DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION
LOS ALAMOS SITE OFFICE

FY 2007 PERFORMANCE EVALUATION REPORT

OF THE

LOS ALAMOS NATIONAL SECURITY, LLC

MANAGEMENT AND OPERATION
OF THE
LOS ALAMOS NATIONAL LABORATORY
CONTRACT NO. DE-AC52-06NA25396

PERFORMANCE PERIOD
OCTOBER 1, 2006 THROUGH SEPTEMBER 30, 2007

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I. INTRODUCTION

This report assesses the performance of Los Alamos National Security, LLC (LANS) for management and operation of the Los Alamos National Laboratory (LANL) from October 1, 2006 through September 30, 2007, under Contract Number DE-AC52-06NA-25396.

The contract with LANS, awarded in December 2005, reflects a change in the National Nuclear Security Administration's (NNSA) philosophy for performance based contracting. Some of the major philosophy changes reflected are:

1. NNSA dictates "what "they want rather than dictating to the contractor "how" to get it done.
2. There is an increased reliance on contractor assurance of their systems and operations, which include a rigorous self assessment process and significant involvement and oversight from LANS parent companies.
3. The liability for performance is shifted from the government to the contractor.

Assessment of contractor performance under this contract is far different than the performance evaluation process used with the prior contractor, University of California (UC). The prior contract had $8,500,000 of fixed and incentive fee associated with it, about one-eighth of the current fee of $73,280,000. UC's performance was evaluated using subjective adjectival ratings, which suited their non-profit status and academia based environment.

Performance evaluation shifted this year from subjective to predominantly objective performance criteria. In order to focus the contractor on government priorities, NNSA's goal was to identify the critical performance areas and metrics. For 2007, 13 performance based objectives were identified, with over 170 milestones with specific performance measures and associated fee. Most of the metrics/milestones/deliverables are "pass/fail" – that is, if the contractor achieves the performance measures they earn specific incentive fee tied to the specific measure. If they do not, then they may earn partial fee in some cases or no fee at all.

Lack of integration and cooperation across the NNSA complex had been problematic in prior years. To remedy this, NNSA Headquarters developed one common objective (a Multi-Site Incentive) that was used as a standard across the NNSA sites. This was included as one of the 13 objectives.

In this initial full year of performance, it was necessary for LANS to establish clear roles and responsibilities and develop credible plans and baselines which would become the foundation upon which to build in the out years. Due to lack of plans and baselines in many areas at the laboratory, LASO incentivized these products where necessary, as well as performance against these plans. In FY 2008 few, if any, plans will be incentivized.

A strict change control process was used for the performance based measures. Should circumstances outside of the control of the contractor occurred, (such as budget changes driven from DOE/NNSA) then measures could be modified or deleted. Once a measure was completed, the contractor submitted a formal request for closure. Headquarters, LASO and/or the NNSA Service Center then validated the completion of each one. Documentation on change control and closure is maintained by the LASO Contracting Officer.

A reallocation of fee occurred in April 2007 from all measures to PBI 13.1, Leadership and Integration, a subjective measure. A total of $4,000,000 was dedicated to the cyber initiatives and performance due to the cyber incident. The remaining $3,837,939 was focused on laboratory success in: appropriately responding to anomalies and events that occurred during the evaluation period; integration of different LANS activities and organizations to facilitate site performance; emphasis on the quality of initial submittals; and demonstrated LANS initiative verses response to inquiries.

This report considers information contained in the LANL Self Assessment for FY 2007, materials from monthly performance reviews held with the contractor, as well as DOE/NNSA Headquarters and other customers' input. Section III reflects achievement against the objectives and measures in

Performance Based Incentives (PBI's) 1 through 13. Where it applies, Headquarters feedback is provided within the narrative for these elements. Section IV contains a summary of the fee recommendation for each PBI. Section V is a copy of the LANL Performance Evaluation Plan for reference.

Under this contract, LANS receives a fixed fee of 2.5% of the estimated cost of NNSA's total estimated budget for reimbursable work. No incentive fee is paid for Work for Others. Feedback on the contractor's performance in the Work for Others program will be provided to LANS under separate cover.

II. SUMMARY

NNSA's expectation levels for LANS performance were very high, even in this initial year of performance. LASO anticipated that mission and some areas of business performance would continue in the outstanding manner that they had in prior years at LANL, and that there would be steady improvement throughout the year in all other operational areas. These expectations were generally met. LANS has earned the fixed fee pool of $21,984,004 as specified in the contract. The NNSA Fee Determining Official has made the determination to award $36,224,982 of performance fee to LANS. This fee amount represents 71% of the LANS FY 2007 incentive fee pool of $51,295,996.

LANS' Self Assessment reflects the nature of the multi-year improvement effort that is needed. They understand that the Laboratory's performance under the prior contract had been hampered by large spans of control, organizational stovepipes, a lack of coordinated and integrated policies and procedures, and a lack of effective integrated management processes and systems. LASO acknowledges that LANS has made some inroads to improve laboratory operations during FY 2007, while maintaining outstanding performance in NNSA's core mission areas.

Highlights for each of the performance based incentive (PBI) areas include:

- Weapons Program: LANS completed gateway Level 1 and Level 2 milestones and all work products and interim deliverables associated with the Laboratory Director's Annual Assessment Letter. NNSA Headquarters indicates that LANS was forward looking in their strategic planning for developing weapons science and engineering capabilities and thrusts.

- Weapons Quality Assurance: LANL Production Agency and Design Agency organizations developed a formal Quality Assurance Program and Implementation Plan per the schedule for each area, reflecting a schedule to complete implementation by the end of FY 2008. LANL has made progress towards achieving a fully compliant Quality program both in the area of DOE Order 414.1C and QC-1, Revision 10, a significant improvement over performance in prior years at the Laboratory.

- Threat Reduction: LANS provided the necessary planning to re-establish important capabilities for the conduct of certain Threat Reduction Programs, especially in the area of nuclear emergency response. They completed Materials Protection Control and Accounting (MPC&A) upgrades at zone two for the Chemical Metallurgical Plant at SGChE in the city of Tomsk according to requirements specified by NNSA; provided the third demonstration of the Advanced Recovery and Integration Extraction System (ARIES) nuclear weapon pit disassembly and conversion technology; supported Global Nuclear Energy Partnership (GNEP) through evaluation of technology development choices for UREX + 1A; launched Cibola Flight Experiment space vehicle; designed, assembled, and tested the Mission Response Module satellite; and completed 100% of technical use on Commercial Dual Use License applications.

- Multi-site/Complex Integration: LANS provided leadership and/or participated in the completion of required measures. Evidence of LANS success is the recommendation by NNSA Headquarters that sites earn 90 percent of their fee in the PBI.

- Science, Technology and Engineering: LANS had 1,707 peer-reviewed papers which exceeded the baseline plus 10% goal of 550 from prior years. The total number of classified reports was 838, which was far greater than the 55 that was the baseline from prior years plus 10%. In addition there were 46 patents issued to LANL in FY 2007, which exceeded the baseline of 10. However, they fell short of the goals in university collaborations, as well as their goal of 80% of critical skills maintenance in FY 2007.

- Facilities Management: LANS has greatly improved overall LANL facilities stewardship. The site-wide Decontamination and Decommissioning (D&D) plan and Top Ten Infrastructure Priorities plans provide a basis for future year performance measurement. Increased attention to utilities, fire protection systems, and square footage consolidation will result in future rewards in RTBF savings and management flexibility while increasing operational capability.

- Safeguards and Security Management: LANS made significant progress in FY 2007 by meeting all but one of the Security Annual Operating Plan deliverables. They also met physical inventory deliverables which had not been achieved in many years by validating no loss or gain of Special Nuclear Material.

- Nuclear and High Hazard Operations: LANS made significant progress in implementing the nuclear safety programs at the Laboratory. They achieved a 30% decrease in ORPS reportable occurrences over the rating period which indicates improvement in operating practices. Safety Basis improvements were made that strengthened a corporate approach (centralization) and improvements in timeliness and quality of submittals was evident. However, this area requires further integration across programs.

  Opportunities for improvement are needed to implement Formality of Operations on the agreed to schedule; to fully complete Documented Safety Analysis (DSA) submittals (not all were delivered as planned), effectively implement Readiness Reviews, and more importantly, to effectively implement the controls identified. Safety system adequacy continues to require LANS attention and focus in order to make improvements, particularly at TA-55.

- Project Management: LANS performance is promising, reflecting substantial attention to commitments and baselines. FY 2007 small project performance was markedly improved with many legacy projects completed. Greater than 90% of all LASO monitored milestones for the year were achieved. Aggregate cost performance appears significantly improved; however, detailed analysis indicates a continued need for system maturity and has raised issues regarding earned value management. The Roofing Asset Management Program (RAMP) performance exceeded NNSA expectations, delivering project completion ahead of schedule and resulting in LANL receiving additional project funds for FY 2007.

  Successes were tainted by problems with execution of the Waste Management Risk Mitigation, TA-50 Room 60, and Interim Radiography projects, all of which have significant mission drivers and relatively high visibility. LANS made several improvements in project management budgetary tracking and forecast to address the issue after the fact. Performance on the Chemistry Metallurgy Research Replacement Project (CMRR) was sound with the exception of the preliminary documented safety analysis (PDSA). The draft (Revision 0) PDSA submitted for review was considered substandard and raised questions with NNSA and stakeholders as to whether LANS can effectively execute the nuclear safety strategy.

- Environmental Programs and Operations: LANS completed 13 of 14 Consent Order deliverables required in this area on time (the 14th was completed late); improved their relationship with the State regulator after a rocky start; reduced legacy TRU waste at TA-54; maintained compliance with laws for protection of the public and environment in support of continued LANL operations; and maintained their ISO 14001 certification. This area, specifically the cleanup projects, experienced difficulty in various project management areas which included risk analysis and management, scheduling, and integration across several key functional areas such as procurement, safety basis and readiness. The team did not have the required resources with risk expertise on hand to develop a robust risk management plan nor did they initiate actions to address NNSA concerns.

- Safety and Health: LANS made significant progress implementing improvements throughout the Laboratory. Noteworthy accomplishments include work in Electrical Safety; implementing aspects of the Voluntary Protection Program (VPP) in support of future certification; implementing an employee led safety committee structure; and making improvements in some elements of fire protection. LANS achieved a significant downward trend in Total Recordable Case Rate (TRC) and a LANL "Combined" Days Away, Restricted, or Transferred (DART) Rate (TRC/DART).

  Opportunities for improvement include the accuracy and timeliness of OSHA recordkeeping, chemical inventory/chemical management, and emergency management planning tied to the chemical inventory process.

- Contractor Assurance: LANS improved their implementation of a contractor assurance system (CAS) across the Laboratory. They self-identified areas requiring improvements in the Issues and Corrective Action Tracking process and improved the LANS Issues Management Tracking System (LIMTS) tool to be more user friendly. They began development and implementation of an improved effectiveness review process, and improved utilization of the various CAS tools. LANS management actively used CAS tools at the Director level. All agreed upon shadow systems were closed out.

  There was a 16% increase in the number of on-time closures of Category 1 and 2 corrective action (73.8% by the end of September 2007, up from 63.6% at the end of March 2007). There were also increased on-time closures of Category 3 corrective actions (improved from 69.9% in March 2007 to 78.3% in September 2007). Both of these areas reflect impressive progress, even though LANS did not achieve the minimum goal of 80% in either area.

- Leadership, Management and Integration: LANS made a respectable effort to lead, manage and integrate laboratory mission, operations and business, but was only partially successful in this important area.

  The involvement of the parent companies in bringing in expertise to examine problem areas was viewed as a success. The parent companies have been far more proactive and involved in the oversight of the lab's performance than the prior contractor.

  LANS trained a number of employees and managers in Six Sigma processes. The streamlining and increased efficiencies resulted in exceeding cost savings/cost avoidance goals which are documented in PBI 13.5. LANS maintained very good to outstanding performance in business areas such as real and personal property and human resources. They improved their procurement processes to more effectively support programs. They met budget and financial management objectives outlined by the NNSA Office of Field Financial Management. In addition, they made progress in centralizing training activities for the laboratory, successfully developed and delivered 7 prototype courses for the NNSA Safety Basis Academy, and delivered training in 2 additional safety basis courses.

  Cyber security was a major focus for the year as a result of an incident involving Laboratory classified information which was found on a thumb drive in the residence of a former LANL subcontractor employee. LANS satisfactorily addressed many of the cyber security issues that NNSA identified as required to implement an effective Cyber Security Program. They also developed an approved Cyber Security NAP Implementation Plan; passed the NA-70/65 Physical/Cyber Security Vault inspection; developed an approved Cyber Security Program Plan (CSPP); had the Super Vault Type Room (VTR) operational by September 28, 2007; and completed the Laboratory Wide Cyber Security Self Assessment.

  However, results of the LASO 2007 Annual Security Survey showed insufficient progress implementing the cyber security program. In addition, the length of time it has taken the Laboratory to resolve Cyber Security organizational issues that included establishing an effective organizational structure, selecting and empowering permanent leadership, and

developing integrated corrective action plans, etc., did not reflect adequate urgency or focus required for the situation.

Also of significance to LASO is that key programs, projects and activities were not effectively integrated across the laboratory. LANS failed to recognize the need for, and take initiative to, integrate various key areas related to the Chemical Metallurgical Research Replacement Project (CMRR). These include the need for integration related to design basis threat, Nuclear Materials Safeguards and Security Upgrade Project (NMSUPP), and infrastructure coordination and needs (soil reuse, road rerouting). There was a lack of planning and integration of safety basis and readiness reviews needed to support programs, projects and operations. Lastly, the leveraging of corporate expertise and experience was not visible for one project, the Waste Characterization Reduction and Repackaging (WCRR). This effort tied up key resources for approximately 6-8 months and required significant NNSA involvement.

Fee earned for LANS is as follows:

Measure	Description	Fee Allocation	Recommended Payment	%
PBI 1	Weapons Program	$7,362,227	$7,181,224	98%
PBI 2	Weapons Quality Assurance	$1,429,994	$1,429,994	100%
PBI 3	Threat Reduction	$3,053,952	$3,053,952	100%
PBI 4	Nuclear & High Hazard Ops	$5,228,756	$3,975,086	76%
PBI 5	Safeguards and Security *	$2,681,239	$2,391,331	89%
PBI 6	ST&E Excellence	$4,468,731	$3,440,923	77%
PBI 7	Multi-Site Performance	$4,550,512	$4,114,811	90%
PBI 8	Environmental Programs & Ops	$3,619,670	$2,110,508	58%
PBI 9	Safety and Health	$1,795,423	$960,551	53%
PBI 10	Facilities Management	$893,747	$393,247	44%
PBI 11	Project Management	$2,722,130	$1,995,850	73%
PBI 12	Contractor Assurance	$3,358,982	$1,639,157	49%
PBI 13	Leadership/Management Integration *	$10,130,633	$3,538,348	35%
		$51,295,996	**$36,224,982**	**71%**
	Fixed Fee	$21,984,004	21,984,004	
	Totals	**$73,280,000**	**$58,208,986**	**79.4%**

*Cyber Security is addressed in PBI 13.

III. ASSESSMENT OF PERFORMANCE BY PERFORMANCE BASED INCENTIVES

MISSION SUCCESS: PBI NO. 1 – PBI NO. 5

PBI NO. 1
Weapons Program Execution

PBI 1: Weapons Program Execution

Maximum Available Fee: $7,362,227
Fee Earned: $7,181,224

NNSA Summary:

LASO review of LANS performance indicates the contractor has completed gateway Level 1 (100%) and Level 2 milestones that involved congressionally mandated and NNSA required deliverables. The Laboratory also completed all work products and interim deliverables associated with the Laboratory Director's Annual Assessment Letter on schedule, thus certifying the nuclear weapons stockpile in accordance with the Annual Assessment Business Operating Procedure (NNSA BOP 10.001).

- **Annual Assessment Reports for the four weapons systems were completed and submitted to NNSA in accordance with schedule requirements.**
- **LANS met FY 2007 Level 1 Milestones as specifically described in the Defense Program Milestone Reporting Tool.**
- **Year-end completion percentage achieved for Level 2 Milestones is 95.12%.**
- **Following an independent Weapons Science and Engineering Capabilities Review in August 2007, LANS developed three overarching criteria to assess its performance in balancing near-term deliverables with long-term activities needed to sustain and enhance the vitality of the weapons program and science base of the Laboratory.**

NNSA Headquarters has provided input that indicates an aggregate rating of outstanding performance during the performance period, which is demonstrated by the objective measures. LASO and Defense Programs noted Laboratory successes in accomplishing the Pit Manufacturing and Certification Level 1 milestones, passing the Design Review and Acceptance Group review leading to the B-61 Alt 357 First Production Unit, the development and first production unit of the 4T gas transfer system for the W88, and delivery of the Revision to the W76 Hazard Analysis Report. Headquarters Program Offices also cited forward looking strategic planning for developing weapons science and engineering capabilities and thrusts, among them: a focus on penetrating radiography as a core competency, creation of the Dynamic Plutonium Experiment thrust to support primary assessment, and a good approach to developing requirements for science and technology development. Headquarters further noted the realization of the First Prototype Build for the W-76 Life Extension Program at Pantex in September 2007 and stated that LANL has performed in a superior manner in support of Nuclear Safety R&D, the Life Extension Option Process, and development and execution of the National Hydrodynamic Test Plan. LANL demonstrated outstanding performance of QASPR, performance assessment of the W-76, W78, and W88 primaries following a hostile neutron encounter, and design and fabrication of the INRAD Exposure Facility of sensors, electronics, and fiber optics. However, Defense Programs was less than satisfied with Laboratory progress on fully embracing transformational initiatives related to weapons system

surveillance, including removal of Special Nuclear Material from Flight Testing and communication of significant accomplishments by providing timely input to NNSA/HQ for performance evaluations could have been improved.

Completion/Validation Statements

Measure 1.1 Annual Assessment Report
LANL will plan and execute activities to assess the safety, reliability and performance of the stockpile, and provide the required assessments of certification and reports to the Secretary for submission to the President.

Expectation Statement: Complete continuous activities necessary to perform annual assessment of warhead safety, reliability and performance, and issue the annual assessment report and Director's annual assessment letter and oral presentation to the Stockpile Assessment Team.

Gateway: Must satisfy measure 1.1 to receive any fee in any other measure of PBI 1, Weapons Program Execution.

Gateway Completion Statement: The Annual Assessment Letter was signed on September 27, 2007, completing year-long activities to meet this gateway. Completion of PBI 1.1 is a gateway for earning any fee in PBI 1.

1.1 **Defined Completion:** Plan, conduct and document stockpile assessment and other requisite activities to provide an annual assessment report to NNSA in accordance with negotiated schedules. Complete all physics input necessary to support the annual assessment letter and report. Director's Annual Assessment letter will be signed by September 30, 2007.

LANL Completion Statement: LANL submitted the Director's Annual Assessment Letter on September 27, 2007. This letter was supported by LANL participation in the 2007 U.S. Strategic Command Stockpile Assessment Conference (June 2007) and submission of the Annual Assessment Reports for the B61, W76, W78, and W88 (July 2007). The actual products are classified SRD and distribution is limited.

LASO Validation Statement: LASO staff reviewed the Annual Assessment Reports for the four weapons systems that are the responsibility of the Los Alamos National Laboratory. The Annual Assessment Reports were submitted to the NNSA in accordance with schedule requirements.

The Director signed the Annual Assessment Letter on September 27, 2007. LASO staff verified the completion date.

The deliverables required by the Completion Criteria for the Performance Measure are classified and will not be held in LASO evidence files.

Available Fee: $1,104,334
Fee Earned: $1,104,334

Measure 1.2 Complete programmatic deliverables as specifically described in the Defense Program Milestone Reporting Tool. Complete LANL FY 2007 Level 1 and Level 2 Milestones. Achievement of 100% of the LANL FY 2007 Level 1 Milestones must be accomplished to earn fee for Level 2 Milestones.

Expectation Statement: LANL will complete programmatic activities in support of the LANL-designed weapons systems, focusing primarily on the B61 Alt. 357, W76-1, Science Campaigns and ASC activities. (This excludes activities precluded by delays in availability of necessary materials, components, or required data provided by other Sites in the Complex.)

Achieved milestones must include:

- Directive Schedule quantities not dependent upon delayed part deliveries from other sites.
- Complete the acceptance of ten W88 pits by LANL QA (with peer review and independent oversight of the acceptance process by CAS).
- Certification of a W88 warhead with a Los Alamos manufactured pit.
- Execute certification activities not dependent upon delayed components, materials, or data deliveries from other sites in accordance with the W76-1 FSED
- DARHT second-axis completion of full accelerator installation, validation testing, and Readiness Review scheduled.

Threshold: Achievement of 100% of the LANL FY 2007 Level 1 Milestones must be accomplished to earn fee for Level 2 Milestones.

1.2.1 Defined Completion:
Complete Level 1 Milestones as scheduled.

LANL Threshold and Completion Statement: According to the NWC Milestone Report generated October 4, 2007, there are 11 Level 1 Milestones assigned to LANL as of Q4, FY 2007. Assigned L1 Milestones include #s: 333 (due September 2009, but with annual deliverables), 337 (due June 2008), 350 (due December 2006), 351 (due September 2008), 353 (due September 2007), 359 (due September 2010), 1540 (due September 2001), 1541 (due September 2010), and 1542 (due September 2014). Annual submission completion for MRT #333 demonstrates completion of stipulated FY 2007 deliverables. Completion documentation for Milestones #350, 353, and 354 is also submitted in the completion package. This documentation set completely covers the LANL assigned Level 1 Milestones for FY 2007 (as well as providing evidence links for deliverables associated with Milestone 333, which has annual deliverables). Work supporting other complex-wide Level 1 Milestones (both FY 2007 and out-year) is represented within the Level 2 Milestones. Completion documentation for the Annual Assessment Report (reference PADWP: 07-150 or PCM: 07-206) has been submitted separately.

LASO Validation Statement: For FY 2007, there were four level one milestones requiring completion or interim deliverables during the fiscal year, MRT milestones 333, 350, 353, and 354.

Milestone 333 requires annual submittal of integrated RTBF/FIRP plans. These were submitted by LANL on April 30, 2007 and April 20, 2007 respectively.

Milestone 350 requires tri-laboratory utilization of a 100TF ASC Platform. LANL fully participated in utilization of the Purple machine at LLNL to address stockpile problems.

Milestone 353 required completion of a Major Assembly Release for the W88 System with a Los Alamos manufactured pit. This document was signed and approved by the Vice President for Weapons Engineering and Product Realization, at Sandia National Laboratories, and the Principle Deputy for Weapons at LANL by September 17, 2007. The MAR was then approved by the W88 Warhead Manager, NA-122.3,on September 25, 2007.

Milestone 354 required the commencement of Pit Manufacturing at a rate of 10 pits per year. LANL produced 11 pits during the fiscal year that were acceptable for future use.

This performance based initiative provided several performance requirements that must be met in order to receive any fee associated with the Performance Measures. The first of these was completion of the Annual Assessment process for FY 2007, which was met (see PCM 07-206). The second was specific performance related to Level 2 milestones related to several high profile initiatives, and included “execute certification activities in accordance with

the W76-1 FSED." During the performance period, this requirement was modified through the PBI Change Control process to "Execute certification activities not dependent upon delayed components, materials, or data deliveries from other sites in accordance with the W76-1 FSED." (PBI CC-031, dated October 2, 2007). The Laboratory performance meets this revised completion criteria.

Recommendation: LANL has met FY 2007 requirements related to this Performance Measure.

Available Fee: $2,473,708
Fee Earned: $2,473,708

1.2.2 Defined Completion:
Complete Level 2 Milestones as scheduled.

LANL Completion Statement: According to LANL entries in the MRT as of October 8, 2007, more than 95% of the LANL Level 2 Milestones have been reported as successfully completed. As of close of the FY, there are 172 total Level 2 Milestones for which LANL is listed as a participating site. Of these, eight Milestones (1839, 2130, 2131, 2180, 2203, 2275, 2315, and 2382) have been set to "black" status (indicating an "unfunded milestone" according to the MRT manual) set after an appropriate baseline change control form has been approved by HQ. Seven (7) Milestones have been set to a status of "Red" (2072, 2073, 2091, 2128, 2155, 2165, and 2508). The remaining Milestones (157) all indicate successful completion ("Blue" status). Considering only "active" Milestones (those not set to "black"), the completion percentage is 157 / 164 = 95.73% complete. If the 8 unfunded Milestones are added to the accounting, and considered as "complete" - to recognize some efforts expended against these before receiving "unfunded" status, the accounting becomes: 165 / 172 = 95.93% completion. In addition, there are 4 "Multi-Site Milestones, which should not count against the general Level 2 Milestone fee accounting. Three of these have been reported "Blue", while one is "Red". Removing the Multi-Site Milestones from this accounting yields: 154 / 160 = 96.25% completion, or 162 / 168 = 96.43% complete. Completion packages are being prepared for those Milestones not already accepted as "complete" within the MRT by HQ Program Managers.

LASO Validation Statement: The performance period began with 172 Level 2 milestones listed in the Milestone Reporting Tool (MRT). During the course of the year, 8 milestones were cancelled or completion dates were modified to outside of the fiscal year, leaving 164. The Laboratory failed to meet the grading criteria for 8 milestones, resulting in a "RED" status assigned by the NNSA Headquarters Program Manager or responsible Contracting Officer's Representative.

Cancelled Milestones: 1839, 2130, 2131, 2180, 2203, 2275, 2315, 2382
Missed Milestones (RED): 2072, 2073, 2091, 2128, 2155, 2160, 2165, 2508

Two additional Level 2 milestones (2158 and 2161) were rated as incomplete at the end of the performance period by the NNSA Headquarters Program Manager. The Laboratory completed the tasks listed in the Grading Criteria provided for the milestone definition in the MRT; however, the Exit Criteria was not met. For 2158, another contractor failed to issue a Final Weapons Development Report utilizing the reports provided by the Laboratory and for 2161, the final Certification Letter was drafted but not issued based on informal direction from the Program Manager. LASO considers Laboratory performance against these two milestones as meeting the Grading Criteria and complete.

This performance based initiative provided several performance requirements that must be met in order to receive any fee associated with the Performance Measures. The first of these was completion of the Annual Assessment process for FY 07, which was met (see PCM 07-206). The second was specific performance related to Level 2 milestones related to several

high profile initiatives, and included "execute certification activities in accordance with W76-1 FSED." During the performance period, this requirement was modified through the PBI Change Control process to "Execute certification activities not dependent upon delayed components, materials, or data deliveries from other sites in accordance with the W76-1 FSED." (PBI CC-031, dated 2 October 2007). The Laboratory performance meets this revised completion criteria.

The year end completion percentage for Level 2 Milestones is 95.12%. This results in an earned fee of $3,529,560 ([156/164] X $3,710,563).

Available Fee: $3,710,563
Fee Earned: $3,529,560

Measure 1.3 Ensure long-term vitality of the weapons program and science base of the Laboratory

Expectation Statement:
The NNSA will subjectively evaluate the contractor's management of balancing near-term deliverables with long-term activities that are needed to sustain and enhance the vitality of the weapons program and science base of the Laboratory. This includes the investment in long-term research such as that needed for improved predictive capability needed to meet out year milestones (greater than 2009).

1.3 Defined Completion:

A. LANS will develop a set of criteria to use to assess its performance in balancing near-term deliverables with long-term activities needed to sustain and enhance the vitality of the weapons program and science base of the Laboratory.
B. LANS will provide a self-assessment against these criteria. This assessment may include feedback on performance provided by stakeholders.
C. NNSA will perform an evaluation of LANS performance in these areas. This evaluation will consider the LANS self-assessment. Fee awarded based on NNSA evaluation and will include stakeholder feedback.

LANL Completion Statement: Nurturing of the Science and Technology base is critical to the long-term value of the laboratory as a national Security resource for the Nation. LANL has taken reasonable and appropriate steps to balance near-term deliverables with long-term activities for this fiscal year by meeting the following three criteria; 1) strategic planning to develop thrusts and capabilities; 2) technical and financial support to the capability areas developed; and 3) assessment of whether the capability areas developed were ensuring the long-term vitality of the weapons program.

Throughout FY 2007 ADWP undertook an intensive strategic planning exercise to develop core Thrusts and Capabilities for the program. Ultimately, three strategic thrust areas were developed: 1) Nuclear Weapons Design; 2) Computation, Codes, and Platforms; and 3) Penetrating Imaging. Furthermore, ten scientific capabilities to support the thrust areas were also identified: 1) Weapon Materials, Processing and Characterization; 2) Dynamic and Reactive Materials and Characterization; 3) Dynamic Model Validation; 4) Integrated Experiments and Validation; 5) Nuclear Physics and Science; 6) Computational Physics and Mathematics; 7) Theory and Modeling; 8) Computer Science; 9) High Performance Computing; and 10) Weapon Design.

After identifying the most critical capability areas, capability leads were identified, provided direction (but given a broad amount of discretion to manage their capability) and provided with appropriate funding to develop their areas. Throughout the year, the Weapons Physics Directorate held multiple reviews of each capability area with regard to its technical accomplishments/issues as well as business and financial accomplishments/issues.

An independent assessment covering Weapons Science and Engineering Capabilities was performed by a team led by Roy Schwitters (University of Texas at Austin) on August 22-24, 2007. The Weapons Science and Engineering Capability Review Committee commented that "The quality of the scientific capabilities presented to us at this review was excellent and exciting!" The report of the review committee is included as evidence for this PBI. The findings of the committee will be addressed over the course of the next fiscal year.

LASO Validation Statement: The completion criteria for this performance measure requires the Laboratory to develop a set of criteria to assess its performance in balancing near-term deliverables with long-term activities needed to sustain and enhance the vitality of the weapons program and science base of the Laboratory, and then to provide a self-assessment against those criteria.

The Laboratory requested an independent Weapons Science and Engineering Capabilities review to assist in creation of the assessment criteria, which took place during the week of August 22, 2007. The review committee assessed the quality of science and technology applied to the Weapons Program, and provided two significant recommendations for enhancing the integration of various weapons physics initiatives.

Working with the committee report, the Weapons Physics directorate developed three overarching criteria to sustain and enhance the vitality of weapons science: Strategic Planning to develop thrusts and capabilities, technical and financial support to the identified capabilities, and assessment capability areas contribution to long-term vitality.

Subsequent to the August Capabilities review, the Weapons Physics directorate performed a Self-Assessment against these three criteria, which resulted in a favorable outcome. The Weapons Physics directorate is holding quarterly meetings to track progress.

Additionally, the Laboratory performed extensive "Voice of the Customer" feedback sessions at DOE and NNSA Headquarters, as well as the Department of Defense during the months of August and September 2007. The feedback received will be factored into Laboratory planning for Weapons activities.

The Laboratory has met the completion criteria for this performance measure.

Available Fee: $73,622
Fee Earned: $73,622

PBI NO. 2
Weapons Quality Assurance

PBI 2: Weapons Quality Assurance

Maximum Available Fee: $1,429,994
Fee Earned: $1,429,994

NNSA Summary:

During FY 2007, LANL Production Agency and Design Agency organizations developed a formal Quality Assurance Program and Implementation Plan, per schedule, for each area, reflecting a schedule to complete implementation by the end of FY 2008. These programs and plans were approved by LASO and concurred with by NA-17. The collation of manufacturing metrics was formalized and formal reports reflecting the health of manufacturing have been disseminated per schedule. These metrics meet LASO and NA17 requirements. The development and implementation of a Cost of Non Conformance quality metric was completed on schedule and of high quality.

LANL has made demonstrable progress towards achieving a fully compliant Quality program both in the area of 414.1C and QC-1, Revision 10. Intermediate target implementation completion dates have been missed, but LANL continues to be on schedule for FY 2008 implementation. Product submittal activities and other quality control activities have continued to require significant attention; however, submittals have improved during the last quarter of FY 2007. It is expected that the infrastructure LANL developed during FY 2007 will serve as the starting point for LANL to achieve a fully compliant quality assurance program in FY 2008 and beyond.

Completion/Validation Statements:

Measure 2.1 Manufacturing Quality: Continuous improvement in Manufacturing and Design Agency production activities

Expectation Statement:
Develop a set of Manufacturing Quality metrics to include a Cost of Nonconformance System to demonstrate a continuous improvement of the quality of manufactured products. The metrics established in FY 2007 form the baseline for improvement in later years

2.1.1 **Defined Completion:** Release of the LANS Procedures that describe the collection and publication of the LANS Manufacturing Quality Metrics System, approved by the AD for Stockpile Manufacturing & Support and release of the first Monthly Manufacturing Quality Metrics Report (including Cost of Nonconformance's), approved by the AD for Stockpile Manufacturing & Support.

LANL Completion Statement: Improved intrinsic Quality and a more focused continuous improvement process within the Weapons Program will reduce long-term costs of performance of programmatic activities, and result in better customer satisfaction. WEM-AP-0021 defines the approved Manufacturing Quality Metrics system (including a Cost of Non-conformance component). WEM-AP-0002 contains the approved Corrective Action and Continuous Improvement system for the program. Information is being tracked on a regular basis and monthly reports have been submitted as required. Tracking and trending is being developed based on accumulation of sufficient information for a valid baseline. In addition to these Weapons Program specific Qualities, Cost of Non-Conformance and Corrective Action

and Continuous Improvement systems, the laboratory LIMTS system is also used to track more general issues and corrective actions.

LASO Validation Statement: LANL has worked with LASO to develop a set of metrics that meet requirements and provides substantive data that highlights continuous improvement opportunities for LANL.

The documents provided met the quality requirements and were provided in a timely manner.

The documents provided included formalized procedures to identify tracked metrics. The first report was delivered as scheduled. Monthly reports were delivered per requirements.

Available Fee: $428,998
Fee Earned: $428,998

2.1.2 Defined Completion: Continue the monthly quality metrics and nonconformance reports following initial submittals for the remainder of FY 2007.

LANL Completion Statement: Based on approved and accepted procedures (please refer to PBI 2.1.1 closure package, PADWP: 2007-160), the monthly Manufacturing Quality metrics reports have been generated and submitted to LASO. Representative samples covering the months of June, July, August, and September are included as attachments to the completion package.

LASO Validation Statement: LANL has worked with LASO to develop a set of metrics that meet requirements and provides substantive data that highlights continuous improvement opportunities for LANL.

The documents provided met the quality requirements and were provided in a timely manner.

The LANL documents provided were the cost of non conformance processes and procedures and the first cost of non conformance formal. Further enhancements were made to the cost of non conformance and subsequent reports were received as per requirements.

Available Fee: $428,998
Fee Earned: $428,998

Measure 2.2 Implementation of a Weapons Quality Assurance Program (WQAP)

Expectation Statement: Develop, issue, and initiate implementation of an approved QA program description document (WQAP) that defines LANL's process for assuring appropriate implementation of QC-1, Revision 10.

2.2.1 Defined Completion: LANS formal submittal to LASO of the WQAP implementation plan.

LANL Completion Statement: Instituted a formal quality program compliant with QC-1 Revision 10 for the weapon design and production activities.

- WQAP Revision 0 was issued to LASO on December 22, 2006. (QA-DO-06-044)
- LASO comments were issued February 7, 2007 (QA-07-049-ABL)
- Response to comments issued March 8, 2007 (QA-DO-07-026)
- WQAP Revision A (LA-UR-07-2144) and IP submitted to LASO April 4, 2007 (QA-DO-07-038)
- WQAP Revision B (LA-UR-07-3352) and IP submitted to LASO May 30, 2007 (QA-DO-07-063)

- Updated Design Agency WQAP Implementation Plan (ADWE-Q-0002, dated May 30, 2007)
- LASO Acceptance of WQAP and IP issued June 27, 2007 (QA-07-117-ABL)

LASO Validation Statement: LANL issued formal objective evidence reflecting an approved Weapons Quality Assurance Program for the LANL Production Agency. LANL also began implementing the approved WQAP implementation plan per schedule.

Available Fee: $285,999
Fee Earned: $285,999

2.2.2 Defined Completion: Initiate implementation of the WQAP within 7 days of publishing an Implementation Plan.

LANL Completion Statement: A comprehensive WQAP, with elements covering both the Production and Design Agency functions, was implemented within the 7-day period from receipt of approval of the overall WQAP (QA-117-ABL). For reference, copies of PA and DA WQAP elements are also included (QA-DO-07-063 and ADWE-Q-0002).

LASO Validation Statement: LANL issued formal objective evidence reflecting its approved Weapons Quality Assurance Program for the LANL Design Agency. LANL also began implementation of the approved WQAP implementation plan per schedule.

Available Fee: $285,999
Fee Earned: $285,999

PBI No. 3
Reduce the Threat of Weapons of Mass Destruction, Proliferation, and Terrorism (Threat Reduction)

PBI 3: Reduce the Threat of Weapons of Mass Destruction, Proliferation, and Terrorism (Threat Reduction)

Maximum Available Fee: **$3,053,952**
Fee Earned: **$3,053,952**

NNSA Summary:

LANS met deliverables required for this PBI within the timeframes required:

- **Materials Protection Control and Accountability (MPC&A) systems at the Chemical Metallurgical Plant at SGChE (Tomsk), Seversk, Russia**
- **Third demonstration of the Advanced Recovery and Integration Extraction System (ARIES) - nuclear weapon pit disassembly and conversion technology**
- **Supported Global Nuclear Energy Partnership (GNEP) through evaluation of technology development choices for UREX + 1A**
- **Launched Cibola Flight Experiment space vehicle**
- **Designed, assembled, and tested the Mission Response Module satellite**
- **Completed 100% of technical use on Commercial Dual Use License applications**

Per LASO's request, NA-24 and NA-25 reviewed and validated contractor performance in PBIs under their ownership. In all cases, HQ NA-24 and NA-25 found that Los Alamos met the requirements and expectations of the PBIs. NA-24 provided positive validations on PBI 3.2.4 (GNEP Safeguards) and PBI 3.2.5 (Commerce Dual Use License Applications). NA-25 documented a positive validation on PBI 3.2.1 (MPC&A Upgrades at Tomsk).

Completion/Validation Statements

Measure 3.1 Multi-Site Threat Reduction Technical Capability

Expectation Statement: Through appropriate teaming between Los Alamos National Laboratory (LANL), Lawrence Livermore National Laboratory (LLNL), the Nevada Test Site (NTS), and the Pantex Plant (PX), re-establish specific capabilities to support Threat Reduction Programs.

3.1 **Define Completion:** This PBI measure has been achieved when the contractor has submitted to the NNSA LASO, by the end of the second quarter of FY 2007, a resource-loaded project plan with format and level of detail specified by LANL that includes input from Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Nevada Test Site, and Pantex and identifies the scope of work, schedule, and resources required to utilize existing facilities with appropriate Authorization Bases to provide the following capabilities:

1. Radiation Test Object (RTO) construction, testing, and evaluation.
2. Responder training, including hands-on access to Category-1 quantities of Special Nuclear Materials.
3. Radiography applicable to diagnosis of Improvised Nuclear Devices.
4. Equipment and technology development, testing and calibration using Category-1 quantities of Special Nuclear Materials.

LANL Completion Statement: Through the completion of Performance Based Incentive Measure 3.1, the Laboratory has teamed with appropriate subject matter experts and managers at the Lawrence Livermore National Laboratory, the Nevada Test Site, and the Pantex Plant to describe the activities, and their associated costs and schedules, necessary to re-establish specific capabilities to support Threat Reduction Programs. Options for performing those activities at one or more of these four sites were developed in order to provide flexibility for federal program managers and in order to make personnel at each site aware of the capabilities at other sites. This work is important to the mission of the Laboratory because it provides the necessary planning to re-establish important capabilities for the conduct of certain Threat Reduction Programs, especially in the area of nuclear emergency response. It also identifies alternative strategies for the conduct of those activities and contributes to the Laboratory's goal to facilitate improved integration of the NNSA Weapons Complex.

LASO Validation Statement: The contractor provided the NNSA with a resource loaded project plan which includes input from Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Nevada Test Site, and Pantex. The plan includes the proper scope, schedule, and resources required to utilize existing NNSA facilities in support of the Threat reduction Program. LANS PBI Completion Documentation for PBI 3.1, Multi-site Threat Reduction Technical Capability, dated April 12, 2007, was determined to be complete. LANS has coordinated and obtained the necessary input from the various sites and the appropriate high level signatures from each NNSA site to ensure that the plan is successful. It appears that there is “Defense-in-Depth” across the sites to ensure reliability in support of Threat Reduction Technical Capability. This integrated approach and high level or coordination between sites demonstrates that LANS has done an excellent job of meeting this performance expectation and it reflects very positively on the DOE NNSA and the laboratory.

Available Fee: $296,196
Fee Earned: $296,196

Measure 3.2 Nuclear Nonproliferation

Expectation Statement: Provide technical capabilities to limit or prevent the spread of Weapons of Mass Destruction (WMD) materials, technology, and expertise; eliminate or secure inventories of surplus materials and infrastructure usable for nuclear weapons; and enable the implementation of U.S. non-proliferation policy.

3.2.1 **Define Completion:** Completed Materials Protection Control and Accounting (MPC&A) upgrades at zone two for the Chemical Metallurgical Plant at SGChE in the city of Tomsk according to requirements specified by NNSA in NA-25 Statement of Work #71195-18, *Comprehensive Physical Protection System for the Chemical Metallurgical Plant of the Federal Unitary State Enterprise ‘Siberian Group of Chemical Enterprises’, Modification 1,* dated January 26, 2006, and any associated amendments documented by Contract Review Sheets accompanied by revised Statements of Work submitted by LANL and approved by NNSA/NA-25.

LANL Completion Statement: Through the completion of Element 1 of Performance Based Incentive (PBI) Measure 3.2, the Laboratory has teamed with NNSA, other DOE National Laboratories, and the Russian Federal Unitary State Enterprise Siberian Group of Chemical Enterprises (SGCheE) to complete the final FY 2007 milestone of NNSA NA-25 Statement of Work (SOW) No. 71195-18, Modification 1, dated January 26, 2006. As of this date, there are no other amendments associated with this SOW.

The SOW is part of a contract between the Brookhaven National Laboratory and SGChE. It is part of a multi-year comprehensive physical protection plan for special nuclear material stored at SGChE (also known as Tomsk) in the closed-city of Seversk, Russia, and lists work into FY 2012. Element 1 of LANL PBI Measure 3.2 requires completing work according to the

SOW. This means completing the final FY 2007 task within the SOW, because PBIs under LANL's current Performance Evaluation Plan (PEP) address FY 2007 activities.

The final FY 2007 deliverable within the SOW is described in Section 18.4 of the SOW under Deliverable 18.4.3c. On June 29, 2007, SGChE reported that Deliverable 18.4.3c was complete as shown in the entry for that date in the report entitled "PROTOCOL of U.S. MPC&A Project Team Visit to SGChE, Seversk, June 24-30, 2007", approved by the SGChE Deputy General Director and the U.S. Project Team leader on June 29, 2007. Upon completion of the Project Team visit, the NNSA/NA-25 Material Protection Control & Accounting Assurance Database was updated to report completion of the work according to PBI Measure 3 documentation requirements.

This work is important to the mission of the Laboratory because it contributes to improvements in the security of Russian special nuclear material storage at SGChE in the closed-city of Seversk, provides technical capability to the U.S. government and international community to help limit or prevent the potential spread of Weapons of Mass Destruction (WMD) materials, helps secure a large inventory of surplus materials useful for nuclear weapons, and helps enable the implementation of U.S. nonproliferation policy.

LASO Validation Statement: Performance against the PBI has been outstanding. PBI Element 3.2.1 is a priority initiative. LANL has maintained the focus and tempo of this work over the course of FY 2007. During the year, issues that arose were efficiently solved due to leadership, initiative, clear communication and flexibility in choosing appropriate tools (site visits, letters, and unscheduled phone calls, teleconferences) to facilitate coordination and cooperation with SGChE". Completion documentation for the subject measure, was has been reviewed by NA-25 for the Siberian Group of Chemical Enterprises (Tomsk-7).

Available Fee: $177,718
Fee Earned: $177,718

3.2.2 **Define Completion:** Begun qualification of Plutonium polishing processes by the end of June 2007 and has completed six qualification runs by the end of September 2007 in accordance with the *Draft Project Management Plan for Polishing of 330-kg of Plutonium Oxide*, September 2006, or any modifications to this draft plan mutually agreed to between LANL and NA-26.

LANL Completion Statement: Through the completion of PBI 3.2.2, the Laboratory has teamed with National Nuclear Security Administration and Shaw AREVA MOX Services (SAMS) to begin qualification of the technical processes for polishing Plutonium Oxide through the completion of six process qualification runs.

Completion evidence includes the most recent modification of the draft Project Management Plan (PMP) for this effort that is referred to in the PBI Measure 3.2.2 Completion Definition. This plan (Project Management Plan for the Multi-Year Production of 330-kg Polished PuO2, Rev. 0, released February 7, 2007) describes the scope of the process qualification phase of the project, the related Work Breakdown Structure element (WBS 1.05), and the milestone to begin qualification runs. Completion of the first six qualification runs is not an explicit milestone in the PMP but was defined for the FY 2007 Performance Evaluation Plan for LANS.

Additional completion evidence contains a series of additional attachments that document the completion of PBI 3.2.2, beginning with the June 7, 2007 approval to start qualification runs and concluding with the project leader's September 25, 2007 memorandum submitting the "10-kg Blending and Sampling Data Sheet" that documents the completion of the first six qualification runs. The "10-kg Blending and Sampling Data Sheet" is not included as evidence because it contains Unclassified Nuclear Information material.

This work is important to the NNSA and the mission of the Laboratory because it provides technical capability to the U.S. government to help secure inventories of surplus nuclear material through the conversion of weapons-grade plutonium into a component of nuclear reactor fuel. Completion of this measure also directly supports the implementation of U.S. non-proliferation policy and supports important government/private sector collaboration.

LASO Validation Statement: Completion documentation reviewed by the LASO Mission Execution Manager is found to be acceptable and in accordance with the expectation statement.

Two milestones for satisfying the requirements of PBI 3, Measure 3.2.2 are identified in Section 4 of the *Draft Project Management Plan for Polishing of 330-kg of Plutonium Oxide, September 2006.* They are (1) Begin Qualification Runs June 2007, and (2) Aqueous Processing for Qualification Run Lot # 1 Complete August 15, 2007. The completion documentation supports accomplishment of these milestones.

Documentation indicates MOX services granted the approval necessary for LANS to proceed with the qualification runs for Plutonium Oxide polishing on June 7, 2007 with formal start of the Qualification phase of the Project on June 11, 2007.

Documentation contains a copy of the blending and sampling data sheet for Lot #1 dated August 27, 2007 demonstrating completion of the first six Qualification runs and pictures of the three welded 3013 cans containing Lot#1.

This work has been completed in accordance with the required Draft Project Management Plan.

Available Fee: $355,436
Fee Earned: $355,436

3.2.3 **Define Completion:** Started by the end of FY 2007 the 3rd Advanced Recovery and Integrated Extraction System (ARIES) demonstration according to the requirements contained in *Pit Disassembly and Conversion Integrated Design Support Test Plan*, *Rev.* June 2, 2006.

LANL Completion Statement: Through the completion of PBI 3.2.3, the Laboratory has teamed with National Nuclear Security Administration, Washington Group International, Washington Savannah River Company, and the Department Of Energy, Office of Fissile Materials Disposition to continue demonstration of technical processes suitable for a future Pit Disassembly and Conversion Facility (PDCF) through integrated operation of the ARIES line that, in turn, demonstrates the ability to disassemble nuclear weapons primaries and to convert the extracted Special Nuclear Material (SNM) into forms suitable for future disposition.

Evidence attached to the Completion Package contains the most recent modification of the draft Project Management Plan (PMP) for this effort that is referred to in the PBI Measure 3.2.3 Completion Definition. It was anticipated that this multi-organization plan *(Pit Disassembly and Conversion Integrated Design Support and Test Plan, Rev. 2)* would be released in June 2006, but it now carries an August 2007 date. Footnote 9 (page 69) of section 1.8.2 (page 8) defines the 3rd ARIES Demonstration by the operation of the ARIES line (PDIS, DMO, ICAN, and NDA) for oxide production. Section 1.8.2 also specifies that the execution of an approved Experimental Test Plan (ETP) on a PF-4 ARIES module constitutes work performed to support the 3rd ARIES demonstration. Therefore, the 3rd ARIES demonstration is defined as beginning upon the execution of the first ETP involving PF-4 equipment.

Additional evidence contains the September 6, 2007 notification from the project leader that execution of the direct metal oxide (DMO) furnace began as part of the DMO ETP. The start of the ETP initiated the start of the 3rd ARIES demonstration.

This work is important to the National Nuclear Security Administration and the mission of the Laboratory because it provides technical capability to the U.S. government to help secure inventories of surplus nuclear material through the conversion of weapons-grade plutonium into a component of nuclear reactor fuel and because it demonstrates the technology that could be used in a future Pit Disassembly and Conversion Facility. Completion of this measure also directly supports the implementation of U.S. non-proliferation policy and supports important government/private sector collaboration.

LASO Validation Statement: Completion documentation reviewed by the LASO Mission Execution Manager is found to be acceptable and in accordance with the expectation statement.

The *Draft Pit Disassembly and Conversion Integrated Design Support and Test Plan, Revision August 2, 2007* briefly defines the ARIES third demonstration by the operation of the ARIES line for oxide production. Documentation includes a statement made by the project manager that the Aries third demonstration began the week of August 27, 2007 when the first experimental test plan involving PF-4 equipment began, i.e. the first in the direct metal oxidation furnace. The first test in the direct metal oxidation furnace is reported in a September Monthly Project Meeting and on a classified process traveler. This work has been performed against a Draft Project Management Plan.

Available Fee: $355,436
Fee Earned: $355,436

3.2.4 **Define Completion:** Supported the Global Nuclear Energy Partnership (GNEP) through evaluation of safeguards technology development choices for UREX+1a. This evaluation will be delivered in a LANL report meeting the technical requirements of Statement of Work ASI-120B and submitted to NNSA/NA-243 on or before the end of the second quarter of FY 2007 or according to any modified schedule and technical content mutually agreed to between LANL and NA-243.

LANL Completion Statement: The purpose of this PBI element was to provide a report summarizing the results of MCNP modeling of key measurement locations in a UREX+ reprocessing facility. Detailed calculations were done which evaluate the proposed neutron and gamma measurements. This report was sent to NA-243 and presented during the week of October 16, 2006 at the IAEA Symposium. This deliverable completes PBI 3.2.4.

LASO Validation Statement: NA-243 provided the following PBI 3.2.4 evaluation by email on July 11, 2007. “We’ve reviewed the package, and agree with LANL’s claim that they’ve met their deliverables for contract fee award, for their FY 2007 Performance Based Indicator for Threat Reduction, PBI 3.2.4, Support Global Nuclear Energy Program (GNEP) through Evaluation of Technology Development Choices for UREX+1A”.

The Laboratory has met the completion criteria for this performance measure.

Available Fee: $204,000
Fee Earned: $204,000

3.2.5 **Define Completion:** Complete 100% of technical reviews on Commerce Dual Use License applications for nuclear controlled items within 30 days.

LANL Completion Statement: Through the completion of Element 5 of PBI Measure 3.2, the Laboratory has teamed with NNSA and the U.S. Department of Commerce to complete within

30 days of receipt technical reviews of Dual Use License applications. All such requests received on or before September 28, 2007, have been addressed and all were completed within 30 days of receipt.

The U.S. Government tracks, in a restricted-access database, the details of all license requests that are given to Los Alamos and other review providers. The contents of that database cannot be attached to this document. The attachment to the Completion Form is a LANL-generated summary of our export license reviews throughout FY 2007 and shows that the Laboratory received 64 requests for technical reviews and that all reviews were completed in less than 30 days with more than half of the reviews accomplished in less than 10 days. DOE/NNSA/NA-243 is the Laboratory's direct sponsor for this work and can furnish independent confirmation of the completion of this incentive measure.

This work is important to the NNSA and the mission of the Laboratory because it provides technical capability to the U.S. government to help limit or prevent the potential spread of Weapons of Mass Destruction (WMD) materials by providing confidence that legitimate export items will not contribute in a material way to potential proliferators. Completion of this measure also directly supports the implementation of U.S. non-proliferation policy.

LASO Validation Statement: The work activities, as defined in PBI 3.2.5, have been completed and validated as completed by the HQ NNSA program sponsor, NA-243. On October 16, 2007, NA-243 provided a confirmation by concurring "with the performance as stated in the PBI completion document." In addition, NA-243 validated additional information supporting the quantitative backup, including a chart documenting license applications completed and a list of individual cases referred and returned in FY 2007. NA-243 provided a positive response and validated the performance information on October 26, 2007.

Available Fee: $118,479
Fee Earned: $118,479

Measure 3.3 Nonproliferation Research and Development

Expectation Statement: Develop and deploy new technologies to improve U.S. capabilities to detect and monitor nuclear weapons production and testing worldwide.

3.3.1 **Define Completion:** Designed, assembled, and tested the Mission Response Module (MRM) Engineering Demonstration Unit by the end of FY 2007. Demonstrated actual operations and initial compatibility with Lockheed-Martin spacecraft in their EDU fixturing in a manner consistent with the Lifecycle Plan for LA-040-MRM.

LANL Completion Statement: Through the completion of PBI 3.3.1, the Laboratory has teamed with NNSA, DOD, and the Lockheed-Martin Space Systems Company, Military Support Programs, to complete the Engineering Demonstration Unit (EDU) of the LANL Mission Response Module (MRM) and to demonstrate actual operations and initial compatibility with Lockheed-Martin spacecraft in their EDU fixturing in a manner consistent with NNSA/NA-22 Lifecycle Plan for LA-040-MRM. The Lifecycle Plan requires the spacecraft integrator, Lockheed-Martin, to verify that the LANL MRM meets all form, fit, and function requirements.

Paragraph two of the MRM-LANL Prototype Acceptance Letter contains the Lockheed-Martin Payload Engineering team's certification ". . . that the MRM EDU meets all form, fit, and function requirements". In addition, the letter contains Lockheed-Martin's concurrence that the events required by PBI Measure 3.3.1 have properly transpired. Finally, the Lockheed-Martin letter notes that the EDU was delivered earlier than scheduled and commends the LANL MRM team for a job well done.

This work is important to NNSA/NA-22, the DOD, and to the mission of the Laboratory,

because it provided demonstration hardware of new technology that improves U.S. capabilities to detect and monitor nuclear weapons production and testing worldwide. It is also an important step in the payload acceptance process leading to the production of two flight units during FY 2008. Finally, it continues a productive partnership between DOE/NNSA and DOD and between LANL and Lockheed-Martin.

