledgeable personnel to support the numerous technical and business teams and engaged highly respected subject matter experts to provide assistance and additional expertise in order to assist in the development of position papers delineating the advantages of the Nevada Test Site. NSTec was instrumental in getting the NTS added more strategically to the Complex 2030 process; as is evidence by NTS consideration with respect to all the initiatives in order to provide NNSA with the broadest possible range of choices. Due to limited NSO travel funds, NSTec personnel represented NSO at and were more heavily involved in the Integrated Project Teams to ensure the NTS was appropriately represented. NSTec was involved in all aspects of detailed document reviews and received a "well done" from the NNSA Complex 2030 Document Manager for its effort in consolidating the Nevada Site Office and NSTec comments on the Draft Supplemental Environmental Impact Statement.

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National Security Programs – Achievements

During FY 2007 NSTec provided exceptional support in the areas of Stockpile Stewardship, Defense Experimentation, National Emergency Response Team, Nonproliferation Test and Evaluation Complex (NPTEC), and the Special Technologies Laboratory (STL).

NSTec's Stockpile Stewardship & Defense Experimentation Program provided excellent support to the Nation Security Program. All FY07 milestones were achieved that were within NSTec control. Throughout the year, NSTec proactively worked with the National Laboratory's Joint Nevada Program Office (JNPO) to ensure maximum productivity and efficiency in program execution during a year-long Congressional Continuing Resolution that reduced overall budgets.

NSTec's National Security Response program excelled this year in exercise demonstration of readiness, a strong technical integration program, and successful real national deployments. They also won several aviation awards.

At NPTEC eleven major field projects were very successfully completed at the Nevada Test Site as part of the Nonproliferation Test and Evaluation (NTE) Program. These projects included over 300 participating customers, and \$10.5 million worth of work scope. All projects were completed within scope, within budget, on schedule, and met or exceeded customer's expectations. Actual testing days increased from 65 in 2006 to 80 in 2007 and three of the projects were conducted as 24 hour events on several occasions requiring significant personal sacrifice. The NA-22 baseline funding increased from \$7.1 million in 2006 to \$8.3 million in 2007. Work for Others funding increased from \$1.7 million in 2006 to \$2.5 million in 2007. Work scope diversified extensively during 2007 starting with chemicals releases, progressing into Unmanned Aerial Vehicle operations on Frenchman Lake, non-energetic Improvised Explosive Device work, electromagnetic pulse testing, static sensor vicarious calibration, persistent surveillance studies, underground bunker scenarios measuring differences in surrounding atmospheric temperatures, biological stimulant releases, and energetic explosive testing of an omnidirectional sensor.

At STL multiple commendations and expressions of appreciation for their excellent performance were received from DOE-IN, DOE-HS, the Director of National Intelligence (DNI), and other government agencies. In addition, STL has not only maintained last year's baseline of unprecedented funding growth of 50%, but has increased it by another 10% over FY 06. This phenomenal success in growth is largely attributed to STL management's vision and representation of the lab's capabilities and relationship building efforts with their customer base, in addition to the exceptional dedication and focus of the staff in providing timely, innovative solutions to their customers' problems.

During FY 2007 NSTec built the Nuclear Materials Management program from scratch. NSTec experienced some initial growing pains but these have been overcome, the program is fully functional, and the required reports are being submitted according to schedule.

During FY 2007 NSTec experienced some difficulty in implementing the Lessons Learned program at the Remote Sensing Lab Andrews (RSL-A) and was nonresponsive to attempts by the federal customer to schedule meetings. NSTec resolved the issues and has successfully implemented the program.

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Safety & Operations – Achievements

Communications: At the beginning of FY 07, NSTec mid-level and senior managers were seldom seen and had little substantive interaction with site office staff. Numerous deliverables were received by NSO that appear to have had little or no management review prior to their delivery. NSTec staff were sometimes bypassing the Site Office to communicate directly with NNSA Headquarters creating confusion, delays and inconsistency. During the year there has been a marked increase in the both the quantity and quality of NSTec communication with federal counterparts. NSTec has made an effort to increase the number of interaction opportunities with NNSA/NSO. Written reports and formal presentations have improved. These exchanges have been notably more open and candid, therefore, more productive. Communications are now one of NSTec's strengths.