LASO Validation Statement: LASO has reviewed the Lockheed-Martin letter, and concurs that LANS has completed this measure.

Available Fee: $444,294
Fee Earned: $444,294

3.3.2 **Define Completion:** Delivered the fully integrated Cibola Flight Experiment (CFE) space vehicle to the launch site contractor for form, fit, and function integration that satisfies *NNSA/NA-22 Project Lifecycle Plan, Cibola Flight Experiment, Life Cycle Input FY 2007*, for Project No. LA99-RF-CFE-PD06, including any changes to this plan that has resulted from a NNSA-approved change control process.

LANL Completion Statement: The Cibola Flight Experiment is a demonstration payload that will advance RF remote sensing technologies, addresses challenging problems related to detection, location and analysis of the global proliferation of nuclear weapon technology. Los Alamos National Laboratory has built the Cibola Flight Experiment (CFE) as a receiver with a reconfigurable processor payload intended for a Low Earth Orbit system. CFE is an advanced space demonstration of RF technology utilizing super-computer speed, onboard data processing for advanced space demonstrations with proliferation applications. CFE will demonstrate the first practical application of RCC technology in a space environment with the potential for technology spiral insertion into operational future generation satellites. In the on-board data processor, CFE uses commercial, reconfigurable FPGA technology to detect and measure impulsive events that occur in a complex background. CFE will demonstrate a responsive, flexible, multi-mission RF payload with continuous data processing. 000 Space Test Program (STP), based on high ranking by the 000 Satellite Experiment Review Board (SERB), is providing the launch lift for the CFE payload, currently scheduled for March 8, 2007.

The Cibola Flight Experiment has been delivered to the launch contractor, has met requirements for form, fit and function integration, and has been integrated on to the launch vehicle, which currently sits ready for launch. These facts, and the documentation providing evidence thereof, complete PBI 3.3.2.

LASO Validation Statement: Based on LASO COR review and NA-22, it has been determined that the measure has been completed and approved.

Available Fee: $510,000
Fee Earned: $510,000

Measure 3.4 Non-Proliferation Rapid Response Capability

Expectation Statement: Provide effective and rapid response to emergent non-proliferation and international security requirements stemming from surprising events, high-level initiatives or agreements, or from unanticipated technological or political opportunities.

3.4 **Define Completion:** This PBI has been achieved when the contractor has, at least once during FY 2007, received notification from National Nuclear Security Administration (NNSA) that a surprising event, high-level initiative or agreement, or unanticipated technological or political opportunity has occurred from which non-proliferation and international security requirements have emerged and has satisfactorily responded to mutually-agreed, written work scope and schedule performance requirements associated with that event.

LANL Completion Statement: Through completion of this PBI the Laboratory provided an effective and rapid response to a non-proliferation and international security requirement stemming from the surprising, purported North Korean nuclear test of October 9, 2006, and the on-going Six-Party Talks in Beijing, China, intended to curb North Korean nuclear proliferation. This is important to the Laboratory because it allowed the Laboratory to perform aspects of its fundamental national security mission by applying its nuclear event assessment and analysis capabilities to assist the NNSA and by providing the sole technical expertise to the U.S. Government delegation to the Six Party Talks. Completion of this PBI Measure is important to the NNSA because it has allowed the Administration to play an important role in evaluating the purported nuclear test and has assisted in efforts intended to curb the proliferation of nuclear weapons into the Korean peninsula.

LASO Validation Statement: Per LASO technical review, the PBI Completion Documentation for PBI 3.4, Non-Proliferation Rapid Response Capability, dated August 14, 2007 has been reviewed and the documentation is essentially complete and accurate. The performance expectation was for LANS to provide effective and rapid response to emergent Non-Proliferation and international security requirements from surprising events, high level initiatives or agreements, or from unanticipated technological or political opportunities, and at least once within FY 2007. Based on review of the letter communications between NNSA and LANS, and the additional information provided, LANS has more than satisfied this important initiative. In addition to providing effective and rapid response in FY 2007, LANS has assisted the NNSA in providing sole technological expertise to the U.S. Government delegation to the Six Party Talks. The outstanding efforts by LANS has allowed the NNSA to play an important role in evaluating the purported North Korean nuclear test therefore minimized the spread of nuclear weapons into the Korean peninsula. In short, LANS has performed at a level of excellence in this area.

The Laboratory has met the completion criteria for this performance measure.

Available Fee: $592,393
Fee Earned: $592,393

PBI No. 4
Nuclear and High Hazard Operations

PBI 4: Nuclear and High Hazard Operations

Maximum Available Fee: **$5,228,756**
Fee Earned: **$3,975,086**

NNSA Summary:

LANS made significant progress in implementing the nuclear safety programs at the Laboratory. The approach to Formality of Operations was well thought out and focused LANS resources on important nuclear safety improvements. LANS achieved a 30% decrease in ORPS reportable occurrences over the rating period which indicates improvement in operating practices. Safety Basis improvements were made that strengthened a corporate approach (centralization), and improvements in timeliness and quality of submittals was evident.

Opportunities for improvement remain for management attention needed to implement Formality of Operations on the agreed to schedule, to fully complete DSA submittals (not all were delivered as planned), and more importantly to effectively implement the controls identified, which is still a challenge at the Laboratory. Currently, Readiness Review is not effectively implemented and continues to need management attention.

Finally LANS needs to improve coordination and planning with Programs, Projects and Environmental Operations to ensure that Safety Basis and Readiness activities are fully planned for in support of programs. There were several instances where lack of integration were evident causing program delays or work around to be developed.

Completion/Validation Statements:

Measure 4.1 Successfully develop and implement formality of Nuclear Safety
Conduct of Operations is improved at LANL through implementation of the Conduct of Operations, Maintenance, and Engineering Manuals, as measured by Conduct of Operations Performance Index.

Expectation Statement: Complete the Conduct of Operations, Maintenance and Engineering Manuals. Complete and Implement Facility specific implementation plans. Develop and implement a Conduct of Operations Performance Index, reporting on specific indices on a regular basis, implementing improvement strategies.

4.1.1 **Define Completion:** Completed and LANL has approved the Conduct of Operations Program (includes Conduct of Operations Manual, Conduct of Maintenance Manual, and Conduct of Engineering Manual) on October 31, 2006.

LANL Completion Statement: In July 1990, DOE issued Order 5480.19, "Conduct of Operations Requirements for DOE Facilities." Conduct of Operations is a philosophy of working in a formalized, disciplined manner with an aim to achieving operational and programmatic excellence. Conduct of Operations, Conduct of Engineering, Conduct of Maintenance, Training and a formal method for research and development properly integrated became the foundation of LANL's safety culture. Applying the formality and discipline of Conduct of Operations will enable Laboratory employees to achieve enhanced safety, security, environmental compliance, quality, consistency, and excellence. The Conduct of Operations Manual, the Conduct of Maintenance Manual, and the Conduct of

Engineering Manual were transmitted to LASO/NNSA on October 27, 2006, completing the requirements of PBI 4.1.1.

LASO Validation Statement: LASO has completed its due diligence review of LANS submittal: Integrated Formality of Operations Manual. The LASO review included our projects maintenance and operations groups, no deficiencies were identified. The documents were submitted on time and are considered complete.

Available Fee: $210,000
Fee Earned: $210,000

4.1.2a Define Completion: Completed and LANL has approved 10 individual FOD Formal Project Management Plans on January 24, 2007.

LANL Completion Statement: All 10 FOD Formality of Operations Project Management Plans has been developed and approved by LANL by January 24, 2007. Plans were submitted to LASO January 23, 2007.

LASO Validation Statement: LANS submitted the Formality of Operations FOD Implementation Plans (Conduct of Operation, Conduct of Maintenance, and Conduct of Engineering) on January 24, 2007 and LASO reviewed them for completeness and quality accepting them on June 29, 2007. The submittals were timely and met expectations.

Available Fee: $105,000
Fee Earned: $105,000

4.1.2b Define Completion: Quarterly project reviews will take place with LASO in March, June, and September 2007 to report on project milestones and progress.

LANL Completion Statement: Briefing materials from the October 2 presentations to LASO continue to show LANL's progress on the approved plan to improve formality of operations, 100 interim milestones were completed this quarter and > 400 for FY2007. One facility (EWMO) requested level 1 change control.

LASO Validation Statement:

1st Quarter: Change control was approved to eliminate first quarter review. Fee was allocated over next three quarters.

2nd and 3rd Quarters: Review of submitted evidence packages, routine interaction with responsible LANS personnel, and field observations by Facility Representatives and Subject Matter Experts support the assertion that Formality of Operations is being implemented at LANL according to the approved plans and schedules. Minor schedule perturbations have been experienced, but are to be expected in an effort of this magnitude and should have no effect on the final result.

4th Quarter: Formal effectiveness reviews of implementation by LANS are scheduled to start early in FY 2008. Formal Level 1 change control submissions by Environmental Management and Waste Operations imply issues exist with the timely processing of change control requests by LANS; however, the measure was met.

Available Fee: $94,854
Fee Earned: $94,854

4.1.3 Define Completion: Populated the Conduct of Operations Performance Index with 2006 baseline data by October 31, 2006.

LANL Completion Statement: The purpose of PBI 4.1.3 is to provide the FY 2006 baseline data for the Conduct of Operations Performance Index utilizing ORPS Components and Criticality Infractions for measuring Conduct of Operations performance. The baseline data was independently verified against 47 ORPS and criticality components. This baseline will be used to identify and measure improvement in Conduct of Operations in FY 2007 per PBI 4.1.4. The Conduct of Operations Performance Index was transmitted to NNSA/LASO on October 26, 2006, to complete PBI 4.1.3.

LASO Validation Statement: LANS successfully completed the population of the Conduct of Operations Performance Index with 2006 baseline data by October 31, 2006 through the submittal date and signed on October 26, 2006. LASO finished its review and approved the document on November 13, 2006.

Available Fee: $105,000
Fee Earned: $105,000

4.1.4 **Define Completion:** Measured and reported to LASO on performance indices quarterly (March, June, and September 2007). Has shown that the Conduct of Operations Index has improved; by 30% in FY 2007 over 2006 baseline data.

LANL Completion Statement: LANL reports 31.6% improvement in the Conduct of Operations Index Improvement for FY07. This improvement is one indicator of the effectiveness of Formality of Operations implementation in FY 2007 and represents additional oversight of the FODs.

LASO Validation Statement: With the approval on October 17, 2006 of the most recent exemption request by LASO, LANS accomplished in FY 2007 a greater than 30% reduction in the number of ORPS-reportable incidents that comprise the Conduct of Operations Index compared to the FY 2006 baseline. This achievement has been verified by a review of submitted documentation and monthly status reports, and by interaction between LASO and cognizant LANS personnel on a routine basis.

Available Fee: $731,779
Fee Earned: $731,779

4.1.5 **Define Completion:** Completed annual verification and validation of 100% SDDs for safety class SSCs by Cognizant System Engineers, with discrepancies and deficiencies identified.

LANL Completion Statement: As part of the Conduct of Engineering implementation, LANL completed the annual verification and validation of 100% SDDs for safety class SSCs, with discrepancies and deficiencies identified. A total of 29 SC SSC-SDDs were identified in the strategy document and have been completed. This is part of Conduct of Engineering implementation and will provide a technical baseline to manage configuration and change requests.

LASO Validation Statement: Approximately 50% of the SC-SDD's were verified by detailed review and filed walk-downs with no major issues identified. The rest of the documents were reviewed to ensure content and format were adequate and they were determined to be adequate. All documents were found to be of substantially better quality than those of years past. Only SC-SDD's were considered deliverables.

Available Fee: $365,890
Fee Earned: $365,890

4.1.6 **Define Completion:** Completed annual verification and validation of 100% SDDs for safety class SSCs by Cognizant System Engineers, with discrepancies and deficiencies corrected.

LANL Completion Statement: As part of Conduct of Engineering implementation, LANL has completed the annual verification and validation of 100% SDDs for safety class SSCs and has determined that, of the discrepancies and deficiencies identified (in PBI 4.1.5), no significant deficiencies were discovered during the SDD update and development process. The USQ process was used to evaluate the deficiencies. All safety class systems are operating within the requirements of the current safety basis. Conduct of Engineering procedures were used to verify technical baseline documentation and the USQ process. These SC SDD reviews were given priority in FY 2007.

LASO Validation Statement: Safety Class SDDs have been reviewed and determined that gaps and inconsistencies identified to complete or correct the SDD (or related documentation such as drawings) have been done. In the case of more in depth actions such as design reconstitution of systems, actions will have to be taken on a prioritized basis, using risk to the nuclear safety envelope as the primary factor. Thus the key deliverable for FY 2007 of updated/corrected SC-SDDs was satisfactory. There remains a significant amount of work to correct both system and documentation deficiencies, for which the revised SDDs will be the basis.

Available Fee: $274,417
Fee Earned: $274,417

4.2 Safety Basis and Criticality Safety

As part of the pre-existing conditions, before contract change, LANS found inadequacies in LANL Nuclear and High Hazard Facility Safety Basis (10CFR830 Compliance). The existing LASO-approved nuclear and high hazard safety bases were old and disjointed. Frequent discoveries of errors resulted in Potential Inadequacies in Safety Analyses (PISAs), facility interruptions while positive unreviewed safety questions (USQs) were addressed downtime while LASO approved the corrected documents, and very cumbersome Safety Bases Lists as these many temporary corrections become part of the Authorization Agreements. In addition, prior to June 2006, LANL had several Nuclear Criticality Safety violations. NNSA conducted an assessment (NA-117 "Technical Evaluation of Nuclear Criticality Safety Program," report published December 8, 2005) that resulted in three Safety Recommendations with a required 90 day response for continued operations. LANL responded per the 90 day requirement satisfactorily and initial technical issues were resolved, but many high, medium, and low priority remediation plans will not be complete until FY 2009.

For FY 2007, improvement plans, with associated milestones, for both Safety Basis and Criticality Safety were developed. These milestones were met or underwent change control with LASO approval. LASO has acknowledged improvement in both of these areas with ongoing improvements taking place in FY 2008.

Measure 4.2 Improve Safety Basis and Criticality Safety Performance
LANL will develop and implement a safety basis management system through a Laboratory wide Safety Basis Improvement Project. LANL will also re-baseline and implement the Criticality Safety Improvement Plan.

Expectation Statement: Develop a Safety Basis Improvement Project to improve safety basis performance. Develop and implement institutional safety basis procedures. Develop compliant DSAs for nuclear facilities and projects at Los Alamos. Maintain Authorization Agreements under a formal configuration management system. Implement an electronic repository for unclassified safety basis documentation.

4.2.1a Define Completion: Completed and the LASO COR for NHHO has approved the baseline of Safety Basis Improvement Project (SBIP) by December 15, 2006.

LANL Completion Statement: Improvement of safety basis performance across the

Laboratory is essential to LANL operations. As part of the Safety Basis Improvement Project (SBIP), the SBIP baseline is the foundation for development of Safety Basis Procedures. This submittal provides objective evidence that the SBIP baseline has been completed and approved by NNSA/LASO on December 15, 2006, as required in PBI 4.2.1a.

LASO Validation Statement: Completion of this fee-bearing element has been accomplished.

Available Fee: $60,000
Fee Earned: $60,000

4.2.1b Define Completion: Quarterly projects reviews with LASO will take place in December 2006, March 2007, June 2007, and September 2007 to report on project milestones and progress.

LANL Completion Statement: LANL continued to document progress against the approved baseline of the Safety Basis Improvement Project (SBIP) in its fourth quarter review, October 2, 2007. Fourth Quarter milestone summaries were completed and submitted. The training of analysts on the new safety basis manual is complete and development of qualification cards is in progress.

LASO Validation Statement:

1st Quarter: LANS completed the first quarterly review for the Safety Basis Improvement Project (SBIP), LANS is on track to complete SBIP (with appropriate change control) for actions slated in FY 2007.

2nd Quarter: LANS completed the second quarterly review. LANS accomplished appropriate change control to their improvement plan to complete all originally planned action within the Fiscal Year.

3rd Quarter: Quarterly Projects Reviews were performed on time with appropriate information presented. LANS completed milestones on time or within their change control authority. No requests for LASO Change control were required. Safety Basis Improvement Plan progressed as planned and expected.

4th Quarter: Quarterly Projects Reviews were performed on time with appropriate information presented. LANS completed milestones on time or within their change control authority. No requests for LASO Change control were required. Safety Basis Improvement Plan progressed as planned and expected.

Available Fee: $209,080
Fee Earned: $209,080

4.2.2 Define Completion: Completed and LANL has approved Safety Basis Procedures per the baselined Safety Basis Improvement Project Baseline.

LANL Completion Statement: Submitted are the improved and compliant procedures that guide the safety basis process. These will ensure long-term safe and compliant operations within the Laboratory nuclear facilities.

LASO Validation Statement: The Safety Basis Improvement Plan was developed and safety basis procedures were prepared and implemented. The electronic repository of unclassified safety basis documents was developed and accessible.

Available Fee: $78,405
Fee Earned: $78,405

4.2.3 **Define Completion:** DSA Quality: Individual 3009 compliant DSAs will be submitted to LASO for approval, per a LASO LANL agreed upon prioritized list.

LANL Completion Statement: There has been steady improvement in the quality of Safety Basis documents delivered to NNSA over the performance period. The evidence for this improvement includes recent documents that have been approved:

- RANT page changes - approved June 19, 2007
- NES DSA/TSR - approved June 28, 2007
- LANSCE pRad and 1L Target Experiments - approved June 14, 2007 and July 18, 2007, respectively
- WCRRF BIO Addendum/TSR - approved July 20, 2007
- Seismic JCO - approved July 31, 2007
- TSD TSR revision - approved December 1,2007
- PISA Closures:
  - MDA-C Crane Usage - approved July 20, 2007
  - Type A Containers at Area-G and RANT - approved July 31, 2007
  - Recession of Laboratory Policies - approved August 8, 2007
  - WETF Nitrogen Dewar - approved September 5, 2007
  - Closure packages for remaining PISA backlog were also submitted for approval

In addition, the lessons learned from the initial submittal of the TA-55 DSA/TSR and subsequent workshops have been incorporated into the most recent submittals, which are awaiting NNSA review and approval. These include:

- DARHT SAD submitted August 28, 2007
- CMR ITSRs submitted September 4, 2007
- RLW PDSA submitted September 24, 2007
- WETF DSA/TSR submitted September 28, 2007
- TA-55 DSA/TSR submitted September 28, 2007

Several submittals planned for FY 2007 were delayed to ensure quality documents are delivered to NNSA for their approval. LANL management made conscious decisions to delay the following submittals since either technical issues remained to be resolved or resources for adequate operational reviews were diverted to ensure safe, compliant start-up of key risk reduction facilities (WCRRF and RANT):

- LANSCE SAD delayed to 1Q FY 2008 - technical issues with 1L Target Accident
- MDA-B DSA/TSR delayed to 1Q FY 2008 - technical issues with potential for explosive compounds
- Area-G DSA/TSR delayed to 1Q FY 2008 - resources diverted for needed reviews
- RANT DSA/TSR delayed to 1Q FY 2008 - resources diverted for needed reviews
- RLW DSA/TSR delayed to 1Q FY 2008 - resources diverted for needed reviews

In summary, the quality of Safety Basis documents delivered to NNSA for approval has steadily improved. In addition, LANL management demonstrated its commitment to delivery of quality documents by delaying several key submittals.

Final Scorecard - 9 of the 11 Safety Basis Submittals that went through LASO formal review meet the Quality PBI element.

LASO Validation Statement: Of the 13 scheduled facility DSA upgrades, 7 were delivered during the year, 4 of which were delivered in time to review relative quality. LANS submitted 6 project PDSAs, 5 of which were delivered in time to review for quality. Of the 13 total DSAs and PDSAs submitted during the year, LASO was able to complete quality reviews on 11 DSAs. Nine (9) of these DSAs met the quality standard and required little or no rework by LASO. Two (2) DSAs did not meet the minimum quality standard and earned no fee. LANS did not submit in time for LASO to complete a quality review 1 Facility DSA and 1 Project DSA and did not submit for review (at all) 7 Facility DSAs so LASO was not able to review

these for quality. Of 19 expected submittals LASO completed quality reviews on 11 DSAs of which 9 earned full fee. (9/19 passed the quality review earning full fee which equates to 47.4% of fee.)

Available Fee: $591,148
Fee Earned: $280,204

4.2.4 Define Completion: DSA Schedule: Delivered ALL FY 2007 and FY 2008 compliant DSAs (per LASO-LANL agreed upon list) during FY 2007 will earn full fee.

LANL Completion Statement: Significant progress was made in preparing and submitting Safety Basis documents to NNSA. While the schedule for some submittals was not met, lessons learned in resolving schedule impacts and managing change is being incorporated into FY 2008 schedules. The original LANL/LASO approved list of annual updates and upgrades included 21 items for FY 2007. This list was consolidated into 12 items by first combining 10 NES items into 2 (NES and MDA-B) and then combining DVRS with Area-G. For the 12 DSA/SAD upgrade/update submittals remaining on the LANL/LASO approved list, the status of each is as shown below:

- NES submitted and approved
- TA-18 submitted and approved
- WCRRF submitted and approved
- TSD submitted and approved
- TA-55/PF-4 submitted
- TA-55/SST submitted (letter documenting no change)
- WETF submitted
- Area-G delayed as noted above
- RANT delayed as noted above
- RLW delayed as noted above
- LANSCE delayed as noted above
- MDA-B remediation submittal delayed, site covered by compliant NES Documents

The total is 7 of 12 planned submittals within the performance period. In addition, the DARHT SAD (included in the approved Safety Basis Improvement Plan, but not on the LANL/LASO approved list), the CMR ITSRs, and several document revisions were prepared and submitted during the period.

Safety Basis documents to support new projects/activities were all submitted as planned within the period excepting those that were removed from the PBI list (via change control) due to project delays. Submittals include:

- NMSSUP draft PDSA (Title 1) submitted and approved
- TA-55 Reinvestment PHA (TRP-1) submitted and approved
- TA-55 Interim Radiography PDSA submitted and approved
- TA-55 Interim Radiography DSA submitted and approved
- TRU Waste Facility PHA submitted and approved
- TA-50 RLW Replacement draft PDSA submitted

The total is 6 of 6 planned submittals within the performance period.

Final Scorecard - Overall performance on this element is 13 of 18 submitted.

LASO Validation Statement: Of the 13 scheduled facilities DSA upgrades, 7 were delivered on schedule, and 6 of 6 project PDSAs were delivered on schedule. Several DSAs were not delivered because difficult technical issues were identified during the DSA preparation process. LANS missed the deadline in order to provide a defensible analysis.

*(*13/19 DSAs were submitted as scheduled at a 68.4% completion rate.) Fifty Percent (50%) of fee has been earned.

Available Fee: $709,379
Fee Earned: $354,690

4.2.5a Define Completion: Developed and submitted a new Authorization Agreement Procedure by January 30, 2007, to include establishment of a new configuration control Safety Basis List for each facility.

LANL Completion Statement: In support of this measure, LANL has developed the Authorization Agreement procedure, "ISO 112-5 rev 0, *Authorization Agreement and Safety Basis Document List*' which LANUNHHO approved on January 12, 2007. The purpose of this procedure is to define the creation, review, approval, and other administrative processes for a facility's Authorization Agreement that sets forth the basis on which the NNSA authorizes operations in LANL facilities. It also creates the configuration control requirements for the Safety Basis Document List. This deliverable was transmitted to NNSAILASO on January 19, 2007, to complete PBI 4.2.5.

LASO Validation Statement: LASO Safety Operations and the Integrated Operations Team reviewed the Authorization Agreement procedure and found no deficiencies. The submittal was delivered in a timely manner and met the PBI requirements.

Available Fee: $60,000
Fee Earned: $60,000

4.2.5b Define Completion: [Authorization Agreements are] updated (if required) and submitted to NNSA prior to declaration of startup/operation of new missions/projects/processes (weighted equally per submittal).

LANL Completion Statement: The AA procedure is being used to properly authorize and ensure the safety basis is in place and functional prior to authorizing operations. This is appropriate and provides proper validation and oversight of nuclear and hazardous facility operations.

LASO Validation Statement: LANS provided updated authorization agreements for DOE approval mostly in the 4th quarter of the FY. They utilized the Safety Basis Document List appropriately. Submittals were timely and of sufficient quality. This process is now under continuous improvement.

Available Fee: $209,080
Fee Earned: $209,080

4.2.6 Define Completion: An electronic repository of unclassified current Safety Basis documents, under change control, accessible by LASO, is operational by May 31, 2007.

LANL Completion Statement: The safety basis document list has been established, on schedule, and is available on-line and accessible to LASO personnel.

LASO Validation Statement: LANS demonstrated the system on May 30, 2007 (trained LASO for access), the web site is “loaded” with the appropriate documents and meets the expectations of this PBI.

Available Fee: **$52,270**
Fee Earned: $52,270

4.2.7 Define Completion: Implementation of the Criticality Safety Program Manual by November 30, 2006.

LANL Completion Statement: In October 2005, NNSA conducted a Technical Evaluation of the Los Alamos Nuclear Criticality Safety (NCS) program. Deficiencies at the institutional and organizational level were identified. As a result, the LANL NCS program developed a Program Improvement Plan with 15 main actions designed to address the noted deficiencies. One of these actions was the development of the ISD130-1.0, Nuclear Criticality Safety Program Manual, issued by the Laboratory director on July 3, 2006, with an effective date of November 9, 2006. This submittal provides objective evidence that the Responsible Associate Directors and corresponding Facility Operations Directors completed implementation of the Criticality Safety Program Manual in their facilities by November 30, 2006, as required in PBI 4.2.7.

LASO Validation Statement: The Criticality Safety SME has reviewed the LANS submission for completion of PBI 4.2.7, including the clarification memo dated February 12, 2007. LASO has also performed a due diligence review of LANL's evidence file, and concurs with their assessment of completion of this measure.

Available Fee: $300,000
Fee Earned: $300,000

4.2.8a Define Completion: Completed and the LASO COR for Safety Operations has approved the re-baseline of the Criticality Safety Improvement Plan by December 22, 2006.

LANL Completion Statement: In October 2005, NNSA conducted a review of the LANL criticality safety program and identified three Safety Recommendations. In response to the findings of this review, LANL developed a Criticality Safety Program Improvement Plan (PIP). In October 2006, the NNSA Chief of Defense Nuclear Safety led a team to validate LANL progress towards closure of these Safety Recommendations. As a result of these events, LANL was required to re-baseline the Criticality Safety PIP. LANL submitted the re-baselined Criticality Safety PIP to NNSA on December 11, 2006, and NNSA approved the plan on December 21, 2006, completing PBI 4.2.8a.

LASO Validation Statement: Completion of this fee-bearing element has been accomplished in accordance with expectations and payment of allocated fee is approved.

Available Fee: $60,000
Fee Earned: $60,000

4.2.8b Define Completion: [Criticality Safety] Quarterly project reviews with LASO will take place in December 2006, March 2007, June 2007, and September 2007 to report on milestones and progress.

LANL Completion Statement: LANL continues to make progress on the approved plan to improve performance in Safety Basis and Criticality Safety as documented in the quarterly project reviews. As a result, we will ensure long-term safe and compliant operations within Laboratory nuclear facilities.

LASO Validation Statement: 1st Quarter: LANS completed the 1st quarter review, and the improvement plan is tracking to schedule, LANS is actively engaged in managing the scheduling and completing criticality safety improvement plan actions on time.

2nd Quarter: LANS completed all actions needed to relative project milestones supporting the Critical Safety Improvement Plan and briefed status at the 2nd quarter review.

3rd Quarter: LANS met all milestones within the PIP expected for 3rd quarter FY 2007. The quality of work performed met expectations.

4th Quarter: Quarterly project reviews were completed as scheduled and progress against the Criticality Safety Improvement Plan were presented. Over the course of the fiscal year all milestones identified in the Improvement Plan were completed as schedule within approved change control. In aggregate, all milestones scheduled for the fiscal year were completed. The quality of the completed work was evaluated through operational awareness oversight, in site review of products defined in the plan, and schedule adherence. NNSA oversight sent a letter of commendation to the Associate Director of Nuclear and High Hazard Operations as to the quality of documentation produced by the criticality safety organization during this period.

Available Fee: $216,810
Fee Earned: $216,810

4.3 Readiness Reviews

At the beginning of FY 2007, the readiness review program lacked execution to a consistent, requirement based process. Lack of a single point of contact for readiness reviews resulted in inconsistencies across LANL. Lack of appropriate preparation resulted in the failure or extension of several NNSA ORRs.

For FY 2007, a Readiness Review Improvement Plan and associated milestones was developed and placed under formal change control. Readiness review institutional procedures were developed and revised based on LASO input. While an improved process is in place, continued improvements will be required in FY 2008.

Measure 4.3 Improve Laboratory Readiness Review Performance
LANL will formally baseline Laboratory Readiness Reviews, improving schedules. LANL will improve the execution of Laboratory Readiness Reviews.

Expectation Statement: Develop a Laboratory Readiness Review Baseline Improvement Project to improve schedule and scope performance.

4.3.1a Define Completion: Completed and the Associate Director for Nuclear and High Hazard Operations has approved the LANL Readiness Review Baseline Improvement Project Management Plan on November 15, 2006.

LANL Completion Statement: DOE Order 425.1 C, "Startup and Restart of Nuclear Facilities," requires that contractors shall have a readiness review process that must in all cases demonstrate that it is safe to start (or restart) activities or operations that involve radioactive and/or fissionable material in such form or quantity that a nuclear hazard potentially exists to the employees or the public. At LANL, the readiness review process consists of a documented, independent examination of equipment, personnel, procedures, and management control systems to ensure that a facility or activity within the facility meet relevant Department of Energy, LANL, and facility specific requirements before startup or restart. This Improvement Plan outlines specific Goals and Objectives designed to enhance the effectiveness and efficiency of readiness preparation and review activities in support of DOE Order 425.1 C. This submittal provides the LANL Readiness Review Baseline Improvement Project Management Plan, in completion of PBI 4.3.1 a.

LASO Validation Statement: LANS successfully completed the development and approval of the LANL Readiness Review Baseline Improvement Plan by November 15, 2006 through the submittal dated November 9, 2006 and signed on November 14, 2006. LASO finished its review and co-signed the document on November 27, 2006

Available Fee: $90,000
Fee Earned: $90,000

4.3.1b Define Completion: [Readiness Review] Quarterly project reviews with LASO will take place in December 2006, March 2007, June 2007, and September 2007 to report on project milestones and progress. The Q4 review will include implementation of the new readiness requirements issued by NNSA-LASO in April 2007.

LANL Completion Statement: Presentations to LASO on October 2 continue to show progress on the approved plan to improve performance in Laboratory readiness reviews. This will help to ensure long-term safe and compliant operations in all facilities.

LASO Validation Statement: 1st Quarterly review completed on time, no slippages, project plan on schedule.

2nd Quarterly review completed on time, no slippages, project plan on schedule.

3rd and 4th Quarterly review: The first two quarters met expectations but the ability to meet the commitments in the Readiness Improvement Plan for the third and fourth quarters was significantly reduced. Change control was not performed at the time problems were identified. Website problems led to newly developed aids being unavailable. Procedures were not issued when planned, which delayed implementation of the Joint Evaluation Team process. A COR letter was issued to communicate expectations for nuclear and non-nuclear start-ups. The Implementation Strategy Paper and Readiness Review training were not completed before issuance of new procedures, as direct by COR letter. Startup Notification Requests (SNRs) were not submitted timely. SNRs were submitted without adequate quality control. The LANL SNR Priority List was ineffective as a management tool. QA records related to nuclear start-ups were not maintained as required or forwarded to LASO as required.

Full payment of the identified PBI fee for the first 2 quarters, and no payment for the last two quarters is recommended.

Available Fee: $431,227
Fee Earned: $117,607

4.3.2 Deleted

4.3.3 Define Completion: Operational Readiness Reviews and/or Readiness Assessments completed by DOE/NNSA during the rating period identify 3 or fewer pre-start findings per Review (weighted equally per review).

LANL Completion Statement: The purpose of this PBI was to improve execution of Laboratory Readiness Reviews as measured by the number of pre-start findings per review. Quality Readiness Assessments will help to ensure safe and compliant operations. One Operational Readiness Review, for the Waste Characterization Reduction and Repackaging Facility (WCRRF), was completed in FY 2007. There were 7 NNSA/ORR pre-start findings which exceeded the threshold for incentive fee.

LASO Validation Statement: LANS correctly identified that the number of pre-start findings exceeded the agreed upon threshold for payment of incentive fee; therefore, no fee payment is recommended for this PBI.

Available Fee: $274,417
Fee Earned: $00

PBI No. 5
Safeguards and Security Execution

PBI 5: Safeguards and Security Execution

Maximum Available Fee: $2,681,239
Fee Earned: $2,391,331

NNSA Summary:

Los Alamos National Security (LANS) Security made significant progress in FY 2007 by meeting all but one of the Security Annual Operating Plan deliverables. LANS also met physical inventory deliverables which had not been achieved in many years by validating no loss or gain of Special Nuclear Material.

All cyber security work related to the incident is contained in 13.1.

Completion/Validation Statements

Measure 5.1 Completion of all milestones contained in the FY 2007 NNSA NA-70 Program Element Guidance (PEG) and associated FY 2007 LANL Safeguards & Security Annual Operating Plan (AOP).

Expectation Statement: Completion of FY 2007 Safeguards & Security Annual Operating Plan (AOP) deliverables according to cost/scope/schedule.

Threshold: COR approval of the FY 2007 Annual Operating Plan (submitted prior to September 30, 2006), the FY 2007 Material Control & Accountability Plan (submitted prior to September 30, 2006), and the FY 2006 MC&A Inventory Closure Report (submitted by September 30, 2006).

LANL Threshold Completion Statement: All required evidence files are on file with the LASO COR. The FY 2007 Safeguards and Security Annual Operating Plan and the FY 2007 Material Control and Accountability Plan were both approved before the FY 2007 fiscal year started. These two plans provide the basis for Safeguards and Security program deliverables for FY 2007. The FY 2006 MC&A Inventory Closure Report was submitted by September 30, 2006.

LASO Validation Statement: LASO Security Management COR agrees with LANL threshold completion statement.

Fee Earned: Gateway Measure

5.1 **Define Completion:** Meet all NA-70 PEG Level 1 Milestones.

LANL Completion Statement: 59 of 60 (98.3%) of PEG/AOP deliverables have been provided to our LASO counterparts, and validated. The last one is pending final review/approval. ADSS is processing completion documentation through PCO to LASO/COR-CO for approval and payment of fee. We anticipate receiving 100% of associated fee.

LASO Validation Statement: All Level 1 PEG Milestones were met. LANS completed 59 of 60 ADSS AOP milestones and deliverables.

Available Fee: $ 1,206,557
Fee Earned: $1,184,773

Measure 5.2 No real loss or gain of special nuclear material, excluding legacy material.

Expectation Statement: Material control indicators (shipper/receiver differences, inventory adjustments, and inventory differences, physical and special inventories) will detect any apparent loss or gain of special nuclear materials, excluding legacy material

5.2. **Define Completion:** No real loss or gain of Special Nuclear Material. Implementation of the MC&A and Production Integration Plan.

LANL Completion Statement: End of FY (and related monthly) verification documentation has being reviewed by LASO counterparts, and we have submitted all required documentation through PCO to LASO/COR-CO for payment. We anticipate receiving 100% of associated fee.

LASO Validation Statement: Evidence files have been reviewed and results support no loss or gain of SNM at LANL. All indicators reviewed support the conclusion that there has been no loss or gain of SNM excluding legacy material.

Available Fee: $670,310
Fee Earned: $670,310

Measure 5.3 FY 2007 External Security and Safeguard Assessments

Expectation Statement:
1. Achieve "effective performance" rating in at least 5 of 7 rated areas by HQ DOE SP-1.
2. FY 2007 LASO COR validation of LANL S&S program effectiveness.

5.3 **Define Completion:**
A. Achievement of "effective performance" rating in at least five of seven rated areas by HQ SP-1.
B. Achievement of an overall "satisfactory" S&S Survey rating by LASO S&S COR.

LANL Completion Statement:
A. We did not achieve expected levels of performance during the HQ HSS inspection in October- December 2006, with the loss of associated fee for this sub-measure.
B. We did achieve an overall rating of "Satisfactory Performance" on our annual LASO Security & Safeguards Survey, and are completing the required documentation for payment of associated fees. This constitutes 50% of fees aligned with this sub-measure.

LASO Validation Statement: DOE HSS Inspection report rating was 4 of 7. LASO recommends no fee for this activity. LASO S&S Inspection report rating was satisfactory with 6 of 7.

Available Fee: $536,248
Fee Earned: $268,124

Measure 5.4 Complete all Milestones contained in the FY 2007 CIO Cyber Security Annual Operating Plan (AOP).

Expectation Statement: Completion of FY 2007 CIO Cyber AOP deliverables according to cost/scope/schedule.

5.4 **Define Completion:** Meet all CIO PEG Level 1 Milestones.

LANL Completion Statement: The cyber security team succeeded in meeting all LANL's milestones for the FY 2007 CIO Cyber Security AOP, despite additional resource burdens placed upon the cyber security infrastructure by the more-than-anticipated audits and

assessments. The AOP Cyber Security End of Year Report was completed and delivered electronically to LASO on October 11.

LASO Validation Statement: PBI 5.4a FY 2007 CIO Cyber Security AOP was submitted and accepted. PBI 5.4b AOP deliverables were met and validated by DAA. PBI 5.4c FY 2007 Cyber Security end of year report was reviewed.

Available Fee: $268,124
Fee Earned: $268,124

Science and Technology Excellence: PBI No. 6

PBI No. 6
Ensure Science, Technology and Engineering Excellence

PBI 6: Ensure Science, Technology and Engineering Excellence

Maximum Available Fee: $4,468,731
Fee Earned: $3,440,923

NNSA Summary:

LANL utilized processes to evaluate the science, technology and engineering peer review processes for capabilities, journal articles, and the Laboratory Directed Research and Development Program (LDRD) at Los Alamos. The reviews evaluate the capabilities of LANL in the areas of quality of science, technology, and engineering and provide information to evaluate the mission and future trends. The Implementation Plan for the Capability Reviews also requires scientific community peer review of publications and defines the process used to fund LDRD projects. The contractor exceeded requirements for peer review of technical papers. Other accomplishments in this PBI included: US - Russian cooperative endeavors in the areas of nuclear power, advanced reactors, small and medium reactors, nuclear fuel cycle technologies, and testing of material for test facilities. Evidence exists, however, that the lab failed to meet requirements for maintenance of critical Defense Program skills and collaborative engagements with universities.

Completion/Validation Statements

Gateway/Threshold: The contractor will have a documented quality peer review program.

LANL Gateway Completion Statement: The submitted documentation demonstrates the commitment and role of peer review in assessing the quality of science, technology and engineering at Los Alamos. The evidence presented describes science, technology and engineering peer review processes for capabilities, journal articles, and the Directed Research and Development Program (LDRD) at Los Alamos. The capability reviews evaluate the quality of science, technology, and engineering using 16 defined capabilities as the basis. These reviews provide information needed to evaluate the mission impacts and future directions of science, technology, and engineering at Los Alamos. The capability reviews were implemented in 2007**.** The Implementation Plan for the Capability Reviews is included as an Appendix. The second component is the process for peer-reviewed publications, which are primarily journals. These processes have been established by the scientific community for years. The third component is the processes used to fund projects in the Laboratory Directed Research and Development Program. Each of the three major areas, Directed Research, Exploratory Research, and Post-doctoral Research and Development has a review process to insure the quality of science. In summary, peer review is prevalent at Los Alamos and ensures that the quality of science, technology, and engineering is maintained.

LASO Validation Statement: The work activities, as defined in PBI 6 (Gateway), have been completed. LANS has provided detailed documentation for three important types of “peer review” processes at Los Alamos; 1) capability review process; 2) peer-reviewed journal processes; and 3) the Laboratory Directed Research and Development (LDRD) peer review processes for the Directed Research (DR), Exploratory Research, and Post-Doctoral Research and Development (PRD) Components of LDRD. Given that the FY 2007 capability review process was new to Los Alamos, the effort has already had significant benefits.

Fee Earned: Gateway Measure

Measure 6.1 Maintain the Laboratory's science, technology and engineering workforce excellence.

Expectation Statement: The contractor will maintain the quality of the science, technology and engineering workforce that is essential for LANL to respond to national and mission related issues. The contractor will evaluate metrics on the Laboratory's science, technical and engineering productivity including number of peer-reviewed papers, classified papers and reports, intellectual property (inventions disclosures, patent applications, and patents), awards (including federal agency and industrial). Results of independent LANL science, technology and engineering reviews will be provided to NNSA and DOE.

6.1 **Define Completion:** An aggregate 10% increase in the following measures:

- Number of peer-reviewed papers published between October 1, 2006 – September 30, 2007 (baseline is 500 publications for the assessment period),
- Classified papers and reports published between October 1, 2006 – September 30, 2007 (baseline is 50 reports for the assessment period),
- Intellectual property (inventions disclosures, patent applications, and patents) for the period October 1, 2006 – September 30, 2007 (baseline is 10 patents granted for the assessment period),
- Awards (including federal agency and industrial) made during the period October 1, 2006 – September 30, 2007

LANL Completion Statement: This PBI provided data on the products generated by the science, technology and engineering (STE) staff at LANL. STE staff allows Los Alamos to address problems of national importance. By remaining at the forefront of STE, LANL can respond quickly when faced with a challenge. The metrics used in this PBI provide a cross section of products that evaluate STE. The peer-reviewed papers are a measure of staff productivity and acceptance by the outside STE community. Classified reports measure productivity in a venue that is mission related. Awards are those awarded to LANL staff from organizations outside LANL including DOE/NNSA. Intellectual capital measures the commercial potential and flow of technology from the Laboratory. LANL has met the criteria for all of these metrics. The 1707 peer-reviewed papers exceeded the baseline plus 10 percent of 550. The total number of classified reports was 838, which was greater than the 55 that was baseline plus 10 percent. Awards were based on the 2006 (70) plus 10 percent for a baseline of 77. The total awards in FY 2007 were 109. There were 46 patents issues to LANL in FY 2007, which exceeded the baseline of 10. The results of these metrics indicate that LANL has maintained its STE production. However, metrics convey only part of the overall STE success. Peer review provides an alternative and broader view of STE health. During this year, LANL instituted STE capability reviews in place of the organizational reviews. Capability reviews cross Laboratory organizations allowing integration and STE quality to be assessed. The five capability review reports are included as part of the closure package for this PBI to provide a more complete overview of STE quality. STE allows LANL to maintain the necessary edge to avoid technological surprise. A strong STE base is essential to allow DOE/NNSA to meet its mission, and this PBI addresses the quality of the STE performed by LANL, which is an important indicator of LANL's success.

LASO Validation Statement: The work activities, as defined in PBI 6.1, have been completed. PBI 6.1 requires definition and documentation of a baseline metric, against which FY 2007 (October 1, 2006 to September 20, 2007) performance is measured. To achieve successful performance in this PBI, Los Alamos had to produce a 10% increase in the defined measure above the accepted baseline figure. All metrics exceeded the 10% increase over the baseline.

Available Fee: $3,351,548
Fee Earned: $3,351,548

Measure 6.2 Maintain the Laboratory's science, technology and engineering critical skills to meet current and future NNSA and DOE missions.

Expectation Statement: The contractor will maintain those science, technology and engineering critical skills required for NNSA and DOE missions. The contractor will provide metric(s) on LANL science, technology and engineering critical skills for Technical Staff Members (TSMs).

6.2. **Define Completion:** The contractor will provide the critical skills metric to the NNSA and DOE by November 30, 2006. This metric will use the September 29, 2006 critical skills list, and for each critical skill, the proposed number of employees listed as a TSM. The critical skills metric will compare at the Laboratory level the actual number of TSMs in critical skills category to the proposed number and sum over all categories. The Laboratory's goal is to demonstrate ≥ 80% value for the critical skills metric.

LANL Completion Statement: The composition of the science, technology and engineering (STE) workforce is fundamental to LANL achieving its mission goals. As mission and programs shift, LANL must maintain those skills necessary to complete the basic mission for NNSA Defense Programs (DP). The critical skills were carried into the new Prime Contract, and this PBI assesses LANL's performance in maintaining the DP critical skills. A critical skill metric defined as (need-gap)/need were applied to the DP critical skills category. LANL maintained the metric above 80% for the first three quarters of FY 2007. The data collected on September 30, 2007 found that LANL had slipped to 79%. This occurred too late in the fiscal year for LANL to make any corrections. Another result was that LANL did not change the number of employees needed for a given DP critical skill category. In times of changing budgets, the ability to change these categories is critical. LANL will implement a more robust process in the future.

LASO Validation Statement: Consistent with LANS own assessment, the contractor did not meet their goal of 80% critical skills maintenance in FY 2007.

The contractor submitted spreadsheets for October 31, 2006; January 31, 2007; June 30, 2007; and September 30, 2007. The first three calculations demonstrate that, in aggregate, LANL met the 80% goal across the 11 Critical Skills categories. The last, dated September 30, 2007, demonstrated a 79% result, 1% below the 80% goal.

Available Fee: $580,935
Fee Earned: $00

Measure 6.3 Engage in collaborative research with the broad science, technology and engineering communities

Expectation Statement: The contractor will develop, maintain and enhance collaborations with the science, technology and engineering communities, including universities, industry and other national laboratories to bring the best available science, technology and engineering to solve the Nation's and NNSA's mission related problems. The contractor will evaluate its collaborations using the following metrics: the number of collaborations with industry, academia, and other national laboratories; evidence of the benefit from collaborations through Laboratory review process, capacity of LANL scientific user facilities to support interactions. Results of independent LANL science, technology and engineering reviews will be provided to NNSA and DOE.

6.3 **Define Completion:**

- A 10% increase (when compared to FY 2005) in the total number of collaborations between LANL and industry academia, other national laboratories for FY 2007 that are defined through subcontracts, memoranda of agreements, and collaborative proposals.
- LANL scientific user facilities (Lujan and NHMFL) operate at 75% of capacity to support scientific interactions. Capacity is defined for each of these facilities based on facility readiness and availability, operational basis, funding, and staff requirements.

LANL Completion Statement: Collaborations strengthen science, technology and engineering (STE) through innovation. Collaborations have been at the core of LANL STE since its inception. PBI 6.3 addressed formal collaborations with universities, other national laboratories, and industry by comparing the number of collaborations in FY 2007 with those in FY 2005. LANL has two user facilities, the Lujan Center and the National High Magnetic Field Laboratory (NHMFL), that are magnets for collaboration. The performance of these facilities in terms of their capacity to support scientific interactions is the measure that is used.

The number of university collaborations through subcontracts in FY 2005 was 558 and the 10 percent increase means a target of 614. The total number of LANL subcontracts with universities on September 28, 2007 was 533. For integrated contracts with national laboratories, the FY 2005 number was 172 and the 10 percent increase means a baseline of 189. The total number of integrated contracts with national laboratories on September 28, 2007 was 160. There were 51 Cooperative Research and Development Agreements (**CRADA**) and 127 non-governmental work for others projects in FY 2005 for a total of 178 agreements with industry. The 10 percent increase gives a baseline of 196. There were 63 CRADAs and 109 non-governmental works for others projects in FY 2007 for a total of 172 agreements with industry.

User Facilities:

- Lujan Center: At the end of the FY 2007, the Lujan Center delivered 80.7% of the scheduled hours to users (2806 hours delivered and 3477 hours scheduled).
- National High Magnetic Field Laboratory (NHMFL): The NHMFL delivered 165% of its scheduled hours in FY 2007. This was due to a new online tracking system for one of the magnets.

LASO Validation Statement: The contractor did not meet the expectations defined in PBI 6.3. PBI 6.3 requires definition and documentation of a baseline FY 2005 metric for university collaborations, against which FY 2007 (October 1, 2006 to September 20, 2007) performance in the area of university collaborations is measured. To achieve successful performance in this PBI, Los Alamos had to produce a 10% increase in the defined measure above the accepted FY 2005 baseline. The contractor's performance in the university collaboration metric did not exceed a 10% increase over the baseline.

Available Fee: $446,873
Fee Earned: $00

Measure 6.4 Support the development and implementation of the Global Nuclear Energy Partnership.

Expectation Statement: The contractor will work with the DOE and other national laboratories to develop and implement the Global Nuclear Energy Partnership (GNEP) Program strategy. The contractor will evaluate its effectiveness in the GNEP Program in two areas: (1) international GNEP cooperation, and (2) structural materials performance.

6.4 Define Completion:

- LANL will conduct post irradiation examination of the HT-9 burner reactor structural material (these materials were previously irradiated in the Fast Flux Test Facility at Hanford) and generate a report.
- LANL will support development of approaches for international nuclear fuel cycle scientific collaborations; in FY 2007 a framework for establishing and sustaining meaningful cooperation with Russian scientists will be developed.

LANL Completion Statement: The Global Nuclear Energy Partnership (GNEP) is a critical program to provide sufficient energy for the world. Because of LANL's broad scientific expertise, experimental base (including key facilities that will be important to program execution), and modeling and simulation underpinnings, LANL plays an important role in defining programmatic needs and strategic directions for GNEP. In FY 2008, the framework for cooperation with Russia was developed that outlines Russian and U. S. national strategies in nuclear power, identifies the common bases for U.S.-Russian cooperation in advanced reactors, exportable small and medium reactors, nuclear fuel cycle technologies, and nonproliferation, and defines a plan for cooperation. LANL supported the development of this framework. A technical challenge for GNEP is the ability of materials in nuclear reactors to withstand high radiation environments. LANL tested a steel material in the Fast Flux Test Facility at high temperatures and different radiations doses. Data indicated that the material hardens as radiation temperature increases having a significant effect on material properties. A report was generated on these tests and analyses. The results will be used to support future reactor and fuel designs.

LASO Validation Statement: The completion documentation was reviewed and found to be acceptable and in accordance with the expectation statement. The reports summarize the results of work performed under work package number PLA07RDoR04, “Process ACO3 Duct” and PLA07RDPM02”, “Russian Collaboration Integration” and are consistent with the defined completion.

Available Fee: $89,375
Fee Earned: $89,375

Multi-Site Integration: PBI No. 7

PBI No. 7
Multi-Site Performance

PBI 7: Multi-Site Performance

Maximum Available Fee: $4,550,512
Fee Earned: $4,114,811

NNSA Summary:

- **Notable success in addressing Defense Programs "Getting the Job Done" Top 10 priorities**
- **Significant product delivery improvements, elimination of backlog of surveillance units, acceleration of dismantlement of retired weapons, delivery of B61-7 FPU, certification of W88 with new pit, manufacture of 10 pits, extraction of Tritium for use in the stockpile, support for the science basis for warhead design, infrastructure transformation, Nuclear Materials consolidation, Information Resources Management, and Supply Chain Management**
- **Establishment of Nuclear Weapons Complex integration Steering Committee**
- **LANL has played a lead role in driving significant improvements in Complex Integration and cooperation in many areas**

Completion/Validation Statements

Measure 7.1 Defense Programs "Getting the Job Done" Top 10 priorities.

Expectation Statement: LANL will support the efforts of others in the weapons complex achieve NNSA's direction to:

1. Continuing to deliver our products as we have been doing for the Department of Defense (i.e. Limited life components, reliability assessments, etc.).
2. Eliminating the backlog of surveillance units by September 2007 consistent with the enhanced evaluation strategy (except the W84 and W88).
3. Accelerating the dismantlement of retired weapons, 49% increase from FY 2006 to FY 2007.
4. Delivering the B61-7 First Production Unit (FPU) by June 2006 and the B61-11 FPU by January 2007.
5. Delivering the W76-1 FPU by September 2007.
6. Certifying the W88 with a new pit and manufacturing 10 W88 pits in 2007.
7. Extracting Tritium for use in the stockpile by September 2007.
8. Supporting the science basis for warhead design, assessment and certification by completing and applying MESA (2008), DARHT (2008), NIF (2010), the ASC Purple machine (2006) and pit lifetime estimates (2006).
9. Transforming from a Life Extension Program to a Reliable Replacement Warhead stockpile strategy (RRW to the Nuclear Weapons Council by November 2006).
10. Transforming the nuclear weapons infrastructure to take Responsive Infrastructure from concept to reality (Implement actions identified in the Complex 2030 Preferred Infrastructure Planning Scenario and the Responsive Infrastructure Implementation Plan).

In all elements LANL is expected to issue engineering releases, provide engineering advice, and support site issue resolution in a timely and responsive manner such as not to impact milestones at other sites.

7.1.1 Define Completion: Meet all scheduled ship dates and quantities for deliveries to DOD.

LANL Completion Statement: The lead site within the complex (Pantex) has entered a status of "Blue" (complete) for this element within the MRT (MRT # 2504), although HQ Program personnel have not yet entered an overall status. LANL personnel have contributed

to the efforts in this area during the past year through the delivery of LANL produced components, and by engaging a range of production support and improvement activities.

Completion documentation acknowledging the contributions of other sites in the complex (including LANL) is being prepared by Pantex, and should be available before October 31, 2007. LANL has completed all necessary contributions to this effort.

LASO Validation Statement: The NNSA Headquarters Champion for this milestone has rated this milestone as complete as of September 30, 2007.

Available Fee: $290,468
Fee Earned: $290,468

7.1.2 **Define Completion:** Disassembly and inspection (D&I) of full up weapons (except W84 & W88) is complete at Pantex. Completed by the end of September 2007

LANL Completion Statement: The Sandia National Lab led effort (identified as Multi-Site Incentive 2, and MRT # 2505), has been accepted as complete by HQ Program Management elements, and has "Blue" (complete) status entries both from SNL and HQ within the MRT. LANL personnel provided support to the complex team in these efforts to eliminate the backlog of surveillance units. As noted in the HQ completion entry: "D&Is have met the FY 2007 Goals. We will continue dismantlement's using the enhanced evaluation strategy to exceed the FY 2007 target."

LASO Validation Statement: The NNSA Headquarters Champion for this milestone has rated this milestone as complete as of September 30, 2007.

Available Fee: $145,234
Fee Earned: $145,234

7.1.3 **Define Completion:** Dismantlement is separating the high explosives from the nuclear material at Pantex. A retired weapon is any unit with retirement status (could be B61 or B83, even though program is not retired).

LANL Completion Statement: LANL personnel contributed to the Pantex led Complex efforts to accelerate the dismantlement of retired weapons by at least 49%. The Multi-Site Milestone (MRT# 2506) has been marked as complete by HQ. The complex has met this annual target number of dismantlement's. However, we will continue to use the enhanced evaluation strategy and perform dismantlement's exceeding this annual target. The HQ status entry of "Blue" (Complete) is reflected in the Milestone Reporting Tool report.

LASO Validation Statement: The NNSA Headquarters Champion for this milestone has rated this milestone as complete as of September 30, 2007.

Available Fee: $435,701
Fee Earned: $435,701

7.1.4 **Define Completion:** B61-11 ALT 357 FPU completed by the end of January 2007. FPU is defined as one Diamond Stamped bomb. Formal acceptance by the DoD will occur after completion of the certification and the DRAAG. Issue a Major Assembly Release (MAR) for the B61-11 by the end of April 2007. Issuance of the MAR indicates that the system is certified for use in the stockpile and accepted by NNSA.

LANL Completion Statement: As noted in memo ADWE-07-017 and subsequent referenced documents, First Production Unit (FPU for the B61-7 became available on June 28, 2006 and the B61-11 FPU on January 25, 2007). A certification letter (DIR-07-220(S) from Michael Anastasio (Director, Los Alamos National Laboratory) to Thomas D'Agostino

(NA-1) was issued July 30, 2007. The referenced documents demonstrate successful and timely completion of required LANL activities in support of the Complex activities and this PBI element. The Multi-Site milestone associated with this work (MRT #2507) has been entered as complete by the HQ Program Manager.

LASO Validation Statement: NA-12 authorized the start of phase 6.5 (First Production Unit) for the B61-7 on May 20, 2006 and the B61-11 on December 14, 2006. Authorization letters attached.

Available Fee: $435,701
Fee Earned: $435,701

7.1.5 **Define Completion:** W76-1 FPU completed by the end of September 2007. FPU is defined as one Diamond Stamped W76-1 warhead. Formal acceptance by the DoD will occur after completion of the W76-1 certification and the DRAAG (FY 2008

LANL Completion Statement: The W76-1 PFU could not be completed during the year as planned due to material production issues at another site. Efforts of LANL personnel in addressing these issues have been recognized. Decisions on a possible path forward must be made by HQ Program Managers, and it is expected that efforts in this area will continue in FY 2008.

This PBI element is associated with Multi-Site Incentive #5, reflected in Milestone #2508. All necessary components have received QERs with the exception of one, which is a subsystem component provided by another site in the complex. As a result of production issues with this subsystem component, a significant effort was undertaken to try to resolve this issue with the baseline material and also to determine if an alternate material could be used successfully. LANL personnel mobilized skills across the complex, and drafted additional local expertise to analyze the issues, and explore possible alternatives. Several options were developed and communicated to HQ Program Managers. LANL personnel continue to work with the Plants and HQ to resolve the issues, and establish revised schedules for continued progress in FY 2008.

LASO Validation Statement: The requirements for completion of this performance measure were not met during the performance period. The Defense Programs Champion for this measure has rated this as “RED” as of September 30, 2007.

Available Fee: $435,701
Fee Earned: $00

7.1.6 **Define Completion:** Issue a Major Assembly Release (MAR) for the W88 system with a LANL manufactured pit type 126 by September 30, 2007. Issuance of the MAR for the W88 system with a LANL manufactured pit indicates that the system is certified for use in the stockpile and accepted by NNSA. The weapon will contain a pit manufactured at Los Alamos. The unit will be located at Pantex approved for shipment to the Military. This means assembled at Pantex for delivery to DoD by September 30, 2007. Ten W88 WR Quality Pits will be manufactured and accepted. Pits will be in stores at LANL with all approvals for use in stockpile and shipment to Pantex when needed.

LANL Completion Statement: Certification of a W88 with a LANL manufactured Pit has been completed, and production of 10 Pits at LANL has been demonstrated. The W88 MAR was signed out on September 27, 2007 by Dan Rose, and David Crandall acknowledged the completion of Pit production requirements in an e-mail of
September 28, 2007. HQ has not yet entered status for MRT #354, but is expected to acknowledge completion before October 31, 2007. Additional completion documentation is available through PADWP.

LASO Validation Statement: The NNSA Headquarters Champion for this milestone has rated this milestone as complete as of September 30, 2007.

Available Fee: $145,234
Fee Earned: $145,234

7.1.7 Define Completion: Tritium is extracted from TPBAR and added to existing reserve by the end of September 2007.

LANL Completion Statement: Savannah River Site Tritium Extraction Facility completed an initial Tritium extraction run and other associated activities prior to January 25, 2007. This SRS led activity is identified in the MRT as Milestone #2510. A copy of the MRT status report for Q4, FY 2007 (as of October 15, 2007) indicated that HQ Program Management has accepted this activity as complete.

LASO Validation Statement: LASO agrees that HQ Program Management has accepted this action as complete.

Available Fee: $83,356
Fee Earned: $83,356

7.1.8 Define Completion: Progress toward the 2010 first ignition experiment milestone will be confirmed in FY 2007 by SPI and CPI metrics of the National Ignition Campaign (NIC) greater than 0.9 and by completion of a multi-lab confirmation of ablator parameters. Pit lifetime studies completed by the end of FY 2006. A report containing results and lifetime estimates is complete by the end of Contract Year 2006.

LANL Completion Statement: This LLNL led effort (identified as Multi-Site Incentive 8, and MRT # 2511) has been entered as "Blue" (complete) by LLNL within the MRT. LANL personnel supported this LLNL led activity during the past year.

LASO Validation Statement: The NNSA Headquarters Champion for this milestone has rated this milestone as complete as of September 30, 2007.

Available Fee: $72,617
Fee Earned: $72,617

7.1.9 Define Completion: RRW recommendation from POG is submitted to the Nuclear Weapons Council by the end of November 2006.

LANL Completion Statement: LANL personnel supported the complex in the efforts to develop viable RRW concepts, producing numerous design documents culminating in LA-CP-06-0824 (Reliable Replacement Warhead (RRW) Final Design Package (DDP) New Mexico Candidate (U) Vol.1 (SRD). (Additional documents produced as part of this effort include: LA-CP-06-0254, LA-CP-06-0297, LA-CP-06-0321, LA-CP-06-0334, LA-CP-06-0348, LA-CP-06-0664, and LA-CP-06-0962.) A recommendation was submitted to the Nuclear Weapons Council (NWC) by the POG to meet the November 2006 deadline. Consequently, the NWC made a decision to conduct an RRW program. This decision is stated in an NNSA news release, dated December 1, 2006.

LASO Validation Statement: In November 2007, the Nuclear Weapons Council (NWC) voted to accept the Reliable Replacement Warhead concept as the underpinning for the long term strategy to provide the nation's nuclear deterrent. The Laboratory provided significant support to the NNSA and the NWC, by providing the Final Design Data Package for the New Mexico design candidate as well as numerous briefings to elements of the NNSA, DOE, and the Department of Defense.

The Deputy Administrator for Defense Programs, NA-10, considers this Multi-Site milestone as being met.

Available Fee: $500,136
Fee Earned: $500,136

7.1.10 Define Completion: System Integration Technical Support organization will be fully functional utilizing the tools and capabilities from throughout the nuclear weapons sites. Safety Authorization Basis Academy established to facilitate uniformity across the weapons complex.

LANL Completion Statement: The lead site for this element, Pantex, (identified as Multi-Site Incentive #10, MRT # 2513) has entered a status of "Blue" (complete) in the MRT. HQ personnel are expected to enter status before the QPR scheduled for November 1st. LANL personnel have contributed to the complex-wide efforts to develop a more responsive infrastructure in support of both the evolving "Complex 2030" and "Responsive Infrastructure Implementation" plans.

LASO Validation Statement: The Defense Programs Champion for this measure has rated the status as complete on September 30, 2007.

Available Fee: $435,701
Fee Earned: $435,701

Measure 7.2 Complete Transformation activities within the NWC.

Expectation Statement: NWC Integration – LANL will establish, lead and execute an overall NWC complex integration plan. Initiatives will be completed within budget, schedule and scope for the LANL site as defined in initiative subproject plans. LANL will lead the “NWC Integration Steering Committee” to assist sharing of best practices ensuring selected initiatives have defined NWC benefits, and participating on all appropriate initiatives, while leading at least two multi-site initiatives. These will be managed as projects with clearly defined metrics resulting in significant measurable NWC improvements.

7.2.A Define Completion: Two non-LANL lead NWC-ISC projects will complete on time within budget FY 2007 deliverables per their respective Subproject Plan.

LANL Completion Statement: As indicated in the NWC-IC "Overall Summary" of January 19, 2007, Initiatives 7.0 (Extract Tritium), and 9.0 (Transform to RRW strategy) were both approved non-LANL led initiatives. The attached e-mail from Donna Wilson (Defense Programs Business Planning and Integration, Savannah River Site) indicates successful completion of Tritium extraction using the Tritium Extraction Facility prior to January 25, 2007. A copy of the MRT status report for Q4, FY 2007 (as of October 15, 2007) indicates that HQ Program Management has accepted this activity as complete. A decision to conduct an RRW program was announced in an NNSA news release, dated December 1, 2006, and acceptance of completion has been confirmed in the MRT.

LASO Validation Statement: The completion criterion for this performance measure required “Two non-LANL lead NWC-ISC projects will complete on time within budget FY 2007 deliverables per their respective Subproject Plan.”

Several NWC-ISC projects were completed during the performance period, including 7.0 Extract tritium for the stockpile by September 2007, and 9.0 Transform to RRW Stockpile Strategy.

LANL has completed this performance measure.

Available Fee: $44,687
Fee Earned: $44,687

7.2. B Define Completion: Three additional "Initiatives" (beyond current NWC-ISC list effective October 1) for transformation will be started in FY 2007.

LANL Completion Statement: LANL personnel have led the complex in supporting the formation of the Nuclear Weapons Complex Integration Committee (NWC-IC – Glenn Mara, chair), in identifying and implementing important initiatives, and in supporting initiatives led by other sites within the complex. Activities are documented within the NWC-IC through a "scoreboard" tool, which is updated regularly. The attached documents demonstrate support for the development and implementation of the initial initiatives (10), and subsequent development of initiatives bringing the total to 13.

LASO Validation Statement: On August 18, 2006, NA-10 directed the formation of a NWC Strategic Partnership Council made up of the senior weapons manager for each Laboratory, the NTS and the General Manager for each production plant. A NWC Integration Committee, with the same membership, was also directed to "define specific complex integration initiatives with high potential to contribute to a responsive nuclear weapons complex infrastructure". LANL is the initial chair of the NWC-IC. The NWC-IC approved an initial list of initiatives on August 11, 2006.

This PBI was designed to drive each member of the NWC-IC to develop and lead three additional initiatives, above the August 11 list, to be worked by the NWC. However, in November 2006, NA-10 directed that the Defense Programs Multi-Site milestones ("Top 10") be included in the listing of initiatives to be implemented by the NWC-IC. LANL agreed to lead three of these additional activities, deliver the B-61-11 FPU by January 2007, Deliver the W76-1 FPU by September 2007 and Certify W88 with a new pit and manufacture 10 W88 Pits.

The completion criterion for this measure is as follows: Three additional "Initiatives" (beyond current NWC-ISC list effective October 1st for transformation will be started FY 2007. The Laboratory's performance meets these criteria, and this PBI element is to be considered completed.

Available Fee: $51,296
Fee Earned: $51,296

7.2.C Define Completion: Drive the Transformation with active participation by LANL with NWC-ISC, with NWC-ISC being viewed as a driver for transformation and integration of NWC by holding at least quarterly meetings, publishing minutes and delivering on project plans by multiple sites.

LANL Completion Statement: Decreasing budgets for the complex require improvements in efficiency and better integration of activities in order to continue to meet the national security needs. The NWC-ISC serves to drive a number of improvements and enhance Integration of the sites serving the complex. Following NNSA direction (August 18, 2006, D'Agostino memo,) LANL Senior Managers Glenn Mara and David E. Beck led the formation of the NWC-ISC. Primary points of contact were developed at other sites within the complex, meetings and teleconferences were initiated, concepts for improvement and integration initiatives developed and vetted within NNSA, specific leads for each initiative identified, and initiatives were executed. Copies of minutes from full meetings are attached. Additional meetings and teleconferences were conducted on a basis more frequently than Quarterly. Examples of the 'NWC-IC Status Board" (an Excel spreadsheet based display and archive tool developed for communicating NWC-ISC initiative status) as well as copies of a sample initiative implementation plan, and communication presentations are included on the attached CD. Multiple Initiatives (e.g. "Accelerate retired weapons dismantlement."Extract Tritium", and

"Transform from a LEP to a RRW Stockpile Strategy") have already been accepted as completed by NNSA HQ (as demonstrated by status entries for the "Multi-Site" Milestones within the Milestone Reporting Tool (relevant printout from 911 August 2007).

LASO Validation Statement: The Completion Package submitted by the Contractor for this Performance Measure contains meeting minutes for NWC Integration Committee Meetings in each of the four quarters of FY 2007. LANL has completed this performance measure.

Available Fee: $44,687
Fee Earned: $44,687

7.2. D **Define Completion:** Three NWC applicable LANL best practices provided to NWC-ISC to share with complex in formal reports.

LANL Completion Statement: Development and effective communication of "best practices" helps improve the overall efficiency of the entire weapons complex. Four "Best Practices" were identified and submitted through the NWC Integration Steering Committee: "Effective Tools to Expedite Results", "Prioritization of Multiple Projects Across Organizational Lines", "Effective Communication Tool for Multiple Companies working together", and "Revitalizing Critical Skills". Copies of these submissions are attached. These "Best Practices" were also submitted to the LANL "Best Practice" program, and were announced to the general Laboratory population (as demonstrated by the September 12, 2007 Laboratory web page). In addition to the distribution within LANL and the NWC-ISC areas, contact has been established with representatives of the National Laboratories Improvement Council (NLIC) regarding best practice development and sharing (sample email correspondence).

LASO Validation Statement: The completion criterion for this performance measure requires "Three NWC applicable LANL best practices provided to NWC-IC to share with complex in formal reports."

LANL provided four formal reports outlining LANL best practices to the NWC-IC on September 17, 2007.

LANL has completed this performance measure.

Available Fee: $44,687
Fee Earned: $44,687

7.2. E **Define Completion:** Integration of LANL & LLNL will measurably improve per the project plans for NTS consolidation, and Firing site consolidation.

LANL Completion Statement: LANL and LLNL activities at NTS have been better coordinated and operations consolidated (resulting in demonstrable cost savings for operations). LANL firing site activities have been analyzed and consolidated, resulting in improved efficiency.

LASO Validation Statement: The completion criterion requires "Integration of LANL & LLNL will measurably improve per the project plans for NTS consolidation, and Firing Site consolidation."

The Directors of the two Laboratories approved a Memorandum of Understanding on July 24, 2006. Operating Procedures reflecting the new relationship were approved in June, 2007 and implemented. The new relationship has improved performance at the NTS as well as Firing Site consolidation and closure at both LANL and LLNL. LANL has completed this Performance Measure.

Available Fee: $44,687

Fee Earned: $44,687

Measure 7.3 Nuclear Materials Consolidation

Expectation Statement: Consolidate SNM within the nuclear weapons complex. Complete all scheduled shipments consistent with the TA-18 closure plan. Complete initial shipment of SNM from LLNL. Complete removal of all Category I/II material from SNL except from Sandia Pulsed Reactor.

7.3 **Define Completion:** Same as Expectation Statement Above.

LANL Completion Statement: With implementation of the requested baseline change substituting SNL SPR material for the SNL SDB material (for which the desired move proved outside Contractor scope during FY 2007), this effort (identified as Multi-Site Incentive 11, and MRT # 2514) has now been completed.

LASO Validation Statement: HQ certification of completion – The last FY 2007 shipment of SNM from SNL was completed on September 27, 2007. With the exception of the Sodium Debris Material, all Category I/II SNM has been removed from SNL, completing this Target. The other two elements of this Target were completed previously: 1) shipment of material from LLNL to LANL in October 2006, and 2) completion of the TA-18 relocation project earlier in September 07. A Baseline Change Proposal (BCP) was NA-10 approved to replace the SPR material (which was scheduled for shipment this FY) with an exception for the Sodium Debris Bed material. Target completed by September 30, 2007.

HQ has certified the completion of this PBI. Final shipment occurred in September 2007 and as such all category I/II material has been moved from SNL. (Other material movement occurred in October 2006 from LLNL to LANL.) Movement of Sandia Debris Material to Idaho was moved out to FY 2008. Approval of this action was implemented through a change in the MRT as well as a BCP approval given by senior NNSAHQ officials. LANL undertook efforts to substitute other materials SNL SPR. Documentation of this substitution and completion are on record. MRT #2514 BCP Note – lab exchanged a material not amenable to handling within FY 2007, for another acceptable material. Additional documentation is available through LANL ADSMS.

HQ did not revise the multi-site direction except in MRT. LANL has met this performance measure.

Available Fee: $446,873
Fee Earned: $446,873

Measure 7.4 Information Resource Management

Expectation Statement: The Nuclear Weapons Complex will establish an M&O multi-site, inter-disciplinary integrated project team (IPT) to rationalize, coordinate, and consolidate site information technology infrastructure across the nuclear weapons complex to accomplish cost savings and cost avoidances. At the end of FY 2007, the IPT will provide a strategic plan for implementing appropriate coordination and consolidation activities. This plan must be signed by all 8 M&O's. Quarterly progress reports will be sent by the IPT Chairperson to NA-13 and NA-65.

7.4 **Define Completion:** Same as Expectation Statement Above.

LANL Completion Statement: Submittal of the Multi-Site Information Technology Strategic Plan is the final deliverable in response to the FY 2007 multi-site performance targets required of all NWC sites. This Multi-Site IT Strategic Plan-the first ever authored and agreed to by the Clots of all eight NWC sites-describes the roadmap for realizing a new state for IT in the NWC. This plan represents:

- Extensive, active collaboration and participation among all eight M&O CIO's and DP representatives to identify strategic focus areas.
- Collaboration with other IT initiatives such as the Product Realization Integrated Digital Enterprise (PRIDE), Enterprise Secure Network (ESN), and Supply Chain Management Center (SCMC) teams to identify specific activities and cost savings/avoidances.

The Integrated Project Team (IPT) intends to establish a cooperation and coordination model that will enable the NNSA sites to implement the following Strategic Objectives:

- Develop an integrated and interdependent approach to providing technical and administrative IT services and solutions in support of NNSA program needs and Complex 2030 strategies.
- Increase mission effectiveness through coordinated processes and information technology improvements.
- Identify and execute IT strategies and activities that will lead to measurable cost avoidances, cost savings, and/or efficiency and productivity gains.

The Multi-Site IT Strategic Plan describes four areas in which improvements would be the most promising for enabling the DP mission and realizing the greatest cost savings to accomplish the Strategic Objectives of the IPT.

LASO Validation Statement: The Multi-Site Information Resources Management Plan (signed by all 8-M&Os) is responsive to the nuclear weapons complex Enterprise IRM needs. NNSA-CIO has approved this Multi-Site Strategic Plan. All 8-sites will baseline both direct and indirect funds when FY 2008 appropriations are received in order to achieve planned IRM milestones for FY 2008.

Available Fee: $223,436
Fee Earned: $223,436

Measure 7.5 Implement an NNSA Supply Chain Management Center

Expectation Statement: Upon establishment and implementation of the NNSA Supply Chain Management Center (SCMC), the Sites shall work as an Enterprise to:

1. sign the SCMC Business Process Overview Memorandum of Understanding.
2. leverage the work of the ICPT with each Site participating on one ICPT team to identify commodity candidates, and from those candidates set forth two new strategic Complex-wide programs. This includes the development of the procurement strategy, the acquisition plan, and the cost-savings methodology, and
3. conduct a total of three e-sourcing events with requirements submitted by three individual Sites.

The success of this performance measure will be determined by the Director of NA-63

7.5 **Define Completion:** Same as Expectation Statement Above.

LANL Completion Statement: The Supply Chain Management Center (SCMC) was established by the NNSA NA-10 memorandum of August 7, 2006, in an effort to ensure improved efficiencies and economies in Nuclear Weapons Complex acquisitions. Success on this multi-site measure is dependent on all NNSA Complex participation to meet the FY 2007 goals. The first steps to institutionalize the SCMC within the NNSA M&O community were accomplished in FY 2007.

LANL participated with the SCMC to meet the collective FY 2007 goals as follows:

- The SCMC MOU was signed by Kevin Chalmers (for LANL) and all the other NNSA laboratories and plants on December 2006 at the NNSA SCMC Conference in Gatlinburg, TN.

- LANL is actively participating on the Integrated Contractor Purchasing Team (ICPT) and the SCMC team. LANL hosted the complex wide ICPT procurement for Enterprise Architecture Software.
- LANL has exceeded the requirement to perform three e-sourcing events by three sites. LANL has conducted 22 events and LLNL, Y-12, and KC have also performed events.

This work is important to NNSA and the mission of the Laboratory. The long-term objective of the SCMC is to transform the M&O community's acquisition process from a tactical and reactive function to a strategically driven integrated function that will ensure maximum value for every acquisition dollar spent. The SCMC will accomplish this goal by implementing strategic sourcing processes on an NWC-wide basis. These processes will be driven by strategic planning, an in-depth understanding of internal purchasing needs, and insight and knowledge of supply markets.

LASO Validation Statement: The SCMC multi-site target was successfully achieved by September 30, 2007.

- Notable success in addressing Defense Programs "Getting the Job Done" Top 10 priorities

- Significant product delivery improvements, elimination of backlog of surveillance units, acceleration of dismantlement of retired weapons, delivery of B61-7 FPU, certification of W88 with new pit, manufacture of 10 pits, extraction of Tritium for use in the stockpile, support for the science basis for warhead design, infrastructure transformation, Nuclear Materials consolidation, Information Resources Management, and Supply Chain Management

- Establishment of Nuclear Weapons Complex Integration Steering Committee

- LANL has played a lead role in driving significant improvements in Complex Integration and cooperation in many areas

Available Fee: $223,437
Fee Earned: $223,437

Measure 7.6 Support for the Production Complex Delivery of Stockpile Components and other Stockpile Activities

Expectation Statement: LANL will complete deliverables in accordance with direction from SETLT, PTIP, YTIP, and the SMT.

7.6 **Define Completion:** Attend and participate in Pantex process efficiency initiatives as requested by NNSA. Provide timely responses to special requests from NNSA as negotiated. Deliver Engineering Authorizations, Engineering Evaluations, and Engineering Releases in accordance with negotiated schedules.

LANL Completion Statement: LANL completed numerous activities in support of the B53, W76-1, and W88 SS-21 Projects. In support of the B53, LANL completed development and procurement of the prototype tooling and transferred conceptual models to PS. LANL continued to support project team activities through tooling tryouts, conceptual walk downs, release of initial weapons response environmental screening thresholds, completion of electrostatic discharge testing of 1E26 detonators, testing of the primary charge explosive (including friction, large scale drop, and ballistic tests) completion of skid testing, and providing weapons response and tie down hardware for transport of the remaining B53s to Pantex.

In support of W76-1, SS-21 activities, LANL responded to a Code Blue in response to a Pantex Plant concern with meeting the submittal deadline of a HAR. LANL personnel were on site at Pantex to develop a path forward to meet the HAR submittal date. LANL also supported the Nuclear Explosive Safety Study resulting in authorization to conduct operations by the Pantex Site Office.

The W88 SS21 project team, which included LANL personnel, focused on developing and finalizing a schedule, supporting bay activities, and developing a new cell D&I process to address high explosive aging concerns. A conceptual tooling review was held, and LANL followed up in writing to identify tooling concerns. The final tooling design review addressed LANL concerns, and LANL issued an Information Engineering Release concurring with the proposed tooling design.

LASO Validation Statement: Process improvements were identified by LANL and implemented. LANL provided support to the W-76 program through efforts related to Code Blue and HAR. This included LANL representatives were on site at Pantex to develop a path forward to meet the HAR submittal date. LANL also supported the Nuclear Explosive Safety Study resulting in authorization to conduct operations by the Pantex Site Office. LANL also provided support to the B-53 program through work efforts in the areas of tooling procurement (prototype tooling and transferred conceptual models), weapons response screening, ESD testing, explosive testing (including drop and friction testing), skid testing, and other initiatives. Related to the W88 SS21, the project team, including LANL personnel, assisted in development of a schedule, supported Pantex bay activity work, and assisted in developing a new cell D&I process for high explosive aging issues. LANL personnel assisted in conceptual tooling review and in identification of complex tooling issues. Tooling design review worked to resolve LANL raised issues and LANL assisted in concurrence of and Information Engineering Release of the design.

Available Fee: $446,873
Fee Earned: $446,873

OPERATIONAL EFFECTIVENESS AND EFFICIENCY: PBI NO. 8 – PBI NO. 11

PBI NO. 8
Environmental Projects and Operations

PBI 8: Environmental Projects and Operations

Maximum Available Fee: $3,619,670
Fee Earned: $2,110,508

NNSA Summary:

The contractor had a challenging year in integrating safety basis and readiness reviews with the environmental cleanup and legacy waste activities. The state regulator has not been willing to provide extensions to Consent Order milestones, therefore LANS and LASO were required to work through the issue resolution phase of safety/readiness documents within limited timeframes. The environmental work is very dynamic and better planning is needed to better align and forecast schedules.

A major challenge in FY 2007 for LANS was to improve their working relationship with the regulator. The first half of the year resulted in several Notice of Violations (NOV) and fines. The latter part of FY 2007 has improved. Building a solid working relationship with the regulator needs continued, focused attention.

LANS performance in institutional environmental compliance, while there were some incidents, overall would be rated as positive. Two incidents in the sealed source program caused major concern with compliance with site permits, and will require attention to ensure that future acceptance of sources do not put this site into non-compliance. Another area to strengthen is ensuring construction sites are maintaining compliance with environmental requirements, as this activity is projected to grow in the out-years.

Completion/Validation Statements

Measure 8.1 Comply with environmental remediation regulatory commitments

Expectation Statement: Complete the FY 2007 New Mexico Environment Department (NMED) Consent Order deliverables listed in the table provided in Section 5, on schedule. Content must meet deliverable requirements of Consent Order except where negotiated differently with NMED.

8.1 **Define Completion:** [Comply with] the Consent Order deliverables specified on the table below delivered on time to NMED, specified CPI level achieved with no associated Notice Of Violations (NOV) received from NMED

Deliverable	Deadline
Mortandad Canyon Investigation Report	October 28, 2006
SWMU 21-014 (MDA A) Investigation Report	November 9, 2006
Chromium Contamination in Regional Well R-28 Groundwater Interim Measures	November 30, 2006
SWMU 50-009 (MDA C) Investigation Report	December 6, 2006
Addendum to the Work Plan for Sandia Canyon and Canada del Buey	January 30, 2007
SWMU 16-021(c) CME Report for Intermediate and Regional Groundwater	May 31, 2007

SWMU 16-008(a) Investigation Report	June 21, 2007
Guaje/Barrancas/Rendija Canyons Aggregate Area Investigation Report	August 31, 2007
S-Site Aggregate Area Investigation Work Plan	September 30, 2007
North Ancho Canyon Aggregate Area Investigation Work Plan	September 30, 2007
Well Completion Report - First Regional Aquifer Well Completion Report Due in FY 2007	Within 120 days after well installation is complete
Well Completion Report - Second Regional Aquifer Well Completion Report Due in FY 2007	Within 120 days after well installation is complete
First Periodic Monitoring Report	Due date dependent on sampling schedule in approved IGMP
Second Periodic Monitoring Report	Due date dependent on sampling schedule in approved IGMP
*MDA V Investigation Report	October 31, 2006
*General Facility Information 2007	March 31, 2007
*MDA L CME Report	July 31, 2007
*MDA G CME Report	August 5, 2007

LANL Completion Statement: LANL has completed all 14 Consent Order deliverables required by this PBI. Three PBI required deliverables have been deferred to FY 2008. The SWMU 16-008 (a) Investigation Report was deferred due to weather delays. The MDA L and MDA G CME reports were deferred to allow results of ongoing vapor and groundwater monitoring conducted in and surrounding these MDAs to be submitted as part of the CME. One PBI required deliverable was not required by NMED.

8.1A Mortandad Canyon Investigation Report: This report was delivered on schedule to NMED on October 30, 2006. (For Consent Order milestones falling on an NMED non-business day, the deliverable is due the following NMED business day.) Completing the investigation of this canyon is a major milestone in the overall LANL clean-up effort regulated by NMED under the Consent Order. Mortandad Canyon is the first full canyon investigation submitted to NMED, covering all aspects of contamination – biota, sediments, surface water, and groundwater. The importance of this canyon investigation was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1B SWMU 21-014 (MDA A) Investigation Report: This report was delivered on schedule to NMED on November 9, 2006. Completing this investigation is a major milestone in the clean-up of TA-21. TA-21 represents approximately 20% of the entire environmental restoration project. The importance of this MDA investigation was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1C Chromium Contamination in Regional Well R-28 Groundwater Interim Measures: This report was delivered on schedule to NMED on November 30, 2006. Completing this first phase of the investigation of chromium contamination in the regional aquifer was important to address the potential threat to Los Alamos County (and LANL) drinking water supplies. It was also important to demonstrate LANL's understanding of the potential threat and our commitment to addressing it. The importance of this canyon investigation was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1D SWMU 50-009 (MDA C) Investigation: This report was delivered to NMED on schedule on December 6, 2006. The report included data and results for 36 of 40 (90%) of the boreholes required by an NMED approved and negotiated work plan. The approved work

plan also required the use of geophysics to locate borehole locations. Based on those geophysical investigations, it was discovered that additional safety basis requirements would need to be implemented prior to completion of the remainder of the final four boreholes. These unanticipated safety reviews and requirements were driven by a change in field conditions from the planned and approved work scope. As a result of the change in the planned work scope, the data from these final four boreholes were not able to be collected and analyzed in time to be submitted within the December 6, 2006 deliverable. LANL believed that this change in field condition warranted an extension to be granted by the NMED. It was denied. The data from the remaining four boreholes were safely collected and submitted to NMED on April 20, 2007. A Notice of Violation (NOV) was given to LANL indicating that the December 6, 2006 submittal was not substantially compliant with the work plan requirements. Discussions with NMED indicated that this was an appropriate question to take through the Consent Order dispute resolution process. Discussion with NNSA and EM did not support such a path forward. DOE/LASO urged LANL to pay the stipulated penalty associated with the NOV.

8.1E Addendum to the Work Plan for Sandia Canyon and Canada del Buey: This report was delivered on schedule to NMED on January 30, 2007. Completing this second work plan for the investigation of chromium contamination in the regional aquifer was important to continue in order to address the potential threat to Los Alamos County (and LANL) drinking water supplies. It was also important to demonstrate LANL's understanding of the results of the first phase of the investigation. The importance of this canyon investigation was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1F SWMU 16-021 (c) CME Report for Intermediate and Regional Groundwater Report: This report was delivered on schedule to NMED on August 31, 2007. Completing this report was important as this is the first contaminated area that we anticipate will require active groundwater remediation. Meeting this deliverable demonstrates the Laboratory commitment to performing clean-up of legacy contamination where required. The importance of this corrective measures evaluation was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1G SWMU 16-008 (a) Investigation Report: This investigation required exploratory boreholes to be drilled in the 90s Line Pond. Unusually heavy snowfall and spring rains resulted in the Pond not being sufficiently dry to allow access for drilling. LANL requested and received an extension on the deliverable date for this report. NMED approved this request and this report has been deferred by NMED until FY 2008.

8.1H Guaje/Barrancas/Rendija Canyons Aggregate Area Investigation Report: This report was delivered on schedule to NMED on August 31, 2007. Completion of this report was important because these areas are located on Los Alamos County and San Ildefonso Pueblo lands. Completion of these reports is a major milestone in the final disposition of these non-LANL-owned lands and increases confidence of these very important stakeholders. The importance of this corrective measures evaluation was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1I S-Site Aggregate Area Investigation Work Plan: This report was delivered on schedule to NMED on September 30, 2007. Completion of this report was important because it is the first milestone towards the investigation of contamination at these sites and the final corrective measures decision. LANL demonstrates progress on the site-wide clean-up by fulfilling this Consent Order milestone. The importance of this corrective measures evaluation was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1J North Ancho Canyon Aggregate Area Investigation Work Plan: This report was delivered on schedule to NMED on September 30, 2007. Completion of this report was important because it is the first milestone towards the investigation of contamination at these sites and the final corrective measures decision. LANL demonstrates progress on the site-wide clean-

up by fulfilling this Consent Order milestone. The importance of this corrective measures evaluation was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1K First Regional Aquifer Well Completion Report due in FY 2007: This report was delivered on schedule to NMED on September 14, 2007. Completion of this report demonstrates successful drilling of new wells supporting the investigation of chromium contamination in the regional aquifer. Completion of this report demonstrates LANL's ability to drill wells without the use of drilling additives in the regional aquifer, which will allow the collection of representative groundwater sample data. The importance of this corrective measures evaluation was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1L Second Regional Aquifer Well Completion Report due in FY 2007: There is no second well completion report required in FY 2007 because NMED required only one regional aquifer well during FY 2007.

8.1M First Periodic Monitoring Report due in FY 2007: This report was delivered on schedule to NMED on November 22, 2006. Completion of this report demonstrated LANL's ability to provide the large amount of groundwater data, required under the Consent Order, to NMED and the public in a timely fashion. The importance of this periodic monitoring report was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1N Second Periodic Monitoring Report due in FY2007: This report was delivered on schedule to NMED on November 22, 2006. Completion of this report demonstrated LANL's ability to provide the large amount of groundwater data, required under the Consent Order, to NMED and the public in a timely fashion. The importance of this periodic monitoring report was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1O MDA V Investigation Report: This report was delivered on schedule to NMED on October 31, 2006. Completing this investigation is a major milestone in the clean-up of TA-21 and represents approximately 20% of the entire environmental restoration project. The importance of this MDA investigation was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1P General Facility Information (GFI) 2007 Report: This report was delivered on schedule to NMED on March 30, 2007. The GFI provides current information on the site geology, hydrology, and groundwater contaminant distribution. It is important for LANL and NMED to be reviewing Consent Order investigations and evaluations against the same understanding of the site. The importance of this periodic monitoring report was identified by NMED as an FY 2007 stipulated penalty deliverable under the Consent Order.

8.1Q MDA L CME Report: This report was originally due to NMED on July 31, 2007. On July 18, 2007, NMED directed LANL to submit this report on January 18, 2008. This delay will allow results of ongoing vapor and groundwater monitoring conducted in and surrounding MDA L to be submitted as part of the CME.

8.1R MDA G CME Report: This report was originally due to NMED on August 5, 2007. On June 8, 2007, NMED directed LANL to submit this report on September 12, 2008. This delay will allow results of ongoing vapor and groundwater monitoring conducted in and surrounding MDA G to be submitted as part of the CME.

LASO Validation Statement: LASO is not in agreement with the discussion on measure, 8.1.D. The University of California submitted a Work Plan that proposed drilling 11 boreholes and it was approved by NMED. After LANS took over they had over 6 months to work the challenges of drilling the 11 boreholes. However, LASO recognizes that new data was

obtained in July 2006 that raised concerns with distance between the trenches, hence the concern for safe drilling. NMED lost patience and directed LANS to drill the 4 boreholes which were the subject of discussion at the end of September 2006. LANS did not start drilling, but instead continued negotiations, and in late November 2006 LANS developed a letter of extension which was later denied by NMED. This effort was not well managed.

In accordance with the fee schedule, 1 missed milestone reduces fee by 30%. Therefore earned fee is 70% times $1,689,180.

Available Fee: $1,689,180
Fee Earned: $1,182,426

Measure 8.2 Deleted.

Measure 8.3 Reduce legacy TRU waste at TA-54

Expectation Statement: Disposition (i.e., ship to WIPP or dispose as LLW) 44,658 PE-Ci of dispersible, contact-handled TRU waste (this quantity includes 12,062 PE-Ci previously dispositioned and 32,596 PE-Ci to be dispositioned during this performance period) and achieve SPI and CPI between 0.90 and 1.15 as measured cumulative for FY 2007.

8.3A **Define Completion:** During the performance period eliminate up to 32,596 PE-Ci of dispersible, contact-handled TRU waste from Area G, within the constraints described in 8.3C below. Achieve an aggregate cost and schedule performance index equal to or greater than 0.90 but less than 1.15 as measured cumulative for FY 2007, and associated milestones in the baseline.

LANL Completion Statement: LANL shipped 15,224.23 PE-Ci of contact-handled TRU waste during FY 2007. This is 46.7% of the goal of 32,596 PE-Ci stated in the PBI.

In addition, LANL had 2,360 PE-Ci of contact-handled TRU waste ready to be shipped from Area G during the three weeks in August 2007 when a shipping pause at WIPP occurred (resulting from an uncertified drum shipped from INL to WIPP). This amount, added to the TRU activity shipped, is 17,584.23 PE-Ci or 53.9% of the goal of 32,596 PE-Ci.

At the end of FY 2007, LANL has 4,960 PE-Ci of contact-handled TRU waste ready to be shipped to WIPP (in addition to the 2,360 PE-Ci that were not shipped during the August 2007 shipping pause at WIPP). This amount, added to TRU waste shipped and ready to be shipped in August, is a total of 22,544.23 PE-CI or 69.2% of the goal of 32,596 PE-Ci.

Shipping TRU waste to WIPP is important to the mission of the Laboratory and NNSA because of the need to reduce the above ground storage of TRU waste at TA-54. Potential accidents that impact this waste could result in an off-site dose to the public. The risk to the public and the environment at LANL is reduced as this waste is shipped off-site and place in final disposition at WIPP.

LANL has achieved cost and schedule performance indices within the target goal for FY 2007 for PBS 013 TRU Waste Disposition. PBS 013 (TRU) CPI = 0.97, SPI = 0.94.

Meeting these cost and performance indices is important to the mission of the Laboratory and the NNSA as a demonstration of the Laboratory's commitment to deliver the TRU waste disposition project scope in a fiscally responsible way. Meeting these performance indices lends confidence to the Laboratory's ability to complete the removal of TRU waste from LANL so that the requirements of the DOE/LANL/NMED Consent Order are also met.

LASO Validation Statement: LASO is in agreement that the total TRU Waste shipped in FY 2007 was 15,224.23 PE-Ci. This measure was negotiated in October 2006 to ship 32,596

PE-Ci by the end of FY 2007. However, given the challenges to operate two facilities (WCRR and RANT) at a higher mode, LASO agreed to renegotiate this measure from "all or none" to incentivizing the contractor to ship as much as possible. The goal of this measure is to reduce the material at risk at LANL by shipping high activity drums to WIPP.

Formula: 15,224.23 PE-Ci divided by 32,596 PE-Ci times $1,126,120 (fee)

Available Fee: $1,126,120
Fee Earned: $525,898

8.3B Deleted.

Measure 8.4 Improve the LANL EM performance baseline

Expectation Statement: Deliver the LANS baseline change proposals (BCPs) that accelerate remediation by two years to the life cycle integrated EM baseline on or before January 31, 2007. The BCPs must be of high quality to pass an Internal Independent Review and be approved by DOE. The BCPs will demonstrate optimization in schedule and cost by year and serve as the management tool for project management. (NOTE: This will be used as a multi-year PBI in FY 2008.).

8.4 Define Completion: Deliver three LANS baseline change proposals (BCPs) that define the LANS strategy for a two-year acceleration of the EM-funded Legacy Environmental Cleanup Projects at LANL (Legacy Waste, Environmental Restoration, and D&D) on or before January 31, 2007. Achieve an aggregate cost and schedule performance index of equal to or greater than 0.90 but less than 1.15 as measured cumulative for FY 2007, and associated milestones in the baseline.

LANL Completion Statement: Three LANS baseline change proposals (BCPs) that define the LANS strategy for a two-year acceleration of the EM-funded Legacy Environmental Cleanup Projects at LANL were delivered ahead of schedule to DOE/LASO on January 29, 2007. The BCPs (Legacy Waste, Environmental Restoration, and D&D) present two-year schedule acceleration over the June 15, 2006, baseline submittal and identified $334 million in potential savings.

The critical path for achieving the two-year schedule acceleration is the closure of TA-54 Area G. Two strategies were presented to achieve this goal: leaving the 33 remote-handled waste shafts in place or removing the shafts. The two-year schedule acceleration can be achieved with either strategy; however, identified savings are somewhat lower for the case of removing the waste shafts.

LANL has not received documentation from the Internal Independent Review of the BCP.

The BCP for improving the Integrated LANL Environmental Management Program is important to the mission of the Laboratory and NNSA because LANL must demonstrate its ability to protect the environment, to maintain the public trust and the trust of our DOE customer for future LANL operations. The clean-up of legacy contamination must be completed as quickly and efficiently as possible.

LANL has achieved cost and schedule performance indices within the target goal for FY 2007 for the entire EM program: SPI = 0.92, CPI = 0.96.

Meeting these cost and performance indices is important to the mission of the Laboratory and the NNSA as a demonstration of the Laboratory's commitment and ability to deliver the Environmental Restoration Project scope in a fiscally responsible way. Meeting these performance indices lends confidence to the Laboratory's ability to complete the requirements of the DOE/LANL/NMED Consent Order.

LASO Validation Statement: While LASO is in agreement with the LANS completion statement that the BCP was submitted ahead of schedule (two days ahead of schedule), LASO is not in agreement with all of the strategies. The two year acceleration affects various areas (TA-21, Groundwater, Material Disposition Areas (MDAs), 33 shafts, shipment of waste, etc.). The LASO review determined that the strategies for some of the acceleration cannot be executed. Specifics are listed below:

MDAs: Given the regulatory framework and relationship, accelerating closure of MDAs without having a better understanding of groundwater is not possible. Note: Benchmarking within New Mexico would have provided a more realistic picture (i.e., Sandia National Laboratory).

33 Shafts: The LANS write up states the BCP offered two strategies, in-place or retrieval. The BCP has a text box in one of the v-graphs (Slide 11) that states an alternative would be to leave in place. The strategy is not found in the January 29 submittal. However, the leave in-place strategy is described in the submittal. This strategy is not acceptable as it leads to two very uncontrollable paths:1) 10 CFR 191 approval by the Secretary of Energy in consultation with the Environmental Protection Agency, and 2) an Environmental Impact Statement related to "leave in-place." The rest of the DOE complex is retrieving. The leave in-place strategy would likely not be accepted to New Mexico's public or the regulator and the Principal Deputy Assistant Secretary for Environmental Management (EM-2) does not support this approach.

An underlying expectation/assumption related to completion of this measure is that the strategy should logically be able to achieve two-year acceleration. Recognizing that the critical path is through Area G, the fact that MDAs will take longer to complete, and the technical and political complexities associated with 33 Shafts, the BCP has not defined executable strategies. Therefore, LASO recommends no fee be paid on this measure.

Available Fee: $402,186
Fee Earned: $00

Measure 8.5 Maintain compliance with laws for protection of the public and environment in support of continued LANL operations and maintain ISO 14001 certification.

Expectation Statement: For compliance with Environmental Regulatory Requirements (see Assumptions), the Laboratory will meet all regulatory non Consent Order (see Measure 8.1) compliance submittals on-time, will formalize an objective of zero environmental regulatory compliance violations, and will seek to continuously improve compliance performance as measured by self assessment and self correction processes and the regulatory performance record. In addition, they will continue to demonstrate ISO 14001 certification through third party verification by September 29, 2006.

8.5.1 **Define Completion:** Regulatory compliance performance as defined by submittal of all required deliverables (as established in the "Complete Documents List" below) on time and meeting of groundwater and drinking water monitoring agreement commitments with Los Alamos County and San Ildefonso Pueblo.

LANL Completion Statement: A list of stipulated documents was agreed upon with LASO. The Completion Package/Evidence for PBI Measure 8.5 includes a spreadsheet indicating the date of completion for each deliverable. ENV Division had a 100% on-time delivery record. Cover letters for each regulatory submission are also included as evidence.

LASO Validation Statement: LASO has validated all documents and is in agreement that this measure, #8.5.1 is complete.

Available Fee: $100,546
Fee Earned: $100,546

8.5.2 **Define Completion:** Continued improvement in compliance performance trends (current year performance compared to the average of the past 3 year's performance). For RCRA self assessments, a success rate of 96.5% or greater. For CWA storm water self assessments, a success rate of 95% or greater. For NPDES external assessments, a rating of reliable self-monitoring (Section 70, EPA NPDES Compliance Inspection Report, OMB No. 2040-003) or greater. For CAA external assessments, zero exceedances of the EPA 10mRem standard.

LANL Completion Statement: The purpose of this PBI was to show continual improvement in compliance performance trends for the principle RCRA, water, and air compliance measures. The evidence for this measure documents that there were several rough stretches during the year. Stormwater compliance had a low performance period early in the year, and RCRA findings peaked later in the year. However, focused attention on root causes and working with customer organizations yielded significant improvement for the Laboratory by year end.

Individual performances are summarized below:

- RCRA self assessments had a full year success rate of 97.0%, with 1,904 total inspections completed. Corrective actions were entered into the LIMTS system for organizations with RCRA compliance issues.
- Clean Water Act (CWA) stormwater self assessments finished the fiscal year with a success rate of 97.9%. 534 inspections were conducted.
- During FY 2007, 837 NPDES inspections were completed with three exceedances. This is a successful inspection rate of 99.6%. Since October 5, 2007, the US EPA has not conducted an NPDES Compliance Inspection, indicating to LANL staff that NPDES performance does not warrant such an inspection.
- The Clean Air Act rolling 12-month dose (from October 2006 to September 2007) was = ~0.2 mrem, demonstrating effective controls and management of applicable sources. This was also low based upon the respective operating environment, such as the duration of operations at LANSCE. Anticipated off-site dose from all LANL operations in 2007 is ~0.5 mrem.

LASO Validation Statement: LASO has validated all data and is in agreement with this measure.

Available Fee: $100,546
Fee Earned: $100,546

8.5.3 **Define Completion:** Pollution Prevention. A composite score in waste minimization of 1.5 or below will be attained.

LANL Completion Statement: Overall Laboratory savings from P2 programs in FY 2007 are conservatively estimated at $18.4M. The P2 Performance index for FY 2007 is 1.29, resulting in a performance rating of "good." The Laboratory performed very well in the area of hazardous waste reduction, generating 17 metric tons (mt) of hazardous waste as compared to a 29 mt target. Areas of concern were recycling, sanitary waste generation, and transuranic waste. A Six-Sigma analysis was performed on the recycle program, and improvements implemented in the last quarter of FY 2007 improved performance from 27% to 44%, a dramatic, measurable improvement which moved this measure into the "good" range. Sanitary waste generation was higher than expected due to reduction in workforce at KSL and PTLA, which reduced the actual number of employees used in calculating the per capita waste generation by over 1000 people. The decreased number of employees, combined with office cleanouts and problems with the recycle program for much of the year, caused the sanitary waste generation per capita to be higher than expected. Improvements in the recycle program will help decrease this number over time.

LASO Validation Statement: LASO has validated the pollution prevention accomplishments and is in agreement that this measure, #8.5.3 is complete.

Available Fee: $100,546
Fee Earned: $100,546

8.5.4 Define Completion: Maintain ISO 14001 certification (with third party verification).

LANL Completion Statement: The Laboratory has maintained certification with the ISO 14001 standard and conducted two independent third-party audits of system implementation during the assessment period. The Laboratory's EMS has been used to establish institutional objectives and targets that contribute to overall compliance objectives and continuously improve environmental performance. All 16 Directorates have completed and are implementing Environmental Action Plans to continuously improve performance in their organizations.

LASO Validation Statement: LASO validated that certification was maintained with third party verification and is in agreement with completion of this measure.

Available Fee: $100,546
Fee Earned: $100,546

PBI No. 9
Safety and Health Performance

PBI 9: Safety and Health Performance

Maximum Available Fee: **$1,795,423**
Fee Earned: **$960,551**

NNSA Summary:

LANS made significant progress implementing improvements in Safety and Health throughout the Laboratory. Noteworthy accomplishments include work in Electrical Safety, implementing Voluntary Protection Program (VPP) aspects in support of future certification. Implementation of employee led safety committee structure and improvements in those elements of fire protection evaluated under this PBI.

Opportunities for improvement remain in accuracy and timeliness of OSHA record keeping (although the laboratory achieved a significant downward trend in Total Recordable Case Rate (TRC) and a LANL "Combined" Days Away, Restricted, or Transferred (DART) Rate (TRC/DART), chemical inventory/chemical management, as well as emergency management planning tied to the chemical inventory process.

Completion/Validation Statements

Measure 9.1 10 CFR 851 Worker Safety and Health Plan and Department of Energy (DOE)-Voluntary Protection Program (VPP) Implementation.

Expectation Statement:
1. Develop a project plan for the VPP 3-year implementation and meet the measurable milestones within the performance period.
2. Train management in Human Performance Fundamentals
3. Establish an employee-led safety committee structure and implement such that worker involvement implementing VPP principles and Integrated Safety Management is maximized.

9.1.1 **Define Completion:** Completion of 2007 milestones including continued roll-out of the WSST process as projected by the VPP PMP.

LANL Completion Statement: All of the FY 2007 milestones of the VPP project have been completed. This has set the stage for a successful Voluntary Protection Program. Some of the key programs, policies and procedures are in place to shape improvements in LANL's safety culture. Driving the laboratory towards better safety practices will improve morale, reduce workplace injuries and illnesses, reduce absenteeism, and improve public relations at LANL.

LASO Validation Statement: All 29 milestones for FY 2007 were completed. A VPP Project Manager was appointed, and actively pursued VPP initiatives throughout the year. Institutional procedures (such as Institutional Support Documents) have been issued. Worker Safety Teams have been established and are operational. Implementation of safety expectations is at about a "B" average; non-compliance problems (as documented by critiques and ORPS reports) have remained stable with pre-VPP-effort levels.

LANS provided a strong effort to initiate and activate VPP elements. LANS produced a noticeable effort to improve the known weaknesses in safety implementation at LANL.

Available Fee: $125,681
Fee Earned: $125,681

9.1.2 Define Completion: Completion of management training in Human Performance Fundamentals.

LANL Completion Statement: 98.4% of all Laboratory managers (Group Leader and above) have completed the Human Performance Improvement class. The purpose of this class is to teach the fundamental concept that humans are fallible, so it is important to put safety systems in place in order to minimize the consequences of errors. This is a key concept to embrace in order to improve the safety culture at LANL and focus on system improvements. The required management training was completed

Available Fee: $26,931
Fee Earned: $26,931

9.1.3 Define Completion: Completion of the Institutional and AD level WSST process.

LANL Completion Statement: An Institutional worker Safety and Security Team has been established and chartered. 100% of the 15 AD-level teams have been established.

LASO Validation Statement: The WSST process has been established and implemented at LANL. Observation by LASO personnel have verified that the Institutional Worker Safety and Security Team is functioning and achieving success in implementing improvements at LANL. AD and Division level Worker Safety and Security Teams were established later in the year and were not observed by LASO. The requirements of PBI 9.1.3 have been met.

Available Fee: $26,931
Fee Earned: $26,931

9.1.4 Deleted

Measure 9.2 Injury Reduction

Expectation Statement: LANS will achieve, by September 30, 2007, improvements in a LANL "Combined" Total Recordable Case Rate (TRC) and a LANL "Combined" Days Away, Restricted, or Transferred (DART) Rate that is 20% lower than the May 31, 2006, baseline. LANS will ensure accurate and timely reporting of TRC/DART information through CAIRS in accordance with DOE M 231.1-1A Change 1.

Gateway/Threshold:
- No fee designated for TRC performance will be paid under this Measure if the FY 2007 TRC rate exceeds 3.26.
- No fee designated for DART will be paid under this Measure if the FY 2007 DART rate exceeds 1.23.
- No fee will be paid for Measure 9.2 if timely and accurate reporting is not demonstrated consistent with DOE M 231.1-1A Change 1.

LANL Threshold Completion Statement: The Laboratory's TRC and DART rates improved during the performance period and did not exceed the established baselines as noted above. For the performance period, the TRC and DART rates reported were:
TRC = 2.39 and DART = 0.85

Contractor Assurance Officer (CAO) verification is ongoing to determine if reporting timeliness and accuracy requirements of DOE M 231.1-1A Change 1 were met.

LASO Validation Statement: To record and report injuries and illnesses, LANL uses the DOE Environment, Safety and Health Reporting Manual (DOE M231.1-1A, dated 2003), and the OSHA Recordkeeping Handbook (dated 2005). Thus, the guidance has been available for several years, and has not changed.

During FY 2007, LANL TRC and DART rates were reduced. However, an audit by LASO in August 2007 found misclassification of cases, resulting in under-reporting of TRC and DART rates. LANL concurred with this finding, and adjusted the 2007 rates. Specifically, LANL reviewed the 106 cases determined to be misclassified by the LASO audit team. Based on their review, LANL revised the record ability for 51 cases. LANL also performed a review of previous cases (2005-2006). Specifically, LANL reviewed its cases for "first aid-splints" and "not work related" for the period June 2005 to May 2006, found 39 misclassified cases, and retroactively increased its 2006 TRC rate.

The Performance Measure requirement for "timely and accurate reporting" was inserted as an all-or-none fee gateway. The purpose of this was to incentivize improvement in the quality of data. The quality of the data determines the real or perceived credibility of the TRC and DART rates. This fee gateway was based on previous reporting experience and a 2006 audit by DOE Headquarters that found misclassification of LANL Injury and Illness cases, causing under-reporting of TRC and DART.

The LASO audit in August 2007 found that timeliness of reporting has improved since the DOE Headquarters audit in October 2006. However, the accuracy of classification and the completeness of records remains a concern. Based on the percentages of inaccurate and incomplete records found in the 2006 and 2007 audits, performance has not improved since the DOE Headquarters audit in October 2006. This finding is a repeat finding of the audit conducted by Headquarters in October 2006. Independent verification by CAO (report dated October 22, 2007) concluded that LANS met the PBI measure requirement for TRC and DART reduction, but did not meet the PBI measure requirement for reporting in accordance with the DOE manual. CAO did not complete verification of all elements due to lack of expertise, however, significant quality of documentation issues were identified. The gateway was not met; therefore no fee is earned in 9.2.1, 9.2.2, 9.2.3, or 9.2.4.

Fee Earned: Gateway Measure

9.2.1 **Define Completion:** Achievement of 20% reduction target of TRC.

LANL Completion Statement: The Laboratory's TRC rate declined 26.7% during the performance period from the May 31, 2006, baseline of 3.26. This PBI was met.