Construction Project Delivery: In spite of cost concerns and project management issues, NSTec met the major milestones on nearly all construction projects. The B3 renovation was awarded, designed, and 70% constructed on schedule and within budget. The Mercury Highway received CD-1 approval. The Fire Stations overcame significant cost issues to get back on track with a new procurement strategy developed by NSTec. The Yucca Lake Airfield project had several issues during construction requiring senior-level management involvement from both NSTec and NSO. Ultimately, the project was completed to the satisfaction of the sponsor. Noteworthy security projects delivered included a new Live Fire Shoot House and near completion of a Live Fire Shoot Tower. The FIRP program continued to progress well in spite of funding reductions. It was only through the continued and highly visible support of senior NSTec management that these results were achieved.

Project Management Improvement: In the first half of the year, the Nevada Site Office was extremely concerned with NSTec's performance in Project Management. At the request of NSO, NSTec responded with a training program for project managers and conducted a detailed Project Management Assessment with a subsequent Corrective Action Plan. Senior Management support of project managers increased dramatically including the establishment of a Project Management Office as a centralized organization responsible for project management requirements and oversight. Progress is being made toward EVMS certification. Greater emphasis is being placed on risk management. The end result is that NSTec should be able to provide a much higher quality of project management in the future and avoid issues such as those that occurred with the RNCTEC project.

Safeguards & Security – Achievements

Throughout the year, NSTec management found a variety of innovative methods whereby they could engage their employees in the implementation of ISSM principles and core functions, most notably, that of feedback and continuous improvement. NSTec management has been fully supportive of efforts to address the prohibited items issues being observed at the NTS. In addition, NSTec management issued two interoffice memorandums in February that pertained to special permits, and they have had an ongoing employee awareness program pertaining to these items.

By the later part of the fiscal year, NSTec had initiated special efforts to work with security operations and ongoing security projects. This effort resulted in drastically improved communications between WSI and NSTec. NSTec engineering completed seismic and load bearing calculations related to a security project 1 month ahead of schedule, allowing the project timeline to move ahead one full month.

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Environmental Management – Achievements

The management and leadership provided to the Low-Level Waste program enabled it to successfully complete the year despite early setbacks, such as reduced and delayed generator forecasts.

Business/Financial Management – Achievements

NSTec senior management did a proactive job preparing a workforce strategy in anticipation of the FY08 continuing resolution. Their approach was balanced with acceptable risk resulting in a well shaped skill mix in the workforce. The NSTec Human Resources organization provided excellent support in developing the documents required to support the workforce restructuring. These efforts required the development of documentation on an accelerated schedule. The inclusion of an option for voluntary retirements as a part of this process will significantly reduce the numbers that will have to be separated involuntarily while maintaining critical skills. Their communication plan to the NNSA was thoughtful and well executed. NSTec was identified by NA-2 as the example to follow within the NNSA complex.

In an effort to keep the NSO fully informed on budgetary and financial matters, NSTec initiated Monthly Financial Review meetings late in the fiscal year. These meetings are chaired by the NSTec Chief Financial Officer and attended by the NSO Deputy Manager, Assistant Managers and/or their reps as well as by senior management on the contractor side.

Public Affairs – Achievements

The NSTec Public Affairs Program was deemed to be outstanding for Fiscal Year 2007. NSTec's work efforts were completed with a high degree of professionalism and quality. There were strong and on-going interactions by the NSTec Public Affairs program manager with the Office of Public Affairs director throughout the year. The quality of the work, the dedication to the mission and the support of the public affairs staff and organization to the NSO mission is to be highly commended.

NSTec delivered a comprehensive well thought out communications plan for the Nevada Site Office (NSO). This document will serve as the overarching communications driver for future NSO programs and offices. Through this plan, the office will be able to drive down organizational communication efforts. Delivery was on time, and exceeded expectations for quality.

The NSTec public affairs organization is to be commended for their on-going dedication to Emergency Public Information (EPI). While the conduct and execution of DOE O151.1C lies within the NSTec NTS Emergency Management Office, all areas of the order as it relates to EPI was executed by the public affairs organization. More than 1,000 hours of staff time was devoted to maintaining all training, updating, and management of the EPI. As well the NSTec public affairs office began the transition of EPI Joint Information Center work to the newly built audit center. All work done in this area was accomplished wholly and solely by the NSTec Public Affairs Office without any support or assistance from the NSTec NTS Emergency Management Program staff.

Other strong areas of support included:

- The NSO Speakers Bureau. The program manager for this effort continues to exceed all expectations for numbers of engagements and numbers of people reached through the speakers' bureau.

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- The editorial staff for the NSO Sitelines newspaper did an outstanding job of reducing costs during the year and finding new and innovative ways of making the newspaper more interactive on the NSO internet site.
- The NSTec tour program continues to meet their established high standards.
- NSTec was timely in their response to media inquires, fully supported the NSO Office of Public Affairs as requested, and met the requirements of the NSTec corporate organization.

Classification – Achievements

NSTec's support of the NSO classification program was consistently high throughout the year. The NSTec classification program received a SATISFACTORY rating during the NNSA/NSO Facility Security Survey on November 30, 2006 and all satellite locations received SATISFACTORY ratings on implementation of classification at those sites during their respective periodic surveys throughout FY 2007. A rating of SATISFACTORY is the highest possible rating on a survey and indicates that the NSTec classification program meets all the requirements of DOE M 475.1-1A.

The contractor prepared and distributed two significant classification advisory notices that assisted personnel in properly identifying and protecting national security information. They received, printed and quickly distributed new DOE INDEX of classification guides and posted it to the NSTec web site for all derivative classifiers to access. The NSTec Classification Office successfully recertified 100% of NSTec Derivative Classifiers due for recertification within the rating period resulting in no lapses in certification. During July, NSTec received the newly updated (change 6) Classification and UCNI Guide for Safeguards and Security, CG-SS-4, and expeditiously distributed the guide to all NSTec Derivative Classifiers and the NNSA/NSO Classification Office well before the 30-day requirement and immediately posted the electronic version to the NSTec Classification Office Intranet.

General Management – Areas Requiring Improvement

Additional oversight is needed in the financial management arena. It was clear that there was not sufficient rigor in the NSTec estimating system in FY07. A significant increase in the Infrastructure Overhead rate in July caused a great amount of concern. The considerable increase in the Infrastructure Overhead rate was unanticipated and seriously jeopardized several general plant projects by increasing the TPCs to a point where it almost exceeded the threshold of a line item project. In addition, NSTec was required to put significant efforts into managing costs at the end of the fiscal year in order to avoid a significant under-recovery situation. The FY 2007 forecasts that were done for indirect rate purposes varied significantly from month to month. While we recognize that estimating is not a perfect science, the ability to accurately forecast costs is critical to the success of the Nevada Test Site. NSO expects the NSTec Senior Managers to understand the assumptions that underlie the estimates under their purview and the need to monitor and adjust as changes are identified. The NSO then expects timely notification of potential indirect rate changes/issues as early as practical. After a considerable amount of discussion with NSTec, we have some confidence that similar problems are unlikely to occur next year. This issue was considered a significant management weakness during the year because of the widespread impact to the NSO.

Intervention of NSO and/or NSTec senior management was required to remove obstacles, focus attention and ensure success on a number of projects. Examples include CEF project work, generating an acceptable project baseline and cost estimate for the RNC TEC project, resolving schedule delays on the NSTec PER 11-13-07

Yucca Lake Hanger project, and obtaining a solid justification to support the selection of the B3 subcontract.

After working with NSTec for the past 12 months, it is observed that NSTec should improve their ability to look for and create efficiencies which would enable them to improve their cost and schedule performance numbers. Suggested areas to review that might improve performance numbers are a simplified management structure, earlier planning, and execution of activities in parallel.

NSTec struggled with the development and implementation of an effective electrical safety program. During the first half of the year, the NSO expressed its concern about the effectiveness of the NSTec initiative to drive improved electrical safety performance through the ranks of mid-level management, supervision, and to the craft itself. While the number of electrical safety-related incidents significantly reduced by the end of the year, progress was not evident until the NSO considered performing an external assessment to ascertain the causes and potential solutions to the problem.

The contractor experienced continuing difficulties in the area of procurement throughout the year. We expressed concern throughout the year that additional management attention needed to be placed on identifying and addressing on-going procurement concerns. Procurement delays have adversely impacted a number of programs/projects throughout the year. NSTec is not performing sufficient quality checks on procurement packages and is instead relying on NSO reviewers to identify deficiencies and return them for rework. Examples include the B3 subcontract award justification, the RNC TEC cost estimate basis, and the NSO Emergency Readiness Assurance Plan (ERAP). Another example is the confusion and delay on the modification of the Yucca Lake Project Hangar door. In this case, the project and procurement personnel did not work together to ensure that the planned acquisition strategy was achievable. Overall, the procurement process is lengthy and very prone to errors. NSTec must increase its attention to improve the entire procurement process.

NSTec did not have a well-developed strategy for human capital management throughout the year. While there were pockets of excellent performance, rather than operating as an integrated corporate entity, operations were often stove piped. NSTec was very "person-dependent" when handling a broad variety of issues. Hiring practices during the year were very slow. Too often, NSO had to get involved when issues were encountered. Although improvements are beginning to be made now, the company did not operate as an integrated business unit during the performance period.