LASO Validation Statement: Although LANS met the decrease in Injury/Illness rates they failed to meet the basic Gateway criteria of 9.2. See PBI completion statement for PBI 9.2.

Available Fee: $161,587
Fee Earned: $00

9.2.2 **Define Completion:** Achievement of 20% reduction target of DART.

LANL Completion Statement: The Laboratory's DART rate declined 30.9% during the performance period from the May 31, 2006, baseline of 1.23. This PBI was met.

LASO Validation Statement: Although LANS met the decrease in Injury/Illness rates they failed to meet the basic Gateway criteria of 9.2. See PBI completion statement for PBI 9.2.

Available Fee: $161,587
Fee Earned: $00

9.2.3 **Define Completion:** [Achievement of] a TRC and DART rate 25% better (i.e., lower) than the May 31, 2006, baseline.

LANL Completion Statement: The Laboratory's TRC rate declined 26.7% during the performance period from the May 31, 2006, baseline of 3.26. The DART rate declined 30.9% from the May 31, 2006, baseline of 1.23. This PBI was met.

LASO Validation Statement: Although LANS met the decrease in Injury/Illness rates they failed to meet the basic Gateway criteria of 9.2. See PBI completion statement for PBI 9.2.

Available Fee: $ 107,726
Fee Earned: $00

9.2.4 Define Completion: [Achievement of] a TRC and DART rate 30% better (i.e., lower) than the May 31, 2006, baseline.

LANL Completion Statement: The DART rate declined 30.9% from the May 31, 2006, baseline of 1.23 exceeding the performance target. The TRC rate declined 26.7% but did not, however, meet the target of 30%.

LASO Validation Statement: Although LANS met the decrease in Injury/Illness rates they failed to meet the basic Gateway criteria of 9.2. See PBI completion statement for PBI 9.2.

Available Fee: $107,726
Fee Earned: $00

Measure 9.3 Fire Protection and Life Safety

Expectation Statement: Formalize the LANS Fire Marshal Function such that:

9.3.1. New projects including facility modification projects which impact fire protection and life safety are independently reviewed, are overseen from initial design to completion and approved by the LANS Fire Marshal Function for compliance with applicable DOE Orders and NFPA codes and standards.

9.3.2. Fire protection engineering evaluations are reviewed for completeness, validity and compliance with applicable laws, rules, DOE Orders, and mandatory codes and standards.

9.3.3. Fire hazard analysis, facility fire protection assessments and similar documents are reviewed and approved by the LANL Fire Marshal Function and the developing or updating of these documents is monitored to assure that this assessments/analysis are conducted and reported on an established schedule based on facility hazard categorization.

9.3.4 The Fire Marshal Function participates in Operational Readiness Reviews and Readiness Assessments with substantial fire protection issues.

Gateway/Threshold: No fee will be paid under this Measure if the LANL Fire Marshal Function does not include or address the following:

- Proof exists that a LANL Fire Marshal procedure or charter has been established, approved by upper LANL management and implemented.
- A qualified fire protection engineer is selected to lead the Fire Marshal group.
- Team members (Fire Marshal and Fire Protection Engineering Group) will include degreed Fire Protection Engineers (FPE), licensed FPEs, or certified FP design professionals
- The Fire Marshal will function in the role of oversight and not in the design, engineering or implementation related activities

LANL Threshold Completion Statement: The LANL Fire Marshal function was established in 1998 through issuance of Laboratory Implementation Requirement (LIR) 402-91 0-01, LANL *Fire Protection Program*. This LANL policy/procedure document remains in-effect as Revision 7 dated January 31, 2007. It describes the roles and responsibilities of the LANL Fire Marshal in overseeing new projects which impact fire protection and life safety.

A LANL Fire Protection program description document has been written that will bring the program into alignment with DOE O 420.1B and 10 CFR Part 851 regulatory language and commitments. It is being reviewed, and will be approved as PD 1220, *Fire Protection Program.* Approval and implementation of this document will greatly clarify the expectations of the Fire Marshal function responsibilities under LANS management.

A qualified fire protection engineer as defined by DOE-STD-1066-99, *Fire Protection Design Criteria,* has been assigned to serve as the LANL Fire Marshal. The LANL Fire Marshal function has been staffed to its current level of 2 FTEs during the review period; staff members for this function are certified and experienced fire protection professionals.

The LANL Fire Marshal function is engaged in the role of oversight and independent review, and is not engaged in the design, engineering or direct implementation of fire protection program-related activities.

LASO Validation Statement: LANS has developed and issued a description document to replace the existing Fire Protection LIR. This document describes the roles and responsibilities that are assigned to the LANL Fire Marshal Office. This requirement is fully met.

The LANL Fire Marshal Group is led by a qualified fire protection engineer. This requirement is fully met.

Both the LANL Fire Marshal Group and the LANL ERO-FIRE are composed of professionals which are appropriately qualified (fire protection engineer, technician, etc.) for the tasks they are assigned. This requirement is fully met.

Initially during the rating period the Fire Marshal continued to be called upon to perform engineering related activities in support of projects. By the end of the rating period the Fire Marshal was limiting his activities to that of oversight, with direct design, engineering evaluation development activities being transferred to the ERO-FIRE Group

Fee Earned: Gateway Measure

9.3.1 **Define Completion:** Review and oversight of new projects from initial design to completion including facility modification projects which impact fire protection and life safety are independently reviewed and approved by the LANS Fire Marshal for compliance with applicable DOE Orders and NFPA codes and standards.

LANL Completion Statement: As of September 19, 2009, 58 new facility construction and modifications to existing facility projects had been reviewed by the LANL Fire Marshal function. Comments were provided for disposition and incorporation where necessary and plans were approved where appropriate. It must be acknowledged that not all new facility and modification projects were reviewed and approved prior to implementation. The LANL Fire Marshal function performed five back-warding looking reviews. These projects fully reviewed prior to their completion.

To provide a high level of confidence that all appropriate projects originating or being managed by the LANL Project Management Directorate (PMD) have been reviewed by the LANL Fire Marshal function, a review of PMD project listings (LIP, GPP, IGPP, FIRP, D&D, footprint reduction, etc.) was completed. The on-going informal review and interaction with the LANL Fire Protection Group leads to the conclusion that the majority of facility modification projects of significance are being reviewed concurrently by the LANL Fire Marshal function; a few projects will require back-ward looking reviews before completion.

Specific evidence of completion is included with the completion package for this PBI.

Laboratory and Mission Importance: Independent Fire Marshal review and approval of new projects, including modification projects, hazardous operations and experiments which impact fire protection and life safety, must be conducted for compliance and consistent Institutional level application of Fire Protection requirements and interpretations.

LASO Validation Statement: Fire protection reviews of projects are performed in accordance with Project Management Services Directorate, Procedure 308 Design Review, and Procedure 606 Project Acceptance and Closeout.

While not all projects requiring review were forwarded to the Fire Marshal for review, the Fire Marshal using a screening process was able to identify five projects that were not submitted for review. Using a back-ward looking approach the Fire Marshal reviewed these missed designs to ensure compliance with applicable DOE Orders and mandatory codes and standards. The Fire Marshal is to be complemented in catching designs that had not been presented for review.

Sufficient documentation was provided to validate that all projects submitted for review, including those five projects originally omitted were reviewed. Documentation for each project included building number, project title, project type, design phase, fire marshal review status, and applicable notes on the review.

The Fire Marshal performed a screening of projects which did not initially meet the requirements for review. It was through this process that five projects not submitted for review were identified.

Proof of qualifications for both the Fire Marshal and deputy were provided.

Examples of review findings were made available for review.

Available Fee: $134,657
Fee Earned: $134,657

9.3.2 **Define Completion:** Review of fire protection engineering evaluations completeness, validity and compliance with applicable laws, rules, DOE Orders, and mandatory codes and standards by the LANL Fire Marshal Function.

LANL Completion Statement: As of September 19, 2007, six fire protection-related engineering evaluations were reviewed and approved by LANL Fire Marshal's function. Two more are anticipated in late September or early FY 2008. Preliminary versions of engineering evaluations were reviewed by the LANL Fire Marshal's function, and comments and issues were provided for incorporation and disposition, prior to approval.

LASO Validation Statement: The review of fire protection engineering evaluations is performed in accordance with LANL ERO-FIRE AP-FIRE-001.

A list of fire protection engineering evaluations performed by the LANL Fire Marshal was provided

The examples of engineering evaluations that were reviewed and submitted as a part of this PBI indicate that all the engineering evaluations were satisfactory, or that evaluations were returned for rework prior to acceptance.

No engineering evaluation reviewed resulted in the identification of significant errors or omissions.

Available Fee: $53,863
Fee Earned: $53,863

9.3.3 **Define Completion:** Review and approval of fire hazard analysis, facility fire protection assessments and similar documents by the LANL Fire Marshal Function, and the developing or updating of these documents is monitored to assure that these assessments/analyses are conducted and reported on an established schedule based on facility hazard categorization.

LANL Completion Statement: Thirty-one Fire Hazards Analyses (FHAs) and similar documents were reviewed and approved by the LANL Fire Marshal function in FY 2007. Comments on draft documents were provided by the LANL Fire Marshal function to the preparer for incorporation and disposition prior to approval of the final document.

Concurrent with the LANL Safety Basis Improvement Plan, FHAs for nuclear facilities and high and moderate hazard non-nuclear facilities are being prepared and/or updated to support safety basis document submittals to NNSA. The schedule for FHA updates for these facilities is consistent with the Improvement Plan, and generally consistent with the review and update expectations of DOE 0 420.1 B (typically on an annual cycle). Consistent with the Improvement Plan, six facility FHAs are anticipated for review and approval through the end of FY 2007.

It is acknowledged by LANL that the FHA updates for TA-50- 69 WCRRF failed to address the fire exposure posed by the outdoor oil-filled transformer, and that this compliance issue was observed during the LANL MSA for HC-2 operations in April 2007. Issues raised by both LANL and NNSA for new project pFHAs (TA-55 RLUOB, TA-55 CMRR, TA-50 RLWTF) are being addressed through interaction with project personnel.

Facility fire protection appraisals (assessments) were performed to the frequency delineated in LANL Laboratory Implementation Requirement (LIR) 402-91 0-01.7, LANL *Fire Protection Program,* Section 6.1 .l. A current review of the LANL facility assessment performance results for nuclear facilities and high and moderator non-nuclear facilities shows that ~83% of the required assessments have been performed in accordance with the established frequency. Three of the delinquent assessments will be addressed through completion of the facility FHA update effort in September/October 2007 to support DSA update submittals, and the other delinquent assessment is being slated for priority completion in September/October 2007 to bring the assessment schedule current with frequency standards. The LANL Fire Marshal function was directly involved in 13 other fire protection assessment activities not addressed by PBI 9.3.4.

In addition, the LANL Fire Marshal function routinely reviews new proposed activities posted on the LANL PR-ID system to provide feedback to project/activity points of contact on potential fire protection program issues and need for review and approval of project aspects by the LANL Fire Marshal function.

Specific evidence of completion is included with the completion package for this PBI.

Laboratory and Mission Importance: The review and approval of fire hazard analysis, facility fire protection assessments, and similar documents by the Fire Marshall provide an independent review and concurrence to ensure quality, accuracy, and consistent institutional level application of Fire Protection requirements and interpretations.

LASO Validation Statement: No fee should be paid for this Performance Measure.

The Fire Marshal did not develop nor use a procedure for the review of fire hazard analysis. A procedure does not exist which lays out the expectations that a review of all FHAs by the Fire Marshal is required, that the review must be rigorous, and the action to be taken upon discovery of errors or omissions within FHAs. The Fire Marshal did utilize a template to ensure that FHA followed a standard format. However, a review of FHAs submitted to LASO

for review identified at least one significant omission from the FHA template, glove box fire suppression. This requirement is not met.

All FHAs were reviewed by the Fire Marshal. This requirement is fully met.

A review of fire hazard analysis submitted and which were reviewed by LASO and the Service Center found significant errors and omissions. Example, the WCRR Fire Hazard Analysis did not identify the presence of an oil filled electrical transformer in close proximity to the WCRR facility, the TA-55 PF-4 FHA was found to contain significant errors and omissions, errors and omissions were found within the TA-55 PF-41 D&D Fire Plan, and the FHA for the TA-3 NMSSUP facility was of poor quality. This requirement was not meet.

Information provided by LANS indicates that the schedule is not in compliance with the expectations of DOE Order 420.1. This requirement was not met.

The FHA for DHART has not been issued even though the DSA for this facility is underway. This requirement is NOT met.

No fee payment is recommended for PBI 9.3.3 as four of the five sub-elements were not met.

Available Fee: $53,863
Fee Earned: $00

9.3.4 **Define Completion:** Participation of the Fire Marshal Function in 100% of Operational Readiness Reviews and Readiness Assessments conducted during FY 2007, See Section 5 for required details of performance.

LANL Completion Statement: The LANL Fire Marshal function participated on the one Contractor Operational Readiness Reviews (CORRs) performed by LANL during the review period: TA-50-69 WCRRF BIO / HC-2 operations June 13 - 28 (LA-UR-07-4471)
In addition, the LANL Fire Marshal function participated on nine LANL Management Self-Assessments (MSAs) and similar reviews. One MSA was missed; however, the FM did raise concern of DOE 0 420.1 B compliance and property protection (lack of sprinklers with MPFL > $3million) which has been rectified (sprinkler system has been installed) for that MSA.

Specific evidence of completion is included with the completion package for this PBI.

Laboratory and Mission Importance: Fire Marshal participation in Operational Readiness Reviews and Readiness Assessments with substantial fire protection issues provides for a level of independence and consistent application of Fire Protection requirements and interpretations.

LASO Validation Statement: The requirements for Subject Matter Experts (SME) participation within the startup and restart of facilities are included within LANL Institutional Document Procedure No. P115.0. This procedure lays out the process for participating in ORR and RA activities, including the identification of issues and their resolution.

The Fire Marshal participated in all but one ORR, RA or similar activity that were performed by LANL in FY 2007. Proof of this participation was provided. This requirement is fully met.

Examples of documents produced as a result of participation in readiness activities by the Fire Marshal were provided.

Full payment in the amount of $26,931 is recommended for this PBI and its associated sub-elements.

Available Fee: $26,931

Fee Earned: $26,931

Measure 9.4 Chemical and hazardous material management

Expectation Statement: LANS will achieve performance improvements in chemical and hazardous materials management, including but not limited to the areas of: chemical inventories, exposure assessments, biological safety, life-cycle management (shelf-life/aging chemicals, excess materials, and disposition), and emergency response. Successful performance improvement will be based upon independent verification.

Gateway/Threshold: No fee will be paid under this Measure if the chemical inventory system is less than 90% accurate at 95% of facilities containing hazardous chemicals. (This is not the average inventory, but each facility must maintain at least 90%).

LANL Threshold Completion Statement: On April 30, and again on October 3, 2007, overall Chemlog compliance as reported by LANL Line Management was above 97%. On October 3, it was reported as 98.20%. All FODs were above 90%; all but one FOD was above 97% (one was at 95%).

Chemlog data associated with those buildings with less than 90%, as stated in the Chemlog record from October 3, were reviewed to determine the accuracy of the data. The number of chemical-containing buildings in Chemlog is updated on a daily basis due to data corrections performed from September 13 through September 30, 2007; corrections continue at this time. As of September 30, 2007, 22 out of 646 buildings containing chemicals are below 90% inventory compliance, with no record of requests for updates to Chemlog personnel. This results in 96.5% of the buildings containing chemicals at 90% or above accuracy, meeting this PBI threshold.

The Contractor Assurance Office (CAO) is performing an independent verification to determine the validity of the inventory in Chemlog. Despite the requirement for a physical inventory by all chemical owners in September, preliminary data indicates that the numbers in Chemlog do not accurately reflect the physical inventory in all areas. IH/S has also initiated a Black Belt Performance Improvement Process on chemical inventory accuracy.

LASO Validation Statement: On April 30, 2007, compliance as reported by LANL Line Management in Chemlog was above 97%. However, a review by LANL Industrial Hygiene and Safety (IHS) personnel found discrepancies. Actions were initiated to correct the inaccuracies.

In September 2007, the LANL Principal Associate Directorate for Operations issued a memorandum requiring chemical owners and line managers to perform a physical inventory of chemical containers and update the ChemLog system by September 28th, 2007.

In October 2007, CAO performed an independent verification to determine the validity of the inventory in Chemlog. Buildings were randomly selected for physical inventory verification. The selection included one nuclear building, two high hazard buildings, and two moderate hazard buildings. CAO found that the numbers in Chemlog do not accurately reflect the physical inventory. CAO found that chemical inventory accuracies were less than 90% in 8 (80%) of 10 buildings verified, and less than 70% accurate in 4 (40%) of 10 buildings verified.

Independent verification by CAO (report dated October 24, 2007) verifies that the gateway requirements of PBI 9.4 were not met. No fee should be paid for this Performance Measure.

Fee Earned: Gateway Measure

9.4.1 Define Completion: Maintain a chemical inventory such that 97% of all hazardous chemicals are accurately identified in an established inventory system on a facility by facility basis (not an average).

LANL Completion Statement: On April 30, and again on October 3, 2007, compliance as reported by LANL Line Management in Chemlog was above 97%. On October 3, it was reported as 98.20%. All FODs were above 90%; all but one were above 97% (one was at 95%).

Chemlog data associated with those buildings with less than 90%, as stated in the Chemlog record from October 3, were reviewed by HIS-IP to determine the accuracy of the data. The number of chemical-containing buildings in Chemlog is updated on a daily basis due to data corrections performed from September 13 through September 30, 2007; corrections continue at this time. As of October 3, 2007, 22 buildings out of 646 building containing chemicals were below 90% inventory compliance, with no record of request for updates to Chemlog personnel. This results in 96.5% of the buildings containing chemicals at 90% or above accuracy.

CAO is performing an independent verification to determine the validity of the inventory in Chemlog. Despite the requirement for a physical inventory by all chemical owners in September, preliminary data as of October 16, 2007 indicates that the numbers in Chemlog do not accurately reflect the physical inventory in all areas.

In addition to the inventory updates, the following improvements were made to the Chemical Management program during this performance period:

- Developed and communicated chemical management metrics to management via PBIs/PBI Corrective Action Plan and Dashboard.
- Applied the Lean Six Sigma process to chemical management and developed an improvement plan/strategy. Chemical owners identified as the critical link for a successful process.
- Determined current chemical inventory status on facility by facility basis, both on Chemlog, and as part of a validation walkdown by the Chemical Management team. Determined problem containers, (i.e., those not accounted for in last 12 months), identified inappropriate chemical owners (ASM buyers, administrators, gas plant personnel), non-barcoded containers, bar-coded items not in Chemlog, obvious/incorrect physical form or other incorrect data, and incorrect chemical in system.
- For gas plant, ensured that cylinders are assigned to correct chemical owner, and assisted gas plant in fixing issues with inventory.
- Posted status of inventory for each AD, Division Leader, and FOD every Monday on Chemical Management page.
- Implemented, or are in the process of implementing, Chemlog improvements, including making it easier to transfer chemicals from one owner to another, and making inventory updates easier.
- Identified chemicals due for disposal, recycle, reuse, and have begun to manage chemicals identified for disposal, recycle, re-use.
- Numerous communications via LINKS to help chemical owners manage their chemicals.
- Reduction of chemicals on site, including a massive campaign to reduce/eliminate canned air.

FY 2008 continuous improvement initiatives will focus on sustainability of an accurate chemical inventory.

LASO Validation Statement: On April 30, 2007, compliance as reported by LANS Line Management in Chemlog was above 97%. A review by LANL Industrial Hygiene and Safety (IHS) personnel found discrepancies. In some cases, the chemical inventory was updated by changing the date in Chemlog without performing a physical walkdown to verify the location and presence of chemicals. A significant number of buildings were found to be less than 90% accurate. Actions were initiated to correct the inaccuracies. Throughout the fiscal year, IHS personnel assisted chemical owners in improving their chemical inventory compliance.

LANL management again directed that by September 28, the chemical inventory would be checked and updated. CAO then performed an independent verification to determine the validity of the inventory in Chemlog. Buildings were randomly selected for physical inventory verification. The selection included one nuclear building, two high hazard buildings, and two moderate hazard buildings. CAO found that the numbers in Chemlog do not accurately reflect the physical inventory. CAO found that chemical inventory accuracies were less than 90 % in 8 (80%) of 10 buildings verified, and less than 70% accurate in 4 (40%) of 10 buildings verified.

Independent verification by CAO (report dated October 24, 2007) verifies that the requirements of PBI 9.4 were not met.

Available Fee: $107,726
Fee Earned: $00

9.4.2 **Define Completion:** Achievement in qualitative assessments of chemical exposure and quantitative assessments with 29 CFR 1910 exposure monitoring requirements, consistent with requirements of 10 CFR 851 for 95% of facilities with chemical inventory.

LANL Completion Statement: Qualitative Exposure Assessments (QEAs) and quantitative exposure assessments (sampling) have been completed or scheduled for each FOD. "Completed" is defined as: QEAs for high and moderate priority facilities by July 31; Quantitative exposure assessment (sampling) for high and moderate facilities by August 30; QEAs for office buildings by August 30; and any quantitative exposure assessment gaps for low priority facilities by September 30.

High priority facilities are defined as those facilities with processes that use chemicals for which initial monitoring is required by OSHA (see list) or DOE (beryllium only), and those facilities with processes that use Category 1 chemicals (as defined by LANL Chemical Management Program). Moderate priority facilities are defined as those facilities with processes that use chemicals that are not OSHA-driven or CAT 1, but have processes that result in a "Red" designation as determined using the Exposure Assessment matrix. Low priority facilities are those facilities that are designated as office buildings or low hazard buildings, or that contain processes that result in a "Yellow" or "Green" designation as determined using the Exposure Assessment matrix. Any high or moderate priority facilities for which the process will not occur by May 25, 2007, shall have sampling scheduled for the next time the process occurs.

Each FOD/ESHQ manager was asked to identify processes, and perform qualitative and quantitative exposure assessments in accordance with the Laboratory Industrial Hygiene and Safety Manual Chapter 45. A list of chemicals that require initial monitoring per OSHA was distributed, as well as a listing of buildings with chemicals. The results were entered in CTS, the Laboratory exposure database, with a hard copy kept by IH/S Division Records Manager. The Worker Exposure Assessment was validated in September (see report). The validation was performed in accordance with management assessment requirements of the IH/S

Quality Manual, and included a 10% random sample of electronic and hard copy records compared to Chemlog.

The number of chemical-containing buildings on Chemlog is being updated on a daily basis due to data corrections performed from September 13 through September 30, 2007; corrections continue at this time. At the time of the IH/S validation of completed exposure assessments on September 30, there were 621 buildings noted on Chemlog as containing chemicals. 176 of these are office buildings; a blanket QEA exists for these. 445 buildings were initially assumed to be moderate or high priority (90 high priority buildings, and 367 moderate priority buildings). This would indicate that QEAs and any necessary sampling has been completed for 590 buildings. Many of these buildings are storage buildings; i.e., no exposure is anticipated for transportainers, magazines, or other storage buildings. Other buildings are noted to contain chemicals; however the chemicals are not in active use. Those buildings that are storage buildings, or contain chemicals that are not being used, are being subtracted from the 590, to give an accurate picture of buildings requiring completed QEAs and necessary sampling.

In summary, exposure assessments are required for operations with potential physical, chemical, or biological hazards. A significant effort was made by each FOD and their ESH&Q Manager to complete required exposure assessments during the performance period. High priority buildings (those buildings that contain chemicals that are carcinogens or require monitoring per OSHA) are estimated to be at least 95% complete for both qualitative and quantitative assessments. In addition, the quantitative assessments for moderate priority buildings and qualitative assessments for low priority buildings appear to have been completed (data is still being reviewed by Industrial Hygiene and Safety). All assessments are being tracked for future reference in an institutional database.

LASO Validation Statement: The LANL Performance Self-Assessment (dated October 19, 2007) states (page 176) that qualitative and quantitative assessments are “estimated to be at least 95% complete” for high priority buildings. It also states that quantitative assessments for moderate priority buildings and qualitative assessments for low priority buildings “appear to have been completed”. The PBI Completion Documentation submitted to LASO has this same information. Both LANS reports say “data is still being reviewed by Industrial Hygiene and Safety”.

However, since chemical exposure assessment is dependent on an accurate chemical inventory, this performance measure is dependent on the gateway performance of Measure 9.4. Independent verification by CAO (report dated October 24, 2007) verifies that the requirements of PBI 9.4 Gateway were not met.

Available Fee: $80,794
Fee Earned: $00

9.4.3 **Define Completion:** Achievement in hazardous chemical life-cycle management demonstrated by automated linking of chemical inventory with chemical disposal. Eighty percent of identified chemicals due for disposal (e.g. expired reactives, excess materials, shelf-life/aging chemicals) are managed (recycled, reused, disposed of, or a regulatory compliant disposal pathway identified) through this system by May 31, 2007.

LANL Completion Statement: Chemlog software update and chemical inventory update completed April 30, 2007. The process of identification and management of chemicals for disposal, recycle, reuse by owners and their respective managers was defined. ChemLog PDA system upgraded to handle "Pocket PC" units and now includes Recycle and Waste Item ID fields. These files can be read by waste database system to automate generation of CWDR form. Chemicals can remain as recycle for six months then will be disposed as Unused/Unspent chemicals. Contact made with 250 recycle/surplus chemical owners and

related actions are currently being verified to demonstrate 80% are managed through the updated ChemLog system.

LASO Validation Statement: The PBI Completion Documentation states that 239 of 274 chemicals (83.6%) were managed through the life-cycle management process. A list attached to the PBI Completion Documentation lists chemicals. Although the list is not titled, one would assume it is the list of chemicals managed through the life-cycle management process. The list also shows that of the chemicals listed (all inventoried during FY 2007) only 60 were disposed of during FY 2007, in contrast with the summary statement that 106 were disposed. Others were disposed of earlier, some as early as 1999. It is not clear how a chemical disposed of in 1999 could be inventoried in 2007. Other numbers also do not match up between the stated accomplishment and the attached list supporting that accomplishment.

The submitted documentation therefore does not validate the claimed accomplishment. It appears that the "automated linking" required by the PBI has been accomplished. It is unclear how many chemicals were "identified due for disposal" and how many were managed under that process during this fiscal year. It is doubtful that chemicals disposed of prior to this PBI can be included in a list of "identified chemicals due for disposal".

Available Fee: $40,397
Fee Earned: $00

9.4.4 **Define Completion:** Demonstrating Biological Select Agent inventories are managed such that the registration list is accurate and periodically verified accurate.

LANL Completion Statement: The Quarterly inventory is current and was completed on September. PBI Completion Documentation is confirming and providing evidence files of completed quarterly inventories for the Performance Period.

LASO Validation Statement: The PBI Completion Documentation includes nine quarterly Inventory Verification checklists, completed by the Biological "Responsible Official" from LANL Industrial Hygiene and Safety. The quarterly verifications are spot checks of one or two inventories, not a complete biological inventory confirmation. Minor problems were noted, but overall verification was confirmed in each case. LASO did not observe the inventory verifications.

Available Fee: $26,931
Fee Earned: $26,931

9.4.5 **Define Completion:** Achievement in emergency response as follows:

(1) Building Run Sheets (BRS) are maintained up-to-date (updated when scope changes affecting inventory significantly based on threshold quantities identified in DOE O 151.1C) for each nuclear facility, high and moderate hazard facility at LANL.
(2) The accuracy of the hazardous materials inventory identified on the BRS for the facility(ies) will be verified during the final quarter of FY 2007, via a 95% table top audit of Chemlog screened materials and materials listed on page two of the BRS per the Conduct of Operations Facility Applicability Matrix, Attachment 4: LANL Moderate Hazard Facilities; Attachment 5: LANL High Hazard Facilities; and Attachment 6: LANL Nuclear Facilities, (May 2007). LANL will conduct a 25% independent physical QA of BRS accuracy.
For each area, payment of fee is dependent upon independent verification of completion by the CAO or QA Assessment Group.

LANL Completion Statement: (1) For each nuclear facility and high and moderate hazard facility, the respective BRS was reviewed initially by the FOD Emergency Program Coordinator. Following the review, data was updated and BRS's were used to walkdown the

facilities and compare the data with conditions in the facility. This action was completed on or before the due date. (2) A 95% table top audit of ChemLog screened materials was required. A 100% table top audit was completed for nuclear facilities and high and moderate hazard facilities. For the audit, the facility BRS was reviewed by the LANL Building Emergency Plan Program Coordinator against ChemLog data sheets that were downloaded from ChemLog. The ChemLog data was compared to page 2 of the respective BRS and, if there were discrepancies, the BRS was updated. Additional hardcopy evidence is available for review at TA-69-33-234 that contains the ChemLog and BRS printed comparative data. By completing this PBI, EPP was able to determine that physical building walkthroughs used to update building run sheets, does produce a list of chemicals that often is not present in ChemLog, which may or may not meet threshold reporting requirements. Comparing the building run sheets with screened and unscreened ChemLog data sheets, revealed materials that were not listed on the building run sheets that may or may not meet threshold reporting requirements. Lessons learned and continuous improvements are being evaluated.

LASO Validation Statement: LANL EPP checked Building Run Sheets for 70 nuclear, high and moderate hazard facilities. 100% had been reviewed (as evidenced by the Review Date) by the facility emergency person before the required review date. However, the EPP review showed that 36 of the Run Sheets were not accurate when compared to the chemical inventory for the facility. Thus, PBI Requirement #1 that "Run Sheets are maintained up-to-date" was not met.

The accuracy of the Run Sheets was checked by EPP during the final quarter of FY 2007. A 100% table top audit was conducted. The accuracy was found to be 36/70 (51%). Thus, the accuracy required by PBI was not met.

Independent verification by CAO (report dated October 22, 2007) verifies that the requirements of PBI 9.4.5 were not met. Successful completion of PBI 9.4.5 "Emergency Response" is not demonstrated.

Available Fee $13,466
Fee Earned: $00

Measure 9.5 Electrical Safety Program Improvements

Expectation Statement:

1. Electrical safety performance as measured by a reduction in the total electrical severity score for FY 2007 (sum of event scores) as compared to the average of the total scores of FY 2005 and FY 2006. The Electrical Severity Measurement Tool will be used as the basis for this measure.
2. Develop a formal (approved by AD/ESH&Q and issued under change control) corrective action plan based on the recommendations from the October 14, 2005, report titled "Assessment of Los Alamos Electrical Safety Incidents from July 1, 2003, to July 24, 2005", and other electrical safety assessments over the last few years. Demonstrate the use of a recognized root cause analysis methodology to link corrective actions to identified root causes.
3. Implement the action plan referenced in item (2) above, completing all FY 2007 actions.
4. Develop a plan based on the principles of the "Lean Six Sigma Process" to monitor the effects of implementing the corrective action plan and document the basis for prioritization of further corrective actions, based on severity management tool data.
5. Implementation of the corrective action plan in item (2) above will be independently verified with the resulting report formally transmitted to NNSA LASO by September 15, 2007

Gateway/Threshold: No fee will be paid under this Measure unless there is at least a 10% reduction in the log value of the annual severity score as measured in the expectation statement. There will be a 10% reduction in total fee awarded if there is an increase in the annual score for high hazard (orange) events or very high hazard (red) events in FY 2007.

LANL Threshold Completion Statement: The log of the average total annual severity score for FY 2005 and FY 2006 is 4.08. The log of the total annual severity score for FY 2007 is 3.54. This is a decrease in the log value of 13.24% which meets the Gateway/Threshold.

LASO Validation Statement: LANS achieved a 13.5% decrease exceeding the gateway of 10% and allowing the PBI's to be earned.

Fee Earned: Gateway Measure

9.5.1 Define Completion: Reduction of the annual severity score.

LANL Completion Statement: Completion of PBI 9.5.1 showed a 71% reduction in electrical severity score, indicating that the corrective actions implemented over the past two years have had a dramatic effect in improving electrical safety. There have been fewer electrical near-misses, injuries, and exposures. This improvement in electrical safety and reduction in electrical accidents has made LANL a safer place to work, and is important to the Mission of the Laboratory and NNSA.

LASO Validation Statement: Completion of PBI 9.5.1 showed a dramatic reduction in electrical incidents, indicating that the corrective actions implemented over the past two years have had a significant effect in improving electrical safety. From an average annual severity score for FY 2005 and FY 2006 of 12,065 to the average annual severity score of 2080 for FY 2007 is a decrease of 71%, and is well over the 20 % reduction in the Fee Statement requirement.

Available Fee: $215,450
Fee Earned: $215,450

9.5.2 Define Completion: Reduction in the number of hazardous electrical conductor strikes due to penetrations and excavations.

LANL Completion Statement: There were 0 hazardous conductor strikes in FY 2007 showing a 100% reduction and meeting the 20% performance goal.

Completion of PBI 9.5.2 showed a dramatic reduction in penetration/excavation electrical incidents, indicating that the corrective actions implemented over the past two years have had a dramatic effect in improving penetration/excavation electrical safety. There have been fewer penetration/excavation electrical near-misses, injuries, and exposures. This improvement in electrical safety and reduction in electrical accidents has made LANL a safer place to work, and is important to the Mission of the Laboratory and NNSA.

LASO Validation Statement: There were 3 hazardous conductor strikes in FY 2005 and 4 in FY 2006. Since there were 0 hazardous conductor strikes in FY 2007, this is a 100% reduction in hazardous conductor strikes, and meets the PBI.

Available Fee: $107,726
Fee Earned: $107,726

9.5.3 Define Completion: Independently verified implementation of Electrical Safety Program improvements as outlined in the expectation statement, including the demonstrated use of Lean Six Sigma to monitor and ensure lasting results.

LANL Completion Statement: Completion of PBI 9.5.3 demonstrates the success of the electrical safety program efforts and improvements over the past two years, involving the IHS Division, the Electrical Safety Committee, Electrical Safety Officers, and others. The result is a 71% reduction in electrical severity score, indicating that the corrective actions implemented over the past two years have had a dramatic effect in improving electrical

safety. There have been fewer electrical near-misses, injuries, and exposures. This improvement in electrical safety and reduction in electrical accidents has made LANL a safer place to work, and is important to the Mission of the Laboratory and NNSA.

The Electrical Safety Corrective Action Plan (CAP) was formally documented in occurrence report NA-LASO-LANL-LANL-2005-0005, Recurring Electrical Events Involving Complex Electrical Work. A formal, recognized root cause analysis methodology was used to link corrective actions to identified root causes. In addition, all of the issues (129 totals) from the October 14, 2005, report and 4 additional reports were identified and assigned additional corrective actions where appropriate. These actions, including the actions from the occurrence report (95 totals), were formally tracked in LIMTS.

Of the 95 corrective actions in the plan, 87 were due prior to August 31, 2007. This date was chosen because the CAO independent verification was due to DOE/LASO by September 15. Many of the issues and corrective actions dealt with issues other than electrical safety, including IWM, LOTO, and human performance. The CAO-AM "Independent Verification of Electrical Safety CAP" documents verification of the completion of 86 of the 87 corrective actions and includes a listing of those corrective actions. The remaining action was closed on September 25, 2007.

An IH-S Yellow Belt was assigned and used Lean Six Sigma type process/tools to evaluate electrical safety performance. This process included the correlation of root causes of 70 electrical incidents over 4 years with the corrective actions currently in place. This approach included:

1) categorization of 70 events
(2) identification of 1 or 2 primary causes for each event
(3) identification of the corrective action for each root cause (in the formal CAP)
(4) determine the status of each corrective action
(5) plotting the trends of 70 events over 4 years by category and/or root cause
(6) correlation of trends to completion of corrective actions
(7) determination if all root causes have been addressed
(8) determination if existing corrective actions are appropriate and sufficient
(9) modification of existing or add new corrective actions.

An independent assessment was conducted by CAO-AM and a memo signed on September 14, 2007 was transmitted to NNSA LASO consistent with the performance goal.

LASO Validation Statement: Completion of PBI 9.5.3 was a massive effort of the electrical safety program during this performance period and the past two years, involving the IHS Division, the Electrical Safety Committee, Electrical Safety Officers, and others. The results is a dramatic reduction in electrical incidents, indicating that the corrective actions implemented over the performance period and the past two years have had a dramatic effect in improving electrical safety. There have been fewer electrical near-misses, injuries, and exposures. This improvement in electrical safety and reduction in electrical accidents has made LANL a safer place to work, and is important to the Mission of the Laboratory and NNSA.

Available Fee: $215,450
Fee Earned: $215,450

PBI No. 10
Facilities Management

PBI 10: Facilities Management

Maximum Available Fee: $893,747
Fee Earned: $393,247

NNSA Summary:

LANS has greatly improved overall LANL facilities stewardship. The site-wide Decontamination and Decommissioning (D&D) plan and Top Ten Infrastructure Priorities plans provide a basis for future year performance measurement. Increased attention to utilities, fire protection systems, and square footage consolidation will reap future rewards in RTBF savings and management flexibility while increasing operational capability.

Completion/Validation Statements

Measure 10.1 Improved LANL Facilities Stewardship

Expectation Statement: Ensure adequately maintained facilities, high facility availability to perform mission operations, and safe and efficient operations while demonstrating facilities and infrastructure stewardship. The metrics established in FY 2007 form the baseline for improvement PBIs in later years.

10.1 Define Completion: Summary of PBI 10.1 sub-elements.

LANL Completion Statement: The sum of the goals within section 10.1 reflect the goal of this PBI to ensure adequately maintained facilities, high facility availability to perform mission operations, and safe and efficient operations while demonstrating facilities and infrastructure stewardship.

- The aggregate Facility Condition Index improvement goal of 10% for Mission Critical and Mission Dependent facilities was achieved as evidenced by closure document 10.1A.
- The aggregate Earned Value index for maintenance in Mission Critical and Mission Dependent facilities was 1.24, exceeding the goal of 1.05 as evidenced by closure document 10.1B.
- The facility availability data, reflecting that our Mission Critical and Mission Dependent facilities were available and fully able to safety conduct all assigned missions, ranged between 97% and 99% monthly and demonstrated an aggregate level above the 95% goal for the last half of FY 2007 as evidenced by closure document 10.1C.
- LANL successfully implemented the planned steam plant turbine replacement within cost and schedule baselines during 2007, and a project close-out report was submitted to LASO with the closure package on September 28, 2007, as evidenced by closure document 10.D.
- A fully compliant Maintenance Implementation Plan (MIP), in compliance with DOE Order 433.1 requirements, was submitted February 27, 2007, as evidenced by closure document 10.1E.
- Compliance with the revised MIP was achieved and the metrics and objectives reported in accordance with requirements as evidenced by closure document 10.1F.
- The site FCI data was validated via a third party review shared with LASO, and an Asset Utilization Index (AUI) baseline was established and conveyed to LASO on September 28, 2007, as evidenced by closure document 10.1G.
- A Top Ten Infrastructure Priorities Implementation Plan was developed and submitted to LASO on September 19, 2007, and a compliant Ten Year Site Plan was submitted to LASO February 27, 2007 (15 days prior to HQ submission), as evidenced by closure document 10.1H.

- A site-wide D&D plan for all current excess facilities as well as those expected to be excessed within the next 10 years was submitted to LASO on September 19, 2007, as evidenced by closure document 10.1I.
- An Energy Management Performance Agreement, required of M&O contractors with site offices by Energy Deputy Secretary Guidance, was developed and approved as evidenced by closure document 10.1J.

LASO Validation Statement: LASO reviews support LANS assertion of completion of all elements of 10.1 except 10.1A. LANS has provided evidence of completion of facility stewardship goals including improvement of aggregate facility condition, maintenance earned value improvement, facility availability, steam plant turbine replacement and index development/improvement. LASO conducted field verifications and reviewed data quality.

Available Fee: $580,935
Fee Earned: $348,561

10.1A Define Completion: Demonstrate that the end of FY 2007 Annual aggregate facility condition index (FCI) (measured as deferred maintenance costs per replacement plant value) for mission critical and mission dependent facilities have improved (in each category) by 10% over the end of FY 2006 values.

LANL Completion Statement: As summarized below, the Mission Critical Facility portion of this PBI element was based on a 2006 baseline FCI of 4.48%. However, this is believed to be low based on successful completion of PBI 10.1.G, FCI Validation and AUI baseline. The validation of Deferred Maintenance (DM) under the FCI Validation PBI resulted in newly identified "legacy" DM previously unknown that would have resulted in a Mission Critical 2006 baseline of 4.59%. Similarly, recognition of "legacy" DM in the mission dependent area results in an adjusted FY 2006 baseline of 16.35%.

Mission Critical Facilities Status:
The adjusted FY 2006 baseline for the Mission Critical facilities was $140,060,000; the RPV for these facilities was $3,051,571,097. This leads to an adjusted FCI of 4.59%. At the end of the fourth quarter FY 2007, the DM was $139,943,042 and the RPV was $3,418,523,499 leading to a final FCI of 4.09%. This DM determination was supported by facility inspections. The resultant FCI improvement is 10.9%.

Mission Dependent Facilities Status:
The adjusted FY 2006 baseline DM for Mission Dependent facilities was $72,320,246; the RPV for these facilities was $442,276,474. This leads to an adjusted FCI of 16.35%. At the end of the fourth quarter FY 2007, the DM was $64,623,411 and the RPV was $508,001,996 leading to a final FCI of 12.72%. This DM determination was supported by facility inspections. Therefore, the FCI was improved by 22.2%.

This PBI element was accomplished in accordance with DOE/NNSA expectations, with marked improvement in mission facility conditions despite serious budgetary challenges given to the LANL Maintenance Team.

LASO Validation Statement: LASO worked with NA-52 and the Office of the Field CFO to validate LANS FCI calculations. LANS request to update the RPV value in FIMS was denied by NA-52. Subsequently, the NA-52 calculation for FCI improvement for mission critical is 9.21% versus 10% required.

10.1B Define Completion: Demonstrate that the end of FY 2007 ratio of the earned value from the actual direct and indirect dollars spent per the planned (budgeted) dollars for mission critical and mission dependent facility maintenance is greater than 1.05. This combined ratio is defined as (estimated cost for work performed/actual cost for work performed) x (estimated cost for work performed/Budgeted FY dollars.)

LANL Completion Statement: In an era of declining budgets, it is extremely important to maximize the productivity gained from the funding that is allocated for maintenance of facilities, especially those critical to mission accomplishment. Perhaps more important is increased facility stewardship in the face of reduced maintenance budgets. Through the concerted effort of the Facility Operations and Maintenance Management Team, this goal has been achieved with a resultant ratio of 1.24. This means that, between a minor improvement in productivity and a significant increase in LANL stewardship support for mission critical and mission dependent facility maintenance through the year, approximately 24% more maintenance execution value was delivered than was originally budgeted for in FY 2007. This PBI element was accomplished in accordance with DOE/NNSA expectations.

LASO Validation Statement: In light of the released Office of Inspector General report on KSL maintenance work, LASO conducted targeted validation reviews on earned value work for Mission Critical and Mission Dependent Facility Maintenance. After conducting field verifications, LASO concludes that the Laboratory has met the completion criteria for this performance measure.

10.1C Define Completion: Demonstrate that the percentage of scheduled days mission critical and mission dependent facilities as defined in the "NNSA Ten Year Site Plan (TYSP) Guidance" document, dated February 2006 are available and fully able to safety conduct all assigned missions is greater than 95% for the last half of FY 2007 and enables achievement of programmatic milestones. The first half of FY 2007 will be used to define a consistent method for measuring facility availability.

LANL Completion Statement: The first half of FY 2007 was dedicated to establishing a consistent methodology, criteria, and definitions for measuring and reporting facility availability. Evaluation of the 2006 TYSP definitions and listing of mission critical and mission dependent facilities revealed potential data inputs that could deviate from the intent of this measure. Non-operational facilities such as magazines, bunkers, storage buildings, etc., that would most likely be reported as 100% available were excluded from this measure to avoid artificial inflation of the overall facility availability number. Careful evaluation was also required of support and utility facilities to ensure appropriate reporting of events with program mission impact. Efforts to evaluate these inputs were completed, and facility applicability for this measure was provided in correspondence ISS: 07-021 dated March 20, 2007.

Implementation of this measure was coordinated through each Facility Operations Director (FOD). Consistent measurement was ensured through communication of standard definitions, criteria, and methodology with each of the individuals responsible for reporting. This measure was successfully reported by every FOD organization for each month of the second half of FY 2007. The results of this data have been provided within ISS: 07-041 and ISS: 07-056 (FY 2007 Third and Fourth quarter Facility Availability reports).

Facility Availability results by month are as follows:

April	99.36%	June	97.42%	August	97.46%
May	98.37%	July	97.61%	Sept	99.41%

The average facility availability during the second half of FY 2007 has been successfully documented at greater than 95%.

Facility Availability is a critical measurement of the impact of LANL facilities and infrastructure (F&I) on mission operations. Trends in this measure allow the Laboratory and NNSA to evaluate current problem areas associated with F&I performance and to predict potential future F&I program issues.

LASO Validation Statement: LANL has agreed with LASO that some PF-4 programs may have been impacted by TA-50's failure to complete the Caustic Tank and Room 60 projects;

however, even if these two facilities were deemed to be 0% available, the aggregate availability would still be above the PBI target. Facility Availability is a fairly dynamic measure given shifting and expanding schedules of planned maintenance, introduction of second shift operations, etc. LASO concludes that the Laboratory has met the completion criteria for this performance measure.

10.1D **Define Completion:** Implement the planned steam plant turbine replacement within cost and schedule baselines in FY 2007.

LANL Completion Statement: The implementation of the planned steam plant turbine replacement is a critical project to DOE/NNSA to regain original on-site generation capacity to support key LANL mission areas. This project was completed within FY 2007 cost and schedule baselines, and the PBI element has been accomplished in accordance with DOE/NNSA expectations.

LASO Validation Statement: LASO completed walk downs of this project resulting in closure validation activities. After conducting field verifications, LASO concludes that the Laboratory has met the completion criteria for this performance measure.

10.1E **Define Completion:** Submit a revised Maintenance Implementation Plan (MIP), in compliance with DOE Order 433.1 requirements the first of March 2007.

LANL Completion Statement: The Maintenance Implementation Plan is a critical document translating and implementing DOE NNSA requirements relative to Maintenance Management into actionable LANL activities that assure DOE and LANL maintenance objectives and criteria are achieved. This PBI element was accomplished in accordance with DOE / NNSA expectations. The MIP was submitted to LASO on February 28, 2007, and was approved by LASO on July 24, 2007.

LASO Validation Statement: MIP was approved by LASO July 24, 2007. LASO agrees that this action has been satisfactorily completed. The LANL MIP was received by LASO on February 27, 2007, in compliance with DOE Order 433.1. The new DOE Order 433.1A had been released and was not in the LANS contract at that time.

10.1F **Define Completion:** Compliance with MIP and achievement of FY 2007 MIP metrics and objectives

LANL Completion Statement: The MIP was submitted to LASO on February 28, 2007, and was approved by LASO on July 24, 2007. Attachment G of the MIP provided a schedule of nuclear facility maintenance procedure implementation taken from the Formality of Operations Program. Change control of maintenance program milestones has been implemented in accordance with ISD 315-2.1, Sustaining Formality of Operations Implementation through Change Control. Following change control, 100% of the procedures to be implemented by September 30, 2007 have been implemented on schedule. This PBI element was accomplished in accordance with DOE/NNSA expectations.

LASO Validation Statement: LASO assessments have indicated progress in implementation of maintenance. There may still exist pockets of slow implementation. After assessment of implementation by each FOD on a sampling basis, LASO concludes that the Laboratory has met the completion criteria for this performance measure.

10.1G **Define Completion:** Validate the site FCI data via a third party review and establish an Asset Utilization Index (AUI) baseline.

LANL Completion Statement: The Facility Condition Index (FCI) is a calculation based upon replacement cost and deferred maintenance values. An independent validation of the Deferred Maintenance (DM) component of the FCI calculation was performed resulting in the

recognition of certain program weaknesses. This was followed by a subsequent independent review of the Utilities systems DM status. Improved DM accuracy will improve the reliability and accuracy of the resultant FCI values.

The Asset Utilization Index (AUI) baseline has been computed for FY 2007. This will also be reported in the final year-end report from Maintenance and Site Services Division as the FY 2007 baseline AUI. Therefore, LANL has fulfilled the requirements of this PBI.

LASO Validation Statement: LANS has met both elements of this PBI. The FCI validation effort targeted the area of largest uncertainty. After conducting field verifications, LASO concludes that LANS has met the completion criteria for this performance measure.

10.1H-1 **Define Completion:** Develop a top ten infrastructure priorities list and devise an implementation plan to address; issue a compliant Ten Year Site Plan to LASO 15 days prior to HQ submission.

LANL Completion Statement: The Top Ten Infrastructure Priorities Implementation Plan is complete in accordance with PBI element 10.1H.1. This plan conveys the ten infrastructure priorities having the greatest impact in achieving a right-sized, sustainable Laboratory in support of current and future missions. The successful execution of the priorities in the plan supports the stated expectation “to ensure adequately maintained facilities, high facility availability to perform mission operations, and safe and efficient operations while demonstrating facilities and infrastructure stewardship.”

LASO Validation Statement: LANS has completed and issued the top ten infrastructure priorites implementation plan. LASO will expect and track implementation in FY 2008.

10.1H-2 **Define Completion:** Develop a top ten infrastructure priorities list and devise an implementation plan to address; issue a compliant Ten Year Site Plan to LASO 15 days prior to HQ submission.

LANL Completion Statement: The FY 2008 - FY 2017 Ten-Year Site Plan (TYSP) for Los Alamos National Laboratory provides vital input for planning to meet the National Nuclear Security Administration's (NNSA) commitment to ensuring the United States (U.S.) has a safe, secure, and reliable nuclear deterrent. The Laboratory is a prominent contributor to the NNSA's missions through its programs and campaigns that develop unique science, design, engineering, testing, and manufacturing capabilities required for long-term stewardship of the stockpile. The TYSP narrates a roadmap that the Laboratory plans to follow over the next 10-year planning horizon. The FY 2008 TYSP is fully compliant with DOE Order 430.1 B, Real Property Asset Management, and NNSA's FY 2008-2017 Ten-Year Site Plan (TYSP) Guidance which was received on December 22, 2006. This document addresses LASO comments on the January 12, 2006, draft, as well as resolution of legacy comments from the FY 2006 Ten-Year Comprehensive Site Plan (TYCSP) that were not addressed in the March 2006 FY 2007 TYSP, since it was an abbreviated document.

The NNSA guidance required delivery to HQ by March 15. 2007. Therefore, issuance to LASO was required to be made by March 1, 2007, to meet the defined completion criteria. The TYSP was delivered to LASO on February 27, 2007, via transmittal Letter Reference LANL DIR-07-065, dated February 26, 2007. The TYSP was subsequently accepted and transmitted by LASO to NNSA HQ via LASO Memorandum Reference NSM: 6AN-004 dated March 9, 2007.

LASO Validation Statement: LANS has completed and issued this deliverable on time and with improved quality.

10.1I **Define Completion:** Establish a site-wide D&D plan for all current excess facilities as well as those expected to be excised within the next 10 years.

LANL Completion Statement: The Site-wide D&D Plan is complete in accordance with PBI element 10.1I. The removal of obsolete structures as presented in this plan supports the expectation "to ensure adequately maintained facilities, high facility availability to perform mission operations, and safe and efficient operations while demonstrating facilities and infrastructure stewardship." As with the Ten Year Site Plan, this plan provides understanding of actual D&D progress and the magnitude of expected backlog of excess structures – with or without a projected funding source. With the emerging impact of LANL's Footprint Reduction Project, this plan also provides the justification of future funding sources in support of proactive approaches in addressing the legacy of obsolete structures.

LASO Validation Statement: LANS has completed and issued the D&D plan. LASO and NA-52 agree with LANL's assessment that the D&D Plan was completed.

10.1J **Define Completion:** Develop an Energy Management Performance Agreement: M&O contractors with site offices develop and approve an Energy Management Performance Agreement as required by Energy Deputy Secretary Guidance

LANL Completion Statement: The Energy Management Performance Proposal from Super Energy Savings Performance Contractor (ESPC) NORESCO is critical to achieving energy savings goals established by Energy Deputy Secretary Guidance. This project will provide significant infrastructure investment and energy savings utilizing third party financing with long-term payback through realized savings. Accomplishment of this PBI required establishment of an initial relationship with DOE/NNSA personnel and NORESCO; development of an energy rate for NNSA/LASO approval; establishment of an MOU with NORESCO; internal federal energy management training; formation of a joint NNSA, NORESCO, and LANL project team; identification and analysis of potential project areas; and the agreement of the team to target a particular scope. This PBI element was accomplished in accordance with DOE/NNSA expectations upon receipt of the NORESCO proposal.

LASO Validation Statement: LASO agrees with LANS in that this PBI was completed via an Energy Management Performance Proposal. NNSA elements are presently reviewing the proposal in order to make a recommendation for a path forward to Headquarters (HQ).

Measure 10.2 Reduce LANL Footprint

Expectation Statement: Achieve footprint reduction goal of 2 million square feet of substandard space by the end of FY 2008 while maintaining full compliance with DOE project and accounting requirements within existing site funding. FY 2007 footprint reduction goal is 400,000 square feet. The goal of this measure is to reduce annual operating expenses.

10.2 **Define Completion:** Reduce gross square footage of LANL facilities by 400,000 square feet by September 30, 2007 (from that existing October 1, 2006 without consideration of new facilities constructed in FY 2006)

LANL Completion Statement: Footprint reduction at LANL has emerged as a top priority, essential to align available maintenance funding with a sustainable footprint. It also serves as a catalyst to transform the LANL site to better support national security science and weapons development. Through a concerted effort, involving many entities across the Laboratory, we exceeded the PBI 10.2 goal of 400,000 square feet, and are pleased to report that our total FY 2007 square footage reduction is 500,235 square feet. Associated with these facilities, as documented in FIMS, are a deferred maintenance (DM) total of $20,254,334 and annual operating and maintenance (O&M) costs of $4,660,735. (These dollar totals do not include any portion associated with facilities that were only partially closed, e.g., SM-43; credit and documentation of written-off DM and savings of annual O&M associated with each of these facilities will only be taken once the facility is fully closed).

LASO Validation Statement: LASO NSM Landlord team has fully reviewed the LANL submission for PBI 10.2, Footprint Reduction, and has found that LANL did not successfully complete the full intent of the expectation of the full 500,235 square feet as claimed in their submission. When conducting a walkthrough of the partial closure of SM-43 Administration Building, (roughly half the claimed square footage), serious questions about the validity of claiming this facility came to light. Investigatory Federal Officers from the Field CFO's office conducted an additional review and concluded that none of the square footage from SM-43 be used in determining fee.