NSTec management started the year out by deactivating FY06 charge numbers for the MC&A Material Balance Area Custodians without having FY07 numbers in place. The MC&A Manager was not notified of the financial issue prior to learning that his staff could not complete their time cards. NSTec had also not identified a project control engineer to work with the MC&A organization for their budget issues by the start of the new fiscal year.

MGT07A-34 Contractor Assurance Systems

Introduction

Overall, NSTec has made significant progress implementing Contractor Assurance and Price Anderson Amendment Act (PAAA). Significant achievements included the development of a centralized information portal 40% ahead of schedule; the quality and technical depth of the 3rd quarter CAS report was noteworthy; reduced the screening time for PAAA issues from 15 days to 7 days; received lessons learned accolades from the HS63/64 assessment team; successfully implemented a 10 CFR 851 screening process; and operated the ORPS reporting system in a highly professional and orderly manner. Overall, the contractor performed excellent in this fee metric. With the issuance of the 3rd quarter CAS report, NSTec established the ability to trend and analyzed company issues and communicate these findings to NSO. This will result in reduced oversight and improve the transparency of CAS.

– Achievements

NSTec demonstrated increasingly improved performance over the reporting year. The first quarter CAS report was in need of significant improvement which was achieved with the issuance of the third quarter CAS report; an outstanding product (continuous improvement of the quarterly report). NSO sponsored an internal self-assessment of the LOCAS program; the assessor was so impressed by the quality of the third quarter report, a copy was taken to share with his contractor as a benchmark. In addition, NSTec began proposing performance metrics to NSO staff. Of notable achievement was Quality Assurance in which both the NSO and NSTec developed and agreed upon a mutual strategy which will reduce the cost of doing business by eliminating redundant reporting. NSTec developed a centralized information system which incorporated Lessons Learned, Accident Investigations, PAAA Non-compliances, etc. This was completed 40% ahead of schedule. Another significant achievement was the Lessons Learned program. NSTec developed a Lessons Learned web-based approach assisted in the work planning and execution programs. During the HS 63/64 review, DOE/HQ characterized the NSTec lessons learned program as robust. After significant trouble in starting critiques, NSTec developed a management system which established strict time requirements. Another successful initiative was the work in supporting the ISM Council in developing a LO/CAS approach. NSTec was successful in reducing the number of overdue issues in the companywide issues tracking system by over 80% and reduced the number of issues with multiple due date extensions by greater than 60%. These are significant achievements undertaken by the contractor. During the performance period, NSTec developed and implemented a PAAA process to self-identify, self-report, screen and categorize 10 CFR 851 issues and existing 10 CFR 830 & 835 concerns. NSTec reduced the screening time from 15 days to 7 days on over 99% of the issues.

– Areas Requiring Improvement

None Reported.

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 FY07 Stretch Performance Measures.

A. MISSION STRETCH

MIS07A-06 RTBF Support

Introduction

The contractor did an outstanding job in meeting the requirement to save at least \$800K against the FY07 baseline through innovative and cost effective execution strategies.

– Achievements

The contractor exceeded its goal by accumulating over \$984K in savings through innovative actions. These savings were documented and reviewed by the appropriate NSO Program Managers. In several cases this was accomplished through detailed analysis of requirements resulting in combining functions and scheduling of maintenance activities to avoid overtime work. Additional savings were accomplished at Atlas through its approach to placing the facility in a stand-by mode. Its aggressive action this FY will result in additional savings in FY 08 based on the planned versus anticipated actual funding required.

– Areas Requiring Improvement

None Reported.

MIS07A-08 National Security Response Program

Introduction

NNSA/HQ NA-42 informed NSO that the aviation program at the Remote Sensing Laboratory (RSL) will be held to a budget of \$6.5 M for the next several years. With inflation, the funding is actually declining making it extremely difficult to field an effective aviation program to support emergency response. The stretch goal was devised to show NA-42 what options are available and what scope must be cut to meet these fiscal restraints in the next few years.

RSL successfully completed the stretch goal including the development and implementation of an acceptable plan for NNSA/HQ that included increased reliance on WFO support and reduced scope several years in the future.

– Achievements

The successful outcome of this stretch goal provided a combination of administrative restructuring and assured aerial survey work in FY08 that allows the program to successfully make it through FY08 with no reduction of scope. This was done with an assumption of a loss of nearly \$200K in effective buying power from its FY07 allotment of \$6.5M. To achieve this with no scope reduction required innovative thinking. There was little fat in the organization, and a recent audit of the aviation program's organization

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and finances showed that the organization was efficient and lean.

NSTec also considered the outyears of FY09 and FY10 in dealing with the same funding issue. This problem proved to be much more difficult. To fund an aviation program with \$6.5M in FY07 dollars requires some form of scope reduction with mission impact. The RSL developed and strategically analyzed the options and developed pros and cons to each option in order to resolve the issue with minimum programmatic impact. NSTec packaged the results in a decision brief for NA-42. NSTec's successful achievement of this stretch goal will allow NA-42 to make the final decision in FY08 for this difficult situation.

– Areas Requiring Improvement

None Reported.

MIS07A-10 Completion of TRU Waste Sub-Project

Introduction

The stretch goal was intended to integrate the contractor's EM TRU Project and their supporting organizations (engineering, construction, nuclear safety and procurement) to complete the planning for the disposition of the oversized TRU waste boxes necessary for project closure. In order to meet the expectations in this measure, the contractor needed to produce a PDSA and integrate the approved PDSA to the DSA annual update, complete construction of the VERB modification, and execute procurement of all quality 1 & 2 components. The contractor struggled to meet the expectations in this measure but did achieve approval of the PDSA by the end of the Fiscal Year. The DSA annual update was submitted without the integration of the PDSA.

– Achievements

The contractor developed an effective process to track the procurement of items needed for the construction of the VERB. This system is a productive way to identify long-lead items that can affect the project's critical path. Although the procurement tracking process is useful, construction activities cannot begin until items have been received in the field. For those items with long-lead procurement times, like the receipt of the Permacon structure, the contractor has worked closely with the vendor to identify areas to accelerate the schedule.

– Areas Requiring Improvement

The contractor struggled when working with their supporting organizations to meet the dates in the Integrated Project Schedule for submittal of nuclear safety documents. The delays affected the critical path (about two months) for closure of the TRU Project. As a result, the project requires additional nuclear safety document reviews in FY 2008. In addition, the contractor did not follow their procedures in developing the supporting documents to the PDSA causing inconsistencies identified by the NSO Nuclear Safety Team.

The PDSA was submitted on May 5, 2007 but required revision. Approval of the PDSA was achieved on August 29, 2007. It was the expectation of NNSA/NSO that the DSA annual update would include modifications made to the VERB after the approval of the PDSA, but due to the delay achieving the PDSA approval, the DSA annual update was submitted without the VERB modification information.

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MIS07A-12 Completion of CAU 168 Milestone

Introduction

NSTec significantly exceeded NNSA/NSO expectations by completing the corrective action fieldwork on a compressed schedule in order to achieve the FFACO milestone of January 31, 2007.

– Achievements

NSTec completed the field activities to accomplish the closure alternatives specified in the Corrective Action Plan. The NSTec Task Manager was proactive during the corrective action fieldwork by increasing communications with NSO. The increased communication ensured expectations were met for the removal of the asbestos containing material, the radiological debris at the RMSF, and the removal of radiological debris at Contaminated Waste Dump #2. The fieldwork was documented in the Closure Report that was submitted to NSO on December 28, 2006 in order to meet the FFACO milestone date of January 31, 2007. The Closure Report was submitted to the Nevada Division of Environmental Protection (NDEP) on January 25, 2007 and was approved without comments by NDEP on February 5, 2007.

– Areas Requiring Improvement

None Reported.

MIS07A-14 Disposal of LL/MLL Waste

Introduction

National Security Technology, LLC (NSTec) met all requirements of this stretch performance objective by increasing the disposal capacity from 1,200,000 ft³ to 1,500,000 ft³ per year (i.e., a 20% increase in disposal capability still using one crew) without adversely impacting disposal operations or safety.

– Achievements

NSTec demonstrated that it could safely accept and dispose of 125,000 cubic feet (ft³) of LLW/per month (12 months * 125,000 ft³/month = 1,500,000 ft³). NSTec did this by encouraging the LLW generators to move their LLW forecasts from the latter half of the FY to the first half. They also encouraged generators wanting to ship un-forecasted LLW to the NTS by offering efficiency volume earlier in the FY (i.e., the first quarter) vs. later in the FY (i.e., usually the last two quarters for the FY) which allowed the generators to ship the extra waste to the NTS.

Additionally, because a LLW disposal facility is closing in FY-08, new potential generators are constantly contacting the NSO to discover if they may be able to use the Nevada Test Site LLW disposal facilities. NSTec, NSO LLW Sub-Project, and HQ drafted an eligibility process to make that determination.

– Areas Requiring Improvement

None Reported.