LANL has not followed internal LIR procedures in the proper excessing of facilities and property. They have failed to document the reason for abandoning halon systems, solvents, and other materials in addition to numerous amounts of combustibles. Also, valuable equipment was abandoned (vertical drill press, lathe, telephones, electrical shop equipment) and items with potential security issues (files, diskettes, CDs, and crypto cards – as these could contain OUO, or higher.)

Without SM-43 square footage, LANL achieved 274, 606 or 68% of the 400,000 required for full fee. Accordingly, LANS has earned 20% of the associated fee.

Available Fee: $223,437
Fee Earned: $44,686

Measure 10.3 Improvement in the LANL Fire Protection Program

Expectation Statement: Implement improvements in the inspection, testing, and maintenance processes associated with the fire protection assets across the Laboratory.

10.3 **Define Completion:** A. Demonstrate that the average quarterly mean time for repair of impaired fire protection systems has been lowered to a value that is 50% or less than the FY 2006 quarterly average value (the average of the 4 quarterly values reported in FY 2006). B. Demonstrate that the total number of site fire protection system impairments has been lowered and sustained to less than 15 per month for the last quarter of FY 2007.

LANL Completion Statement: This PBI has two distinct, but linked, measured deliverables. The linkage between them allowed for greatly improved performance in this area over the past year. This improvement was possible even with one of the specific deliverables not being achieved. The specific results for the two deliverables are as follows:

- 10.3A: Quarterly Mean Time to Repair; Goal: 23, Actual: 21.75
- 10.3B: Number of impairments; Goal: 15, Actual: 42.03

LANS had a number of accomplishments associated with the fire protection program during FY 2007. These included:

- Mean time to repair fire impairments was reduced by over 50% when compared to FY 2006 performance.
- Fire impairments that had been open in excess of three years were addressed and closed.
- Bi-weekly tracking meetings were held with senior management to review the status of all actions being taken to address open fire impairments.
- SPOT awards were provided to staff to reward positive behavior in their finding problems in the fire protection systems and in repairing them quickly.
- The Operations and Maintenance (O&M) Manual section that governs fire impairments was significantly revised and improved to address weaknesses in the program.
- Assessments of the program, including observations of the work being performed in the field, were performed by the LANL Fire Marshal, the FIRE Group staff, and maintenance management to strengthen performance. Findings were entered into the LANL issues

tracking system and are being actively managed in accordance with the Issues Corrective Action Management (ICAM) processes.

- The KSL staff was mentored and coached by LANL managers to improve their performance in scheduling work, performing inspections, and addressing impairments.
- Inspection work packages were revised to improve their usefulness to the craft and to address deficiencies relating to code compliance requirements.

In total, these efforts greatly improved the overall understanding and actual status of the health of the fire protection program at LANL. At the heart of that understanding is the fact that a large portion of the program had atrophied and required rebuilding. This reality turned management's attention to finding all the problems and fixing them in a timely manner. As such, PBI 10.3B became a dis-incentive to the behavior that was truly needed by the LANS staff. Recognizing this contradiction, LANS management acknowledged that PBI 10.3B would not be met and focused instead on uncovering all the problems and fixing them in a timely manner.

Given the overall significant improvement to the fire protection program over the course of FY 2007 and the accomplishment of PBI 10.3A, LANS will request fee consideration associated with this measure. PBI 10.3B was discovered to be a disincentive during the course of this past year and was deliberately abandoned by LANS management in order to ensure that a successful, compliant, and sustainable program was put in place instead.

LASO Validation Statement: LANS made progress in the area of fire protection, however, system impairments concerns remain. While the mean time to repair impairments was reached the, the total number of impairments has spiked resulting in greater number of fire protection systems being repaired.

LANS did not provide justification for the increase in total number of impairments. Reportedly some of this increase is due to Facility Operations Directors not funding fire protection system repair activities, thus allowing the total number of impairments at any one time to increase. They also did not identify a path forward for reducing the total number of impairments through planning or improved inspection, testing and maintenance (IT&M) activities which would identify potential fire protection equipment/feature failures in advance so as to avoid impairments. Finally, preparations for the DARHT Documented Safety Analysis revealed continued deficiencies in fire protection system IT&M activities.

LASO has noted the management successes associated with this effort in PBI 13.

Available Fee: $89,375
Fee Earned: $00

PBI No. 11
Project Management

PBI 11: Project Management

Maximum Available Fee: $2,722,130
Fee Earned: $1,995,850

NNSA Summary:

Overall project management performance is promising reflecting substantial attention to commitments and baselines. FY 2007 small project performance was markedly improved with many legacy projects completed. Greater than 90% of all LASO monitored milestones for the year were achieved. Aggregate cost performance appears significantly improved; however, detailed analysis indicates a continued need for system maturity and has raised issues regarding earned value management which are still under review. The Roofing Asset Management Program (RAMP) performance exceeded NNSA expectations, delivering project completion ahead of schedule and resulting in LANL receiving additional project funds for FY 2007.

Overall successes were tainted by problems with execution of the Waste Management Risk Mitigation, TA-50 Room 60, and Interim Radiography projects, all of which have significant mission drivers and relatively high visibility. The Waste Management Risk Mitigation Project was particularly troubling in that LANS exceeded its commitment authority necessitating curtailment of contracts and unplanned cessation of project activities. LANS intervention followed LASO concerns and solicitation of an updated estimate and schedule. LANS has made several improvements in project management budgetary tracking and forecast to address the issue after the fact.

LANS approach to the Nuclear Materials Safeguards and Security Upgrade Project (NMSSUP) 2 and CMRR integration was reactive vs. proactive resulting in substantial NNSA involvement and re-planning of the NMSSUP2 path forward and scope. LANS was responsive in execution of the revised approach to minimize out year schedule impacts.

Overall CMRR performance was sound with the significant exception of the preliminary documented safety analysis (PDSA) development.

Completion/Validation Statements

Measure 11.1 Demonstrate a sound Project Management System by meeting project commitments and integrate all necessary functional elements to fully support project planning, development and execution of projects on agreed-upon project list and associated milestones.

Expectation Statement:
A. Complete 90% of all FY 2007 forecast project milestones (for agreed to projects) measured quarterly.
B. Cost at least 60% of total available FIRP funding while meeting Deferred Maintenance and planning targets.
C. Measured on a quarterly basis, achieve an aggregate cost performance index (CPI) equal to or greater than 0.9 for an agreed-to (by LASO and LANL) set of projects.

11.1A Define Completion: Complete 90% of all FY 2007 forecast project milestones, as measured on a quarterly basis, for projects and associated milestones on the agreed-upon list.

LANL Completion Statement: 22 of 24 (91.7%) planned PBI 11.1A Milestones were completed as agreed-upon for the 4th Quarter FY 2007. Overall for FY 2007, 90% of the scheduled milestones were achieved on or ahead of schedule.

Completion of this PBI is important to the mission of the Laboratory and NNSA because it demonstrates a disciplined approach to execution of key projects at the lab and focus key resources required to complete projects as planned.

LASO Validation Statement: Preliminary reviews of the submitted evidence indicate that LANS has met this PBI Element (i.e. achieved >90% of forecast project milestones) for 3 of the 4 Quarters in FY 2007.

Available Fee: $347,546
Fee Earned: $263,758

11.1B **Define Completion:** Achieve costing for at least 60% of total available FIRP funding by the end of FY 2007 while meeting Deferred Maintenance target of $8.5M of deferred maintenance reduction.

LANL Completion Statement: Achieved actual costing of 66% ($30.3M) of available FIRP funding and completed $10.7M of deferred maintenance. Both items exceeded the Expectation and Completion Criteria as defined in the PBI Measure.

Costing of 66% of available FIRP funding and meeting the Deferred Maintenance target is important to LANL and NNSA mission in meeting the headquarters' goal in project execution while enhancing the facilities and infrastructure across the lab.

LASO Validation Statement: LASO has validated that LANS has exceeded the FY 2007 FIRP costing goal while meeting the Deferred Maintenance target in accordance with FIRP program processes.

Available Fee: $167,577
Fee Earned: $167,577

11.1C **Define Completion:** Achieve an aggregate (portfolio) CPI equal to or greater than 0.9 for projects and associated milestones on the agreed-upon list, measured quarterly.

LANL Completion Statement: PBI 11.1C (Q4) projects had an estimated cumulative CPI of 1.02 for the performance period through month-end September 2007. The actual CPI exceeded the target of >90% as expressed in the PBI Expectation Statement.

This Cost Performance Index (CPI = 1.02) demonstrates that LANL is utilizing the EVMS tools to monitor project execution against the approved performance measurement baseline.

LASO Validation Statement: LANS has submitted documentation denoting successful attainment. LASO evaluation of the supporting data raised data quality concerns in monthly analyses, however aggregate performance goals were met.

Available Fee: $173,773
Fee Earned: $173,773

Measure 11.2 Execute projects in a manner that supports the Laboratory and its mission requirements, with special attention to nuclear and high-hazard projects

Expectation Statement:
A. In FY 2007 transition to operations the following projects, allowing mission operation:
- *Caustic Tank Replacement (FIRP GPP)*

- *TA-50 Retaining Wall (FIRP GPP)*

B. In FY 2007 achieve substantial construction completion for the following projects:
- *TA-55 Interim Radiography (GPP)*
- *Waste Management Risk Mitigation*
- *TA-50 Room 60 Project, Sequence 1 (FIRP GPP)*

C. Submit to LASO in a phased manner LANL-approved CD-2 packages for the following projects in order to support the FY 2008 budget cycle:
- *Radioactive Liquid Waste Treatment Facility Replacement*
- *TA-55 Reinvestment, Phase 1*
- *NMSSUP Phase 2*

11.2A **Define Completion:** Complete readiness assessment and transitioned to operations the work for
- *Caustic Tank Replacement (FIRP GPP)*
- *TA-50 Retaining Wall (FIRP GPP*)

LANL Completion Statement: The TA-50 Retaining Wall project was completed on November 15, 2006. The TA-50 Caustic Tank Replacement project completed the Readiness Assessment and transitioned to operations on February 21, 2007.

The TA-50 Retaining Wall and the Caustic Tank Replacement projects were unfinished legacy projects from FY 2006. It was important that these be completed because it provides a new radiological liquid waste tank at the RLWTF to replace the existing tank and is essential to ongoing operations.

LASO Validation Statement: This is considered a significant LANS success. These projects languished for years under the prior contractor. TA-50 Caustic Tank operation was restored benefiting radioactive liquid waste operational capabilities. The retaining wall is complete.

Available Fee: $265,443
Fee Earned: $265,443

11.2B **Define Completion:** Formally accept the facility from the subcontractor (excluding punch list items) as defined by the contract administrator/procurement specialist for
- *Waste Management Risk Mitigation*
- *TA-50 Room 60 Project, Sequence 1 (FIRP GPP)*
- *TA-55 Interim Radiography (GPP)*

LANL Completion Statement: The completion expectation for PBI 11.2B was not met. The WMRM scope definition was redefined to incorporate a passive system operation and substantial construction complete will not be achieved in FY 2007. The TA-50 Room 60 Sequence 1 substantial construction complete milestone was delayed due to a change that eliminated Sequence 1 and is expected to finish in mid FY 2008. The TA-55 Interim Radiography schedule delay was attributed to programmatic delays funding the capitalized portion of the project, safety basis delays, iterative readiness process, and longer than expected construction processes.

These three projects were difficult legacy projects from FY 2006, which continued to have issues in FY 2007. Once completed in FY 2008, they will have an important impact to LANL and NNSA mission capability. The Waste Management Risk Mitigation project is required in the event of site evacuation to allow for emergency waste storage to avoid environmental impacts. The TA-50 Room 60 project is required to support operation of TA-55. The TA-55 Interim Radiography project will enable LANL evaluation of manufactured pits that are currently being sent to the radiography facility at Lawrence Livermore National Laboratory at significant cost to NNSA.

LASO Validation Statement: LASO considers all three elements of this PBI a "miss." LASO agrees that legacy issues may have complicated performance; however LANS performance also contributed significantly to the failures. WMRM re-scoping is partially related to a rigging accident during LANS management and complicated by poor performance, over commitment of funds, contract cancelations, etc. TA-50 Room 60 execution was severely impacted by TA-50 operational support, delays, poor scoping, and spiraling costs. TA-55 Interim Radiography suffered from poor estimating, scheduling and proactive execution eating up months of schedule contingency and subsequently resulting in extended compensatory measures by the Pit Manufacturing Program at substantial additional cost.

Available Fee: $265,443
Fee Earned: $00

11.2C Defined Completion: Submit to LASO complete LANL-approved critical decision packages for

- *Radioactive Liquid Waste Treatment Facility Replacement*
  - *CD-2A by October 30, 2006*
- *TA-55 Reinvestment, Phase 1*
  - *CD-2A by October 30, 2006*
- *NMSSUP II*
  - *CD-2 by September 16, 2007*

LANL Completion Statement: The CD-2 Milestones for the Radioactive Liquid Waste Treatment Facility Replacement (RLWTF), the TA-55 Reinvestment Project, Phase 1, and the NMSSUP Phase II were completed prior to the agreed-upon date(s) as evidenced by the ADPMGT internal Completion Packages.

Submittal of the CD-2 Critical Decision packages for these three projects demonstrates progress consistent with approved execution plans for these projects. The Radioactive Liquid Waste Treatment Facility Replacement is important because it will provide TRU/LLW treatment capability. The TA-55 Reinvestment project is important to LANL and NNSA mission because it will support a 25 year life extension of the Plutonium Facility through the replacement or refurbishment of essential safety structures, systems and components. The NMSSUP Phase II project is important because it will provide an effective and robust external physical security system that addresses the protection strategy and security requirements to TA-55.

LASO Validation Statement: The Nuclear Materials Safeguards and Security Upgrade Project (NMSSUP) Phase II CD-2 was submitted for Design-Build acquisition strategy as required by the PBI. CD#2 subsequently was re-planned due to receipt of a single non-responsive bid for the first quarter 2008 as a Design-Bid-Build acquisition strategy. LANS submitted the TA-55 Reinvestment Project, Phase 1 CD-2A package as required and subsequently achieved a CD-2 decision. LANS submitted the CD-2A package for the ZLD sub-project as planned.

Available Fee: $273,486
Fee Earned: $273,486

Measure 11.3 Execution of the CMRR Project

- Radiological Laboratory Utility Office Building (RLUOB)
- Special Facility Equipment (SFE)
- Nuclear Facility (NF)

Expectation Statement: Schedule performance based on completion of major milestones. Budget performance as measured by CPI to include revisions to cost estimates, dollars spent vs. budgeted and acquisition cost control.

11.3A Define Completion: Phase A/B/C RLUOB, SFE, NF: 100% major milestones achieved as scheduled.

LANL Completion Statement: The two remaining PBI 11.3A Milestones (Phase B Phase 2 Preliminary Design Complete and RLUOB SPI >0.90) were completed as agreed-upon for the fourth quarter 2007.

Completion of the CMRR is one of NNSA's most important projects. This group of buildings is one of the cornerstones of the NNSA Complex 2030 initiative. It will enable state of the art analytical support to operations in the Plutonium Facility, replacing a facility that is now 50 years old and in need of major and costly infrastructure upgrades if not replaced. LANL has been demonstrating impressive Project Management skills on this project.

LASO Validation Statement: The purpose of this measure was to set expectations relative to the desired performance outcomes of the execution of each phase of the CMRR project. Changes to the acquisition execution caused the project to reschedule activities underway in phases B&C, Special Facility Equipment (SFE) and Nuclear Facility (NF). The milestones set at the beginning of the rating period were established prior to the full development of the operational scope of the RLUOB. For first quarter FY 2007 the measure was considered met. For the 2nd quarter 2007 the measure was not met due to the fact that final design was not completed nor was LANS in a position to fully accept the design at the level of completion that was expected at the time. The 3rd and 4th quarter milestones became focused on the performance of the RLUOB and corrective actions that would support this phase, as well as maintain the progress on SFE and NF preliminary design efforts. Performance on the RLUOB was critical during FY 2007 rating period due to schedule performance issues with the design/build contractor and NQA-1 quality assurance implementation challenges. The SPI for RLUOB at year end was 0.91. Main construction indicators became the performance factors used to assess LANS management of RLUOB such as: establishment of NQA-1 program, implementation and field support in NQA-1 compliance, schedule management, construction management, acceleration of construction sequencing, and ability of CMRR team to respond to issues before they impacted schedule performance. Preliminary design in both SFE and NF was managed effectively and stayed on schedule with minimal change control actions necessary. Only changes were approved for major challenges such as seismic design parameters and safety basis integration. Q4 2007 credit is approved for this measure and considered closed for FY 2007 by the CMRR Contracting Officer Representative (COR).

Available Fee: $312,792
Fee Earned: $237,382

11.3B Define Completion: Phase A: Quarterly reported cumulative CPI ≥ 0.95 for each Quarter in FY 2007.

LANL Completion Statement: PBI 11.3B (Q4) reported cumulative Cost Performance Index (CPI) of 1.00, exceeding the target of >0.95 as expressed in the PBI Expectation Statement.

Construction of the CMRR complex within a Cost Performance Index ≥ 0.95 is very important to the mission of LANL and NNSA because it demonstrates project performance against the current performance measurement baseline. With a project of this magnitude, deviation from this goal could result in cost overruns and possibly impact the design and effectiveness of the facility.

LASO Validation Statement: Cost Performance Index was 0.99 for the 4th quarter of the rating period, as taken from the cumulative monthly RLUOB executive summary report for September 2007. This measure was developed to assess the monthly performance of the RLUOB during the execution of the design build construction project. Cost performance was used as the indicator to assess the performance against the contract type. The costs

Performance Index for all 4 quarters of FY 2007 were above the desired threshold of 0.95. Cost performance has not fluctuated much on RLUOB mainly due to the performance of a fixed price design build contract. Schedule performance is being closely watched because performance on the critical path is behind schedule. EAC or ETC is expected to be completed in November 2007 and will highlight any variances with the cost and schedule issues facing the RLUOB. Cost tracking and earned value reporting process used on the RLUOB is well established and mature.

Available Fee: $312,792
Fee Earned: $312,792

11.3C **Define Completion:** All changes to preliminary design and performance baselines must be addressed through the CMRR change control process.

LANL Completion Statement: All changes to Preliminary Design and Performance Baselines were addressed through the CMRR change control process as expressed in the PBI 11.3C Expectation Statement.

Potential changes to the current scope, cost or schedule baseline need to be reviewed and approved in a timely manner to mitigate project impacts and to communicate revisions to the project team. Demonstrating a robust change control process supports this goal.

LASO Validation Statement: The change control board was established and conducted meetings to address changes to execution plans. The board met more frequently (Q1, Q2) than in the later quarters (Q3, Q4). This was primarily due to changes within control of the project which established a trend program to highlight handling of issues and risks during execution. This process was valuable as a management tool.

The CMRR project team managed change control at an acceptable level during FY 2007. Getting issues identified and in front of management for discussion and decision making sooner, would be the only improvement recommendation for this rating year. Some trends were not disposition as aggressively as possible. Some negative trends on RLUOB continue to reflect in the schedule performance. These are concrete placement and NQA-1 implementation by the contractor. Quarterly baseline adjustment reports were issued by LANS that documented all approved change actions. The CMRR COR agrees that this measure has been completed for 2007 rating year.

Available Fee: $301,639
Fee Earned: $301,639

11.3D **Define Completion:** Preliminary Documented Safety Analysis (PDSA) for CMRR. Complete thorough review of submitted draft PDSAs by safety analysts with support of independent qualified subject matter experts.

- Submit schedule of PDSA deliverables for NNSA concurrence up through end of FY 2008.
- Ensure DOE/NNSA application of appropriate standards and guides and orders and implementation into the PDSA development (DOE O 420.1; DOE-STD-3009, LASO Guide 01.01, etc.) Ensure methodologies as described are appropriately implemented.
- PDSA development is consistent with strategies and guidance established in DOE approved PHA and SER and Nuclear Safety Strategies.
- Provide documented and/or demonstrated evidence that support strong ownership and oversight by the project team safety staff including subject matter experts (SME) in their respective functional areas supporting the development of the PDSA. Project safety staff will ensure SME integration by demonstrating that SMEs (in their respective areas): are providing adequate review of deliverables supporting PDSA development; strongly supporting project staff as experts in their respective functional area; demonstrated strong interaction with NNSA, DNFSB, and LANL staff at meetings and working groups;

demonstrate leadership in technical discussions with the NNSA and DNFSB as required; ensure that all technical comments identified during reviews are adequately documented, tracked, and resolved to closure adequately. Functional areas include Fire Protection Engineering; Criticality Safety Analysis; Vault design (thermal analysis); software quality assurance; with focus being on development of an adequate PDSA to comply with requirements.

LANL Completion Statement: The CMRR Draft PDSA was reviewed by LANL Authorization Basis Subject Matter Experts (SMEs) as well as the CMRR LANL Design Team. A briefing and presentation materials were provided to LASO on September 26, 2007.

Completions of the PDSA goals in a timely manner are extremely important to the operation of the CMRR once it is completed. A thorough review of this document by subject matter experts is required to ensure that the finished product meets the needs and purpose of the project.

LASO Validation Statement: The Preliminary Documented Safety Analysis (PDSA) measure was re-established at mid year due to changes in the acquisition approach. The focus on the safety development will continue to follow the design effort and result in an approved PDSA prior to the onset of construction. The goal this year was to establish the formality in the PDSA development and parallel the design effort. The main deliverable during FY 2007 was the draft PDSA. The change to this measure was documented in a PBI change control action in June 2007. The PDSA criteria focused on several key factors: schedule of development into FY 2008, ensuring the adherence to standards governing safety basis, adherence to standards developed by DOE/NNSA, and the level of management engagement and ownership taken by the LANS project team. This measure was considered not met at year end mainly due to several key issues, as well as the level of completion against the criteria noted above. Only partial evidence was obtained at year end that indicated less than desirable management attention to this measure. The draft (Revision 0) PDSA submitted for review was considered substandard and has raised the question with our stakeholders whether we can effectively execute our nuclear safety strategy.

Available Fee: $301,639
Fee Earned: $00

Overall Management Effectiveness: PBI No. 12 – PBI No. 13

PBI No. 12
Implement Contractor Assurance System

PBI 12: Implement Contractor Assurance System

Maximum Available Fee: **$3,358,982**
Fee Earned: **$1,639,157**

NNSA Summary:

LANS worked to improve implementation of CAS across the Laboratory. They self identified areas requiring improvements in the Issues and Corrective Action Tracking process and worked to improve their LIMTS tool to be more user friendly. They began development and implementation of an improved effectiveness review process, improved utilization of the various CAS tools, and management actively used CAS tools at the Director level.

Opportunities for improvement remain in making CAS tools more user friendly, improving the quality and effectiveness of the LANS self assessment process, improving the rate of self identification of issues, and corrective action closeout.

Completion /Validation Statements

Measure 12.1 Implement an Issues Corrective Action Management System

Expectation Statement: The final phase of the new LANS Issues Management Tracking System (LIMTS) requires the transition of issues from I-track, LANS transition related activities, and shadow systems to LIMTS. LANS implements LIMTS to enhance LANS management's ability to identify, set priorities, track, improve and close conditions or events that could affect the LAN's ability to safely and securely perform its missions.

Threshold: No other fee will be earned in this PBI until 12.1A is achieved. Also, LIMTS will be operational and accessible for both LANL and LASO to accept new issues on the effective date of the PBI.

LANL Threshold Completion Statement: The expectation of the threshold was to have LIMTS operational on October 1, 2006 and ready to accept issues. On September 29, 2006 the LIMTS project manager sent an email to the Change Control Board indicating that beta testing and production acceptance test runs were complete and that LIMTS was ready of normal use. LIMTS was ready to accept issues at that time. However, September 29, 2006 was the start of the weekend, and the first issues entered into LIMTS were posted on October 2, 2006, the following Monday. This is depicted in the evidence report attached. This threshold was met.

The expectation of the gateway was to have all the agreed upon shadow tracking system transitioned into LIMTS by the end of January 2007. The completion of this gateway is contained in the measure closure documentation under PBI 12.1.A. This threshold was met.

LASO Validation Statement: LANS passed the threshold limits by having LIMTS available and useable for both LANL and LASO use (first working day of the FY) and transferred all identified Shadow system items into LIMTS on time. This was verified by an independent review performed by the Service Center.

Fee Earned: Gateway Measure

12.1A Define Completion: All I-Track and shadow issue tracking systems are closed out and all

issues/items are screened and entered into LIMTS by the end of January 2007.

LANL Completion Statement: All I-track and shadow systems were closed out and all issues/items screened and entered in LIMTS by January 31, 2007. This measure provides a single source to track all issues that effect LANS' ability to safely and securely perform its mission. Most importantly to provide a single source to track and improve conditions using a systems approach.

LASO Validation Statement: LANS passed the threshold limits by having LIMTS available and useable for both LANL and LASO use (first working day of the FY) and transferred all identified Shadow system items into LIMTS on time. This was verified by an independent review performed by the Service Center.

Available Fee: $57,708
Fee Earned: $57,708

12.1B **Define Completion:** Corrective actions for Cat 1 and 2 are completed on time or within dates approved through the formal change control process identified in LANL Issues Management ISD 322-4; all slippages are communicated formally to LASO.

LANL Completion Statement: A 16% increase in the number of on-time Cat 1 and 2 corrective action closures to 73.8% was demonstrated by the end of September 2007, up from 63.6% at the end of March 2007. While the minimum goal of 80% was not met, this demonstrates a significant improvement in a new Contractor Assurance process. Completing corrective actions on time is important to the Laboratory and its mission because the increase in the percentage of corrective actions completed on-time reduces the overall risk of to operations and improves Laboratory safety, security, and the quality of mission products.

The inability to meet expectation of ICAM was due to the abundance of legacy issues and corrective actions which were placed into the system at the beginning of the year. Management was unable to process those issues and new issues in accordance with the ICAM process time requirements.

LASO Validation Statement: LANS accurately reflects that the minimum PBI goal was not met; good progress was made against a challenging goal.

Available Fee: $237,217
Fee Earned: $00

12.1C **Define Completion:** Corrective actions for Cat 3 are completed on time or within dates approved through the formal change control process identified in the Issues Management System Supporting Process Document and Cat 4 items are tracked, trended, reviewed, and acted on, on a quarterly basis by management and briefed to LASO management.

LANL Completion Statement: On-time closures of Cat 3 corrective actions improved from 69.9% in March 2007 to 78.3% in September 2007. Although the minimum goal of 80% was not met, this demonstrates a significant improvement in a new Contractor Assurance process. Completing corrective actions on time is important to the Laboratory and its mission because the increase in the percentage of corrective actions completed on time reduces the overall risk to operations and improves Laboratory safety, security, and the quality of mission products.

The quarterly trend analyses on Cat 4 issues were completed as defined. The establishment of a trend analysis process is important because the identification of lower risk category precursor issues should lead to early remediation, thus preventing high risk category events.

Trend analysis methodology and report format have been established and implemented producing information for LANS management adjudication. Specifically, Electrical Safety, Cyber Security, and usability of LIMTS reports were identified as areas requiring improvement.

While the minimum goal of an 80% closure rate was not met for Cat 3 corrective actions, the quarterly trend analysis was performed on Cat 4 items. We continue to put emphasis on on-time closure of Cat 3 actions and have been able to decrease the number of open actions from 88.6% in February 2007 to 83% in September 2007.

The inability to meet expectations of ICAM was due to the abundance of legacy issues and corrective actions which were placed in the system at the beginning of the year. Management was unable to process those issues and new issues in accordance with the ICAM process time requirements.

LASO Validation Statement: LANS accurately reflects that they did not meet this challenging PBI, they made progress throughout the year improving but falling just short of meeting this PBI.

LANS did complete quality quarterly analysis of Category 4 issues and took actions on identified trends.

Available Fee: $889,565
Fee Earned: $00

Measure 12.2 Implement an Integrated Assessment Program

Expectation Statement: The Integrated Assessments Program will:

- Utilize self assessments, and independent (internal or external) assessments with subject matter experts to assess the Laboratory's compliance with contract requirements, programs, facilities, functions and processes.
- Self identify issues vs. DOE or other federal or state oversight or regulatory agency finding the issues.
- Validate that the corrective actions are effective in resolving issues.

12.2A Define Completion: FY 2007 Cat 1 and Cat 2 issues are identified by the LANS Parent Oversight, independent assessment, self assessment, etc., vs. DOE or other federal or state oversight or regulatory agencies. The LANL Issues Management System will be the source of data.

LANL Completion Statement: During FY 2007, LANL scheduled and conducted over 490 management assessments. As of the end of August 2007, 93.6% of all scheduled management assessments had been conducted on schedule. Furthermore, most of the issues identified in the Los Alamos Issues Management System (LIMTS) were identified through formal assessments. At the end of September 2007, the cumulative total number of LANL-identified issues of the highest level significance (Categories 1 and 2) in FY 2007 constituted 77.8% of the total number of issues in these categories.

While the PBI was not met, this performance incentive has reinforced the use of assessment as a mechanism for LANL managers to formally observe and document that they are meeting requirements and finding opportunities to improve performance. This PBI is important because it motivates LANL managers to use assessment as a tool to identify issues, opportunities for improvements, and noteworthy practices within the institution.

LASO Validation Statement: LANS accurately identified that they didn't meet the PBI challenging goal set forward but made very good progress against this challenging goal.

Available Fee: $593,043
Fee Earned: $00

12.2B Deleted.

Measure 12.3 Implement a Performance Measurement Program

Expectation Statement: The Performance Measurement Program will provide management with critical data to understand performance of the laboratory and to identify areas where process improvement and/or management attention is required for the achievement of mission success. A measurement system is in place with drill down metric capability at the Director, Associate Director and Division levels within LANS.

12.3 Define Completion: Analysis of the Director level metrics is conducted on a monthly basis, and actions will be assigned, documented and taken to address negative trends/performance, at the rollup level as well as at the sub-element levels.

LANL Completion Statement: The goal of this metric was to demonstrate, through credible commentary in the LANL Dashboard, that the Laboratory Director, Deputy Director, and Principal Associate and Associate Directors were being alerted to existing or emerging problems in mission, operations, and business, and that action was being taken to reverse negative performance or trends. The Laboratory accomplished this goal over the final three months of the reporting period by showing that metric owners provided credible commentary in the LANL Dashboard at the LANL Overall level for 95% of the metrics that exhibited negative performance or trends (red metrics).

LASO Validation Statement: Metric owners, over the last three months of the reporting year, provided commentary that addressed negative performance trends and showed corrective actions or approaches taken to address performance. This was a challenging PBI because LANS had to work through potential classified issues and carefully moved forward to ensure none came into being.

Full fee for this element has been earned.

Available Fee: $1,581,449
Fee Earned: $1,581,449

PBI NO. 13
Implement Contractor Assurance System

PBI 13: Management Integration/Effectiveness

Maximum Available Fee: **$10,130,633**
Fee Earned: **$3,538,348**

NNSA Summary:

This PBI evaluates a range of LANL performance to assure leadership and management integration across the laboratory, to assess the contractor's performance in areas subject to NNSA's systems based oversight, and to business areas such as procurement streamlining, achievement of small business goals, improvements which result in costs savings, and accomplishment of plans and courses which are a part of NNSA's Safety Basis Academy effort.

While LANS was successful in several key business areas, their leadership and management integration at the laboratory, and areas subject to systems based oversight, continue to need attention and improvement.

Completion /Validation Statements

Measure 13.1 Ensure highly effective leadership, integration, and excellence in management of programs

Expectation Statement: The NNSA will subjectively evaluate the contractor's leadership in integrating programs and activities across LANL and within the NNSA complex, achieving exemplary performance in the accomplishment of all assigned work. Lab leadership will be measured on its ability to distinguish the Laboratory as a premier research and development institution.

Gateway: Contractor Data Requirements Listing CDRL approved by October 30, 2006.

LANL Gateway Completion Statement: LANS formally transmitted the initial Contract Data Requirements List to LASO on March 8, 2006 (see attached transmittal letter). That submission meets LANL's requirement as stated in this gateway. LASO and LANL have continued in dialog during the time since that submission to ensure that the CDRL is reflective of the specific Contractual Requirements that LASO wishes to track, and to ensure that appropriate granularity is indicated in the listing. The submission provided to LASO in March 2006 has been used as the FY07 working set while LASO determines any future changes it wished to make.

LASO Validation Statement: While the Contract Data Requirements List was first transmitted on March 8, 2006, it was not completed until August 2007. The effort was delayed by the development and implementation of a more extensive Requirements Management System for LANL, which is still in process. The CDRL is of acceptable quality.

Fee Earned: Gateway Measure

13.1 **Define Completion:** Ensure highly effective leadership, integration, and excellence in management of programs.

A. LANS will develop criteria that it will use to assess its performance in the areas of leadership, integration and management of programs.
B. LANS will provide a self-assessment against these criteria. This assessment will include feedback on performance provided by stakeholders.
C. NNSA will perform a subjective evaluation of LANS performance in these areas. This evaluation will consider the LANS self-assessment and factors such as testimony, public

statements, and participation in major scientific society meetings, as well as what is said by outside review panels and senior leaders.

LANL Completion Statement:

A year-end self-assessment against PBI 13.1 was conducted and is included in the annual contractor self-assessment (LA-CP-07-1310) submitted to NNSA per Clause H-12 (2) on October 19, 2007.

In the Director's Summary of the Performance Self-Assessment, the Laboratory Director assessed overall performance as follows: "Leveraging parent corporate expertise and experience and implementing a new organizational approach to management focused on safe, secure mission delivery, LANS has made significant progress in moving down the path toward NNSA's goal of improved responsiveness and superior performance. Focusing on results that we have delivered and the improvements that we have made, in spite of numerous obstacles, I can only assess our overall performance over the past year as highly effective."

LASO Validation Statement: A longstanding weakness at the Los Alamos National Laboratory has been the integration of mission planning and execution with safe, secure, and environmentally sound operations. The poor interaction and integration between mission and business areas at the laboratory did not enable cost effective, streamlined mission execution. In the latter case, poor procurement planning and execution by the mission and business areas led to long procurement cycle times, which in turn negatively affected the ability of the laboratory to execute programs and projects in a timely manner, frustrating customers which include the Office of Environmental Management, the State of New Mexico Environment Department (NMED) and NNSA. The lack of integrated planning at key facilities, such as those at TA-55, TA-50 and TA-54, resulted in delays to programs and projects in the past. Further, a very stove-piped organization did not allow effective implementation of lab-wide policy, issues management and corrective action planning and execution, or consolidation of training efforts as an example.

LANS brought in significant talent in the form of key personnel when they assumed management of the laboratory to help address these problems. Some have made very significant efforts to improve integration of mission, operations and business. As the initial year of performance under the performance based contract, LANS was expected to integrate the organization, eliminate stovepipes, establish clear roles and responsibilities, and develop and implement a framework for integrated planning and policy development and execution. They have been only partially successful in their efforts.

Notable successes and failures are discussed below.

<u>Leadership Within the NNSA Complex</u>

LANS assumed a leadership role in various multi-site incentives, described in more detail in PBI 7.

<u>Commitment to Success</u>

Many incentivized and un-incentivized initiatives required great management ingenuity and fortitude. In particular, LASO notes the effort associated with respect to science and infrastructure. Although PBI 6.2 was not achieved, it denotes a great success for LANL and LANS. Similarly, PBI 10.2 although not fully met, represents a turning point for LANL and significant progress the toward LANS' Footprint Reduction commitment.

Key Personnel

LANS brought in an impressive set of players, who for the most part, aggressively set about integrating the laboratory and setting in motion culture change in security, safety, and business. After only 6 months of assumption of operations at the laboratory, and two months into the FY 2007 performance period, the Laboratory's Deputy Director retired with only one month's notice. In addition to this situation, one of the key personnel individually led to the degradation of an already fragile relationship with State regulators. An expectation of NNSA from the LANS proposal was reach back to the LANS partners for key personnel. A replacement for the Deputy Director as well as the Associate Director for Environmental Management position took far longer than expected, and the expectation of rapid reach back to parent companies for such personnel failed to materialize.

Parent Involvement and Oversight

One of the key tenants of the contract is a contractor assurance system which includes increased self assessment by the laboratory, and increased involvement of the parent companies through the Board of Governors (BOG) as part of various assessment teams. The involvement of the parents in bringing in expertise to examine problem areas was viewed as a success. The parent companies have been more involved in the oversight of the LANL's performance than the prior contractor.

Cyber Security

In July 2006 an incident involving Laboratory classified information was found on a thumb drive in the residence of a former Los Alamos National Laboratory (LANL) subcontractor employee. While the security breach occurred in July 2006, it was not discovered until October 2006, and the significance of the incident was not realized until completion of the various investigations and inquiries in mid-2007.

LANS accepted responsibility for the security breach and took steps to identify the deficiencies that had allowed the incident to occur. They began to implement corrective actions that could be put in place quickly while developing a plan that would focus on comprehensive steps for improving the protection of classified material over the long term. They also took action to hold the subcontractor for the scanning project and the laboratory employees responsible for the project's security accountable for the incident.

LANS satisfactorily addressed many of the cyber security issues that LASO identified as required to implement an effective Cyber Security Program. They developed an approved Cyber Security NAP Implementation Plan; passed the NA-70/65 Physical/Cyber Security Vault inspection; developed an approved Cyber Security Program Plan (CSPP); had the Super Vault Type Room (VTR) operational by September 28, 2007; and completed the Laboratory Wide Cyber Security Self Assessment.

Additional LANL security areas that LASO had concern with during the performance period were the 2006 DOE Independent Oversight Inspection; the number and severity of cyber security incidents; coordination and communication relating to the PAC 7 visit to LANSCE; the results of the LASO 2007 Annual Security Survey (insufficient progress implementing the cyber security program); and the length of time it took the Laboratory to resolve Cyber Security organizational issues (organizational structure, selection of the permanent leadership, developing integrated corrective action plans, etc.).

Environmental Management

The environmental area, specifically the cleanup projects, experienced difficulty in various project management areas which included risk analysis and management, scheduling, and integration. The team did not have the required resources with risk expertise on hand to develop a robust risk management plan nor did they initiate actions to address NNSA concerns. The primavera software for the cleanup projects was an older version, while other construction projects were working with the newer version. This impacted LASO ability to provide HQ with much needed schedule updates for their scheduling system. The lack of integration was most apparent in safety basis, readiness, and procurement which affected critical consent order milestones.

The environmental area had less than superior performance. The leveraging of corporate expertise and experience was not visible as one project. The Waste Characterization Reduction and Repackaging (WCRR) tied up key resources for approximately 6-8 months. In fact, NNSA HQ through pressures from the Environmental Management Program had to take over the WCRR Project in terms of safety basis strategy to ensure program funding was not suspended. LANS rose to the challenge and with federal involvement and WCRR became operational. Unfortunately, this effort significantly impacted the operational system, and many other critical projects were left without the needed expertise in safety basis, engineering, and readiness. Finally, in the area of assessments, the environmental area is unsatisfactory in resolving its LIMTS actions with many actions past the due date.

Nuclear Safety and Safety and Health

Nuclear safety and safety and health have been longstanding issues that require continuous improvement. These areas are multiyear efforts for improvement identified by the Laboratory and coordinated with LASO. There were few surprises and LANS has tracked implementation throughout the year or made progress on their planned efforts. Effective communication at the leadership level between LANS and LASO has been observed. LANS accepted LASO feedback in most circumstances and reacted appropriately. LANS took early problems with Safety Basis documents and crafted a new approach creating LASO approved Safety Basis Strategy Documents that allowed both parties to agree on important aspects of what needed to be addressed in the Safety Basis submittals. The quality of submittals appeared to improve as the year progressed. To their credit, LANS held back Safety Basis submittals that did not pass their quality reviews and consciously delayed submittals into FY 2008 to improve their quality.

LANL management was very effective in integrating, across the laboratory, implementation of the Nuclear Criticality Safety Program, including elements of the Criticality Safety Improvement Plan. Management provided the resources, leadership, and communication necessary to drive high quality improvements within criticality safety. This is evidenced by quality improvements in criticality safety evaluation documents, modifications to the Criticality Safety Officer program at TA-55, and reconstitution of the institutional Criticality Safety Committee. NNSA criticality safety subject matter experts recognized management's role in these improvements in a letter to the Associate Director for Nuclear and High Hazard Operations.

LANS made significant progress in their Voluntary Protection Program (VPP) through employee worker involvement via safety committees. The Program actually decreased overall injury/illness rates by 25 percent. It is noteworthy to mention LANS management's utilization of Management Review Boards to focus on corrective action management as a strength showings leadership involvement and it is also noteworthy to recognize LANS continued use of the CAS tools (dashboard at leadership reviews) and improvements in the CAS tools (LIMTS), however additional improvements are necessary. In addition, LANS was able to coordinate and facilitate the establishment of a Consolidated Dispatch Center for

emergency response with the County of Los Alamos which the prior contractor was unable to accomplish.

During the year LANS made sound (critical) investigations into the Pu uptake, as well as the hoisting/rigging injury event.

Notwithstanding, several key areas not effectively integrated were, most notably, safety basis and readiness review support programs, projects and operations. Serious problems were encountered early in the year in development of quality safety basis documents and work arounds -- re-prioritization activities needed at the last minute to perform readiness activities. The Readiness Review area in particular has been lagging in effective implementation and integration. LANS attempted to address this by updating their approach but demonstrated success is not expected until FY 2008. LANS' failure to complete planned submittals for all Safety Basis documents during FY 2008 will delay important implementation of critical and defensible Safety Controls at the Laboratory's nuclear facilities. In order to make adequate improvements to key safety systems requires continued LANS attention and focus, particularly at TA-55.

LANS fell short in addressing Emergency Response issues in a timely manner during the fiscal year, making a change in leadership too late to affect timely progress on identified issues. Finally, LANS lacked aggressive management of the Corrective Action Tracking System (CATS) issues from previous Office of Assessment (OA) assessments. Only through Federal management and pressure with reqards to CATS has progress been made.

Chemical and Metallurgical Research Replacement Project (CMRR) Integration

LANS failed to fully appreciate the need for the importance of, and take initiative to, integrate various key areas related to CMRR including; integration related to design basis threat, Nuclear Materials Safeguards and Security (NMSUPP) project upgrades, and infrastructure coordination and needs (soil reuse, road rerouting).

Other highly visible/critical efforts included the Safety Basis (PDSA) development where submittal of Revision 0 of the PDSA did not meet expectations and called into question the project's ability to follow the nuclear safety strategy. Revision 1 is expected in the first quarter of FY 2008 and will need to support the nuclear facility continuing into final design. Initial indications are that the Revision 1 PDSA corrective actions will provide a better product.

Due to slower than expected performance on the CMRR Radiological Laboratory Utility Office Building (RLUOB), LANS had to take significant recovery actions to sustain schedule performance. Actions taken by LANS CMRR management included the establishment of a strong design and construction management team on RLUOB; full engagement with the design-build firm and oversight of their subcontractors; quality assurance team build up to sustain and implement a NQA-1 certified program; and better communications among all parties. This resulted in the design-build firm being more responsive to adding critical craft, adding Quality Assurance staff at the job site, and adding more experienced construction supervision. The schedule performance on the RLUOB portion of the project ended the rating period with an acceptable schedule performance index (SPI) of 0.91. The challenge remains at sustaining this level into the first quarter of FY 2008.

Following the departure of the Principal Deputy several initiatives, including development of a TA-50/55 Master Schedule languished.

Project Management

Overall project management and facilities management performance is promising. LANS has improved management rigor and attention to commitments and baselines FY 2007 small project performance was markedly improved with many University of California legacy projects completed, and greater than 90% of all LASO monitored milestones were achieved within cost performance goals. The Roofing Asset Management Program (RAMP) performance exceeded NNSA expectations, delivering project completion ahead of schedule and resulting in LANL receiving additional project funds for FY 2007.

The Waste Management Risk Mitigation project was allowed by LANS to exceed its commitment authority necessitating curtailment of contracts and unplanned cessation of project activities. LANS intervention followed LASO concerns and solicitation of an updated estimate and schedule. LANS has made several improvements in project management budgetary tracking and forecast to address the issue after the fact.

LANL successfully completed the integrated test of the Planet critical assembly machine, its control elements, and the associated Safety Control Rod Axe Man (SCRAM) system on schedule. LANL completed the design of Flat-Top and the burst yield. The design was sent to the reviewers for the design review scheduled on September 13 in accordance with the schedule. However, LANL has failed to maintain a performance management baseline for the LANL scope of work, under configuration management. As a result, the Chemistry Experiment Facility (CEF) project was not able to clearly identify changes to the LANL baseline to fully support the project Baseline Change Proposal (BCP). The CEF BCP was approved on August 1, 2007. As of the end of August, LANL still had not established configuration management for the LANL baseline. However, LANL had started entering the data into the CEF project control system.

Other DOE Programs/Initiatives

In accordance with the Energy Policy Act of 2005, Section 103, the LANL Metering Plan for FY 2008 that was due by August 2, 1007 for the Federal Energy Management Program (FEMP) has not been delivered as scheduled in order to evaluate energy savings.

LANS did not meet May and July Pu-238 milestones to deliver fuel for a nationally significant Security Program. LASO National Security Missions (NSM) and Nuclear Energy's Office of Radioisotope Power Systems (NE-34) held a workshop at the Laboratory August 14-16, 2007, to review the draft Pu-238 operations schedule developed by LANS in July 2007. It was confirmed during the workshop that LANS is unable to deliver 24 fueled clad assemblies for use in an Advanced Long-Term Battery to be assembled at the Idaho National Laboratory for a National Security customer before the end of the fiscal year. Institutional issues and concerns highlighted during the workshop include the lack of integrated resource planning and execution at PF4, cross-directorate and cross-facility operations communication shortcomings, execution uncertainties and disconnects, schedule development deficiencies, and a lack of resources. Workshop participants developed a path forward into fiscal year 2008 requiring significant management of priorities and resources on the part of LANS.

LANS management did not present DOE or NNSA with any alternatives or advance notice to preserve these milestones or commitments before the fact. As these deliverables, "compete" for resource support with LANS, improved communication across directorates as well as integrated feedback to LASO may have resulted in opportunities to minimize this delay.

The Office of Energy Efficiency and Renewable Energy (EERE) rated the LANL's performance for fiscal year 2007 with the equivalent of Outstanding scores for Goal 1: Accomplish Mission; Goal 2: Effective and Efficient Operation of Facilities; and Goal 3: Effective Science and Technology Research Project and Program Management.

Internal Integration and support

Several missed PBI elements were the result of intra-laboratory disconnects/integration issues. For example, TA-50 operations appears to complicate and negatively impact all associated activities involving other directorates, however, no systematic improvement is apparent over the year. Absent great duress and LASO focus objectives languish. Similarly, Threat Reduction, Weapons, and TA-55 FOD coordination was misaligned for most of the year, seeing some small improvement again only after LASO involvement.

13.1 Fee Determination

A total of $4,000,000 was dedicated to the cyber initiatives and performance due to the cyber incident in April 2007. The remaining $3,837,939 is focused on laboratory success in: appropriately responding to anomalies and events that occurred during the evaluation period; integration of different LANS activities and organizations to facilitate site performance; quality of initial submittals; and demonstrated LANS initiative vs. response to inquiries.

- LANS failed to orchestrate an integrated response which included tangible and timely actions. As a result, several "for cause" reviews and assessments were initiated.
- Failure to fully recognize and describe the interrelations between cyber and IT issues at LANL
- Failure to get new aligned organization in place and hire critical leadership on a timely basis
- The award goes towards meeting the listed items in 13.1 for cyber that were developed and tracked by LASO

a) Removal of most of the fee is due to the following issues:

- Failure to actively integrate CMRR and NMSSUP project interface
- Failure to identify in advance and subsequently explain deviations in reported CPI and SPI for the Waste Management Risk Management. This deficiency resulted in substantial cost increases late in the project and created a situation in which confidence in the LANS program was degraded.
- Poor internal quality review of DSA deliverable as evidenced by TA-55 submission
- Poor internal quality review of PDSA deliverable on CMRR
- Lack of effective parent company process to fill the vacated Deputy Director at LANL; length of time to replace the AD for Environmental Management
- Lack of integrated planning at TA-55, causing program delays for non NNSA customers

b) Fee was granted in recognition of:

- the sound, critical investigations into the Pu uptake events
- actions taken to establish and implement the Consolidated Dispatch Center and improve relationship with the County of Los Alamos
- efforts to improve criticality safety and for management actions taken to specifically delay delivery of Safety Basis documents due to poor quality at the end of the year
- RLUOB recovery actions

- improving responsiveness and relationships with NMED as well management fortitude, and ingenuity shown in stewardship of science and footprint reduction.

Maximum Available Fee: $7,837,939
Fee Earned: $1,810,000

Measure 13.2 Ensure high quality performance in areas subject to NNSA's systems based oversight program.

Expectation Statement: NNSA will subjectively evaluate the contractor's management performance in areas where NNSA uses systems based oversight. These areas include budget and financial management, real and personal property management, audits and assessments, human resources management, technology transfer, education programs, corporate and community commitments, and work for others management. LANS is to ensure programs are sound and continuous improvements are made to maintain safety and health compliance and implement an Integrated Safety Management System, institutional quality assurance, and non nuclear health and safety programs, including worker safety and health (10 CFR 851). Ability to provide contract deliverables identified in the Contract Documents Requirements Listing will also be evaluated under this measure.

13.2 **Define Completion:** Ensure high quality performance in areas subject to NNSA's systems based oversight program.

A. LANS will develop criteria that it will use to assess its performance in areas subject to NNSA's system based oversight program. These criteria will include:
   - Assessment results of programs based on parent oversight, contractor assurance outputs, and self assessments programs (business, non nuclear safety and health, etc.) show positive improvements, with no major failures.
   - Community Commitment, quality of financial statements, management of Work for Others projects.
   - CDRL deliverables quality and timeliness
B. LANS will provide a self-assessment against these criteria. This assessment will include feedback on performance provided by stakeholders.
C. NNSA will perform a subjective evaluation of LANS performance in these areas. This evaluation will consider the LANS self-assessment.

LANL Completion Statement:

A year-end self-assessment against PBI 13.1 was conducted and is included in the annual contractor self-assessment (LA-CP-07-1310) submitted to NNSA per Clause H-12 (2) on October 19, 2007.

In the Director's Summary of the Performance Self-Assessment, the Laboratory Director assessed overall performance as follows: "Leveraging parent corporate expertise and experience and implementing a new organizational approach to management focused on safe, secure mission delivery, LANS has made significant progress in moving down the path toward NNSA's goal of improved responsiveness and superior performance. Focusing on results that we have delivered and the improvements that we have made, in spite of numerous obstacles, I can only assess our overall performance over the past year as highly effective."

LASO Validation Statement: Measure 13.2 is a subjective evaluation of the contractor's management performance in areas where NNSA uses system based oversight. These areas, and NNSA's assessment, are included below, with a recommendation of fee for each area.

Business

For Real Property, in discussing the role of the M&O and the quality of work received for LANL, the NNSA Service Center rates two areas as outstanding. They include the Science Complex and the Asset Exchange, which are large projects in which new ground was broken and the contractor spent many hours working, then re-working the project to completion. Two other areas, the Leasing and FIMS processes, were rated good. The FIMS Validation was a difficult process requiring a lot of initial work to complete, yet would only be considered as exceeding requirements, not significantly exceeding. Weighting the larger, single item projects because they tend to be non-repetitious, require larger amounts of time, and good communication between parties, gives an outstanding rating to the real property area. Contractor Human Resources, Personal Property and were rated good.

Communications and Intergovernmental Affairs

The Communications and Government Affairs Office has made significant improvements in their effectiveness to interface with local governments, the press and the public. Throughout the year the Media Relations Office (MRO) has responded in a timely manner to hundreds of inquiries about issue, concerns and great programmatic stories. These interactions have enhanced the relationship of the Lab with local, national, and international media. The MR team has worked effectively with reporters to get out some positive news on projects and programs the Lab is involved with, the bomb sniffing bees, earth communications system, and the recovery of unwanted or unused radioactive sources, to name a few. The Lab has put out hundreds of press releases that cover everything from program initiatives to awards won by lab scientists. The MR group has also developed a database they are implementing to track and trend their efforts so they can better understand the needs of customers. From the standpoint of the Government Affairs Office, their interaction with local governments is going well. The Community Programs Office (CPO) has made great strides to enhance their programs are meeting all the commitments laid out in their Community Involvement Plan. The Regional Leadership Breakfasts have been a success, bringing together the community leaders from across Northern New Mexico to mingle and discuss issue and concerns and for the lab to provide Laboratory program updates. These informative meetings are helping LANL and LASO have a better understanding of how NNM communities want to be informed about the lab and what goes on here.

The enhancements of all these programs are noticeable but we are still working on how these programs will be measured in CAS and through what metrics or mechanism. Once this is remedied LASO's ability to assess and evaluate CGA and MRO will be greatly enhanced.

However, following the departure of the Principal Deputy, the continuity and formality of communications declined. As an example of this, LASO identified and corrected direction taken by LANS from outside official channels.

Contractor Assurance System Management

LANS management's utilization of Management Review Boards to focus on corrective action management is a strength that shows leadership involvement. LANS continued use of the CAS tools (dashboard at leadership reviews) and improvements in the CAS tools (LIMTS), although additional improvements are necessary, was noteworthy. Self Assessments were rated only satisfactory, due to the number planned but not performed (LANS undertook re-planning of the effort mid way through the year). Transparency of the self assessment and parent assessment process could be improved in some areas. Parent assessments (number, type, quality) were good.

Counterintelligence

LANL's Office of Counterintelligence (CI) provided outstanding training and awareness support to laboratory personnel, exceeding the CI enterprise target of 90%, performed exceptionally well in supporting a major FBI investigation involving a LANL employee, developed close relationships with external CI agencies, and providing high quality analytical reports.

Institutional Quality Assurance

LANL succeeded in making definitive progress in the development and implementation of the LANL Quality Assurance Programs. Highlights include completion of more than 100 corrective actions, many of which were legacy actions from previous fiscal years. The timeliness and quality of the corrective action plans improved significantly during FY 2007. Less than one percent of the plans required rewrites and only a limited number of items were delivered late. Communications and action transparency has improved demonstrably which is evidenced by the reduction of issuance of formal correspondence requiring submission of routine documents and responses. LANL also supported the Weapons Complex with implementation of the PDM link for weapons design configuration. Internally, within LANL, the Quality Assurance Division has achieved credibility and a good working relationship among the directorates and is sought out as support to programs and projects. All LANL directorates have formally concurred with the LANL Quality Assurance Program which acknowledges both accountability and responsibilities for full implementation of the program.