B. OPERATIONS STRETCH

OPS07A-17 Transportation Safety Document

This performance measure required NSTec to develop and complete implementation of an on-site Transportation Safety Document (TSD), compliant with 10 CFR 830, Subpart B, by July 1, 2007. NSO determined early in 2007 that NSTec's proposed safety basis strategy was not consistent with any one of the applicable safe harbors (i.e., DOE-STD-3009 and DOE M 461.1-1). NSTec agreed that a change in scope was required and proposed to develop the TSD in accordance with a technical approach documented in the NSTec white paper dated August 31, 2006. Although NSTec made significant progress in developing the TSD, the document was not completed, nor implemented in FY07. Therefore, no fee will be paid for this stretch performance objective.

OPS07A-18 Nuclear Safety Enhancements

Introduction

During the performance period, NSTec determine the original PO was not achievable primarily due a lack of concurrence and cooperation by the affected external organizations (i.e., JNPO, LLNL, and LANL). During the fourth quarter, NSO reviewed and approved a revision reducing the scope and value of this PO to recognize the limited work done which supported the overall objective. The revised PO required NSTec to develop and implement a streamlined approach for preparing and implementing nuclear facility safety basis documents (e.g., documented safety analyses, technical safety requirements) to ensure consistency throughout all NTS organizations. Although NSTec was responsive to NNSA/NSO direction and recommendations, the time available was not adequate to fully complete the revised stretch objective. Performance was below the standard of performance established for the PO identified in the PEP.

– Achievements

NSTec management formed a working group, including representatives from NSTec, Omicron, JNPO, and NNSA/NSO to effectively accomplish the goal. As the lead contributor, NSTec was able to draft a preliminary outline for a manual modeled after the currently approved NSTec DM-NENG.002, "Hazards Analysis Methodology Manual." During the review period, the working group obtained NSO approval of important key elements.

– Areas Requiring Improvement

Although a draft outline was developed, the deliverable (i.e., safety basis development methodology manual) associated with the PO was not completed during FY 07.

OPS07A-20 Facilities & Infrastructure

Introduction

NSTec exceeded expectations by successfully accomplishing the stated performance measures (i.e. deferred maintenance, development of a strategic planning document and implementing a paperless electronic REOP process) as established by NSO. NSTec exceeded expectations for reduction of deferred maintenance. All deliverables were provided on a timely basis and requirements were met.

– Achievements

Deferred Maintenance Reduction

During FY07, due to decreased and delayed FIRP funding, earmark funds were substituted for a FIRP project - NTS Restore 27-01 (Cane Springs Road-Project # -NTS-00-086) which was identified in the FY08 TYSP. This project resulted in a buy-down of approximately \$2.85M in DM which represents approximately 30% more deferred maintenance than approved in the FY07 Work Authorization. This accomplishment will be recorded in the revised FY09 Ten Year Site Plan and was reflected in the FIMS database.

Corporate Facilities Management

NSTec prepared and presented the Facilities and Infrastructure Strategic Planning Document. The document, dated September 18, 2007 focuses on current and future facility and infrastructure needs to support NSO programmatic activities. During FY08, it is imperative that NSTec use the Facilities and Infrastructure Strategic Planning document as the foundation for future strategic planning initiatives for facilities and infrastructure. This document will assist in considering various business case decisions to consolidate and realize cost efficiencies.

Implementing a Paperless Electronic REOP Process

NSTec completed this goal ahead of schedule. Completion was verified through demonstration of the electronic-REOP (e-REOP) to AMSO staff. NSTec developed a burdened cost avoidance of \$9million dollars over the course of the next 4 years through application of e-REOP. The e-REOP also demonstrated additional activities which will benefit from e-REOP and a potential for NSO wide adoption.

– Areas Requiring Improvement

None Reported.

OPS07A-22 Construction Project Management

Introduction

This objective was to develop and implement processes to improve construction project management. Two targets were identified – apply design lessons learned and implement a configuration management system. NSTec exceeded expectations and achieved both targets on cost and schedule.

– Achievements

NSTec achieved this objective by analyzing prior design errors and publishing them in a design

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performance feedback catalog. This catalog will be provided to architect/engineering subcontractors for use, in addition to in-house training for NSTec employees on its use.

The second performance target was achieved by the production and issuance of a Configuration Management Manual. This manual provides templates for baseline information required to implement configuration management for different types of facilities. NSTec also established a nonnuclear facility configuration control board which is providing good oversight of configuration management.

– Areas Requiring Improvement

None Reported.