FY 2007 accomplishments have provided an excellent foundation for LANL to achieve actions associated with the Quality Assurance Program Implementation Plan during FY 2008.

Non Nuclear Safety and Health Programs

Electrical Safety: Overall Electrical Safety Program performance this FY was a dramatic improvement over past years at LANL and stands out in the DOE complex as exemplary. At a time when DOE is working hard on improving its electrical safety posture, this performance has significantly added to that objective. Additionally, LANL contributions to national safety efforts through the EFCOG have been substantial and will improve upon safety across the complex. This area is rated Outstanding and a fee of $100,000 is recommended.

Emergency Management LANL commenced FY 2007 with a comprehensive review performed by the Office of Emergency Management Oversight (HS-63). This audit assessed LANL's emergency management program, with respect to planning, preparedness, response, and readiness assurance elements. The final report noted that LANL had numerous deficiencies throughout its emergency management program. In response to these findings, LANL's emergency management personnel spent a tremendous amount of time and resources struggling to create an adequate corrective action plan. Due to this protracted effort, LANL had few tangible gains in the program during the year.

Additional functional area assessments performed throughout the year by LASO noted elements of the program identified as lacking with respect to DOE Order requirements. At the close of FY 2007, LANL remained out of DOE Order 151.1C (Comprehensive Emergency Management System) compliance for several important facets of the program, and as such, should be rated as Unsatisfactory when considered as an input for the measure regarding LANL Excellence in Programs.

Fire Protection: While progress has been made in this area during FY 2007, there are still areas that need improvement. They include:

1) The LANSCE fire pump was replaced as promised, however, LANS commitment to this project slipped by several months, with LASO not being notified of the delays.

2) LANS response dated January 16, 2007 to the Defense Nuclear Facility Safety Board (DNFSB) May 31, 2006, letter made a number of commitments. Some commitments remain open or there has been limited progress and include adequate staffing within LANS and emergency response related to the Consolidated Dispatch Center.

Radiological Protection Program: This area has several subcomponents which are discussed below.

- *Planned Exposures*: Prior to the transition to LANS, the performance of the quarterly ALARA Steering Committee (ASC) was rated as "RED". This rating was the result of the ASC's lack to formally document/approve the external dose estimates for those organizations required to develop such goals. Also, the ASC persistently did not provide meeting minutes to document its actions. In addition, the ASC appeared not to have the support of UC upper management. When LANS became the M&O contractor, the quarterly ASC meetings were replaced by the monthly Institutional Radiation Safety Committee (IRSC), which is chaired by senior LANS managers. The performance of this committee has greatly enhanced and improved the projection of planned radiological exposures. The rating for this performance measure is Good.

- *Unplanned Exposures*: During LANS tenure from October 1, 2006, through September 30, 2007, the number of unplanned personnel exposures to internal contamination has shown a decreasing trend to the historical average. However, several radiological accidents resulted in a number of workers receiving internal exposures above reporting thresholds as the result of puncture wounds (see LA-UR-07-1305). The Type B-like investigation by LANS (shadowed by this SME) found five root causes for inadequate adherence to radiological requirements and/or work control as well as poorly defined management expectations. These accidents resulted in seven judgments of needs (JONS). A corrective action plan (CAP) was developed and approved to correct the identified JONS. In addition, a small number of workers received internal exposures above reporting thresholds, although these exposures did not warrant a formal accident investigation, as the result of inadequate work control. The rating for this performance measure is "Yellow" or Satisfactory.

- *Contamination Control:* The RP Division has developed an excellent database to track/trend various contamination control parameters. These parameters include area contamination, personnel contamination, and airborne contamination. Each parameter is broken down into sub-tier measures. A weighted average (performance index score) is calculated each quarter, based upon assigned severity, level of concern, and number of events in each category. In all, eleven contamination performance measures are tracked/trended each quarter. During this performance period (and since calendar year 2003), the trend for contamination control is tracking below the below the historical average. The rating for this performance measure is Good.

- *Adherence to 10 CFR 835 Requirements*: Title 10 CFR 835.120 requires that the performance of the M&O's radiation protection organization's radiation protection program (RPP) plan be internally assessed on a triennial basis. The RP Division has undergone part 1/3 of this required assessment. The results of Part 1/3 of required triennial assessment revealed that overall the institutional RPP meets the requirements specifically identified in the scope of this assessment. The RP Division has a staff that is competent and dedicated. Also, the formality of the program is supported by a broad array of well-developed procedures. Lastly, the RP Division is a streamlined organization that has well-defined roles and responsibilities. A few technical details need attention, including clarifications to

policy-level and implementing documents and updates to reflect the new organizational structure. Based upon the results of Part 1/3 of the triennial assessment, the rating for this performance measure is Good. This rating is further supported by the discussions held weekly between RP Division personnel and the LASO SME.

Overall Rating: Awarded $66,000 out of a possible $100,000 for the Radiation Protection Program.

Readiness Review Program: Program managers have failed to plan in advance of operational need dates so that project schedules accommodate readiness reviews and nuclear facility Readiness Coordinators are well informed and can establish technical arguments to support determination of readiness review levels. Integration and communication between Program/Projects and Operations was deficient to the point that schedule delays caused New Mexico Consent Order dates to be missed. Multiple projects failed to understand the requirements to start up operations in nuclear facilities and the Operations Support Division did not have sufficient resources to mentor key personnel. The LANL SNR Priority List is ineffective as a management tool and does not take mission impact and drivers into consideration.

An Unsatisfactory is assigned to this area and $0 awarded out of $93,893.

Worker Safety and Health 851 Compliance: LANS submitted its 851 plan by the regulatory deadline of February 25, 2007. The Quality of the initial plan (including gap analysis) was excellent. Only minor improvements were needed after LASO review. The plan was approved by LASO on May 17, 2007. During FY07, continued implementation of Gap Analysis Corrective Actions was demonstrated, but frequently later than the scheduled due dates. Their rating is Good and $23,100 out of $35,000 is recommended for payment.

For Non Nuclear Safety and Health Programs a total fee of $189,100 is awarded out of $453,893.

Packaging and Transportation: With the contract change, LANL is now subject to DOT inspection for onsite shipments. LANS effectively prepared for a DOT inspection which resulted in only minor findings. Several instances of LANS internal organizational coordination disconnects emerged during the year but overall this area is rated Outstanding for its accomplishments and improvements this year.

Awarded $30,000 out of $30,000.

Technology Transfer: LANL continues to develop their technology transfer process, to include cooperative research and development agreements (CRADA). In FY 2007 they increased their funds in work to a total of $29.3M, which is a 47% increase over FY 2006. A major hindrance to their program is the level of technology maturity that LANL can offer. Industry is interested in relatively mature technology that they can take to market with minimal expense and further development. LANL's technology maturity can't match this expectation. For example, LANL supported NA-116's efforts to provide off-board sensor technology to the Navy. Although LANL provided information on several new sensor technologies, very few fit within the Navy's one to two year availability window. LANL has initiated a Lean Six Sigma project to identify areas where efficiencies can be gained. LANL signed the intellectual bundling agreement, along with the other two NSA laboratories and the Nevada Test Site. The intent of the agreement is to accelerate the commercialization of laboratory technologies. A Satisfactory is assigned to this area.

Awarded $24,750 out of $75,000 is recommended for payment.

NNSA CFO Budget and Finance Criteria

By recommendation of the Director of the Office of Field Financial Management, no allocation of fee was made to areas under his purview. The laboratory delivered adequately on the NNSA CFO Budget and Finance criteria.

Total Available Fee: $1,124,893
Fee Earned: $654,390

Measure 13.3 Business Systems: Improve Procurement processes and programs

Expectation Statement: LANL will have a procurement system that enables more efficient execution of the laboratory's needs through increased automation and better processes, and enables a more robust and effective socioeconomic program at the same time.

13.3A Define Completion: Convert all nine existing Local Vendor Agreement (LVA) contracts to the new BPA module and add four new agreements by March 31, 2007.

LANL Completion Statement: Completion of this PBI demonstrates LANL's ability to execute a more efficient means of ordering commonly used commercial items through the Oracle iProcurement system. Utilization of the Oracle Blanket Agreements reduces costs associated with acquiring items through the purchase requisition process and greatly reduces the time associated with procuring these items. It also consolidates multiple one-time buys (POs) into BOAs accessible to Designated Procurement Representatives (DPRs) across the Laboratory.

LASO Validation Statement: Technical Monitor has validated completion of the measure.

Total Available Fee: $93,843
Fee Earned: $93,843

13.3B Define Completion: Convert four legacy Just-in-Time (JIT) contracts to the new system by May 31, 2007.

LANL Completion Statement: Completion of this PBI demonstrates LANL's commitment to decommissioning the Legacy JIT system and implementing new subcontracts on the Oracle iProcurement system. Implementation of Blanket Order Agreements (BOAs) on the Oracle iProcurement system reduces costs associated with catalog implementation and maintenance. It also consolidates multiple one-time buys (POs) into BOAs accessible to Designated Procurement Representatives (DPRs) across the Laboratory.

LASO Validation Statement: LASO received LANS evidence file for the subject measure on May 5, 2007. The Technical Monitor validated that four (4) commodity group Just-in-Time contracts has successfully been awarded and placed in the Oracle iSupplier portal and orders had successfully been placed by DPRs.

Total Available Fee: $93,843
Fee Earned: $93,843

13.3C Deleted

13.3D Deleted

13.3E Define Completion: Meet all small business goals and exceed two or more socio economic program goals by 2%. (Current goals are: small business 50%, SDB 11%, WOB 11%, HUBZONE 3%, Veteran Owned SB 3%, and service disabled veteran owned SB 3%).

LANL Completion Statement:

Small Business achievements through September 2007 are as follows. This information is currently being validated in accordance with the requirements of the SBA guidelines for SBA forms 294/295. Complete FY2007 data is due to DOE-Office of Small Disadvantaged Business Utilization by October 31, 2007

Category	Goal	FY07 % Achieved
Small Business	50%	37.2%
Small Disadvantaged Business	11%	12.4%
Woman Owned Small Business	11%	6.0%
HUBZone	3%	2.1%
Veteran Owned Small Business	3%	3.3%
Small Disadvantaged Veteran Owned Small Business	3%	0.9%

Many initiatives have been implemented to increase these achievements for FY08, including a Lean Six Sigma PIP that was started in July 2007 to evaluate how to increase our awards to small businesses. This PIP has demonstrated via a capability analysis that, due to many line-item construction projects and other long-term procurements (i.e. Roadrunner, KSL, LLC, PTLA, etc.) that it is unlikely LANL can achieve even 40% awards to small businesses. It is noteworthy that of those dollars that are not constrained (or committed long-term as shown above), 60% of those available dollars are currently going to small businesses.

Nevertheless, LANL is ambitiously undertaking other initiatives aimed at increasing our awards to small businesses. They include reviewing procurement packages greater than $100K for small business set-asides (e.g., Staff Augmentation, Telecommunications, Architect-Engineering, Safety Basis, etc), un-bundling subcontracts (e.g., custodial from KSL), better forecasting, Individual Performance Objectives (Employee Appraisals) that contain the Institutional goals, matching large businesses with small businesses, and more interactive LANL-hosted supplier forums (similar to the ones hosted on February 8, 2007; August 10, 2007, and one scheduled for October 17, 2007).

LASO Validation Statement: LANS has not met the FY 2007 Small Business Goals.

Total Available Fee: $93,843
Fee Earned: $0

Measure 13.4 Business Systems: Complete Enterprise Project (EP)

Expectation Statement: The Enterprise Project (as defined in the Project Management Plan dated July 2006) will be completed during FY 2007. This will be indicated by discrete and verifiable events indicated in the measure below.

13.4. Define Completion:

A. LANL financial books opened on Oracle Financials in October 2006, indicating successful deployment of Release 4, which is the last phase of the EP project.
B. The EP project will be formally closed by December 22, 2006, using LANL Project Closure requirements and submitted to LASO in concurrence with CPIC closure requirements.

LANL Completion Statement: The principal goal of this project is to provide up-to-date, integrated, enterprise-level applications and databases to operate the business of the Laboratory at all levels. Through implementation of Enterprise Resource Planning (ERP) systems, LANL expects to realize more effective integration of LANL business systems. ERP systems will provide simpler business systems support structure, streamlined business processes, the ability to incorporate advances in technology and business practices, an

eventual decrease in the overall cost of managing the Laboratory, and more effective program execution. The ERP will provide managers at all levels with necessary, accurate, and timely information that will help them make the best possible decisions. This, in turn, will help the Laboratory become more efficient, cost-effective and modern in its approach to business.

Evidence was submitted to show that PSI 13.4 has been successfully completed: the Oracle Financials were successfully deployed in October 2006, and that the Enterprise Project was formally closed by December 22, 2006.

LASO Validation Statement: The Enterprise Project requirements for project management and IT oversight were successfully implemented by LANS and approved by the LASO Technical Monitor and the NNSA Field Chief Financial Officer. The EP provides up-to-date, enterprise-level applications and databases to operate the business of LANL at all levels.

Total Available Fee: $115,416
Fee Earned: $115,416

Measure 13.5 Business Systems: Provide systemic, ongoing cost savings through efficiencies and continuous improvement programs without negative impact to mission.

Expectation Statement: LANL will provide long term measurable systemic improvements to processes and systems that will result in no budget increases needed to absorb the impact of gross receipts taxes and fee, and that will result in no negative impact to program accomplishments.

13.5A Define Completion: Reduce indirect costs by 5% as compared to FY 2006 indirect costs, excluding New Mexico's Gross Receipts tax, fee, TCP 2 Contributions, and Unemployment Taxes.

LANL Completion Statement: FY07 Indirect Budgets are set at a level 9% below actual costs incurred in FY06 excluding New Mexico's Gross Receipts tax, fee, TCP 2 Contributions, and Unemployment Taxes.

LASO Validation Statement: The NNSA Office of Field Financial Management (OFMM) validated $97,123,114 of the claimed cost savings which are traceable to LANL's year-end accounting records. OFMM obtained valid explanations for all material indirect accounts that were discontinued from FY 2006 to FY2007, and obtained reasonable assurance that indirect reductions were not due to shifting indirect costs directly to programs. The validated 10.9% exceeds the PBI 13.5A target reduction of 5%.

Total Available Fee: $304,991
Fee Earned: $304,991

13.5B Define Completion: Using Six Sigma and other continuous improvement processes provide and document an additional $2.5 M aggregate unburdened cost savings in 5 areas with costs of $10 million or more per area. (e.g., utilities, site-specific IT, travel, work processes, etc.) The savings/cost avoidance may be realized during the fiscal year, or with conclusive documentation, projected to be saved over a 12-month period subsequent to improvement implementation. These savings may be reinvested but must be fully documented and must be accomplished in accordance with Clause H.11.

LANL Completion Statement: Completion packages have been submitted for cost savings totaling $7,312,290 in the following 9 areas. Several of these reflect partial-year savings and will be updated at the end of the fiscal year.

1. Environmental Restoration, Water/Soil Sampling ($39.4M total cost): Sample and

Analysis Planning Process ($264,827 savings). Two similar sample and analysis planning processes were combined into one. This resulted in a staff reduction and process changes including a requirement for a standard sampling and analysis plan before sampling, elimination of non-required sampling, and reduction of paperwork re-works.

2. Environmental Restoration, Water/Soil Sampling ($39.4M total cost): Data Management Verification and Validation ($218,326 savings). Two similar verification and validation processes were combined into one process resulting in a reduction in FTEs and the combining of two subcontracts providing similar validation services into one.

3. Domestic Travel ($20.1M total through June month-end): Domestic Air Fare ($3, 094,430 savings through June month-end). Reduced cost of domestic air fare through improved controls on the purchases of air fare (refundable vs. non-refundable) and least cost air fares from Sept 2006 through August 2007. (Will update at EOFY)

4. Procurement ($481.3M total through May month-end): eAuction ($226,944 savings through June month-end). Reduced cost of procuring goods/services using eAuction tools. (Will update at EOFY)

5. Procurement ($481.3M total through May month-end): Meals ($232,156 savings through June Month-end). Reduced costs for meals by revising LANL policy to incorporate DOE's best business practices. (Will update at EOFY)

6. Labor ($619.5 total through May month-end): TA-55 Retention Pay ($635,452 savings through June month-end). Requested continuation of retention pay program for only a portion of participants beyond sunset stipulation. TSMs were removed from the program because their compa ratio had reached over 100%. TEC and SSM jobs show benefit of continuing the program. (Will update at EOFY)

7. Roads and Grounds ($11.7M total cost): CMRR Recycling ($1,684,382 savings). The CMRR Project will have reused approx. 207,000 cubic yards of soil, 486 cubic yards of asphalt, and 162 cubic yards of vegetation to generate mulch throughout the Laboratory. In addition, the project delivered 17,000 cubic yards of soil to the Los Alamos County Landfill for the Eco Station construction and intermediate cover on the landfill.

8. Procurement ($481.3M cost through May month-end): iProcurement ($547,811 savings). Reduced cost of process to procure safety-related shoes, clothing, and glasses.

9. Software and Software Maintenance ($12.6M est.): IBM Mainframe Software Maintenance (407,962 savings through August month-end). Reduced cost of software maintenance on IBM mainframe by migrating applications to regattas and changing pricing methodology from 100% Central Processing Unit (CPU) usage to actual CPU usage.

LASO Validation Statement: LANS achieved over $2.5M in aggregate unburdened cost savings in more than 5 areas as required by the measure. The cost savings have been audited and are identified below.

1. Environmental Restoration, Water/Soil Sampling and Analysis Planning Process –Cost savings of $276,827 as validated by NNSA, Office of Field Financial Management (OFMM) in audit report dated September 21, 2007.
2. Environmental Restoration, Water/Soil Sampling Data Management Verification and Validation –Cost savings of $274,606 as validated by NNSA OFFM Audit Reported dated September 25, 3007.
3. Domestic Travel –Cost savings of $11,882,397 was validated in NNSA OFFM Audit Report dated September 21, 2007.

4. Procurement eAuction –Cost savings of $245,550 as validated by NNSA OFFM Audit Report dated September 21, 2007.
5. Procurement/Meals—Cost savings of $232,200 as validated by NNSA OFFM Audit Report dated September 21, 2007.
6. Labor TA-55 Retention Pay—Cost savings of $635,452 could not be validated by NNSA OFFM Audit Report dated September 28, 2007
7. CMRR Roads and Grounds Recycling--Cost Savings of $1,086,080 as validated by NNSA OFFM Audit Report dated September 21, 2007 in the amount of $1,086,080.
8. iProcurement –Cost savings of $446,467 as validated by OFFM in audit report dated November 2, 2007.
9. IBM Mainframe Software Maintenance – Cost savings of $443,325 as validated by OFFM Audit Report dated September 21, 2007.

Total Available Fee: $164,226
Fee Earned: $164,226

Measure 13.6 Create and operate a Safety Basis Academy to facilitate uniformity in technical qualifications of safety basis professionals across the weapons complex.

Expectation Statement: A Safety Basis Academy will be created and operated, with approved courses developed and delivered to safety basis professionals from LANL and other NNSA sites during FY 2007.

13.6A Define Completion:

A. Establish a comprehensive "Safety Basis Academy Plan." Submit plan to NNSA for approval by December 24 2006, or within 60 days of receipt of funding. Submittal of the plan is the gateway to earning fee under B.

LANL Completion Statement: A revised Safety Basis Academy Plan was submitted to NNSA on March 16, 2007. NNSA commented in April 2007, and LANL revised the plan in May 2007.

LASO Validation Statement: The Safety Basis Academy Plan was submitted and concurred in by the NNSA Authorization Basis Senior Advisor/Continuous Learning Chair on June 26, 2007.

Total Available Fee: None, this is a Gateway measure.

13.6B Define Completion:

B. Develop and deliver prototype of seven classes by September 30, 2007.

LANL Completion Statement: All FY 2007 classes have been completed.

- Safety Basis Overview, March 21-22, Complete
- Technical Safety Requirements, April 16-19, Complete
- DOE Standard 3009, May 14-18, Complete
- MACCS2, June 18-21, Complete
- CFAST, June 25-28, Complete
- Hazard Evaluation Techniques I, August 20-24, Complete
- Hazard Evaluation Techniques II, August 27-31, Complete

Participation in these classes ensures the uniformity of technical qualification of safety basis professionals across the weapons complex and will help to ensure long-term and compliant operations within Laboratory nuclear facilities.

LASO Validation Statement: Seven (7) classes were developed and validated by NNSA Authorization Basis Senior Advisor/Continuous Learning Chair.

Total Available Fee: $279,860
Fee Earned $279,860

13.6C Define Completion: Provide training in ALOHA and EPI code courses adequate for Safety Analyst certification.

LANL Completion Statement: Baseline plan and schedule were established. Both classes have been completed.

- ALOHA Code, July 16-19, Complete
- EPI Code, August 1-2, Complete

These two classes, along with the other 7 classes taught in FY 2007, ensure that safety analysts get adequate training for certification.

LASO Validation Statement: Training in ALOHA and EPI code courses adequate for Safety Analyst certification was provided and validated by NNSA Authorization Basis Senior Advisor/Continuous Learning Chair.

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Total Available Fee: $21,779
Fee Earned: $21,779

IV. FEE SUMMARY

PBI Measure	Description	PBI Fee	Comment	Fee Allocated per all Change Control	Recommended Fee Allocation	Recommended Unearned Fee
1	Weapons Program	**$7,362,227**				
	Gateway for PBI 1 (all)					
1.1	Annual Assessment Rpt			$1,104,334	$1,104,334	$0
1.2	L1 and L2					
1.2.1	100% L1			$2,473,708	$2,473,708	$0
1.2.2	L2			$3,710,563	$3,529,560	$181,003
			Partial Deliverable 49 L2 Evidence	$0		$0
1.3	Long-Term Planning			$73,622	$73,622	$0
				$7,362,227	**$7,181,224**	**$181,003**
2	Weapons QA	**$1,429,994**				
2.1	Continuous Improvement					
2.1.1	Manuf Qual Metrics Syst			$428,998	$428,998	$0
2.1.2	Implementation			$428,998	$428,998	$0
2.2	WQAP					
2.2.1	Submittal of WQAP			$285,999	$285,999	$0
2.2.2	Implementation			$285,999	$285,999	$0
				$1,429,994	**$1,429,994**	**$0**
3	Threat Reduction	**$3,053,952**				
3.1	Multi-Site TR Tech Cap			$296,196	$296,196	$0
3.2	Nuc Nonproliferation					
3.2.1	Tomsk MPC&A upgrade			$177,718	$177,718	$0
3.2.2	Pu polishing			$355,436	$355,436	$0
3.2.3	ARIES			$355,436	$355,436	$0
3.2.4	GNEP UREX+1a			$204,000	$204,000	$0
3.2.5	Commerce Dual Use License			$118,479	$118,479	$0
3.3	Nonproliferation R&D					
3.3.1	Mission Response Module			$444,294	$444,294	$0
3.3.2	Cibola Flight Exp.			$510,000	$510,000	$0
3.4	Rapid Response			$592,393	$592,393	$0
				$3,053,952	**$3,053,952**	**$0**
4	N&HHOps	**$5,228,756**				
4.1	Formality of Nuc Safety					
4.1.1	ConOps Program			$210,000	$210,000	$0
4.1.2a	Complete 10 PMPs			$105,000	$105,000	$0
4.1.2b	Quarterly Reviews		Q2 (None in Q1)	$31,618	$31,618	$0
			Q3	$31,618	$31,618	$0
			Q4	$31,618	$31,618	$0
4.1.3	ConOps Perf Index			$105,000	$105,000	$0
4.1.4	Improved ConOps			$731,779	$731,779	$0
4.1.5	V&V SDDs Identified			$365,890	$365,890	$0

PBI Measure	Description	PBI Fee	Comment	Fee Allocated per all Change Control	Recommended Fee Allocation	Recommended Unearned Fee
4.1.6	V&V SDDs Corrected			$274,417	$274,417	$0
4.2	Safety Basis/Criticality S					
4.2.1a	Complete baseline of SBIP			$60,000	$60,000	$0
4.2.1b	4 Qtrly Reviews		Q1	$52,270	$52,270	$0
			Q2	$52,270	$52,270	$0
			Q3	$52,270	$52,270	$0
			Q4	$52,270	$52,270	$0
4.2.2	Safety Basis Procedures			$78,405	$78,405	$0
4.2.3	DSA Quality			$591,148	$280,204	$310,944
4.2.4	DSA Schedule			$709,379	$354,690	$354,690
4.2.5a	Auth Agree Procedure			$60,000	$60,000	$0
4.2.5b	Update submittals			$209,080	$209,080	$0
4.2.6	Safety Basis e- database			$52,270	$52,270	$0
4.2.7	Imp Crit Safety Prog Manual			$300,000	$300,000	$0
4.2.8a	Crit Safety baseline Imp Plan			$60,000	$60,000	$0
4.2.8b	Quarterly Reviews		Q1	$60,000	$60,000	$0
			Q2	$52,270	$52,270	$0
			Q3	$52,270	$52,270	$0
			Q4	$52,270	$52,270	$0
4.3	Readiness Review					
4.3.1a	Complete PMP			$90,000	$90,000	$0
4.3.1b	Quarterly Reviews		Q1	$58,803	$58,803	$0
			Q2	$58,804	$58,804	$0
			Q3	$58,804	$0	$58,804
			Q4	$254,816	$0	$254,816
4.3.2	Submit SNRs 25-15		deleted per CC-07-023B	$0		
4.3.3	Readiness Review Qual			$274,417	$0	$274,417
				$5,228,756	**$3,975,086**	**$1,253,670**
5	Safeguards and Security	**$2,681,239**				
	Gateway for PBI 5					
5.1	S&S AOP		Paid quarterly, proportionately for each of 60 deliverables in AOP	$1,206,557	$1,184,773	$21,784
			Q1			
			Q2			
			Q3			
			Q4			
5.2	No loss/gain SNM			$670,310	$670,310	$0
5.3	External Assessments			$536,248	$268,124	$268,124
5.4	Cyber Security AOP			$268,124	$268,124	$0
5.4a	Submit AOP		Sub-Measure	$0		$0
5.4b	Meet AOP Deliverables		Sub-Measure	$0		$0
5.4c	End of Yr Report		Sub-Measure	$0		

PBI Measure	Description	PBI Fee	Comment	Fee Allocated per all Change Control	Recommended Fee Allocation	Recommended Unearned Fee
				$2,681,239	**$2,391,331**	**$289,908**
6	ST&E Excellence	**$4,468,731**				
	Threshold PBI 6					
6.1	ST&E Workforce Excellence			$3,351,548	$3,351,548	$0
6.2	Critical Skills			$580,935	$0	$580,935
			Deliverable in PBI	$0		$0
6.3	Collaborations			$446,873	$0	$446,873
6.4	GNEP			$89,375	$89,375	$0
				$4,468,731	**$3,440,923**	**$1,027,808**
7	Multi-Site Performance	**$4,550,512**				
7.1	Def Progs Top 10					
7.1.1	Products to DoD			$290,468	$290,468	$0
7.1.2	Bklog Surveillance units			$145,234	$145,234	$0
7.1.3	Wpns Dismantlement			$435,701	$435,701	$0
7.1.4	B61-11 FPU			$435,701	$435,701	$0
7.1.5	W76-1 FPU			$435,701	$0	$435,701
7.1.6	10 pits			$145,234	$145,234	$0
7.1.7	Tritium			$83,356	$83,356	$0
7.1.8	MESA, DARHT, NIF			$72,617	$72,617	$0
7.1.9	RRW			$500,136	$500,136	$0
7.1.10	Responsive Infrastructure			$435,701	$435,701	$0
7.2	NWC Transformation Act.					
7.2.A	2 NWC-ISC projects			$44,687	$44,687	$0
7.2.B	3 initiatives started			$51,296	$51,296	$0
7.2.C	Participation in Qtrly Mtgs			$44,687	$44,687	$0
7.2.D	3 Best Practices			$44,687	$44,687	$0
7.2.E	LANL/LLNL Integration			$44,687	$44,687	$0
7.3	Nuc Mat Consolidation			$446,873	$446,873	$0
7.4	Information Resource Mgmt			$223,436	$223,436	$0
7.4C	LANL Cost Savings Init.		deleted			
7.5	Supply Chain Mgmt			$223,437	$223,437	$0
7.6	Stockpile Components			$446,873	$446,873	$0
				$4,550,512	**$4,114,811**	**$435,701**
8	Environmental Proj & Ops	**$3,619,670**				
8.1	NM Consent Order			$1,689,180	$1,182,426	$506,754
8.1A			Sub-Measure	$0		
8.1B			Sub-Measure	$0		
8.1C			Sub-Measure	$0		
8.1D			Sub-Measure	$0		
8.1E			Sub-Measure	$0		
8.1F			Sub-Measure	$0		
8.1G			Sub-Measure	$0		
8.1H			Sub-Measure	$0		
8.1I			Sub-Measure	$0		
8.1J			Sub-Measure	$0		
8.1K			Sub-Measure	$0		

PBI Measure	Description	PBI Fee	Comment	Fee Allocated per all Change Control	Recommended Fee Allocation	Recommended Unearned Fee
8.1L			Sub-Measure	$0		
8.1M			Sub-Measure	$0		
8.1N			Sub-Measure	$0		
8.1O			Sub-Measure	$0		
8.1P			Sub-Measure	$0		
8.1Q			Sub-Measure	$0		
8.1R			Sub-Measure	$0		
8.2	D&D		Zeroed out by CC-07-010	$0		
8.3	TRU waste at TA-54					
8.3A	Contact-handled TRU waste			$1,126,120	$525,898	$600,222
8.3B	Ship 16 RH drums		Deleted by CC-07-030	$0		
8.4	EM Perform. baseline			$402,186	$0	$402,186
8.4A	Baseline Change Proposal		Sub-Measure	$0		
8.4B	Implementation CPI/SPI		Sub-Measure	$0		
8.5	Compliance					
8.5.1	Compliance Performance			$100,546	$100,546	$0
8.5.2	Compliance Perf. Trends			$100,546	$100,546	$0
8.5.2A	RCRA		Sub-Measure	$0		
8.5.2B	Stormwater		Sub-Measure	$0		
8.5.2C	NPDES		Sub-Measure	$0		
8.5.2D	Clean Air Act		Sub-Measure	$0		
8.5.3	Pollution Prevention			$100,546	$100,546	$0
8.5.4	ISO 14001			$100,546	$100,546	$0
				$3,619,670	**$2,110,508**	**$1,509,162**
9	Safety and Health	**$1,795,423**				
9.1	10CFR851 and VPP					
9.1.1	VPP IP Milestones			$125,681	$125,681	$0
9.1.2	Human Perf Fundamentals			$26,931	$26,931	$0
9.1.3	Complete WSST Process			$26,931	$26,931	$0
9.1.4			Deleted 7/26/07			
9.2	Injury Reduction					
	Threshold for 9.2					
9.2.1	TRC reduction >20%			$161,587	$0	$161,587
9.2.2	DART reduction>20%			$161,587	$0	$161,587
9.2.3	TRC DART >25% red			$107,726	$0	$107,726
9.2.4	TRC DART >30% red			$107,726	$0	$107,726
9.3	Fire Protection Marshal					
	Threshold for 9.3					
9.3.1	New Project Oversight			$134,657	$134,657	$0
9.3.2	Review of Eng evals			$53,863	$53,863	$0
9.3.3	Review of Fire Haz Anal			$53,863	$0	$53,863
9.3.4	Op Readiness Reviews			$26,931	$26,931	$0

PBI Measure	Description	PBI Fee	Comment	Fee Allocated per all Change Control	Recommended Fee Allocation	Recommended Unearned Fee
9.4	Chem & Haz Material					
	Threshold for 9.4					
9.4.1	Chem Inventory			$107,726	$0	$107,726
9.4.2	Chem Assessments			$80,794	$0	$80,794
9.4.3	Haz Chem life-cycle mgmt			$40,397	$0	$40,397
9.4.4	Bio Select Agent Inventory			$26,931	$26,931	$0
9.4.5	Emergency response			$13,466	$0	$13,466
9.5	Electrical Safety					
	Threshold for 9.5					
9.5.1	Reduction in Annual Severity Score			$215,450	$215,450	$0
9.5.2	Red in e- utility strikes			$107,726	$107,726	$0
9.5.3	Elec Safety Prog Improve.			$215,450	$215,450	$0
9.5.3a	Corrective Action Plan		Sub-Measure	$0		
9.5.3b	Implement Plan		Sub-Measure	$0		
9.5.3c	Plan to monitor effectiveness		Sub-Measure	$0		
9.5.3d	Verify Implementation of CAP		Submeasure	$0		
				$1,795,423	**$960,551**	**$834,872**
10	Facilities Management	**$893,747**				
10.1	Facility Stewardship			$580,935	$348,561	$232,374
10.1A			Sub-Measure	$0		$0
10.1B			Sub-Measure	$0		$0
10.1C			Sub-Measure	$0		$0
10.1D			Sub-Measure	$0		$0
10.1E			Sub-Measure	$0		$0
10.1F			Sub-Measure	$0		$0
10.1G			Sub-Measure	$0		$0
10.1H			Sub-Measure	$0		
10.1H-1			Sub-Measure	$0		$0
10.1H-2			Sub-Measure	$0		$0
10.1I			Sub-Measure	$0		$0
10.1J			Sub-Measure	$0		$0
10.2	Footprint Reduction			$223,437	$44,686	$178,751
10.3	Fire Protection Maintenance			$89,375	$0	$89,375
10.3A			Sub-Measure	$0		
10.3B			Sub-Measure	$0		
				$893,747	**$393,247**	**$500,500**
11	Project Management	**$2,722,130**				
11.1	Project Mgmt System					
11.1A	90% of Milestones		Q1	$96,180	$96,180	$0
			Q2	$83,788	$0	$83,789
			Q3	$83,789	$83,789	$0
			Q4	$83,789	$83,789	$0
11.1B	Cost 60% FIRP			$167,577	$167,577	$0
11.1C	CPI => 0.9		Q1	$48,090	$48,090	$0
			Q2	$41,894	$41,894	$0

PBI Measure	Description	PBI Fee	Comment	Fee Allocated per all Change Control	Recommended Fee Allocation	Recommended Unearned Fee
			Q3	$41,894	$41,894	$0
			Q4	$41,895	$41,895	$0
11.2	Special Projects					
11.2A	Caustic Tank, TA-50 wall			$265,443	$265,443	$0
11.2B	Interim Rad, Waste, Rm60			$265,443	$0	$265,443
11.2C	CD-2 for 3 proj			$273,486	$273,486	$0
11.3	CMRR Project					
11.3A	RLUOB, SFE, NF		Q1	$86,562	$86,562	$0
			Q2	$75,410	$75,410	$0
			Q3	$75,410	$0	$75,410
			Q4	$75,410	$75,410	$0
11.3B	Phase A CPI >=0.95		Q1	$86,562	$86,562	$0
			Q2	$75,410	$75,410	$0
			Q3	$75,410	$75,410	$0
			Q4	$75,410	$75,410	$0
11.3C	Change Control Process			$301,639	$301,639	$0
11.3D	PDSA			$301,639	$0	$301,639
				$2,722,130	**$1,995,850**	**$726,280**
12	Contractor Assurance	**$3,358,982**	-	-		
	Threshold PBI 12		-	-		
12.1	Implement LIMTS					
12.1A	LIMTS fully loaded			$57,708	$57,708	$0
12.1B	Cat1&2 Corrective Actions			$237,217	$0	$237,217
12.1C	Cat3&4 Corrective Actions			$889,565	$0	$889,565
12.2	Integrated Assessment Prog					
12.2A	Identify Cat1&2 issues			$593,043	$0	$593,043
12.2B	Validation of Effectiveness		Deleted	$0	$0	
12.3	Perf Measurement Prog			$1,581,449	$1,581,449	$0
				$3,358,982	**$1,639,157**	**$1,719,825**
13	Mgmt Integration/Effectiveness	**$10,130,633**				
	Gateway PBI 13					$0
13.1	Management Leadership			$7,837,939	$1,810,000	$6,027,939
13.1a	Cyber Security Mgmt					
13.1b	Communications					
13.1c	Leadership					
13.1d	Integration					
13.1e	Parent Org Governance					
13.1f	Human Resources					
13.1g	Mission Excellence					
13.1h	Operational Excellence					
13.2	Oversight Performance			$1,124,893	$654,390	$470,543
13.3	Procurement					
13.3A	Convert 9 existing LVAs			$93,843	$93,843	$0
13.3B	Convert 4 legacy JIT contracts			$93,843	$93,843	$0
13.3C	Cycle time baseline for subcontracts		Deleted per CC	$0		

PBI Measure	Description	PBI Fee	Comment	Fee Allocated per all Change Control	Recommended Fee Allocation	Recommended Unearned Fee
13.3D	Reduce cycle time		Deleted per CC	$0		
13.3E	Meet small business goals			$93,843	$0	$93,843
13.4	EP			$115,416	$115,416	$0
13.5	Cost Savings					
13.5A	Reduction in Indirects			$304,991	$304,991	$0
13.5B	Savings			$164,226	$164,226	$0
			Amended Final Completion Form			
	IBM Mainframe Software Maintenance		Partial Deliverable			
	Sample & Analysis Process		Partial Deliverable			
	Data Management		Partial Deliverable			
	Domestic Air Fare		Partial Deliverable			
	eAuction		Partial Deliverable			
	Meals		Partial Deliverable			
	TA-55 Retention Pay		Partial Deliverable			
	iProcurement		Partial Deliverable			
	CMRR Recycling		Partial Deliverable			
13.6	Safety Basis Academy					
13.6AB	Plan & deliver 7 classes		$279,860 total for 7 classes and plan			
	Gateway		Plan	$0	$0	$0
			Class 1-7 @ $39,980 = $279,860	$279,860	$279,860	$0
13.6C	ALOHA and EPI classes			$21,779	$21,779	$0
				$10,130,633	**$3,538,348**	**$6,592,285**
Totals:		**$51,295,996**		**$51,295,996**	**$36,224,982**	**$15,071,014**

V. 2007 LANL PERFORMANCE EVALUATION PLAN

MISSION SUCCESS: PBI NO. 1 – PBI NO. 5

PBI No. 1
Weapons Program Execution

FY2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 1 Title: **Weapons Program Execution**

Revision Number and Date: Revision No.: 0 Date: October 23 , 2006
PEP CC-010 Date: April 5, 2007
PEP CC-031 Date: October 2, 2007

Maximum Available Incentive Fee: **$7,362,227**

Duration: ☒ Annual ☐ Multi-year

Fee Payment Type: ☒ Completion ☐ Progress ☐ Provisional

LANS Owner: G. Mara COR: R. Snyder

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:

- ☒ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☐ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY07.

Measure 1.1. Annual Assessment Report
LANL will plan and execute activities to assess the safety, reliability and performance of the stockpile, and provide the required assessments of certification and reports to the Secretary for submission to the President.

Expectation Statement: Complete continuous activities necessary to perform annual assessment of warhead safety, reliability and performance, and issue the annual assessment report and Director's annual assessment letter and oral presentation to the Stockpile Assessment Team.

Measure 1.2. Complete programmatic deliverables as specifically described in the Defense Program Milestone Reporting Tool. Complete LANL FY07 Level 1 and Level 2 Milestones. Achievement of 100% of the LANL FY07 Level 1 Milestones must be accomplished to earn fee for Level 2 Milestones.

Expectation Statement: LANL will complete programmatic activities in support of the LANL-designed weapons systems, focusing primarily on the B61 Alt. 357, W76-1, Science Campaigns and ASC activities. (This excludes activities precluded by delays in availability of necessary materials, components, or required data provided by other Sites in the Complex.)

Measure 1.3 Ensure long-term vitality of the weapons program and science base of the Laboratory

Expectation Statement: The NNSA will subjectively evaluate the contractor's management of balancing near-term deliverables with long-term activities that are needed to sustain and enhance the vitality of the weapons program and science base of the Laboratory. This includes the investment in long-term research such as that needed for improved predictive capability needed to meet out year milestones (greater than 2009).

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Use this area to define prerequisites for payment of any measure – i.e. completion of other specific measures, etc. Allocate specific dollar amounts to all areas defined in Section 5 – completion description, i.e. if Base is designated as a type of fee, insert a dollar amount.

Measure 1.1
$1,104,334 (15% of total fee allocated to this PBI):
Must satisfy Section 5, measure 1.1 to receive any fee in any other measure of PBI 1, Weapons Program
Execution.

Fee Schedule: Upon completion

Measure 1.2
6,184,271 (84% of total fee allocated to this PBI): 100% of LANL FY07 Level 1 Milestones must be achieved to earn fee in this measure.

Fee Plan:
Achieve 100% of LANL FY07 Level 1 Milestones; ($2,473,708 of PBI fee allocated to PBI 1.2)
Level 2 Milestone achievement; ($3,710,563 of fee allocated to PBI 1.2 prorated across all Level 2 Milestones)

Fee Schedule: Upon completion

Measure 1.3
$73,622 (1% of total fee allocated to this PBI):

Fee Schedule: Upon assessment at the end of the fiscal year.

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

GENERAL REQUIREMENTS:
Develop and implement near-term balanced weapon programs that are coordinated with the NNSA Complex and DOD customers, and foster complex-wide solutions to meet support the U.S. nuclear deterrent.

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/progress]. Include baseline documentation/data against which completion documentation should be*

compared.)

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 1.1.

A. Plan, conduct and document stockpile assessment and other requisite activities to provide an annual assessment report to NNSA in accordance with negotiated schedules. Complete all physics input necessary to support the annual assessment letter and report. Director's Annual Assessment letter will be signed by September 30, 2007.

Measure 1.2.

A. Complete LANL FY07 Level 1 and Level 2 Milestones as scheduled.
B. Achieved milestone elements must include:

- Directive Schedule quantities not dependent upon delayed part deliveries from other sites.
- Complete the acceptance of ten W88 pits by LANL QA (with peer review and independent oversight of the acceptance process by CAS).
- Certification of a W88 warhead with a Los Alamos manufactured pit.
- Execute certification activities not dependent upon delayed components, materials, or data deliveries from other sites in accordance with the W76-1 FSED
- DARHT second-axis completion of full accelerator installation, validation testing, and Readiness Review scheduled.

Measure 1.3.

D. LANS will develop a set of criteria to use to assess its performance in balancing near-term deliverables with long-term activities needed to sustain and enhance the vitality of the weapons program and science base of the Laboratory.
E. LANS will provide a self-assessment against these criteria. This assessment may include feedback on performance provided by stakeholders.
F. NNSA will perform an evaluation of LANS performance in these areas. This evaluation will consider the LANS self-assessment. Fee awarded based on NNSA evaluation and will include stakeholder feedback.

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

Measure 1.1.

- Annual assessment letter and report submitted to COR.
- Provide quarterly status reports addressing all required elements to meet this measure at NA-10 Quarterly Program Reviews.

Measure 1.2.

- LANL FY07 Level 1 and 2 Milestones as documented in Sandia Milestone Reporting Tool.
- Provide quarterly status reports addressing all required elements to meet this measure at NA-10 Quarterly Program Reviews.
- W76-1 Integrated Master Schedule.
- B61 Alt. 357 Integrated Master Schedule.

Measure 1.3.

- LANL FY 2007 Self Assessment

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- "LANL FY07 Milestones" are those Milestones entered into the MRT with LANL specifically included in the "Participating Sites" entry for the Milestone, and which have an FY07 latest completion date as of the end of the Fiscal Year.
- L1 and L2 Milestones must be finalized based on lower of HAC, SAC President's Budget Request or some agreed-to funding level prior to mutual acceptance of the measure.
- When each level 1 and 2 milestone is finalized, PBI success criteria will be negotiated by NNSA and LANS LLC.
- When changes are made to Level 1 or Level 2 Milestones PBI change control that results in acceptance or PBI renegotiation will be conducted.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will agree within 30 days of receipt of final appropriations to the LANL site that the funding is sufficient to accomplish these measures.
- NA-10 annual assessment tasking letter will be issued by December 31, 2006 for the FY 2007 Annual Assessment.
- Assumes mutual (NNSA & LANS) agreement on L1 and L2 Milestones
- Assumes Baseline Change Requests on L2 Milestones are approved.
- FY 2007 Science Campaign Implementation Plan deliverables are included in the set of Level 1 or Level 2 Milestones.
- FY 2007 Advanced Simulation and Computing Implementation Plan deliverables are included in the set of Level 1 or Level 2 Milestones.
- The intent of this PBI is to measure LANL-specific performance; multi-site cooperation is measured in PBI 7.

PEP Change Control:

PEP CC-010 April 5, 2007. This Change Control changed the Fee Allocation to the measures in this PBI.

PEP CC-07-031 October 2, 2007. This Change Control clarifies specific LANL milestone responsibilities identified within the Milestone Reporting Tool. Clarification is also provided concerning elements of W76-1 FPU activities which are outside LANL control. This clarification does not reduce the scope or work required to meet the measure.

PBI No. 2
Weapons Quality Assurance

FY2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 2 Title: **Weapons Quality Assurance**

Revision Number and Date: Revision No.: 0 Date: October 23, 2006
PEP CC-010 Date: April 5, 2007
Maximum Available Incentive Fee: **$1,429,994**
Duration: ☒ Annual ☐ Multi-year
Fee Payment Type: ☒ Completion ☒ Progress ☐ Provisional
LANS Owner: G. Mara COR: A. Leivo

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:
- ☒ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☐ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY07.

Measure 2.1. Manufacturing Quality: Continuous improvement in Manufacturing and Design Agency production activities

Expectation Statement: Develop a set of Manufacturing Quality metrics to include a Cost of Nonconformance System to demonstrate a continuous improvement of the quality of manufactured products. The metrics established in FY 2007 form the baseline for improvement in later years.

Measure 2.2. Implementation of a Weapons Quality Assurance Program (WQAP)

Expectation Statement: Develop, issue, and initiate implementation of an approved QA program description document (WQAP) that defines LANL's process for assuring appropriate implementation of QC-1, Revision 10.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Use this area to define prerequisites for payment of any measure – i.e. completion of other specific measures, etc. Allocate specific dollar amounts to all areas defined in Section 5 – completion description, i.e. if Base is designated as a type of fee, insert a dollar amount.

Measure 2.1.
$857,996 (60% of total PBI fee allocated):

Fee Schedule: Progress as outlined.
Fee Plan:

1. $428,998 (50%) for release of the LANS Procedures that describe the collection and publication of the LANS Manufacturing Quality Metrics System, approved by the AD for Stockpile Manufacturing & Support and release of the first Monthly Manufacturing Quality Metrics Report (including Cost of Nonconformance's), approved by the AD for Stockpile Manufacturing & Support. (Reference Section 5, 2.1, Elements A, B, and C)
2. $428,998 (50%) upon completion of all other elements associated with this measure as outlined in Section 5, 2.1 Element D.

Measure 2.2.
$571,998 (40% of total PBI fee allocated):

Fee Schedule: Progress as outlined.
Fee Plan:

1. $285,999 (50%) upon LANS formal submittal to LASO of the WQAP implementation plan in accordance with the requirements stated in Section 5, 2.2 Elements A and B.
2. $285,999 (50%) upon completion of all other elements associated with this measure as outlined in Section 5, 2.2 Element C.

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

GENERAL REQUIREMENTS:
Develop and implement a weapons quality assurance program that ensures contractor products meet NWC and DOD customer requirements; ensures manufacturability; and that fosters support of complex-wide solutions.

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/progress]. Include baseline documentation/data against which completion documentation should be compared.)*

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 2.1.
A. Procedures have been developed and deployed that define the systems being utilized to gather, evaluate, track, trend, and identify continuous improvement initiatives for manufacturing metrics and Cost of Nonconformance. Reports reflecting these data have been issued within LANS and LASO.
B. The deliverables necessary to demonstrate achievement of this measure are:

- Formally identify the set of Manufacturing Quality metrics and processes by December 31, 2006.
- Publish a monthly metrics report beginning in January 2007.
- Establish a process of trending and analysis utilizing these metrics that demonstrates effectiveness of continuous improvement initiatives.

C. As a minimum, the set of Manufacturing Quality metrics will include:

- The percent of product submittals to LASO that are Accepted Trouble Free (PATF).
- Number of nonconformance's generated per product line (.e.g., pits, detonator assemblies.)
- Develop and deploy a formal documented Cost of Nonconformance system that identifies costs associated with scrap, diversion, and rework of manufacturing activities by June 30, 2007.
- Issue a formalized Cost of Nonconformance report by the end of July 2007

D. Continue the monthly quality metrics and nonconformance reports following initial submittals for

the remainder of FY 2007.

Measure 2.2.
A. LANS has issued and deployed an approved WQAP, Implementation Plan, and has formally identified compensatory measures for those areas not in compliance with QC-1, Revision 10.
B. Deliverables necessary to demonstrate achievement of this measure are:

- Issue a WQAP to LASO by December 31, 2006.
- Respond to LASO comments within 30 days of receipt of the comments.
- Publish an Implementation Plan that includes identification of compensatory measures within 30 days of responding to LASO comments.

C. Initiate implementation of the WQAP within 7 days of publishing an Implementation Plan.

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

Measure 2.1.

- Cost of Nonconformance report by June 30, 2007, and monthly thereafter.
- Continuous Improvement Report by January 2007 and monthly thereafter.
- Copies of Procedures that define the Continuous Improvement system.
- Copies of Procedures that define the Cost of Nonconformance system.

Measure 2.2.

- LANS WQAP
- LANS WQAP Implementation Plan
- LANS WQAP Compensatory Measures

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will agree within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.

PEP Change Control:
PEP CC-010 April 5, 2007. This Change Control changed the Fee Allocation to the measures in this PBI.

PBI No. 3
Reduce the Threat of Weapons of Mass Destruction, Proliferation, and Terrorism (Threat Reduction)

FY 2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 3 Title: **Reduce the Threat of Weapons of Mass Destruction, Proliferation, and Terrorism (Threat Reduction)**

Revision Number and Date: Revision No.: 0 Date: October 23, 2006
PEP CC-010 Date: April 5, 2007
Maximum Available Incentive Fee: **$3,053,952**
Duration: ☒ Annual ☐ Multi-year
Fee Payment Type: ☒ Completion ☐ Progress ☐ Provisional
LANS Owner: J. D. Beason COR: R. Snyder

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:
- ☒ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☐ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY 2007.

Measure 3.1. Multi-Site Threat Reduction Technical Capability

Expectation Statement:
Through appropriate teaming between Los Alamos National Laboratory (LANL), Lawrence Livermore National Laboratory (LLNL), the Nevada Test Site (NTS), and the Pantex Plant (PX), re-establish specific capabilities to support Threat Reduction Programs.

Measure 3.2. Nuclear Nonproliferation

Expectation Statement:
Provide technical capabilities to limit or prevent the spread of Weapons of Mass Destruction (WMD) materials, technology, and expertise; eliminate or secure inventories of surplus materials and infrastructure usable for nuclear weapons; and enable the implementation of U.S. non-proliferation policy.

Measure 3.3. Nonproliferation Research and Development

Expectation Statement:
Develop and deploy new technologies to improve U.S. capabilities to detect and monitor nuclear weapons production and testing worldwide.

Measure 3.4. Non-Proliferation Rapid Response Capability

Expectation Statement:
Provide effective and rapid response to emergent non-proliferation and international security requirements stemming from surprising events, high-level initiatives or agreements, or from unanticipated technological or political opportunities.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Measure 3.1.
$296,196

Fee Schedule: Based upon completion

Measure 3.2.
$1,211,069

Fee Schedule: Payment for each element upon completion of each element

Element #1: $177,718
Element #2: $355,436
Element #3: $355,436
Element #4: $204,000
Element #5: $118,479

Measure 3.3.
$954,294

Fee Schedule: Payment for each element upon completion of each element

Element #1: $444,294
Element #2: $510,000

Measure 3.4.
$592,393
If no event occurs the fee associated with measure 3.4 will be proportionally applied to the remaining measures within PBI 3.

Fee Schedule: Based upon completion

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

GENERAL REQUIREMENTS:

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/ progress]. Include baseline documentation/data against which completion documentation should be*

compared.)

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 3.1. Multi-Site Threat Reduction Technical Capability

This PBI measure has been achieved when the contractor has submitted to the NNSA LASO, by the end of the second quarter of FY 2007, a resource-loaded project plan with format and level of detail specified by LANL that includes input from LANL, LLNL, NTS, and PX and identifies the scope of work, schedule, and resources required to utilize existing facilities with appropriate Authorization Bases to provide the following capabilities:

1. Radiation Test Object (RTO) construction, testing, and evaluation;
2. Responder training, including hands-on access to Catergory-1 quantities of Special Nuclear Material;
3. Radiography applicable to diagnosis of Improvised Nuclear Devices (IND's); and
4. Equipment and technology development, testing, and calibration using Catergory-1 quantities of Special Nuclear Material.

Measure 3.2. Nuclear Nonproliferation

This PBI measure has been achieved when the contractor has:

1. Completed Materials Protection Control and Accounting (MPC&A) upgrades at zone two for the Chemical Metallurgical Plant at SGChE in the city of Tomsk according to requirements specified by NNSA in NA-25 Statement of Work #71195-18, *Comprehensive Physical Protection System for the Chemical Metallurgical Plant of the Federal Unitary State Enterprise 'Siberian Group of Chemical Enterprises', Modification 1,* dated January 26, 2006, and any associated amendments documented by Contract Review Sheets accompanied by revised Statements of Work submitted by LANL and approved by NNSA/NA-25.
2. Begun qualification of Plutonium polishing processes by the end of June 2007 and has completed six qualification runs by the end of September 2007 in accordance with the *Draft Project Management Plan for Polishing of 330-kg of Plutonium Oxide*, September 2006, or any modifications to this draft plan mutually agreed to between LANL and NA-26.
3. Started by the end of FY 2007 the 3rd Advanced Recovery and Integrated Extraction System (ARIES) demonstration according to the requirements contained in *Pit Disassembly and Conversion Integrated Design Support Test Plan*, *Rev. 2,* June 2006.
4. Supported the Global Nuclear Energy Partnership (GNEP) through evaluation of safeguards technology development choices for UREX+1a. This evaluation will be delivered in a LANL report meeting the technical requirements of Statement of Work ASI-120B and submitted to NNSA/NA-243 on or before the end of the second quarter of FY 2007 or according to any modified schedule and technical content mutually agreed to between LANL and NA-243.
5. Complete 100% of technical reviews on Commerce Dual Use License applications for nuclear controlled items within 30 days.