OPS07A-24 Emergency Management

Introduction

In 2007, NSTec Emergency Services and Operations Support (ESOS) exceeded expectations in the accomplishment of this performance measure. In doing so, they developed and implemented the use of a revised emergency notification form (NSO-149), developed (in coordination with WSI) a set of default barricade locations for EPHA facilities, and demonstrated leadership in emergency management in multiple ways. This performance was achieved despite reduced budgets and personnel resources showing positive leadership and creativity by NSTec ESOS management.

– Achievements

NSTec developed an improved NSO-149 form that is automated and should greatly improve the ability of the duty managers to transmit the initial NSO 149 form (15 minute requirement) once an emergency is categorized and classified. This upgrade included NSTec surveying other DOE and NNSA sites to determine their methods of emergency notification. NSTec then implemented data from other sites as well NTS data to create the new automated form. This form was successfully demonstrated to the Emergency Management Program Manager during a table top drill on 9/5/07 and permission was then granted to implement use of the new form. The project was completed on schedule and within budget constraints.

NST enhanced the NTS EPZs by working with WSI and the Nye County Sheriff's office and NSO to develop Security Default Barricades (SDBs) that are associated with each NTS high hazard facility and are based on the worst case emergency for that facility. Eight SDBs were added to maps. Those maps were reviewed and accepted by the EM Program Manager on August 27, 2007. All work associated with this project is complete.

NSTec ESOS performed extensive interactions with NSO, National Labs, WSI, and other NTS throughout 2007 to demonstrate leadership in Emergency Management. For example, NSTec developed a process guide for developing the Emergency Planning Hazards Surveys (EPHSs) and the Emergency Planning Hazards Assessments (EPHAs). That guide was supplied to WSI, other NSTec facilities, and to JNPO for their use as applicable when revising their own EPHSs and EPHAs. Additionally, NSTec assisted WSI and JNPO in the preparation of their EPHSs for their non-high hazard facilities. NSTec also collected the Emergency Readiness Assurance Plans (ERAPs) from all NTS entities, combined the data into one collective document and provided it to NNSA/NSO for their use as a submittal to NNSA/HQ

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during the first quarter of FY 07. NSTec took the same approach during the preparation of the Corrective Action Plans (CAPs) for the NSF evacuation and the HS-63 inspection. After collecting data from all applicable entities, the consolidated CAPs were submitted to NNSA/NSO for review and approval.

- Areas Requiring Improvement

None Reported.

OPS07A-26 Unneeded Materials and Chemicals

Introduction

The Performance Objective was developed to ensure that materials which had accumulated at the Nevada Test Site for many years were identified, evaluated for current or potential future use and if no longer required, properly dispositioned. This effort required coordination by NSTec with NTS programs and users. The PO also required an inventory of unneeded chemicals stored at the NTS. NSTec met the deliverables and mile stones associated with the PO. NSTec performed at a high level throughout the Performance period.

- Achievements

- The disposal plan was prepared and submitted to the Assistant Manager for Site Operations by the required milestone date.
- \$209,000 of revenue was generated by NSTec in the execution of this PO. Revenue generated by the sale of surplus material was retained by NSTec to offset the cost of the contract.
- Clean up areas included: Warehouse 160, CP151 yard, Wet-n-Wild lay down areas, Area 3 casing yard, and A-1, A-11, and C-3 yards at the NLV complex.
- Scrap disposal totaled: 1.7 million pounds of ferrous (steel) and 466,000 pounds of non-ferrous (aluminum, copper etc) materials from the NTS and the NLV complex.
- 535,000 feet of cable and 1,635 cable reel flanges were removed from the Warehouse 160 complex. NSTec exceeded the target quantities of 500,000 feet of cable and 1,630 cable reel flanges.
- The inventory of unneeded chemicals was completed in the 3rd qtr, 2007.

- Areas Requiring Improvement

None Reported.

OPS07A-27 Work Control

Introduction

This performance objective is a stretch goal to show improvement and consolidation in the area of work control by all NNSA/NSO tenants conducting contact work. NSTec was commissioned to negotiate with all thirteen tenants to develop a comprehensive and singular approach to work control. A formal agreement on the implementation of the work control manual developed on OPSO7-25 was part of this stretch goal.

NSTec's leadership resulted in numerous key improvement recommendations established by the working

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group. The result included agreement by all heads of NTS tenants to conform with the proposed work control manual. In addition to the PO scope, NSTec substantially exceeded the NSO expectations by developing a Contractors Requirement Document for updating the current NSO O 412.X3B ahead of schedule. An outbriefing to the NSO Executive Council was completed on September 17, 2007.

– Achievements

NSTec developed and convinced the NSO tenants of a positive and achievable work control system that fully integrates recommendations from across the DOE complex. They include:

- 1) Generating a risk analysis that can be used in preparing an activity level work package that is vastly streamlined from the current system that can be implemented by all users;
- 2) Development of a new categorization/work package (Type 4) that allows for a graded approach and a potential cost savings of time to complete work planning;
- 3) Development of a system and process to identify skill of the worker tasks and verification of skill levels of personnel performing them which enhanced the understanding of work requirements and hazards; and,
- 4) Developed an activity level screening tool to assist work package preparers to determine work package type that uses an inventory checklist.

In addition, NSTec successfully improved facility level work control planning and hazard analysis which will allow for a re-write of the current NSO O 412 (Work Control). The requirements to meet this performance objective have been exceeded.

– Areas Requiring Improvement

None Reported.

OPS07A-29 NTS Material Control & Accountability (MC&A) Program

Introduction

The NSTec MC&A organization undertook this effort to develop a principle-based standard for MC&A Programs, with the objective to prepare a model/standard for developing, implementing, and evaluating MC&A Programs to be adopted NNSA-wide. The NTS MC&A program was selected as a pilot because their Category I facility was relatively new and staffed by a majority of personnel new to MC&A. NSTec MC&A functioned as a pilot site, and then fully implemented the SFPI, exceeding the standard of performance established in the PEP. Their initiatives, tasks, and activities were accomplished in a manner that had a positive impact on the mission of the Nevada Site Office and were accomplished within budgeted costs.

– Achievements

The NTS test bed application achieved a modest cost savings (\$8K) in FY07 but realized significant qualitative benefits from increased coordination and cooperation with operations and training of MC&A staff. All performance measures for this stretch objective were completed well in advance of targeted completion dates.

At the request of the Defense Nuclear Security (DNS) Office of Program Requirements, the test bed application was independently evaluated by a joint Defense Nuclear Security Office of Program Evaluation/Office of Health, Safety, and Security (HSS) Team in May/June 2007. The independent

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evaluation team validated that the MC&A program of the test bed application was effective and that the MC&A system effectiveness tool, Comprehensive Assessment of Safeguards Strategies (COMPASS), was a reasonable means for determining overall MC&A system effectiveness. This is the first time the Department has implemented an MC&A system effectiveness tool.

– Areas Requiring Improvement

None Reported.

C. MANAGEMENT STRETCH

MGT07A-34 General Management

Introduction

Successful accomplishment of this measure required NSTec to work with NSO, LANL, and LLNL to develop appropriate transition plans and assume the management of RTBF facilities at the NTS.

Although NNSA issued direction at the end of the fiscal year to begin working toward this objective, the effort to accomplish this task was not accomplished during the evaluation period, therefore, the measure was only partially achieved.

– Achievements

NSTec worked with NA10, NA1, LANL and LNL directly over the last year resulting in a decision by NNSA HQ to transition the management and operation of certain facilities at the NTS from the national laboratories to NSTec. This decision was set forth in the Schoenbauer memo dated September 26, 2007. In getting this accomplished, NSTec prepared cost analyses and provided mgmt concepts as well as transition option inputs to both the NSO and HQ.

– Areas Requiring Improvement

Successful accomplishment of this measure required the completion of facility transitions resulting in NSTec assuming the management of the RTBF facilities at the NTS by the end of the performance period. Although the facility transition planning is now underway, the transition did not occur as required by the measure. As such this measure was only partially achieved.

IV. MULTI-SITE PERFORMANCE MEASURES

MULT07I-35 – NA-10 Top 10 Incentives

Achievements:

MULTI07I-35.01 – Target Completed within measure parameters.

MULTI07I-35.02 – Target Completed within measure parameters.

MULTI07I-35.03 – Target Completed within measure parameters.

MULTI07I-35.04 – Target Completed within measure parameters.

MULTI07I-35.06 – Target Completed within measure parameters.

MULTI07I-35.07 – Target Completed within measure parameters.

MULTI07I-35.08 – Target Completed within measure parameters.

MULTI07I-35.09 – Target Completed within measure parameters.

MULTI07I-35.10 – Target Completed within measure parameters.

– Areas Requiring Improvement

MULTI07I-35.05 – Target **NOT** completed within measure parameters.

MULT07I-36 – Nuclear Materials Consolidation

Achievements: Target Completed within measure parameters.

MULT07I-36 – Nuclear Materials Consolidation

Achievements: Target Completed within measure parameters.

MULT07I-38 – NNSA Supply Chain Management Center

Achievements: Target Completed within measure parameters.