Measure 3.3. Nonproliferation Research and Development

This PBI measure has been achieved when the contractor has:

1. Designed, assembled, and tested the Mission Response Module (MRM) Engineering Demonstration Unit by the end of FY 2007. Demonstrated actual operations and initial compatibility with Lockheed-Martin spacecraft in their EDU fixturing in a manner consistent with the Lifecycle Plan for LA-040-MRM.
2. Delivered the fully integrated Cibola Flight Experiment (CFE) space vehicle to the launch site contractor for form, fit, and function integration that satisfies *NNSA/NA-22 Project Lifecycle Plan, Cibola Flight Experiment, Life Cycle Input FY 2007*, for Project No. LA99-RF-CFE-PD06, including any changes to this plan that has resulted from a NNSA-approved change control process.

Measure 3.4. Non-Proliferation Rapid Response Capability

This PBI has been achieved when the contractor has, at least once during FY 2007, received notification from NNSA that a surprising event, high-level initiative or agreement, or unanticipated

technological or political opportunity has occurred from which non-proliferation and international security requirements have emerged and has satisfactorily responded to mutually-agreed, written work scope and schedule performance requirements associated with that event.

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

Measure 3.1.

1. Letter from LANL to the NNSA LASO Site Office manager transmitting the Multi-Site Threat Reduction capabilities plan.

Measure 3.2.

1. Review the Final 60% Complete Report and Provide assurance that zone one work has started on the time through the Material Protection Control & Accounting Assurance Database against the requirements contained in Statement of Work #71195-18 and any approved amendments.
2. Review the Resource Loaded Schedule in the monthly report to NA-26.
3. Review submittal letter and self assessment of work performed with respect to FY 2007 requirements established by NNSA/NA-243 in Statement of Work ASI-120B. Based on Statement of Work requirements as agreed by LANL, NNSA/NA-243 will evaluate and provide written confirmation of LANL performance.

Measure 3.3.

1. Review the MRM LANL Prototype Acceptance Report.
2. Review the Flight Readiness Review Report.

Measure 3.4.

Review written scope and schedule performance requirements for any surprising event, high-level initiative or agreement, or unanticipated technological or political opportunity declared by NNSA and LANL certification, contained in a letter from LANL to NNSA, that those requirements have been addressed.

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will verify agreement within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.
- HQ (NA-40) will give direction and ensure performance by other sites consistent with support in achieving Measure 3.1
- Assumes LASO completion of all Safety Authorization Bases documents affecting ARIES by April 27, 2007, or by date mutually agreed to by LANL and LASO.
- For the purposes of Measure 3.4 an event is defined by utilization of funds designated for event response as provided by NA-20 and as defined by NNSA at the time of occurrence.
- The upper boundary expected for purposes of contractor staffing for Measure 3.2.5 is expected to be the average of the number of reviews completed during the previous two fiscal years. If work is expected significantly in excess of this workload and associated staffing, the measure will be negotiated.
- Plan provided in Measure 3.1 is expected to be used for FY 2008 activities.

PEP Change Control:

PEP CC-010	April 5, 2007. Fee is re-allocated to the measures in this Change Control. Fee allocated to PBIs 3.2.4 and 3.3.2 was not changed. Completion evidence for these PBIs had been submitted before this Change Control went into effect.

PBI No. 4
Nuclear and High Hazard Operations

FY2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 4 Title: **Nuclear and High Hazard Operations**

Revision Number and Date:	Revision No.: 0 Date: October 23, 2006 PEP CC-001 Date: January 18, 2007 PEP CC-002 Date: January 18, 2007 PEP CC-010 Date: April 5, 2007 PEP CC-008 Date: April 25, 2007 PEP CC-012 Date: July 26, 2007 PEP CC-07-023B Date: August 28, 2007
Maximum Available Incentive Fee:	**$5,228,756**
Duration:	☒ Annual ☐ Multi-year
Fee Payment Type:	☐ Completion ☐ Progress ☐ Provisional
LANS Owner: R. McQuinn	COR: J. Vozella

SECTION 2
PERFORMANCE OBJECTIVES

Check Appropriate Box:

- ☒ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☐ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY07.

Measure 4.1. Successfully develop and implement formality of Nuclear Safety
Conduct of Operations is improved at LANL through implementation of the Conduct of Operations, Maintenance, and Engineering Manuals, as measured by Conduct of Operations Performance Index.

Expectation Statement: Complete the Conduct of Operations, Maintenance and Engineering Manuals. Complete and Implement Facility specific implementation plans. Develop and implement a Conduct of Operations Performance Index, reporting on specific indices on a regular basis, implementing improvement strategies.

Measure 4.2. Improve Safety Basis and Criticality Safety Performance
LANL will develop and implement a safety basis management system through a Laboratory wide Safety Basis Improvement Project. LANL will also re-baseline and implement the Criticality Safety Improvement Plan.

Expectation Statement: Develop a Safety Basis Improvement Project to improve safety basis performance. Develop and implement institutional safety basis procedures. Develop compliant DSAs for nuclear facilities and projects at Los Alamos. Maintain Authorization Agreements under a formal configuration management system. Implement an electronic repository for unclassified safety basis documentation.

Measure 4.3. Improve Laboratory Readiness Review Performance
LANL will formally baseline Laboratory Readiness Reviews, improving schedules. LANL will improve the execution of Laboratory Readiness Reviews.

Expectation Statement: Develop a Laboratory Readiness Review Baseline Improvement Project to improve schedule and scope performance.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Measure 4.1:
$1,886,940

4.1.1 $210,000
4.1.2 (a) 10 FOD PMPs=$105,000; (b) 3 Quarterly Reviews $94,854 (1/3 per review)
4.1.3 $105,000
4.1.4 $731,779 maximum
4.1.5 $365,890 maximum
4.1.6 $274,417 maximum

Measure 4.2:
$2,546,172

4.2.1 (a) SBIP $60,000; (b) 4 Quarterly Reviews $209,080 (1/4 per review)
4.2.2 $78,405
4.2.3 $591,148 maximum
4.2.4 $709,379 maximum
4.2.5 (a) $60,000; (b) $209,080 (weighted equally per submittal)
4.2.6 $52,270 maximum
4.2.7 $300,000
4.2.8 (a) BIP $60,000; (b) Quarterly Reviews Q1=$60,000; Q2, Q3, Q4=$156,810 (1/3 per review)

Measure 4.3
$795,644

4.3.1 (a) PMP $90,000;
(b) Quarterly Reviews Q1 = $58,803; Q2, Q3 = $58,804 each; Q4 = $251,816
4.3.2 $0 (PBI deleted)
4.3.3 $274,417

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

GENERAL REQUIREMENTS: *(Describe other performance required beyond those stated in measure or expectation such as cost constraints or requirements contained in the approved project plan.)*

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success*

[quality/progress]. Include baseline documentation/data against which completion documentation should be compared.)

Measure 4.1. (~35%)
This Measure has been achieved when the contractor has:
4.1.1 Completed and LANL has approved the Conduct of Operations Program (includes Conduct of Operations Manual, Conduct of Maintenance Manual, and Conduct of Engineering Manual) on October 31, 2006.
4.1.2 (a) Completed and LANL has approved 10 individual FOD Formal Project Management Plans on January 24, 2007.
(b) Quarterly project reviews will take place with LASO in March, June, and September 2007 to report on project milestones and progress.
4.1.3 Populated the Conduct of Operations Performance Index with 2006 baseline data by October 31, 2006.
4.1.4 Measured and reported to LASO on performance indices quarterly (March, June, and September 2007). Has shown that the Conduct of Operations Index has improved; by 30% in FY 2007 over 2006 baseline data = 100% of fee allocated; by 20% in FY 2007 over 2006 baseline data = 75% of fee allocated; by 10% in FY 2007 over 2006 baseline data = 50% of fee allocated
4.1.5 Completed annual verification and validation of 100% SDDs for safety class SSCs by Cognizant System Engineers, with discrepancies and deficiencies identified. (100% completion = 100% of fee allocated) (75% completion = 75% of fee allocated) (50% completion = 50% of fee allocated)
4.1.6 Completed annual verification and validation of 100% SDDs for safety class SSCs by Cognizant System Engineers, with discrepancies and deficiencies corrected. (100% completion = 100% of fee allocated) (50% completion = 67% of fee allocated) (25% completion = 33% of fee allocated)

Measure 4.2. (~50%)
This Measure has been achieved when the contractor has:
4.2.1 (a) Completed and the LASO COR for NHHO has approved the baseline of Safety Basis Improvement Project (SBIP) by December 15, 2006.
(b) Quarterly projects reviews with LASO will take place in December 2006, March 2007, June 2007, and September 2007 to report on project milestones and progress.
4.2.2 Completed and LANL has approved Safety Basis Procedures per the baselined Safety Basis Improvement Project Baseline.
4.2.3 DSA Quality: Individual 3009 compliant DSAs will be submitted to LASO for approval, per a LASO LANL agreed upon prioritized list. Within the rating period, each DSA (weighted equally) being:
- approved by LASO with minimum rework by LANL (takes LANL less than 30 working days to make changes and resubmit) (100% of fee allocated)
- approved by LASO with minimum rework by LANL (takes LANL less than 45 working days to make changes and resubmit) (80% of fee allocated)
- approved by LASO with minimum rework by LANL (takes LANL less than 60 working days to make changes and resubmit) (60% of fee allocated)
4.2.4 DSA Schedule: Delivered ALL FY 2007 and FY 2008 compliant DSAs (per LASO-LANL agreed upon list) during FY 2007 will earn full fee. Delivery of all of the FY 2007 LANL-LASO deliverable listing will earn 83% of fee allocated. Delivery of 75% DSAs (per approved priority list) during FY 2007 will earn 67% of fee allocated. Delivery of 66% of the DSAs (per approved priority list), during FY 2007 will earn 50% of fee allocated. Delivery of 50% of the DSAs (per approved priority list), during FY 2007 will earn 33% of fee allocated. Delivery of less than 50% of list will earn no fee.
4.2.5 Authorization Agreements are updated:
(a) Developed and submitted a new Authorization Agreement Procedure by January 30, 2007, to include establishment of a new configuration control Safety Basis List for each facility
(b) Updated (if required) and submitted to NNSA prior to declaration of startup/operation of new missions/projects/processes (weighted equally per submittal)

4.2.6 An electronic repository of unclassified current Safety Basis documents, under change control, accessible by LASO, is operational by:
(a) 05/31/07 (100% of fee allocated)
(b) 09/30/07 (50% of fee allocated)
4.2.7 Implementation of the Criticality Safety Program Manual by November 30, 2006.
4.2.8 Completed and the LASO COR for Safety Operations has approved the rebaseline of the Criticality Safety Improvement Plan by December 22, 2006. Quarterly project reviews with LASO will take place in December 2006, March 2007, June 2007, and September 2007 to report on milestones and progress

Measure 4.3. (~15%)
This Measure has been achieved when the contractor has:
4.3.1 (a) Completed and the Associate Director for Nuclear and High Hazard Operations has approved the LANL Readiness Review Baseline Improvement Project Management Plan on November 15, 2006.
(b) Quarterly project reviews with LASO will take place in December 2006, March 2007, June 2007, and September 2007 to report on project milestones and progress. The Q4 review will include implementation of the new readiness requirements issued by NNSA-LASO in April 2007.
4.3.2 PBI deleted per Change Control CC-07-023B
4.3.3 Operational Readiness Reviews and/or Readiness Assessments completed by DOE/NNSA during the rating period identify 3 or fewer pre-start findings per Review. (weighted equally per review) Fee for each review will be based on the following scale: 0-3 pre-starts = 100% fee awarded; 4 to 6 pre-starts = 50% of fee awarded; ≥7 pre-starts = 0% fee awarded.

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

Measure 4.1.
Conduct of Operations Manual;
Conduct of Maintenance Manual;
Conduct of Engineering Manual;
Individual Facility Operations Director Implementation Plans for Operations, Maintenance, Engineering, and Training;
Project Management Plans;
Quarterly Project Management Plan Updates.

Measure 4.2.
Lab-Wide Safety Basis Procedures;
Safety Basis Improvement Project Management Plan;
Quarterly Project Management Plan Updates;
Criticality Safety Improvement Plan;
Criticality Safety Program Manual; Authorization Agreement Procedure.

Measure 4.3.
Readiness Review Baseline Improvement Project Management Plan;
Individual Readiness Review Baselines; Start up Notification Reports and Progress Reports.

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will verify agreement within 30 days of receipt of final

appropriations that the funding is sufficient to accomplish these measures.

- For All Measures: Successful completion of all goals is contingent on LANL obtaining sufficient and timely budget to implement work described. Successful completion of all goals is also contingent on LASO meeting commitments as defined in mutually agreed project schedules.
- If pre-existing conditions affect the performance based incentive in a way that could not be anticipated, the change control procedure will be invoked as agreed between LASO and LANL.
- Remedies: Parties will negotiate mitigations and fee reallocation according to the change control procedures agreed between LASO and LANL.
- For All Measures: Successful completion of all goals is contingent on NNSA obtaining sufficient and timely budget to implement work described. Successful completion of all goals is also contingent on LASO meeting commitments as defined in project schedules. NNSA approval of Safety Basis Improvement Plan within 30 days of receipt.
- Remedies: Parties will negotiate mitigations and fee reallocation according to the change control procedures agreed between LASO and LANL.
- The performance of quarterly reviews will be based on the on time completion of milestones, quality of deliverables and the implementation of corrective actions and appropriate formal change control of the individual baselines.
- The PDSA for CMRR is specifically excluded from this PBI and no fee is included herein for that effort. The CMRR PDSA is addressed in the Project Management PBI.
- 4.3.3: Pre-starts that would count against this metric would fall into one of three categories: (a) New findings not previously reported in the MSA or CORR; (b) Findings of an institutional nature which affect WCRR and for which compensatory measures have been found to be ineffective or non-existent; and (c) Findings previously reported from the MSA or CORR which have been reported closed but have not been found to be effectively closed.

PEP Change Control:

PEP CC-001: 4.1, 4.2, 4.3, 1/18/07: This Change Control changed the % weightings of fee in Section 5 to match the % weightings agreed to in Section 4 by Joe Vozella and R. McQuinn. This corrects an administrative error.

PEP-CC-002: 4.1.2, 1/18/07: The delivery date of FOD Implementation Plans changed from 1/15/07 to 1/24/07.

PEP CC-010 April 5, 2007. This Change Control changed the Fee Allocation to the measures in this PBI.

PEP CC-008 April 25, 2007. This Change control changed the dates of qll the quarterly meetings to March, June, and September 2007; it approved quarterly fee payments for PBI 4.3.1b (4.2.1b and 4.2.8b were already allocated in this manner); and it clarified the Nuclear Facility Annual Update page to show only two NES DSA documents to be required. The NES Facilities document will include 9 NES sites, instead of individual documents being required for each of the 9.

PEP CC-012 July 26, 2007. This Change Control corrected an error in the fee for 4.1.2b that occurred when CC-07-010 was calculated, and clarifies that the Quarterly Reviews will be paid after each review.

PEP CC-07-023B August 28, 2007. This Change Control reduces fee to PBIs 4.2.3 and 4.2.4 because of changes to the DSA schedule. PBI 4.3.2 is deleted and fee reallocated to PBI 4.3.1 Q4 to incentivize new readiness requirements. Fee allocation in 4.3.3 is more specifically defined.

PBI No. 5
Safeguards and Security Execution

FY 2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 5 Title: **Safeguards and Security Execution**

Revision Number and Date: Revision No.: 0 Date: October 23, 2006
PEP CC-07-005 Date: January 23, 2007
PEP CC-07-010 Date: April 5, 2007
PEP CC-07-013 Date: June 13, 2007

Maximum Available Incentive Fee: **$2,681,239**

Duration: ☒ Annual ☐ Multi-year

Fee Payment Type: ☒ Completion ☐ Progress ☐ Provisional

LANS Owner: P. Sowa COR: R. Ferry

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:

- ☒ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☐ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY 2007.

Measure 5.1. Completion of all milestones contained in the FY 2007 NNSA NA-70 Program Element Guidance (PEG) and associated FY 2007 LANL Safeguards & Security Annual Operating Plan (AOP).

Expectation Statement:
Completion of FY 2007 Safeguards & Security Annual Operating Plan (AOP) deliverables according to cost/scope/schedule.

Measure 5.2. No real loss or gain of special nuclear material, excluding legacy material.

Expectation Statement:
Material control indicators (shipper/receiver differences, inventory adjustments, inventory differences, physical and special inventories) will detect any apparent loss or gain of special nuclear materials, excluding legacy material

Measure 5.3. FY 2007 External Security and Safeguard Assessments
FY 2007 HQ DOE validation of LANL S&S program effectiveness.

Expectation Statement:
1. Achieve "effective performance" rating in at least 5 of 7 rated areas by HQ DOE SP-1.
2. FY07 LASO COR validation of LANL S&S program effectiveness.

Expectation Statement:
Achievement of an overall "satisfactory" S&S Survey rating by LASO COR.

Measure 5.4. Complete all Milestones contained in the FY 2007 CIO Cyber Security Annual Operating Plan (AOP).

Expectation Statement:
Completion of FY 2007 CIO Cyber AOP deliverables according to cost/scope/schedule.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Measure 5.1.
$1,206,557 (45% of total fee allocated to this PBI.)

Fee Schedule: Fee payable at the end of each fiscal quarter based on the number of deliverables provided, as a percentage of total deliverables identified for the fiscal year. LASO S&S COR will validate that the documentation (or other evidence stipulated in the Plan) substantiates completion of the deliverable prior to payment.

Measure 5.2.
$670,310 (25% of total fee allocated to this PBI.)

Fee Schedule: Fee payable at the end of the fiscal year based on performance defined in Section 5, Measure 5.2.

Measure 5.3.
$536,248 (20% of total fee allocated to this PBI.)

Fee Schedule: 50% of fee payable upon achievement of "effective performance" rating in at least five of seven rated areas by HQ DOE SP-1; and 50% of fee payable upon achievement of an overall "satisfactory" S&S Survey rating by LASO S&S COR. Those fees are payable at the end of the fiscal quarter following receipt of the Inspection and Survey Reports.

Measure 5.4.
$268,124 (10% of total fee allocated to this PBI.)

Fee Schedule: Fee payable at the end of each fiscal quarter based on the number of deliverables provided, as a percentage of total deliverables identified for the fiscal year. LASO S&S COR will validate that the documentation (or other evidence stipulated in the Plan) substantiates completion of the deliverable prior to payment.

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

COR approval of the FY 2007 Annual Operating Plan submitted prior to September 30, 2006.
COR approval of the FY 2007 Material Control & Accountability Plan submitted prior to September 30, 2006.
FY 2006 MC&A Inventory Closure Report submitted by September 30, 2006.

GENERAL REQUIREMENTS:

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/progress]. Include baseline documentation/data against which completion documentation should be compared.)*

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 5.1.
A. Meet all NA-70 PEG Level 1 Milestones.

The FY 2007 AOP will be provided to the COR prior to September 30, 2006 to validate that all five sub elements of the FY 2007 PEG are included prior to plan execution. Monthly updates through the Protection Program Management Team (PPMT) to the COR will include specific updates on implementation of each element, with related documentation provided.
Deliverable documentation will also be provided to the COR. This includes baseline cost/scope/schedule as of QTR1/FY 2007, change control documentation produced throughout FY 2007, and documentation of completed work packages prior to EOFY. Earned value management system documents will be provided to the COR on a quarterly basis to indicate project progress, and budget/work variances against the baseline. The EOFY Program-level cost variance shall be within 5% of the baseline budget as adjusted through the change control process.

Measure 5.2.
A. No real loss or gain of Special Nuclear Material.
B. Implementation of the MC&A and Production Integration Plan.

The FY 2007 MC&A Plan will be provided to the COR prior to September 30, 2006 to validate that deliverables are included prior to plan execution. Quarterly updates to the COR will include specific updates on Plan implementation, with related documentation provided. The FY 2006 Inventory Closeout Report will establish the inventory baseline against which the FY 2007 inventories are measured.

Measure 5.3.
A. Achievement of "effective performance" rating in at least five of seven rated areas by HQ SP-1.
1. Classified Matter Protection and Control
2. Personnel Security
3. Physical Security Systems
4. Material Control and Accountability
5. Protective Force
6. Protection Program Management
7. Classification and Information Control

B. Achievement of an overall "satisfactory" S&S Survey rating by LASO S&S COR.

Measure 5.4.
A. Meet all CIO PEG Level 1 Milestones.

The FY 2007 CIO Cyber Security AOP will be provided to the LASO S&S COR prior to September 30, 2006 for validation and approval. Quarterly updates through the Cyber PPMT to the LASO S&S COR will include specific updates on implementation of each element with related information provided.

Deliverable documentation will be provided to the LASO S&S COR. This includes baseline cost/scope/schedule as of QTR1/FY 2007, change control documentation produced throughout FY

2007, and documentation of completed work prior to EOFY.

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

Measures 5.1.
- FY 2007 NNSA Program Execution Guidance, August 15, 2006
- FY 2007 ADSS Annual Operating Plan
- FY 2007 AOP Deliverables
- FY 2007 AOP Protection Program Management Team meeting minutes
- FY 2007 AOP Change control documents
- FY 2007 AOP EVMS quarterly update documents
- FY 2007 AOP End of Year Report, with support documentation validating completion of PEG direction.

Measure 5.2.
- FY 2006 MC&A Inventory Closeout Report
- FY 2007 MC&A Plan
- FY 2007 MC&A Plan Deliverables
- FY 2007 MC&A Reports of inventory adjustments, shipper/receiver differences, physical and special inventory differences and defects

Measure 5.3.
- Final Report of FY 2007 SP-1 Inspection
- Final Report of FY 2007 LASO Survey

Measures 5.4.
- FY 2007 CIO Cyber Security Annual Operating Plan
- FY 2007 CIO Cyber Security AOP Deliverables
- FY 2007 AOP Cyber Protection Program Management Team meeting minutes
- FY 2007 AOP Cyber change control process and documents
- FY 2007 AOP Cyber Security End of Year Report

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will agree within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.
- Successful execution of the Annual Operating Plan (Measures 5.1 and 5.4), the Material Control & Accountability Plan (Measure 5.2) and program effectiveness (Measure 5.3) will be constrained by NNSA fund allocation.
- The LASO S&S COR and the LANL ADSS will negotiate and document modifications to program execution for Safeguards and Security.
- The LASO S&S COR and the LANL CIO will negotiate and document modifications to program execution for Cyber Security.
- Expectations and deliverables that result from conditions outside the contractor's ability to control will be addressed by the formal change control process for the PEP.
- Assumptions/Technical Boundary Conditions:
  1. National and local security threat conditions are not elevated
  2. FY 2007 NNSA PEG will remain constant throughout the year

PEP Change Control:

PEP-CC-005:	January 23, 2007: This Change Control corrects the fee allocation in PBI 5.3 to split the fee equally between the two assessments cited in the measure. This split was clearly intended in early drafts of the measure, but was unintentionally lost in later edits.
PEP CC-010	April 5, 2007. This Change Control changed the Fee Allocation to the measures in this PBI.
PEP CC-07-013	June 13, 2007. This Change Control corrects two administrative errors from when the PBI was updated with Change Control 07-010. The % fee allocated to PBI 5.1 should have been 45%. The fee allocated to 5.3 should have read $536,248.

Science and Technology Excellence: PBI No. 6

PBI No. 6
Ensure Science, Technology and Engineering Excellence

FY2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 6	Title: **Ensure Science, Technology and Engineering Excellence**
Revision Number and Date:	Revision No.: 0 Date: October 23, 2006 PEP CC 010 Date: April 5, 2007
Maximum Available Incentive Fee:	$**4,468,731**
Duration:	☒ Annual ☐ Multi-year
Fee Payment Type:	☒ Completion ☐ Progress ☐ Provisional
LANS Owner: T. Wallace, PADST&E	COR: R. Snyder

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:

- ☐ Objective #1: Mission Success
- ☒ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☐ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY07.

Measure 6.1. Maintain the Laboratory's science, technology and engineering workforce excellence

Expectation Statement:
The contractor will maintain the quality of the science, technology and engineering workforce that is essential for LANL to respond to national and mission related issues. The contractor will evaluate metrics on the Laboratory's science, technical and engineering productivity including number of peer-reviewed papers, classified papers and reports, intellectual property (inventions disclosures, patent applications, and patents), awards (including federal agency and industrial). Results of independent LANL science, technology and engineering reviews will be provided to NNSA and DOE.

Measure 6.2. Maintain the Laboratory's science, technology and engineering critical skills to meet current and future NNSA and DOE missions

Expectation Statement:
The contractor will maintain those science, technology and engineering critical skills required for NNSA and DOE missions. The contractor will provide metric(s) on LANL science, technology and engineering critical skills for Technical Staff Members (TSMs).

Measure 6.3. Engage in collaborative research with the broad science, technology and engineering communities.

Expectation Statement: The contractor will develop, maintain and enhance collaborations with the science, technology and engineering communities, including universities, industry and other national laboratories to bring the best available science, technology and engineering to solve the Nation's and NNSA's mission related problems. The contractor will evaluate its collaborations using the following metrics: the number of collaborations with industry, academia, and other national laboratories; evidence of the benefit from collaborations through Laboratory review process, capacity of LANL scientific user facilities to support interactions. Results of independent LANL science, technology and engineering reviews will be provided to NNSA and DOE.

Measure 6.4. Support the development and implementation of the Global Nuclear Energy Partnership.

Expectation Statement: The contractor will work with the DOE and other national laboratories to develop and implement the Global Nuclear Energy Partnership (GNEP) Program strategy. The contractor will evaluate its effectiveness in the GNEP Program in two areas: (1) international GNEP cooperation, and (2) structural materials performance.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Measure 6.1
$3,351,548 (75% of total fee allocated.)

Fee Schedule: Fee will be awarded upon completion based on evaluation of the criteria defined in Section 5, Measure 6.1.

Measure 6.2
$580,935 (13% of total fee allocated.)

Fee Schedule: Fee will be awarded upon completion based on evaluation of the criteria defined in Section 5, Measure 6.2.

Measure 6.3
$446,873 (10% of total fee allocated.)

Fee Schedule: Fee will be awarded upon completion based on evaluation of the criteria defined in Section 5, Measure 6.3.

Measure 6.4
$89,375 (2% of total fee allocated.)

Fee Schedule: Fee will be awarded upon completion based on evaluation of the criteria defined in Section 5, Measure 6.4.

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

The contractor will have a documented quality peer review program.

GENERAL REQUIREMENTS:

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/progress]. Include baseline documentation/data against which completion documentation should be compared.)*
Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 6.1. An aggregate 10% increase in the following measures:

- Number of peer-reviewed papers published between October 1, 2006 – September 30, 2007 (baseline is 500 publications for the assessment period),
- Classified papers and reports published between October 1, 2006 – September 30, 2007 (baseline is 50 reports for the assessment period),
- Intellectual property (inventions disclosures, patent applications, and patents) for the period October 1, 2006 – September 30, 2007 (baseline is 10 patents granted for the assessment period),
- Awards (including federal agency and industrial) made during the period October 1, 2006 – September 30, 2007

Measure 6.2.

- The contractor will provide the critical skills metric to the NNSA and DOE by November 30, 2006. This metric will use the September 29, 2006 critical skills list, and for each critical skill, the proposed number of employees listed as a TSM. The critical skills metric will compare at the Laboratory level the actual number of TSMs in critical skills category to the proposed number and sum over all categories. The Laboratory's goal is to demonstrate ≥ 80% value for the critical skills metric.

Measure 6.3.

- A 10% increase (when compared to FY 2005) in the total number of collaborations between LANL and industry academia, other national laboratories for FY 2007 that are defined through subcontracts, memoranda of agreements, and collaborative proposals.
- LANL scientific user facilities (Lujan and NHMFL) operate at 75% of capacity to support scientific interactions. Capacity is defined for each of these facilities based on facility readiness and availability, operational basis, funding, and staff requirements.

Measure 6.4.

- LANL will conduct post irradiation examination of the HT-9 burner reactor structural material (these materials were previously irradiated in the Fast Flux Test Facility at Hanford) and generate a report.
- LANL will support development of approaches for international nuclear fuel cycle scientific collaborations; in FY 2007 a framework for establishing and sustaining meaningful cooperation with Russian scientists will be developed.

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

1. Schedule of LANL ST&E independent assessments
2. Copies of LANL ST&E independent assessment reports will be supplied for quality of science, technology and engineering assessment.
3. Letter report on FY 2007 operation statistics for Lujan Center and NHMFL.
4. Summary report for ST&E metrics for 2007, which includes number of peer reviewed publications, number of classified papers and reports, type and number of awards received, and intellectual property data.
5. Summary report for irradiation examination of material from HT-9 reactor.
6. Report for GNEP international collaboration with Russian scientists.

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will verify agreement within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.
- Measure 6.2 – The transfer or elimination of projects or programs will change the critical skills categories. The contractor will update the list within 60 days of the program/project change to reflect the change in the ST&E workforce.
- Measure 6.2 – Allowance for recruiting and hiring must be made for the calculation. Completed hiring actions where a report date has been set will be included as an actual in the calculation of the critical skills metric.
- Measure 6.4 – The completion assumes that GNEP is funded in the federal budget and that the tasks listed have been assigned to the contractor. The deliverables and completion metrics will be redefined within 30-days of receipt of the contractor's guidance for GNEP if the assigned tasks are not the same.

PEP Change Control:
PEP CC-010 April 5, 2007. This Change Control changed the Fee Allocation to the measures in this PBI.

Multi-Site Integration: PBI No. 7

PBI No. 7
Multi-Site Performance

FY2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 7 Title: **Multi-Site Performance**

Revision Number and Date: Revision No.: 0 Date: October 23, 2006
PEP CC-009 Date: March 28, 2007
PEP CC-010 Date: April 5, 2007

Maximum Available Incentive Fee: **$4,550,512**

Duration: ☒ Annual ☐ Multi-year

Fee Payment Type: ☒ Completion ☐ Progress ☐ Provisional

LANS Owner: G. Mara COR: R. Snyder

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:

- ☐ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☒ Objective #3: Multi-Site Integration
- ☐ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY07.

LANL has both direct production and support to complex missions. PBI 1 addresses activities at LANL whereas PBI 7 addresses LANL's support to the weapons complex.

Measure 7.1. Defense Programs "Getting the Job Done" Top 10 priorities.

Expectation Statement: LANL will support the efforts of others in the weapons complex achieve NNSA's direction to:

1. Continuing to deliver our products as we have been doing for the Department of Defense (i.e. Limited life components, reliability assessments, etc.).
2. Eliminating the backlog of surveillance units by September 2007 consistent with the enhanced evaluation strategy (except the W84 and W88).
3. Accelerating the dismantlement of retired weapons, 49% increase from FY 2006 to FY 2007.
4. Delivering the B61-7 First Production Unit (FPU) by June 2006 and the B61-11 FPU by January 2007.
5. Delivering the W76-1 FPU by September 2007.
6. Certifying the W88 with a new pit and manufacturing 10 W88 pits in 2007.
7. Extracting Tritium for use in the stockpile by September 2007.
8. Supporting the science basis for warhead design, assessment and certification by completing and applying MESA (2008), DARHT (2008), NIF (2010), the ASC Purple machine (2006) and pit lifetime estimates (2006).

9. Transforming from a Life Extension Program to a Reliable Replacement Warhead stockpile strategy (RRW to the Nuclear Weapons Council by November 2006).
10. Transforming the nuclear weapons infrastructure to take Responsive Infrastructure from concept to reality (Implement actions identified in the Complex 2030 Preferred Infrastructure Planning Scenario and the Responsive Infrastructure Implementation Plan).

Measure 7.2. Complete Transformation activities within the NWC.

Expectation Statement: NWC Integration – LANL will establish, lead and execute an overall NWC complex integration plan. Initiatives will be completed within budget, schedule and scope for the LANL site as defined in initiative subproject plans. LANL will lead the "NWC Integration Steering Committee" to assist sharing of best practices ensuring selected initiatives have defined NWC benefits, and participating on all appropriate initiatives, while leading at least two multi-site initiatives. These will be managed as projects with clearly defined metrics resulting in significant measurable NWC improvements.

Measure 7.3. Nuclear Materials Consolidation

Expectation Statement: Consolidate SNM within the nuclear weapons complex. Complete all scheduled shipments consistent with the TA-18 closure plan. Complete initial shipment of SNM from LLNL. Complete removal of all Category I/II material from SNL except from Sandia Pulsed Reactor.

Measure 7.4. Information Resource Management

Expectation Statement: The Nuclear Weapons Complex will establish an M&O multi-site, inter-disciplinary integrated project team (IPT) to rationalize, coordinate, and consolidate site information technology infrastructure across the nuclear weapons complex to accomplish cost savings and cost avoidances. At the end of FY 2007, the IPT will provide a strategic plan for implementing appropriate coordination and consolidation activities. This plan must be signed by all 8 M&Os. Quarterly progress reports will be sent by the IPT Chairperson to NA-13 and NA-65.

Measure 7.5. Implement an NNSA Supply Chain Management Center

Expectation Statement: Upon establishment and implementation of the NNSA Supply Chain Management Center (SCMC), the Sites shall work as an Enterprise to:

4. sign the SCMC Business Process Overview Memorandum of Understanding.
5. leverage the work of the ICPT with each Site participating on one ICPT team to identify commodity candidates, and from those candidates set forth two new strategic Complex-wide programs. This includes the development of the procurement strategy, the acquisition plan, and the cost-savings methodology, and
6. conduct a total of three e-sourcing events with requirements submitted by three individual Sites.

The success of this performance measure will be determined by the Director of NA-63.

Measure 7.6. Support for the Production Complex Delivery of Stockpile Components and other Stockpile Activities
LANL will support Pantex in implementing SETLT, PTIP, YTIP and the SMT process efficiencies to reduce cost and increase throughput

Expectation Statement:
LANL will complete deliverables in accordance with direction from SETLT, PTIP, YTIP, and the SMT.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Measure 7.1.

$2,979,849

Fee Schedule: Fee will be paid based on the schedule below for each of the elements in Measure 7.1 on an all or nothing basis by element upon completion of performance requirements by all sites for that element.

Element 1: Team Success: $290,468: LANL direct production addressed under PBI 1
Element 2: Team Success: $145,234
Element 3: Team Success: $435,701
Element 4: Team Success: $435,701: LANL direct production addressed under PBI 1
Element 5: Team Success: $435,701: LANL direct production addressed under PBI 1
Element 6: Team Success: $145,234: LANL direct production addressed under PBI 1
Element 7: Team Success: $83,356
Element 8: Team Success: $72,617: LANL DARHT efforts addressed under PBI 1
Element 9: Team Success: $500,136
Element 10: Team Success: $435,701: LANL Safety Basis Academy efforts addressed in PBI 13.6

Measure 7.2.
$230,044

Fee Schedule: Measure 7.2 on an all or nothing basis upon completion of performance requirements by all sites.

7.2A $44,687
7.2B $51,296
7.2C $44,687
7.2D $44,687
7.2E $44,687

Measure 7.3
$446,873

Fee Schedule: Fee will be paid for Measure 7.3 on an all or nothing basis upon completion of performance requirements by all sites.

Measure 7.4
$223,436

Fee Schedule: Fee will be paid for Measure 7.4 on an all or nothing basis upon completion of performance requirements by all sites.

Measure 7.5
$223,437

Fee Schedule: Fee will be paid for Measure 7.5 on an all or nothing basis upon completion of performance requirements by all sites.

Measure 7.6
$446,873

Fee Schedule: Fee will be paid for Measure 7.6 on an all or nothing basis upon completion of performance requirements by LANL and Pantex.

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed*

before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)

GENERAL REQUIREMENTS:

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/progress]. Include baseline documentation/data against which completion documentation should be compared.)*

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 7.1.
The complex shall:
Element 1: Meet all scheduled ship dates and quantities for deliveries to DoD.
Element 2: Disassembly and inspection (D&I) of full up weapons (except W84 & W88) is complete at Pantex. Completed by the end of September 2007.
Element 3: Dismantlement is separating the high explosives from the nuclear material at Pantex. A retired weapon is any unit with retirement status (could be B61 or B83, even though program is not retired).
Element 4: B61-11 ALT 357 FPU completed by the end of January 2007. FPU is defined as one Diamond Stamped bomb. Formal acceptance by the DoD will occur after completion of the certification and the DRAAG. Issue a Major Assembly Release (MAR) for the B61-11 by the end of April 2007. Issuance of the MAR indicates that the system is certified for use in the stockpile and accepted by NNSA.
Element 5: W76-1 FPU completed by the end of September 2007. FPU is defined as one Diamond Stamped W76-1 warhead. Formal acceptance by the DoD will occur after completion of the W76-1 certification and the DRAAG (FY 2008).
Element 6: Issue a Major Assembly Release (MAR) for the W88 system with a LANL manufactured pit type 126 by September 30, 2007. Issuance of the MAR for the W88 system with a LANL manufactured pit indicates that the system is certified for use in the stockpile and accepted by NNSA. The weapon will contain a pit manufactured at Los Alamos. The unit will be located at Pantex approved for shipment to the Military. This means assembled at Pantex for delivery to DoD by September 30, 2007.10 W88 WR Quality Pits will be manufactured and accepted. Pits will be in stores at LANL with all approvals for use in stockpile and shipment to Pantex when needed.
Element 7: Tritium is extracted from TPBAR and added to existing reserve by the end of September 2007.
Element 8: Progress toward the 2010 first ignition experiment milestone will be confirmed in FY 2007 by SPI and CPI metrics of the National Ignition Campaign (NIC) greater than 0.9 and by completion of a multi-lab confirmation of ablator parameters. Pit lifetime studies completed by the end of FY 2006. A report containing results and lifetime estimates is complete by the end of CY 2006.
Element 9: RRW recommendation from POG is submitted to the Nuclear Weapons Council by the end of November 2006.
Element 10: System Integration Technical Support organization will be fully functional utilizing the tools and capabilities from throughout the nuclear weapons sites. Safety Authorization Basis Academy established to facilitate uniformity across the weapons complex.

In all elements LANL is expected to issue engineering releases, provide engineering advice, and support site issue resolution in a timely and responsive manner such as not to impact milestones at other sites.

Measure 7.2.
A. Two non-LANL lead NWC-ISC projects will complete on time within budget FY 2007 deliverables per their respective Subproject Plan.
B. Three additional "Initiatives" (beyond current NWC-ISC list effective 10/1) for transformation

will be started in FY 2007.

C. Drive the Transformation with active participation by LANL with NWC-ISC, with NWC-ISC being viewed as a driver for transformation and integration of NWC by holding at least quarterly meetings, publishing minutes and delivering on project plans by multiple sites.
D. Three NWC applicable LANL best practices provided to NWC-ISC to share with complex in formal reports.
E. Integration of LANL & LLNL will measurably improve per the project plans for NTS consolidation, and Firing site consolidation.

Measure 7.3.
Consolidate SNM within the nuclear weapons complex. Complete all scheduled shipments consistent with the TA-18 closure plan. Complete initial shipment of SNM from LLNL. Complete removal of all Category I/II material from SNL except form Sandia Pulsed Reactor

Measure 7.4
The Nuclear Weapons Complex will establish an M&O multi-site, inter-disciplinary integrated project team (IPT) to rationalize, coordinate, and consolidate site information technology infrastructure across the nuclear weapons complex to accomplish cost savings and cost avoidances. At the end of FY 2007, the IPT will provide a strategic plan for implementing appropriate coordination and consolidation activities. This plan must be signed by all 8 M&Os. Quarterly progress reports will be sent by the IPT Chairperson to NA-13 and NA-65.

Measure 7.5.
Upon establishment and implementation of the NNSA Supply Chain Management Center (SCMC), the Sites shall work as an Enterprise to:

1. sign the SCMC Business Process Overview Memorandum of Understanding.
2. leverage the work of the ICPT with each Site participating on one ICPT team to identify commodity candidates, and from those candidates set forth two new strategic Complex-wide programs. This includes the development of the procurement strategy, the acquisition plan, and the cost-savings methodology, and
3. conduct a total of three e-sourcing events with requirements submitted by three individual Sites.

The success of this performance measure will be determined by the Director of NA-63.

Measure 7.6.
Attend and participate in Pantex process efficiency initiatives as requested by NNSA. Provide timely responses to special requests from NNSA as negotiated. Deliver Engineering Authorizations, Engineering Evaluations, and Engineering Releases in accordance with negotiated schedules.

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

LANL to submit assessment and year end results relative to elements of this PBI.

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will agree within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.
- Funding received is in accordance with FYSNP profile. Funding below that level will require modifications to these measures through formal change control, renegotiation of the measures and/or reallocation of the associated fee.

- RRW deliverables are dependent on selection of the New Mexico design. Non-selection or joint assignment will require renegotiation of the measures and/or reallocation of the associated fee.
- NNSA approval of the baseline that LANL has proposed for TA-18 Accelerated Closure.
- This is a Multi-Site PBI, as mandated by NNSA. The intention of this PBI is to measure cooperation between sites in the Nuclear Weapons Complex to accomplish NNSA's goals, rather than to measure individual performance. LANL-specific performance may be measured elsewhere. (i.e. Level 1 and Level 2 Milestones) Safety Basis Academy.
- For LANL this should mean "deliver 10 W88 pits that are suitable for diamond stamping"- per NNSA Program Director 10.03.06.
- The TA-18 closure plan referenced in PBI 7.3 is detailed in LANL document PADWP-WI:06L-06, J. Leeman to E. Wilmot, "Proposed baseline for transition from Technical Area 18 (TA-18)", July 28, 2006, and approved in LASO document OPM:9SF-001, E. Wilmot to M. Anastasio, "Approval of the Proposed Baseline for Transition from Technical Area 18", August 13, 2006.
- 7.1.4 In addition to delivery of LANL hardware, overall completion of the B61-11 FPU also requires completion of the DRAAG and MAR. Completion of the MAR is presently expected in April '07. After Diamond stamping of the LANL hardware, LANL status will be held green until the due date for the MAR.

PEP Change Control:

PEP CC-009: Sections 3, 4, and 5, 3/28/07: This Change Control incorporated current (9/11/06) NNSA HQ wording in Measures 7.1, 7.4 and 7.5.

PEP CC-010: April 5, 2007: This Change Control changed the Fee Allocation to the measures in this PBI.

OPERATIONAL EFFECTIVENESS AND EFFICIENCY: PBI NO. 8 – PBI NO. 11

PBI NO. 8
Environmental Projects and Operations

FY2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 8 Title: **Environmental Projects and Operations**

Revision Number and Date: Revision No.: 0 Date: October 23, 2006
PEP CC-007 Date: March 28, 2007
PEP CC-010 Date: April 5, 2007
PEP CC-07-025 Date: August 29, 2007
PEP CC-07-030 Date: September 11, 2007

Maximum Available Incentive Fee: **$3,619,670**

Duration: ☒ Annual ☒ Multi-year

Fee Payment Type: ☐ Completion ☐ Progress ☐ Provisional

LANS Owner: A. Phelps, D. Watkins
COR: G. Rael

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:

- ☐ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☒ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY07.

Measure 8.1. Comply with environmental remediation regulatory commitments.

Expectation Statement:
Complete the FY 2007 New Mexico Environment Department (NMED) Consent Order deliverables listed in the table provided in Section 5, on schedule. Content must meet deliverable requirements of Consent Order except where negotiated differently with NMED.

Measure 8.2. Decommission and Demolish (D&D) process contaminated facilities.

Expectation Statement:
D&D Facility approximately 5,147 cubic yards-in-place of facility systems, components, structures, and/or associated contaminated soil with a Schedule Performance Index (SPI) and CPI between .90 and 1.15.

Measure 8.3. Reduce legacy TRU waste at TA-54.

Expectation Statement:
Disposition (i.e., ship to WIPP or dispose as LLW) 44,658 PE-Ci of dispersible, contact-handled TRU waste (this quantity includes 12,062 PE-Ci previously dispositioned and 32,596 PE-Ci to be dispositioned

during this performance period), (Deleted: ship 16 remote-handled legacy TRU waste canisters to WIPP), and achieve SPI and CPI between 0.90 and 1.15 as measured cumulative for FY 2007.

Measure 8.4. Improve the LANL EM performance baseline.

Expectation Statement:
Deliver the LANS baseline change proposals (BCPs) that accelerate remediation by two years to the life cycle integrated EM baseline on or before January 31, 2007. The BCPs must be of high quality to pass an Internal Independent Review and be approved by DOE. The BCPs will demonstrate optimization in schedule and cost by year and serve as the management tool for project management. (NOTE: This will be used as a multi-year PBI in FY 2008.)

Measure 8.5. Maintain compliance with laws for protection of the public and environment in support of continued LANL operations and maintain ISO 14001 certification.

Expectation Statement:
For compliance with Environmental Regulatory Requirements (see Assumptions), the Laboratory will meet all regulatory non Consent Order (see Measure 8.1) compliance submittals on-time, will formalize an objective of zero environmental regulatory compliance violations, and will seek to continuously improve compliance performance as measured by self assessment and self correction processes and the regulatory performance record. In addition, they will continue to demonstrate ISO 14001 certification through third party verification by September 29, 2006.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Use this area to define prerequisites for payment of any measure – i.e. completion of other specific measures, etc. Allocate specific dollar amounts to all areas defined in Section 5 – completion description, i.e. if Base is designated as a type of fee, insert a dollar amount.

Measure 8.1.
Fee Allocation:
$1,689,180

Fee Payment Type: Completion

3 missed = No Fee for this Measure
2 missed = 50% of Fee allocation
1 missed = 70% of Fee allocation
0 missed = 100% of Fee allocation

Measure 8.2.
$0

Measure 8.3.
$1,126,120

Element A=$1,126,120 of Fee allocated to this measure. Fee paid will be pro-rated based on the ratio of actual PE-Ci dispositioned during the performance period to the total 32,596 PE-Ci specified in the measure above.
Element B=$0 of Fee allocated to this measure

SPI/CPI at either completion of the measure or the end of FY 2007, whichever comes first, will have the following effect: If PARS is yellow, available fee will be reduced by 1/3, if PARS is red, available fee will be reduced by 1/2.

Measure 8.4.
$402,186

SPI/CPI at either completion of the measure or the end of FY 2007, whichever comes first, will have the following effect: If PARS is yellow, available fee will be reduced by 1/2, if PARS is red, no fee will be paid for this measure.

Measure 8.5.
$402,184

Element 1= $100,546 of Fee allocated to this measure
Element 2= $100,546 of Fee allocated to this measure
Element 3= $100,546 of Fee allocated to this measure
Element 4= $100,546 of Fee allocated to this measure

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

GENERAL REQUIREMENTS:

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/progress]. Include baseline documentation/data against which completion documentation should be compared.)*

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 8.1.
Comply with environmental remediation regulatory commitments:

- The Consent Order deliverables specified on the table below delivered on time to NMED, specified CPI level achieved with no associated NOVs received from NMED. Any NOV received will not be considered for purposes of fee until it is adjudicated and LANL is found to be at fault.
- Consent Order Deliverables for Federal FY 2007 are found in the formal Consent Order schedule or formal communications from NMED. Deadline dates indicated below may be modified by joint agreement with NMED. The specific Deliverables are:

Deliverable	Deadline
Mortandad Canyon Investigation Report	10/28/2006
SWMU 21-014 (MDA A) Investigation Report	11/9/2006
Chromium Contamination in Regional Well R-28 Groundwater Interim Measures	11/30/2006
SWMU 50-009 (MDA C) Investigation Report	12/6/2006
Addendum to the Work Plan for Sandia Canyon and Canada del Buey	1/30/2007
SWMU 16-021(c) CME Report for Intermediate and Regional Groundwater	5/31/2007
SWMU 16-008(a) Investigation Report	6/21/2007
Guaje/Barrancas/Rendija Canyons Aggregate Area Investigation Report	8/31/2007
S-Site Aggregate Area Investigation Work Plan	9/30/2007
North Ancho Canyon Aggregate Area Investigation Work Plan	9/30/2007

Well Completion Report - First Regional Aquifer Well Completion Report Due in FY 07	Within 120 days after well installation is complete
Well Completion Report - Second Regional Aquifer Well Completion Report Due in FY 07	Within 120 days after well installation is complete
First Periodic Monitoring Report	Due date dependent on sampling schedule in approved IGMP
Second Periodic Monitoring Report	Due date dependent on sampling schedule in approved IGMP
*MDA V Investigation Report	10/31/2006
*General Facility Information 2007	3/31/2007
*MDA L CME Report	7/31/2007
*MDA G CME Report	8/5/2007

* Milestones not in Stipulated Penalties List for FY 2007 but are milestones due in FY 2007(not all inclusive in this table)

Measure 8.2.
A. Complete approximately 5,147 cubic meters of D&D as required in baseline.
B. Achieve an aggregate cost and schedule performance index equal to or greater than 0.90 but less than 1.15 as measured cumulative for FY 2007, and associated milestones in the baseline.

Measure 8.3.
A. During the performance period eliminate up to 32,596 PE-Ci of dispersible, contact handled TRU waste from Area G, within the constraints described in 8.3C below.
B. The sub-measure to ship 16 Remote Handled waste canisters to WIPP has been deleted.
C. Achieve an aggregate cost and schedule performance index equal to or greater than 0.90 but less than 1.15 as measured cumulative for FY 2007, and associated milestones in the baseline.

Measure 8.4.
A. Deliver three LANS baseline change proposals (BCPs) that define the LANS strategy for a two-year acceleration of the EM-funded Legacy Environmental Cleanup Projects at LANL: (Legacy Waste, Environmental Restoration, and D&D) on or before January 31, 2007.
B. Achieve an aggregate cost and schedule performance index of equal to or greater than 0.90 but less than 1.15 as measured cumulative for FY 2007, and associated milestones in the baseline.

Measure 8.5.
1. $100,546 (25% of fee) will be paid for regulatory compliance performance as defined by submittal of all required deliverables (as established in the "Complete Documents List" below) on time and meeting of groundwater and drinking water monitoring agreement commitments with Los Alamos County and San Ildefonso Pueblo.
2. $100,546 (25% of fee) will be paid for continual improvement in compliance performance trends (current year performance compared to the average of the past 3 years performance) For RCRA self-assessments a success rate of 96.5% or greater. For CWA storm water self-assessments a success

rate of 95% or greater. For NPDES external assessments a rating of reliable self-monitoring (Section 70, EPA NPDES Compliance Inspection Report, OMB No. 2040-003) or greater. For CAA external assessments, zero exceedances of the EPA 10mRem standard.

3. $100,546 (25% of fee) will be paid for Pollution Prevention. A composite score in waste minimization of 1.5 or below will be attained.
4. $100,546 (25% of fee) will be paid for maintaining ISO 14001 certification (with third party verification).

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

1. Consent Order with NMED
2. FY 2007 annual workplans for LANL EM and RTBF programs
3. NMED submissions and subsequent correspondence related to Consent Order deliverables
4. LANL EM program monthly earned value, performance metrics, project status, and variance reports
5. LASO Quarterly Progress Reviews of EM Legacy Environmental Cleanup projects for FY 2007
6. LANS Baseline Change Proposals to the EM programs performance baseline

Measure 8.5 Documents List

7. All submittals required to support RCRA, CWA, TSCA, and CAA permit and FFCA requirements.
8. Agreements with Los Alamos County and San Ildefonso Pueblo to support groundwater and drinking water monitoring.
9. ISO 14001 registration certificate and third party reports.

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will agree within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.

Measure 8.5

1. Environmental Regulatory Requirements are defined as the Resource Conservation and Recovery Act (RCRA), the Clean Air Act (CAA), the Clean Water Act (CWA), the National Environmental Policy Act (NEPA), the Toxic Substances Control Act (TSCA), the Pollution Prevention Act of 1990, Biological and Cultural Resource regulations and DOE Orders 5400.5 and 450.1 for regulation and control of radionuclide exposures to the public and environment., DOE Orders 450.1 and 5400.5.
2. RCRA self assessment rate = Number of self-assessment findings divided by the number of inspections. Three-year average includes FY 2004-FY 2006. Special consideration will be given for institutional efforts to reduce the number of regulated RCRA units.
3. Stormwater Construction (CWA) self-inspection rate = number of compliant inspections divided by the number of site inspections. Three-year average includes FY 2004-FY 2006.
4. NPDES external assessment rate = Number of sample NPDES exceedances. Three-year average includes FY 2004-FY 2006.
5. Pollution Prevention score is a composite reduction for eight waste streams based on FY 2006 baseline performance measure.
6. Measures are dependent on sufficient funding. Changes to program effort must be reflected by corresponding changes in performance indicators.
7. Timely delivery of regulatory deliverables is understood to allow for, and include the ability to request extensions to deadlines. "On-time" is defined as any agreed-upon due date including revised dates that are documented as a result of extension requests or other negotiations with regulatory agencies.

PEP Change Control:

PEP CC-007: Section 5, 3/28/07: This Change Control changed the title of a New Mexico Environment Department Consent Order Deliverable.

PEP CC 010: April 5, 2007. This Change Control changed the Fee Allocation to the measures in this PBI.

PEP CC-07-025 August 29, 2007. This Change Control amends PBI 8.3 to incentivize the actual number of PE-Ci dispositioned during the fiscal year. The fee paid will be pro-rated based on the ratio of actual PE-Ci dispositioned to the total 32,596 PE-Ci specified in the original PBI.

PEP CC-07-030 September 11, 2007. This Change Control deleted PBI 8.3B (ship 16 remote-handled legacy TRU waste Canisters to WIPP) due to events outside the control of the Contractor. Fee was re-allocated to PBI 8.1.

PBI No. 9
Safety and Health Performance

FY2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 9 Title: **Safety and Health Performance**

Revision Number and Date: Revision No.: 0 Date: October 23, 2006
PEP CC-003 Date: January 18, 2007
PEP CC-010 Date: April 5, 2007
PEP CC-07-016 Date: July 26, 2007
PEP CC-07-019 Date: July 26, 2007
PEP CC-07-021A Date: July 26, 2007
PCM-07-203 Date: October 3, 2007

Maximum Available Incentive Fee: **$1,795,423**

Duration: ☒ Annual ☐ Multi-year

Fee Payment Type: ☒ Completion ☐ Progress ☐ Provisional

LANS Owner: R. Watkins, ESH&Q COR: J. Vozella

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:

- ☐ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☒ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY07.

Establish a positive Environment, Safety, Health, and Quality (ESH&Q) posture that reflects a proactive approach, employee involvement and willingness to change.

Measure 9.1. 10 CFR 851 Worker Safety and Health Plan and Department of Energy (DOE)-Voluntary Protection Program (VPP) Implementation.

Expectation Statement:

4. Develop a project plan for the VPP 3-year implementation and meet the measurable milestones within the performance period.
5. Train management in Human Performance Fundamentals
6. Establish an employee-led safety committee structure and implement such that worker involvement implementing VPP principles and Integrated Safety Management is maximized.

Measure 9.2. Injury Reduction

Expectation Statement:

LANS will achieve, by September 30, 2007, improvements in a LANL "Combined" Total Recordable Case Rate (TRC) and a LANL "Combined" Days Away, Restricted, or Transferred (DART) Rate that is 20% lower than the May 31, 2006, baseline. LANS will ensure accurate and timely reporting of

TRC/DART information through CAIRS in accordance with DOE M 231.1-1A Change 1.

Measure 9.3. Fire Protection and Life Safety.

Expectation Statement:
Formalize the LANS Fire Marshal Function such that:

9.3.1. New projects including facility modification projects which impact fire protection and life safety are independently reviewed, are overseen from initial design to completion and approved by the LANS Fire Marshal Function for compliance with applicable DOE Orders and NFPA codes and standards.

9.3.2. Fire protection engineering evaluations are reviewed for completeness, validity and compliance with applicable laws, rules, DOE Orders, and mandatory codes and standards.

9.3.3. Fire hazard analysis, facility fire protection assessments and similar documents are reviewed and approved by the LANL Fire Marshal Function, and the developing or updating of these documents is monitored to assure that these assessments/analysis are conducted and reported on an established schedule based on facility hazard categorization.

9.3.4 The Fire Marshal Function participates in Operational Readiness Reviews and Readiness Assessments with substantial fire protection issues.

Measure 9.4. Chemical and hazardous material management.

Expectation Statement:
LANS will achieve performance improvements in chemical and hazardous materials management, including but not limited to the areas of: chemical inventories, exposure assessments, biological safety, life-cycle management (shelf-life/aging chemicals, excess materials, and disposition), and emergency response. Successful performance improvement will be based upon independent verification.

Measure 9.5. Electrical Safety Program Improvements

Expectation Statement:

6. Electrical safety performance as measured by a reduction in the total electrical severity score for FY 2007 (sum of event scores) as compared to the average of the total scores of FY2005 and FY2006. The Electrical Severity Measurement Tool will be used as the basis for this measure.
7. Develop a formal (approved by AD/ESH&Q and issued under change control) corrective action plan based on the recommendations from the October 14, 2005, report titled “Assessment of Los Alamos Electrical Safety Incidents from July 1, 2003, to July 24, 2005”, and other electrical safety assessments over the last few years. Demonstrate the use of a recognized root cause analysis methodology to link corrective actions to identified root causes.
8. Implement the action plan referenced in item (2) above, completing all FY 2007 actions.
9. Develop a plan based on the principles of the “Lean Six Sigma Process” to monitor the effects of implementing the corrective action plan and document the basis for prioritization of further corrective actions, based on severity management tool data.
10. Implementation of the corrective action plan in item (2) above will be independently verified with the resulting report formally transmitted to NNSA LASO by 9/15/2007.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Use this area to define prerequisites for payment of any measure – i.e. completion of other specific measures, etc. Allocate specific dollar amounts to all areas defined in Section 5 – completion description, i.e. if Base is designated as a type of fee, insert a dollar amount.

Measure 9.1.
$179,543

9.1.1 $125,681 (70%) will be paid upon successful completion of FY 2007 milestones in the 3-year VPP implementation plan. This portion of the fee will be equally pro-rated among all the milestones.
9.1.2 $26,931 (15%) will be paid for completion of management training in Human Performance Fundamentals.
9.1.3 $26,931 (15%) will be paid for completing the establishment of an employee-led safety committee structure.

Measure 9.2.
$538,626

No fee designated for TRC performance will be paid under this Measure if the FY 2007 TRC rate exceeds 3.26.

No fee designated for DART will be paid under this Measure if the FY 2007 DART rate exceeds 1.23.

No fee will be paid for Measure 9.2 if timely and accurate reporting is not demonstrated consistent with DOE M 231.1-1A Change 1.

9.2.1 $161,587 will be paid upon achievement of the 20% reduction target for TRC.
9.2.2 $161,587 will be paid upon achievement of the 20% reduction target for DART.
9.2.3 An additional $107,726 will be paid, if at the end of a fiscal year, LANL has a TRC and DART rate 25% better (i.e., lower) than the May 31, 2006, baseline.
9.2.4 An additional $107,726 will be paid, if at the end of a fiscal year, LANL has a TRC and DART rate 30% better (i.e., lower) than the May 31, 2006, baseline.
TRC designated fee will not be paid if the FY 2007 TRC rate exceeds 3.26.
DART designated fee will not be paid if the FY 2007 DART rate exceeds 1.23.

Measure 9.3.
$269,314

No fee will be paid for this measure if stipulations in Section 5, 9.3.0 are not met.

9 .3.1. $134,657 will be paid for the review and oversight of new projects from initial design to completion including facility modification projects which impact fire protection and life safety are independently reviewed and approved by the LANS Fire Marshal for compliance with applicable DOE Orders and NFPA codes and standards. See Section 5 for required details of performance.

9 .3.2. $53,863 will be paid for review of fire protection engineering evaluations completeness, validity and compliance with applicable laws, rules, DOE Orders, and mandatory codes and standards by the LANL Fire Marshal Function. See Section 5 for required details of performance.

9.3.3. $53,863 will be paid for the review and approval of fire hazard analysis, facility fire protection assessments and similar documents by the LANL Fire Marshal Function, and the developing or updating of these documents is monitored to assure that these assessments/analysis are conducted and reported on an established schedule based on facility hazard categorization. See Section 5 for required details of performance.

9.3.4 $26,931 will be paid for the participation of the Fire Marshal Function in 100% of Operational Readiness Reviews and Readiness Assessments conducted during FY 2007, See Section 5 for required details of performance.

Measure 9.4.

269,314

No fee will be paid under this Measure if the chemical inventory system is less than 90% accurate at 95% of facilities containing hazardous chemicals. (This is not the average inventory, but each facility must maintain 90%).

9.4.1 $107,726 will be paid for maintaining a chemical inventory such that 97% of all hazardous chemicals are accurately identified in an established inventory system on a facility by facility basis (not an average). (Fee earned for inventory accuracy between 90%-97% will be earned on a linear scale)

9.4.2 $80,794 will be paid for achievement in qualitative assessments of chemical exposure and quantitative assessments with 29 CFR 1910 exposure monitoring requirements, consistent with requirements of 10 CFR 851 for 95% of facilities with chemical inventory.

9.4.3 $40,397 will be paid for achievement in hazardous chemical life-cycle management demonstrated by automated linking of chemical inventory with chemical disposal. Eighty percent of identified chemicals due for disposal (e.g. expired reactives, excess materials, shelf-life/aging chemicals) are managed (recycled, reused, disposed of, or a regulatory compliant disposal pathway identified) through this system by May 31, 2007.

9.4.4 $26,931 will be paid for demonstrating Biological Select Agent inventories are managed such that the registration list is accurate and periodically verified accurate.

9.4.5 $13,466 will be paid for achievement in emergency response as follows:
(1) Building Run Sheets (BRS) are maintained up-to-date (updated when scope changes affecting inventory significantly based on threshold quantities identified in DOE O 151.1C) for each nuclear facility, high and moderate hazard facility at LANL.
(2) The accuracy of the hazardous materials inventory identified on the BRS for the facility(ies) will be verified during the final quarter of FY-07, via a 95% table top audit of chemlog screened materials and materials listed on page two of the BRS per the Conduct of Operations Facility Applicability Matrix, Attachment 4: LANL Moderate Hazard Facilities; Attachment 5: LANL High Hazard Facilities; and Attachment 6: LANL Nuclear Facilities, (May 2007). LANL will conduct a 25% independent physical QA of BRS accuracy.
For each area, payment of fee is dependent upon independent verification of completion by the CAO or QA Assessment Group.

Measure 9.5.
$538,626

No fee will be paid under this Measure unless there is at least a 10% reduction in the log value of the annual severity score as measured in the expectation statement. There will be a 10% reduction in total fee awarded if there is an increase in the annual score for high hazard (orange) events or very high hazard (red) events in FY2007.

Note: This incentivizes the reduction of high consequence events separate from the overall reduction of electrical safety risk.

9.5.1 $215,450 will be paid upon reduction of the annual severity score as follows: 20% reduction = 100% of fee portion; 15% reduction = 75% of fee portion; 10% reduction = 50% of fee portion.

9.5.2 $107,726 will be paid for reduction in the number of hazardous electrical conductor strikes due to penetrations and excavations, as follows: 20% reduction = 100% of fee portion; 15% reduction = 75% of fee portion; 10% reduction = 50% of fee portion. These percentages will be based on the same data referenced in item (1) of the expectation statement on the basis of frequency, not severity

Note: This incentivizes taking proper safety precautions when blind penetrations are necessary and a conductor strike is possible.

9.5.3 $215,450 will be paid upon independently verified implementation of Electrical Safety Program improvements as outlined in the expectation statement, including the demonstrated use of Lean Six Sigma to monitor and ensure lasting results. This fee portion will be paid as follows: Completion of all items in the expectation statement = 100% of fee portion; Issuance,

completion and independent validation of the corrective action plan = 75% of the fee portion; Issuance of the plan and completion of at least 75% of the actions = 50%.

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

Measure 9.2. The LANL "Combined" TRC rate as of the end of May 2006 was 3.26. This is the baseline rate for LANL. [Note: With the LANS takeover on June 1, 2006, LANS required LANL to include all construction contractors in the former "UC Combined Rate". Therefore, the May 2006 Combined Rate for TRC was 3.26.]

Measure 9.2. The LANL "Combined" DART rate as of the end of May 2006 was 1.23. This is the baseline rate for LANL. [Note: With the LANS takeover on June 1, 2006, LANS required LANL to include all construction contractors in the former "UC Combined Rate". Therefore, the May 2006 Combined Rate for DART was 1.23.]

Measure 9.4. The LANL Chemical Management system as of May 2006 was unable to maintain accurate inventories in all facilities. This was a baseline standard first established in 2001 by agreement with the Laboratory. This is the baseline rate for LANS.

GENERAL REQUIREMENTS:

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/progress]. Include baseline documentation/data against which completion documentation should be compared.)*

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 9.1.
Obtain Director's approval of VPP Project Management Plan (PMP). Employee Safety & Security Teams will be functioning evidenced by charters, minutes, and training records.

- 9.1.1 Completion of 2007 milestones including continued roll-out of the WSST process as projected by the VPP PMP.
- 9.1.2 Completion of management training in Human Performance Fundamentals
- 9.1.3 Completion of the Institutional and AD level WSST process

Measure 9.2.

- Achievement of 20% reduction target of TRC.
- Achievement of 20% reduction target of DART.
- For additional fee, a TRC and DART rate 25% better (i.e., lower) than the May 31, 2006, baseline.
- For additional fee, a TRC and DART rate 30% better (i.e, lower) than the May 31, 2006, baseline.
- Injury and illness reporting through CAIRS.

Measure 9.3.
No fee will be paid under this Measure if the LANL Fire Marshal Function does not include or address the following:

- Proof exists that a LANL Fire Marshal procedure or charter has been established, approved by upper LANL management and implemented.
- A qualified fire protection engineer is selected to lead the Fire Marshal group.
- Team members (Fire Marshal and Fire Protection Engineering Group) will include degreed

Fire Protection Engineers (FPE), licensed FPEs, or certified FP design professionals

- The Fire Marshal will function in the role of oversight and not in the design, engineering or implementation related activities.

9.3.1 All new projects, based on the criteria listed below, which impact fire and life safety are reviewed and approved by the LANL Fire Marshal Function or designee to ensure compliance with applicable laws, rules, DOE Orders, and mandatory codes and standards using a graded approach. (50% of measure 9.3)

- Projects at nuclear and high hazard facilities that affect fire and life safety.
- Projects that have unique fire protection risks that affect fire and life safety.
- Projects over $500,000 and subject to implementation under LANL IMP 352, *Project Management*, requirements.
- A screening of a percentage of other projects reviewed and approved by the LANL Fire Protection Group (ERD-FP) that fall below the above trigger thresholds to ensure compliance, with steps taken as appropriate when deficiencies and concerns are found during individual project review.

9.3.2 Fire protection engineering evaluations are reviewed and approved for completeness, validity and compliance with applicable laws and rules, DOE Orders, and mandatory codes and standards. (10% of Measure 9.3)

- 100 % of all fire protection engineering evaluations are reviewed and either approved or returned to the originator for additional action.
- A review of final approved evaluation documents finds no significant error or omission, and not more than 10% of the documents reviewed contain minor non-compliance with applicable codes or standards.

9.3.3 Fire hazard analysis, facility fire protection assessments and similar documents are reviewed and approved by the LANL Fire Marshal Function, and the development or updating of these documents is monitored to assure that these assessments/analysis are conducted and reported on an established schedule based on facility hazard categorization. (15% of Measure 9.3)

- 100% of all fire hazard analysis, facility fire protection assessments and similar documents issued are reviewed and approved, or returned for rework as may be appropriate within a timely manner following receipt by the LANL Fire Marshal.
- A review of approved FHA and fire protection assessment documents by LASO finds no significant errors or omissions as defined in contractual requirements.
- An FY 2007 schedule exists for the development of FHAs and facility fire protection appraisals, including the revision of such documents. The developed schedule is in compliance with DOE Order 420.1 (version in contract), The schedule is commensurate with the yearly ongoing program as defined in the oversight program, with oversight of nuclear and high hazard facilities occurring once every three years.
- 100% of all documents for fire hazard analysis and facility fire protection assessment activities conducted in FY 2007 have been developed, approved and distributed for all nuclear and high hazard facilities.

9.3.4 The LANL Fire Marshal Function participates in Operational Readiness Reviews and Readiness Assessments. (10% of Measure 9.3)

- The LANL ORR and RA procedure calls for the inclusion of the LANL Fire Marshal or their appropriate designated representative in the performance of ORRs or RAs when appropriate.
- The LANL Fire Marshal or their appropriate designated representative participated in the ORR or RA process for 100% of all new facilities, major facility renovation, and process or experiment startup where fire protection represented a concern.
- Documentation exists to document the Fire Marshal Function's participation in ORR and RA

activities.

Measure 9.4.

- No fee will be paid under this Measure if the chemical inventory system is less than 90% accurate at 95% of facilities containing hazardous chemicals. (This is not the average inventory, but each facility must maintain at least 90%).

Measure 9.5.

- The action plan is issued as outlined above as a controlled document, documenting the use of a recognized root cause analysis methodology and at least 75% of the actions are independently verified as complete.
- A formal approach is implemented per the Lean Six Sigma process to monitor results.

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

Measure 9.1.
LANS Director approved VPP PMP. Training Plan report showing 90% of line managers (Group Leaders and above.) trained by September 29, 2007. By October 31, 2009, DOE verification of achievement of DOE VPP Merit (or better) status.

Measure 9.2.

A. Report and independent verification by the CAO or QA Assessment Group demonstrating reduction in TRC rate at the end of the time period.
B. Report and independent verification by the CAO or QA Assessment Group demonstrating reduction in DART rate at the end of the time period.
C. Report and independent verification by the CAO or QA Assessment Group of TRC/DART reporting accuracy and timeliness as specified by DOE M 231.1-1A Change 1.

Measure 9.3. LANL Fire Marshal

Measure 9.3 (Base):

A. Team charter or procedure
B. Proof of team lead qualifications
C. Proof of team member qualifications
D. Examples of work performed to prove capability
E. Proof of peer review of designs and specifications, including comment resolution.

Measure 9.3.1:

A. Approved procedure for new project, facility modification, and process hazard and experiment review and approval and approved procedure for ongoing review of construction projects.
B. Proof that new projects based on the screening criteria are being reviewed and approved. Documentation of total number of projects, modifications, process hazard and experiments submitted for review versus total number reviewed.
C. Proof of qualifications for person performing selected project review
D. Documentation of review findings and their resolution for each activity reviewed.

Measure 9.3.2:

A. Approved procedure for review of fire protection engineering evaluations, etc.

B. A list of engineering evaluations reviewed, including name of evaluation, risk ranking, name of person(s) assigned responsibility for review and time spent in review.

C. Documentation of review findings and their resolution for each document reviewed.

Measure 9.3.3:

A. Approved procedure which addresses the review and approval of fire hazard analysis, fire protection appraisals, fire protection audits and similar documents, and the monitoring process which ensures that such documents are undertaken and developed within the prescribed time period.

B. List of the above referenced documents which have been submitted for review and approval.

C. Copies of above referenced documents are available for review.

D. Documentation of review findings and their resolution for each document reviewed.

Measure 9.3.4:

A. Procedure which governs LANL Fire Marshal participation in Operational Readiness Reviews and Readiness Assessments as a team member or senior advisor.

B. Proof of participation in Operational Readiness or Readiness Assessment Reviews (list of ORRs and RAs which LANL Fire Marshal participated in).

C. Copies of ORRs and/or RAs that LANL Fire Marshal participated in as a team member.

D. Documentation of ORR and RA review findings and their resolution for each review participated in.

Measure 9.4.

A. Chemical Inventory list by facility with documentation of independent verification of accuracy by the CAO or QA Assessment Group.
B. The report of materials dispositioned with disposition method identified.
C. ESH&Q Division report evaluating adequacy of chemical exposure assessments and monitoring.
D. Select Agent registration list and results of verification of accuracy reviews.
E. Verification of accuracy of Building Run Sheets.

Measure 9.5.

A. Tabular summary of electrical safety incidents from FY 2005, FY 2006 and FY 2007 by year, incident type, ORPS number and the severity score.
B. Verification document from independent party demonstrating percent completion of the actions in the official action plan.
C. Monitoring methodology for continued improvement per the Lean Six Sigma process.

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor by the end of the first week in October.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within 2 weeks of receipt of guidance.
- The NNSA and LANS, LLC will verify agreement within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.

Measure 9.2. The LANL "Combined" Rate is defined as the TRC rate and the DART rate for all

employees associated with LANL. This includes LANS employees and all subcontractors and all construction contractors.

Measure 9.3. The "Fire Marshal Function" is defined as the functions and responsibilities of the Fire Marshal's office, which will be carried out by the Fire Marshal or his designee.

Measure 9.4. Chemicals are excluded that are brought in by active construction subcontractors while working on site.

Measure 9.5. – The Electrical Severity Measurement Tool is not changed during FY2007. If this occurs, adjustment of baseline and/or FY2007 performance date will be necessary to account for the changes.

PEP Change Control:

PEP-CC-003:	PBI 9.5, 1/18/07 This Change Control now makes the Electrical Severity Measurement Tool the basis for this measure. Use of this tool will incentivize the reduction of the severity of electrical incidents, rather than a reduction in the number of events.
PEP CC-010:	April 5, 2007. This Change Control changed the Fee Allocation to the measures in this PBI.
PEP CC-07-016	July 26, 2007. This Change Control combined 9.1.1 and 9.1.4 as they were measured essentially the same things, and replaced OSHA with DOE as the VPP Program that we will meet requirements for and receive verification through.
PEP CC-07-019	July 26, 2007. This Change Control clarifies the scope and enhances the process to be used by the Fire Marshal for screening and conducting project reviews.
PEP CC-07-021A	July 26, 2007. This Change Control makes this PBI measurable. It provides measurable data on the status of the Building Run Sheet data compared to the ChemLog inventory.
PCM-07-203	October 3, 2007. This letter, with concurrence by the CO on 10/3/07, changes theTRC baseline from 2.93 to 3.26. A DOE/LASO assessment identified a concern regarding the use of ridig splints which will result in the reclassification of a number of injuries/illnesses during the baseline period as well as during FY07.

PBI No. 10
Facilities Management

FY 2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 10 Title: **Facilities Management**

Revision Number and Date: Revision No.: 0 Date: October 23, 2006
PEP CC-010 Date: April 5, 2007
Maximum Available Incentive Fee: **$893,747**
Duration: ☒ Annual ☐ Multi-year
Fee Payment Type: ☒ Completion ☐ Progress ☐ Provisional
LANS Owner: J. Ethridge, ADISS COR: R. Snyder

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:
- ☐ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☒ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY 2007.

Measure 10.1. Improved LANL Facilities Stewardship

Expectation Statement: Ensure adequately maintained facilities, high facility availability to perform mission operations, and safe and efficient operations while demonstrating facilities and infrastructure stewardship. The metrics established in FY 2007 form the baseline for improvement PBIs in later years.

Measure 10.2. Reduce LANL Footprint

Expectation Statement: Achieve footprint reduction goal of 2 million square feet of substandard space by the end of FY 2008 while maintaining full compliance with DOE project and accounting requirements within existing site funding. FY 2007 footprint reduction goal is 400,000 square feet. The goal of this measure is to reduce annual operating expenses.

Measure 10.3. Improvement in the LANL Fire Protection Program

Expectation Statement:
Implement improvements in the inspection, testing, and maintenance processes associated with the fire protection assets across the Laboratory.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned

value, etc.)

Measure 10.1.
$580,935 (65% of total fee allocated.)

Fee Schedule: Annual
Achievement of 60% of the elements results in payment of 20% of fee
Achievement of 80% of the elements results in payment of an additional 40% (60% in total) of fee
Achievement of 100% of the elements results in payment of 100% of fee

Measure 10.2.
$223,437 (25% of total fee allocated.)

Fee Schedule:
Achievement of 60% of goal results in payment of 20% of fee
Achievement of 80% of goal results in payment of an additional 30% (50% in total) of fee
Achievement of 100% of goal results in payment of 100% of fee

Measure 10.3.
$89,375 (10% of total fee allocated.)

Fee Schedule: Annual

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

GENERAL REQUIREMENTS:

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/progress]. Include baseline documentation/data against which completion documentation should be compared.)*

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 10.1.

A. Demonstrate that the end of FY 2007 Annual aggregate facility condition index (FCI) (measured as deferred maintenance costs per replacement plant value) for mission critical and mission dependent facilities have improved (in each category) by 10% over the end of FY 2006 values.
B. Demonstrate that the end of FY 2007 ratio of the earned value from the actual direct and indirect dollars spent per the planned (budgeted) dollars for mission critical and mission dependent facility maintenance is greater than 1.05. This combined ratio is defined as (estimated cost for work performed/actual cost for work performed) x (estimated cost for work performed/Budgeted FY dollars.)
C. Demonstrate that the percentage of scheduled days mission critical and mission dependent facilities as defined in the "NNSA Ten Year Site Plan (TYSP) Guidance" document, dated February 2006 are available and fully able to safety conduct all assigned missions is greater than 95% for the last half of FY 2007 and enables achievement of programmatic milestones. The first half of FY 2007 will be used to define a consistent method for measuring facility availability.
D. Implement the planned steam plant turbine replacement within cost and schedule baselines in FY 2007.

E. Submit a revised Maintenance Implementation Plan (MIP), in compliance with DOE Order 433.1 requirements the first of March 2007.
F. Compliance with MIP and achievement of FY 2007 MIP metrics and objectives
G. Validate the site FCI data via a third party review and establish an Asset Utilization Index (AUI) baseline.
H. Develop a top ten infrastructure priorities list and devise an implementation plan to address; issue a compliant Ten Year Site Plan to LASO 15 days prior to HQ submission.
I. Establish a site-wide D&D plan for all current excess facilities as well as those expected to be excised within the next 10 years.
J. Develop an Energy Management Performance Agreement: M&O contractors with site offices develop and approve an Energy Management Performance Agreement as required by Energy Deputy Secretary Guidance

Measure 10.2.

A. Reduce gross square footage of LANL facilities by 400,000 square feet by September 30, 2007 (from that existing October 1, 2006 without consideration of new facilities constructed in FY 2006)
   1. Square footage will be measured by:
      - The official DOE (FIMS) database if the asset is listed in FIMS
      - LANL's FATMAN database for types of square footage not tracked by FIMS

   2. Credit for footprint reduction is to be counted in the following manner, i.e. square footage is "reduced" when:
      - Facility leases are terminated
      - Facilities are transferred to other (non-LANL) entities
      - Facilities are removed from operation and receive a "historical" designation from the State Historical Preservation Office (SHPO)
      - Sheds and transportainers are removed from the site
      - Facilities or substantial discreet portions of facilities (e.g. Building wings or floors) are formally transferred from operational status to an excess status with a documented Form 2064 in accordance with LANL LIR 230-01-03.1.
      - Square footage is D&D; Space that has already been transferred by programs to excess must be dismantled and demolished to receive credit (noting that facilities can only receive credit once)

Measure 10.3.

A. Demonstrate that the average quarterly mean time for repair of impaired fire protection systems has been lowered to a value that is 50% or less than the FY 2006 quarterly average value (the average of the 4 quarterly values reported in FY 2006).
B. Demonstrate that the total number of site fire protection system impairments has been lowered and sustained to less than 15 per month for the last quarter of FY 2007.

COMPLETE DOCUMENTS LIST :*(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

Measure 10.1.

1. Facility Condition Index report (quarterly and year-end)
2. Earned Maintenance Value report (quarterly and year-end)
3. Facility Availability report (quarterly and year-end)
4. Steam Plant Turbine Replacement project closeout report
5. Maintenance Implementation Plan and quarterly status reports
6. FCI Validation report
7. Top Ten Infrastructure Priorities Implementation Plan
8. Site-wide D&D plan
9. Energy Management Performance Agreement and quarterly status reports

10. Ten Year Site Plan

Measure 10.2.
1. The following documents will be used as the source information for the square footage: FIMS report, FATMAN reports, and Form 2064 submissions
2. Operating expenses avoided as a result of the footprint reduction effort summary.
3. Footprint Reduction Plan and quarterly status reports

Measure 10.3.
1. Quarterly Mean Time To Repair Impairment reports
2. Weekly Fire System Impairment reports

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will verify agreement within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.
- No pre-existing conditions or unknown site conditions cause significant work stoppages or delays due to factors beyond the control of the contractor.
- Deferred maintenance figures are projected based on the assumption that the validated data base that establishes the Laboratory's baseline is not significantly different (< or >10% in dollar value) than the current data base.

PEP Change Control:
PEP CC-010 April 5, 2007. This Change Control changed the Fee Allocation to the measures in this PBI.

PBI No. 11
Project Management

FY2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 11 Title: **Project Management**

Revision Number and Date: Revision No.: 0 Date: October 23, 2006
PEP CC-07-004 Date: January 18, 2007
PEP CC-07-010 Date: April 5, 2007
PEP CC-07-006 Date: June 13, 2007
PEP CC-07-015 Date: July 16, 2007
PEP CC-07-018 Date: July 13, 2007
PEP CC-07-024B Date: July 16, 2007
PEP CC-07-028 Date: August 14, 2007

Maximum Available Incentive Fee: **$2,722,130**

Duration: ☒ Annual ☐ Multi-year

Fee Payment Type: ☒ Completion ☒ Progress ☐ Provisional

LANS Owner: A. Kelley COR: R. Snyder

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:

- ☐ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☒ Objective #4: Operational Effectiveness and Efficiency
- ☐ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY07.

Measure 11.1. Demonstrate a sound Project Management System by meeting project commitments and integrate all necessary functional elements to fully support project planning, development and execution of projects on agreed-upon project list and associated milestones.

Expectation Statement:

D. Complete 90% of all FY 2007 forecast project milestones (for agreed to projects) measured quarterly.
E. Cost at least 60% of total available FIRP funding while meeting Deferred Maintenance and planning targets.
F. Measured on a quarterly basis, achieve an aggregate cost performance index (CPI) equal to or greater than 0.9 for an agreed-to (by LASO and LANL) set of projects.

Measure 11.2. Execute projects in a manner that supports the Laboratory and its mission requirements, with special attention to nuclear and high-hazard projects.

Expectation Statement:

D. In FY 2007 transition to operations the following projects, allowing mission operation:
   - *Caustic Tank Replacement (FIRP GPP)*

- *TA-50 Retaining Wall (FIRP GPP)*

E. In FY 2007 achieve substantial construction completion for the following projects:
- *TA-55 Interim Radiography (GPP)*
- *Waste Management Risk Mitigation*
- *TA-50 Room 60 Project, Sequence 1 (FIRP GPP)*

F. Submit to LASO in a phased manner LANL-approved CD-2 packages for the following projects in order to support the FY 2008 budget cycle:
- *Radioactive Liquid Waste Treatment Facility Replacement*
- *TA-55 Reinvestment, Phase 1*
- *NMSSUP Phase 2*

Measure 11.3. Execution of the CMRR Project
- Radiological Laboratory Utility Office Building (RLUOB)
- Special Facility Equipment (SFE)
- Nuclear Facility (NF)

Expectation Statement:
Schedule performance based on completion of major milestones. Budget performance as measured by CPI to include revisions to cost estimates, dollars spent vs. budgeted and acquisition cost control.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Measure 11.1.
$688,896

Fee Schedule: Progress
Fee Plan:
Element A: Q1=$96,180; Q2, Q3, Q4=$251,366 total allocated to satisfaction of this element evaluated and paid quarterly
Element B: $167,577 allocated to satisfaction of this element evaluated and paid at the end of the fiscal year
Element C: Q1=$48,090; Q2, Q3, Q4=$125,683 total allocated to satisfaction of this element evaluated and paid quarterly

Measure 11.2.
$804,372

Fee Schedule: Completion
Fee Plan:
Element A: $265,443 allocated to satisfaction of this element
Element B: $265,443 allocated to satisfaction of this element
Element C: $273,486 allocated to satisfaction of this element

Measure 11.3.
$1,228,862

Fee Schedule: Quarterly
Fee Plan:
Element A: Q1=$86,562; Q2, Q3, Q4=$226,230 total allocated to satisfaction of this element evaluated and paid quarterly
Element B: Q1=$86,562; Q2, Q3, Q4=$226,230 total allocated to satisfaction of this element evaluated and paid quarterly
Element C: $301,639 allocated to satisfaction of this element evaluated and paid at the end of

the fiscal year
Element D: $301,639 allocated to satisfaction of this element evaluated and paid upon completion

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

GENERAL REQUIREMENTS:

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/progress]. Include baseline documentation/data against which completion documentation should be compared.)*

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 11.1.

A. Complete 90% of all FY 2007 forecast project milestones, as measured on a quarterly basis, for projects and associated milestones on the agreed-upon list.
B. Achieve costing for at least 60% of total available FIRP funding by the end of FY 2007 while meeting Deferred Maintenance target of $8.5M of deferred maintenance reduction.
C. Achieve an aggregate (portfolio) CPI equal to or greater than 0.9 for projects and associated milestones on the agreed-upon list, measured quarterly.

Measure 11.2.

A. Complete readiness assessment and transitioned to operations the work for
   - *Caustic Tank Replacement (FIRP GPP)*
   - *TA-50 Retaining Wall (FIRP GPP)*

B. Formally accept the facility from the subcontractor (excluding punch list items) as defined by the contract administrator/procurement specialist for
   - *Waste Management Risk Mitigation*
   - *TA-50 Room 60 Project, Sequence 1 (FIRP GPP)*
   - *TA-55 Interim Radiography (GPP)*

C. Submit to LASO complete LANL-approved critical decision packages for
   - *Radioactive Liquid Waste Treatment Facility Replacement*
     - *CD-2A by October 30, 2006*
   - *TA-55 Reinvestment, Phase 1*
     - *CD-2A by October 30, 2006*
   - *NMSSUP II*
     - *CD-2 by September 16, 2007*

Measure 11.3.

A. Phase A/B/C RLUOB, SFE, NF: 100% major milestones achieved as scheduled.
B. Phase A: Quarterly reported cumulative CPI ≥ 0.95 for each Quarter in FY 2007.
C. All changes to preliminary design and performance baselines must be addressed through the CMRR change control process.
D. Preliminary Documented Safety Analysis (PDSA) for CMRR. Complete thorough review of submitted draft PDSAs by safety analysts with support of independent qualified subject matter experts.
   - Submit schedule of PDSA deliverables for NNSA concurrence up through end of FY08.
   - Ensure DOE/NNSA application of appropriate standards and guides and orders and

implementation into the PDSA development (DOE O 420.1; DOE-STD-3009, LASO Guide 01.01, etc.) Ensure methodologies as described are appropriately implemented..

- PDSA development is consistent with strategies and guidance established in DOE approved PHA and SER and Nuclear Safety Strategies.
- Provide documented and/or demonstrated evidence that support strong ownership and oversight by the project team safety staff including subject matter experts (SME) in their respective functional areas supporting the development of the PDSA. Project safety staff will ensure SME integration by demonstrating that SMEs (in their respective areas): are providing adequate review of deliverables supporting PDSA development; strongly supporting project staff as experts in their respective functional area; demonstrated strong interaction with NNSA, DNFSB, and LANL staff at meetings and working groups; demonstrate leadership in technical discussions with the NNSA and DNFSB as required; ensure that all technical comments identified during reviews are adequately documented, tracked, and resolved to closure adequately. Functional areas include Fire Protection Engineering; Criticality Safety Analysis; Vault design (thermal analysis); software quality assurance; with focus being on development of an adequate PDSA to comply with requirements.

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

Measure 11.1

A. LANL will submit to LASO a quarterly report on the status of project milestones for projects and associated milestones on the agreed-upon list.
B. LANL will submit to LASO a quarterly costing report for FIRP performance.
C. LANL will submit to LASO a quarterly CPI report for projects and associated milestones on the agreed-upon list and will also provide a year-end report.

Measure 11.2.

A. LANL will submit to LASO copies of completed readiness assessments and formal documentation accepting completed work (excluding punch list items) from subcontractors for
   - *Caustic Tank Replacement (FIRP GPP)*
   - *TA-50 Retaining Wall (FIRP GPP)*

B. LANL will submit to LASO documentation from the contract administrator/procurement specialist formally accepting the facility from the subcontractor (excluding punchlist items) if performed by a contractor and work orders set to complete for internal LANL activities (including KSL) for
   - *Waste Management Risk Mitigation*
   - *TA-50 Room 60 Project, Sequence 1 (FIRP GPP)*
   - *TA-55 Interim Radiography (GPP)*

C. LANL will provide to LASO complete LANL-approved critical decision packages for
   - *Radioactive Liquid Waste Treatment Facility Replacement*
   - *TA-55 Reinvestment, Phase 1*
   - *NMSSUP II*

Measure 11.3.

A. LANL will submit to LASO a quarterly report on the status of CMRR project milestones.
B. LANL will submit a quarterly CPI report or utilize the monthly reported cumulative at end of each quarter, to report cost performance on Phase A-RLUOB.
C. LANL will document all change control actions for work activities identified in the preliminary design baselines for Phase B-SFE, Phase C-NF, and for the performance baseline established for Phase A-RLUOB. NNSA members of the CCB are expected to be notified and provided copies of all change control actions and decisions.
D. LANL will provide evidence that the PDSA can be cross-walked to design products, through

reports or design review documentation. LANL will submit a certification of PDSA completeness to LASO in order for LASO to review and approve the PDSA.

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will verify agreement within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.
- Milestone lists for Measure 11.1, 11.2 and 11.3 shall be documented and approved by LANS and LASO. Changes to the milestone lists will be mutually agreed upon between LANS and LASO.
- If LASO schedules are delayed or if outside intervention delays goal achievement, LASO and LANS will renegotiate incentives and fee allocation.
- Project milestones included in 11.1 do not include milestones addressed under 11.2 and 11.3.

PEP Change Control:

PEP-CC-004:	January 18, 2007. This PEP Change Control corrects typographical errors found in the details of the PBI 11 Milestone List.
PEP CC-010	April 5, 2007. This Change Control changed the Fee Allocation to the measures in this PBI.
PEP CC-07-006	June 13, 2007. This Change Control modifies several PBI 11.1A Milestones and one 11.2C Milestone completion date.
PEP CC-07-015	July 16, 2007. This Change Control modifies several PBI 11.1A Milestones and changes the 11.2C NMSSUP II date to CD-2 by September 16, 2007.
PEP CC-07-018	July 13, 2007. This Change Control modified the Milestone table for 11.1A for TA16-340 Concrete Removal providing specific quarters for completion.
PEP CC-07-024B	July 16, 2007. This Change Control modifies the Milestone Table for 11.1A in the areas of BTF Cartridge Filter Replacement, TA-50 Room 60, TA-55 PF-41 D&D, NMSSUP Phase II, NSSB Phase II, and TRU Waste Facility Project.
PEP CC-07-028	August 14, 2007. This Change Control amends the requirements for the CMRR PDSA. The acquisition strategy for CMRR has been revised and a more traditional approach is being planned that does not require the completion of the PDSA until the end of final design.

Overall Management Effectiveness: PBI No. 12 – PBI No. 13

PBI No. 12
Implement Contractor Assurance System

FY 2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 12 Title: **Implement Contractor Assurance System**

Revision Number and Date: Revision No.: 0 Date: October 23, 2006
PEP CC-010 Date: April 12, 2007
PEP CC-07-017 Date July 26, 2007
PCM Ltr 07-190 Date September 18, 2007

Maximum Available Incentive Fee: **$3,358,982**

Duration: ☒ Annual ☐ Multi-year

Fee Payment Type: ☐ Completion ☒ Progress ☐ Provisional

LANS Owner: R. Knapp COR: M. Gallen

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:

- ☐ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☐ Objective #4: Operational Effectiveness and Efficiency
- ☒ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY 2007.

Measure 12.1. Implement an Issues Corrective Action Management System

Expectation Statement:
The final phase of the new LANS Issues Management Tracking System (LIMTS) requires the transition of issues from I-track, LANS transition related activities, and shadow systems to LIMTS. LANS implements LIMTS to enhance LANS management's ability to identify, set priorities, track, improve and close conditions or events that could affect the LAN's ability to safely and securely perform its missions.

Measure 12.2. Implement an Integrated Assessment Program

Expectation Statement:
The Integrated Assessments Program will:

- Utilize self assessments, and independent (internal or external) assessments with subject matter experts to assess the Laboratory's compliance with contract requirements, programs, facilities, functions and processes
- Self identify issues vs. DOE or other federal or state oversight or regulatory agency finding the issues
- Validate that the corrective actions are effective in resolving issues. (Deleted per PCM letter 07-190).

Measure 12.3. Implement a Performance Measurement Program

Expectation Statement:
The Performance Measurement Program will provide management with critical data to understand performance of the laboratory and to identify areas where process improvement and/or management attention is required for the achievement of mission success. A measurement system is in place with drill down metric capability at the Director, Associate Director and Division levels within LANS.

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Measure 12.1.
$1,184,490

Element A: $57,708
(Note that Measure 12.1.A is a THRESHOLD and no other fee will be earned in this PBI until this Success Indicator is achieved)

Element B: $237,217
If indicator B is 90% to 100% accomplished: 100%
If indicator B is 80 to 89% accomplished: 40%

Element C: $889,565
If indicator C is 90% to 100% accomplished: 100%
If indicator C is 80 to 89% accomplished: 40%

Measure 12.2.
$593,043

Element A: $593,043
LANS self identifies 95% of the Cat 1 and 2 issues identified: 100%
LANS self identifies 90% of the Cat 1 and 2 issues identified: 50%

Element B: $0
At least 95% of the Validations are found to be satisfactory: 100%
At least 90% of the Validations are found to be satisfactory: 50%

Measure 12.3.
$1,581,449

LANS identifies actions to address at least 95% of the negative trends.

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

LIMTS will be operational and accessible for both LANL and LASO to accept new issues on the effective date of the PBI.

GENERAL REQUIREMENTS:

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success*

[quality/progress]. Include baseline documentation/data against which completion documentation should be compared.)

Note: If no specific due date is referenced with any of the completion elements (below), the due date of that element is to be September 28, 2007.

Measure 12.1.
A) All I-Track and shadow issue tracking systems are closed out and all issues/items are screened and entered into LIMTS by the end of January 2007

B) Corrective actions for Cat 1 and 2 are completed on time or within dates approved through the formal change control process identified in LANL Issues Management ISD 322-4; all slippages are communicated formally to LASO.

C) Corrective actions for Cat 3 are completed on time or within dates approved through the formal change control process identified in the Issues Management System Supporting Process Document and Cat 4 items are tracked, trended, reviewed, and acted on, on a quarterly basis by management and briefed to LASO management.

Cat 1: An issue that is determined to be significant based on adverse impact on personnel safety, regulatory/enforcement actions, or configuration control. A stop work condition determined to be of sufficient importance to warrant an in-depth analysis in order to develop corrective action to prevent recurrence.
Cat 2: An issue involving a failure, deficiency, defective equipment, or non-conformance that notably diminishes the original capability and/or intent of program/procedure. Includes issues that do not fit in any other category.
Cat 3: An event or condition that requires an action to resolve (e.g., editorial procedure revisions, equipment repair, sign posting, etc.) but does not require a causal analysis, extent of condition review or additional corrective action to be developed.
Cat 4: An issue which individually is of minor consequence. Monitoring and trending of these conditions is necessary to ensure additional similar events are detected and addressed before they escalate into more significant issues.

Measure 12.2.
A. FY07 Cat 1 and Cat 2 issues are identified by the LANS Parent Oversight, independent assessment, self assessment, etc., vs. DOE or other federal or state oversight or regulatory agencies. The LANL Issues Management System will be the source of data.
B. (Deleted per PCM letter 07-190.) Upon completion of corrective actions from FY07 issues (Cat 1 and identified Cat 2 issues), the corrective action will be validated to ensure corrective actions were effective in resolving the issues.

Measure 12.3.
Analysis of the Director level metrics is conducted on monthly basis, and actions will be assigned, documented and taken to address negative trends/performance, at the rollup level as well as at the sub-element levels.

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

- Data from LIMTS
- Parent Oversight and independent assessment reports
- PB View data and analyses transparent and available to DOE with the LANS monthly update
- Integrated Assessment Schedule and changes

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be*

in effect. If remedy is not possible, the next step is renegotiation.)

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will verify agreement within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.
- A baseline of the shadow systems is completed and in place by the effective date of the PBI.
- Parent Oversight assessments may be rescheduled within the reporting period (FY 2007). Assessments may only be canceled with LASO approval.
- 12.1A: Systems which track classified and sensitive issues (as specified in ISD 322-4), will not be considered Shadow Systems or entered into LIMTS.
- 12.1A: ESHQ will continue to use the Barrier Removal Program as an entry portal for employees to receive quick feedback on issues. Those issues not resolved within 10 working days will be entered into LIMTS for tracking and resolution.
- 12.1. B: Monthly data will calculate the % of Cat 1&2 actions completed within 30 days of the scheduled due date. The goal at the end of the FY is for 90% of the actions to be completed as stated above.
- 12.1. C: For Cat 3 actions the calculation method described for 12.1.B.will be used.
- 12.2. A: LANL will calculate the cumulative % of CAT 1&2 (including any CAT 5 issues identify as duplicates to a CAT 1 or 2 issues) issues self-identified from assessments each month to show year to date performance. The objective of this measure is to demonstrate that near term improvement is being made in the execution and effectiveness of LANLs Assessment Program. By the end of the 3rd quarter of FY 07 the goal is for LANL to identify 95% of the CAT 1 & 2 issues and sustain the 95% through the last quarter.
- 12.2B: If corrective actions are not scheduled to be completed in time for validation activities to take place within the rating period, payment for this measure will be distributed proportionally to the other measures in PBI 12 or to PBI 12.2 at the discretion of LASO. The method of calculation is cumulative % of successful issue effectiveness validations.
- 12.3: Starting in July an analysis will be made to assess if credible corrective actions have been documented in PbViews that address the negative trends/performance. A negative trend/performance is defined as a PbViews measure/metric that is red. The final three months of FY07 will be looking for successfully addressing 95% of the negative trends/performance.

PEP Change Control:

PEP CC-010	April 5, 2007. This Change Control changed the Fee Allocation to the measures in this PBI.
PEP CC-07-017	July 26, 2007. This Change Control modified the PBI to clarify the intent of the success measures, further define how the success measure is determined, and enhance the expectation of the measure.
PCM Ltr-07-190	September 18, 2007. This Change Letter implemented the PBI assumption that if no issues were scheduled for completion in time for validation activities to take place within the rating period payment would be re-distributed from 12.2B to the other measures in PBI 12. This essentially re-distributed $502,732.

PBI No. 13
Implement Contractor Assurance System

FY 2007 PERFORMANCE BASED INCENTIVE

SECTION 1
GENERAL INFORMATION

PBI No. 13 Title: **Management Integration/Effectiveness**

Revision Number and Date: Revision No.: 0 Date: October 23, 2006
PEP CC-010 Date: April 5, 2007
PEP CC-014 Date: July 6, 2007
PEP CC-07-022 Date: August 29, 2007
PEP CC-07-027 Date: July 26,2007
PEP CC-07-029 Date: Sept 25, 2007

Maximum Available Incentive Fee: **$10,130,633**

Duration: ☒ Annual ☐ Multi-year

Fee Payment Type: ☒ Completion ☐ Progress ☐ Provisional

LANS Owner: J. Van Prooyen
COR: J. Chavez-Wilcynski

SECTION 2
PERFORMANCE OUTCOMES

Check Appropriate Box:

- ☐ Objective #1: Mission Success
- ☐ Objective #2: Science and Technology Excellence
- ☐ Objective #3: Multi-Site Integration
- ☐ Objective #4: Operational Effectiveness and Efficiency
- ☒ Objective #5: Overall Management Effectiveness

SECTION 3
PERFORMANCE MEASURES AND EXPECTATION (S)

List associated performance measures and associated performance expectations for FY 2007.

Measure 13.1. Ensure highly effective leadership, integration, and excellence in management of programs

Expectation Statement:
The NNSA will subjectively evaluate the contractor's leadership in integrating programs and activities across LANL and within the NNSA complex, achieving exemplary performance in the accomplishment of all assigned work. Lab leadership will be measured on its ability to distinguish the Laboratory as a premier research and development institution.

Measure 13.2. Ensure high quality performance in areas subject to NNSA's systems based oversight program.

Expectation Statement:
NNSA will subjectively evaluate the contractor's management performance in areas where NNSA uses systems based oversight. These areas include budget and financial management, real and personal property management, audits and assessments, human resources management, technology transfer, education programs, corporate and community commitments, and work for others management. LANS is to ensure programs are sound and continuous improvements are made to maintain safety and health compliance and implement an Integrated Safety Management System, institutional quality assurance, and non nuclear health and safety programs, including worker safety

and health (10 CFR 851). Ability to provide contract deliverables identified in the Contract Documents Requirements Listing will also be evaluated under this measure.

Measure 13.3. Business Systems: Improve Procurement processes and programs

Expectation Statement:
LANL will have a procurement system that enables more efficient execution of the laboratory's needs through increased automation and better processes, and enables a more robust and effective socioeconomic program at the same time.

Measure 13.4. Business Systems: Complete Enterprise Project (EP)

Expectation Statement:
The Enterprise Project (as defined in the Project Management Plan dated July 2006) will be completed during FY 2007. This will be indicated by discrete and verifiable events indicated in the measure below.

Measure 13.5. Business Systems: Provide systemic, ongoing cost savings through efficiencies and continuous improvement programs without negative impact to mission.

Expectation Statement:
LANL will provide long term measurable systemic improvements to processes and systems that will result in no budget increases needed to absorb the impact of gross receipts taxes and fee, and that will result in no negative impact to program accomplishments.

Measure 13.6 – Create and operate a Safety Basis Academy to facilitate uniformity in technical qualifications of safety basis professionals across the weapons complex

Expectation Statement:
A Safety Basis Academy will be created and operated, with approved courses developed and delivered to safety basis professionals from LANL and other NNSA sites during FY 2007

SECTION 4
FEE ALLOCATION AND SCHEDULE

Identify fee payment schedule for the PBI and the type of payments to be made (e.g., provisional, progress, final) and the basis of the payment (e.g., per canister completed, per assembly, earned value, etc.)

Measure 13.1: Evaluated after 9/30/07.
$7,837,939

Measure 13.2: Evaluated after 9/30/07.
$1,124,893

Measure 13.3: Evaluated after 9/30/07.
$281,529

The fee will be split between the five elements as follows:
13.3A $93,843
13.3B $93,843
13.3C $0 (deleted by Change Control)
13.3D $0 (deleted by Change Control)
13.3E $93,843

Measure 13.4: Upon determination CPIC closure requirements met.
$115,416

Measure 13.5: Evaluated after 9/30/07.
$469,217

Element A= Reduction of indirects by 3% earns $70,382 (15% of this fee); if reduction of indirects increases to 5%, the fee earned increases to $304,991 (65% of this measure's fee).
Element B= Savings of each $500,000 earns $32,845, to a maximum of $164,226 (35%)

Measure 13.6:
$301,639
A. and B. paid per prototype class delivered at $39,980 per course, to a maximum of $279,860.
C. paid at $21,779

SECTION 5
PERFORMANCE REQUIREMENTS

PREVIOUS YEAR'S GATEWAY: *(Describe previous year's gateway (if applicable) that must be completed before fee can be paid under this performance measure. The requirements listed below are the only gateway requirements for this Performance Measure.)*

Contractor Data Requirements Listing CDRL approved by October 30, 2006.

GENERAL REQUIREMENTS:

DEFINE COMPLETION: *(Specify performance elements and describe indicators of success [quality/ progress]. Include baseline documentation/data against which completion documentation should be compared.)*

Measure 13.1.
Ensure highly effective leadership, integration, and excellence in management of programs.
D. LANS will develop criteria that it will use to assess its performance in the areas of leadership, integration and management of programs.
E. LANS will provide a self-assessment against these criteria. This assessment will include feedback on performance provided by stakeholders.
F. NNSA will perform a subjective evaluation of LANS performance in these areas. This evaluation will consider the LANS self-assessment and factors such as testimony, public statements, and participation in major scientific society meetings, as well as what is said by outside review panels and senior leaders.

Measure 13.2.
Ensure high quality performance in areas subject to NNSA's systems based oversight program.
D. LANS will develop criteria that it will use to assess its performance in areas subject to NNSA's system based oversight program. These criteria will include:
   - Assessment results of programs based on parent oversight, contractor assurance outputs, and self assessments programs (business, non nuclear safety and health, etc.) show positive improvements, with no major failures.
   - Community Commitment, quality of financial statements, management of Work for Others projects.
   - CDRL deliverables quality and timeliness
E. LANS will provide a self-assessment against these criteria. This assessment will include feedback on performance provided by stakeholders.
F. NNSA will perform a subjective evaluation of LANS performance in these areas. This evaluation will consider the LANS self-assessment

Measure 13.3.

A. Convert all nine existing Local Vendor Agreement (LVA) contracts to the new BPA module and add four new agreements by March 31, 2007.
B. Convert four legacy Just-in-Time (JIT) contracts to the new system by May 31, 2007.
C. Deleted by Change Control 07-022.
D. Deleted by Change Control 07-022.
E. Meet all small business goals and exceed two or more socio economic program goals by 2%. (Current goals are: small business 50%, SDB 11%, WOB 11%, HUBZONE 3%, Veteran Owned SB 3%, and service disabled veteran owned SB 3%)

Measure 13.4.
C. LANL financial books opened on Oracle Financials in October 2006, indicating successful deployment of Release 4, which is the last phase of the EP project.
D. The Enterprise project will be formally closed by December 22, 2006, using LANL Project Closure requirements and submitted to LASO in concurrence with CPIC closure requirements.

Measure 13.5.
A. Reduce indirect costs by 5% as compared to FY 2006 indirect costs, excluding New Mexico's Gross Receipts tax, fee, TCP 2 Contributions, and Unemployment Taxes.
B. Using Six Sigma and other continuous improvement processes provide and document an additional $2.5 M aggregate unburdened cost savings in 5 areas with costs of $10 million or more per area. (e.g., utilities, site-specific IT, travel, work processes, etc.) The savings/cost avoidance may be realized during the fiscal year, or with conclusive documentation, projected to be saved over a 12-month period subsequent to improvement implementation. These savings may be reinvested but must be fully documented and must be accomplished in accordance with Clause H.11.

Measure 13.6
C. Establish a comprehensive "Safety Basis Academy Plan." Submit plan to NNSA for approval by 12/24/06, or within 60 days of receipt of funding. Submittal of the plan is the gateway to earning fee under B.
D. Develop and deliver prototype of seven classes by September 30, 2007.
E. Provide training in ALOHA and EPI code courses adequate for Safety Analyst certification

COMPLETE DOCUMENTS LIST: *(List document(s) that should be submitted, data that should be available, actions to be taken by evaluator to determine actual performance to the requirements stated above.)*

1. LANS Parent Oversight Plan
2. LANS Community Involvement Plan
3. Contractor Assurance Plan and Metrics

ASSUMPTIONS/TECHNICAL BOUNDARY CONDITIONS AND REMEDY STATED: *(List foreseeable impacts to performance. If the assumption or condition proves false, the remedy shall be in effect. If remedy is not possible, the next step is renegotiation.)*

- In the event of continuing resolution, guidance will be provided to the contractor.
- The contractor will provide the impact resulting from an extended continuing resolution on the PBI within ten working days of receipt of guidance.
- The NNSA and LANS, LLC will verify agreement within 30 days of receipt of final appropriations that the funding is sufficient to accomplish these measures.

PEP Change Control:

PEP CC-010 April 5, 2007. Fee is re-allocated to the measures in this Change Control. Fee was increased on PBI 13.1 to be more than 15% of the total Performance Incentive Fee. Fee allocated to PBI 13.2 was not changed. Fee allocated to PBIs 13.3C and 13.4 was not changed; completion evidence for these PBIs had been submitted before this Change Control went into effect.

PEP CC-014	July 6, 2007. This Change Control clarifies this PBI by basing the savings documented on unburdened moneys, but adding improved work processes as an example of an area that will be considered for evaluation, and by allowing for projection of cost savings over a 12 month period.
PEP CC-07-022	August 29, 2007. This Change Control deleted measures 13.3C and 13.3D and reallocated the fee from these measures to PBI 13.2. These measures have proven to be impossible to document to the satisfaction of either LANL or LASO.
PEP CC-07-027	July 26, 2007. This Change Control changes the baseline period for cost reduction calculations from FY 2005 budgeted costs to FY 2006 actual costs.
PEP CC-07-029	September 25, 2007 This Change Control adds $136,896 to PBI 13.1. This fee was reduced for 4.2.3 and 4.2.4 because of changes to the DSA schedule approved in Change Control 07-023B.

~ End of Document ~