



**Fiscal Year 2008 Self-Evaluation  
Contractor Performance Evaluation and  
Measurement Plan**

**SLAC National Accelerator Laboratory  
Volume 2, Management and Operations, Goals 4 – 8**

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## Introduction

Leland Stanford Junior University (Stanford University [SU]) is under contract with the Department of Energy (DOE) to manage the SLAC National Accelerator Laboratory (SLAC). Clause H.015(a) of Contract Number DE-AC02-76-SF00515 states that “performance-based management shall be the key enabling mechanism for establishing the DOE Contractor expectations on oversight and accountability.” Moreover, the specific mechanism for evaluating the performance-based approach (mission accomplishment, stewardship and operational excellence) from October 1, 2007 to September 30, 2008 (FY08) is the FY08 Contractor Performance Evaluation and Measurement Plan (PEMP), which is organized by performance goals (goals), performance objectives (objectives), performance measures (measures) and performance targets (targets). The performance-based approach focuses on SLAC’s performance against these goals. The DOE Office of Science (SC) mandates that each SC laboratory establish the same eight goals in the PEMP. The eight goals are:

1. Provide for Efficient and Effective Mission Accomplishment
2. Provide for Efficient and Effective Design, Fabrication, Construction and Operations of Research Facilities
3. Provide Effective and Efficient Science and Technology Program Management
4. Provide Sound and Complete Leadership and Stewardship of the Laboratory
5. Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health and Environmental Protection
6. Deliver Efficient, Effective and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)
7. Sustain Excellence in Operating, Maintaining and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs
8. Sustain and Enhance the Effectiveness of Integrated Safeguard and Security Management (ISSM) and Emergency Management Systems.

SC also requires each SC laboratory to use the same objectives to measure progress against the goals. For the Management and Operations (M&O) goals, DOE, SU and SLAC functional leaders established measures and targets to measure successful fulfillment of the objectives.

This document reports SLAC’s assessment in achieving the five M&O goals (goals 4 through 8) and objectives by describing performance against the measures and the established targets. The report also incorporates performance outside of the specific measures and targets, including identifying key achievements and opportunities for improvement.

## Executive Summary

SLAC is undergoing a fundamental transition from a single program style laboratory focused on particle physics to a multi-program laboratory with the on site user facilities running for photon science. The science vision is evolving at the same time that the transition to a multi program laboratory is underway. The laboratory management is acutely aware of the shortcomings of many of its current systems, with the most notable:

- Absence of an integrated performance management approach
- Absence of centralized requirements management
- Lack of a clear customer service approach in the mission support services
- Inadequate work planning and control in many areas
- Inconsistent safety accountability and performance

The laboratory management is also clearly focused on its goals:

- An effective strategic partnership with DOE and SU with core values and scientific mission well aligned

- Effective SLAC self assessment and Stanford corporate assurance and oversight
- Culture of line management responsibility and accountability
- Outstanding safety performance
- Mission support functions that optimally support the mission of the laboratory

Achieving these goals is requiring the rebuilding of much of the mission support services of the laboratory from the ground up. FY08 was the first full year of this process. Progress has been slow but steady in some areas. The most notable improvements have been in the establishing of a long range vision for the laboratory and a management structure to support it and in the area of improving safety performance. The focus for improvements will broaden in FY09.

For each of the five M&O goals (4 through 8), SLAC self-evaluated performance was in the range from ‘B-’ to ‘B+’ range using the DOE letter grade/numeric score scales established in the PEMP. The laboratory’s overall score is 2.9 (B).

### Management and Operations Score Calculation

Element		Letter Grade	Numerical Score	Objective Weight	Weighted Score	Total Score
4	Provide Sound and Competent Leadership and Stewardship of the Laboratory	B+	3.2	25%	0.80	
5	Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health and Environmental Protection	B	3.0	20%	0.60	
6	Deliver Efficient, Effective and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)	B-	2.5	25%	0.63	
7	Sustain Excellence in Operating, Maintaining and Renewing the Facility and Infrastructure Portfolio to meet Laboratory Needs	B	3.0	15%	0.45	
8	Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems	B	2.9	15%	0.44	
<b>Total Management and Operations Score</b>						<b>2.9</b>

## Goal 4 Provide Sound and Competent Leadership and Stewardship of the Laboratory

*The contractor’s leadership provides effective and efficient direction in strategic planning to meet the mission and vision of the overall laboratory; is accountable and responsive to specific issues and needs when required; and corporate office leadership provides appropriate levels of resources and support for the overall success of the laboratory.*

*The weight of this goal is 25%.*

### Executive Summary

Goal 4 has three objectives, 13 measures and 14 targets. The following is a summary of accomplishments toward this goal.

- New laboratory director quickly established vision, mission and core values
- Established a science strategic plan for the future
- Reacted quickly and effectively to an abrupt reduction in funding
- Managed layoff of nearly 200 staff in an orderly manner while minimizing effect on core capabilities
- Shortened B Factory run, but continued to sustain excellent science to the end
- Made key hires in LCLS, ES&H and Operations leadership positions
- Initiated the SLAC Improvement Initiative (SII) built on some of the recommendations of McCallum-Turner (McT) study

As such, an overall goal score of 3.2 (B+) was achieved.

### Summary Evaluation

Element	Letter Grade	Numerical Score	Objective Weight	Weighted Score	Total Score	
4	Provide Sound and Competent Leadership and Stewardship of the Laboratory					
4.1	B+	3.2	30%	1.0		
4.2	B+	3.2	40%	1.2		
4.3	B+	3.3	30%	1.0		
<b>Performance Goal 4 Total</b>					<b>3.2</b>	

### Objective 4.1

***Provide a Distinctive Vision for the Laboratory and an Effective Plan for Accomplishment of the Vision to Include Strong Partnerships Required to Carry Out those Plans***

*In measuring the performance of this objective the DOE evaluator(s) shall consider the following:*

- *Quality of the vision developed for the laboratory and effectiveness in identifying its distinctive characteristics;*
- *Quality of strategic/work plan for achieving the approved laboratory vision;*
- *Quality of required laboratory business plan;*
- *Ability to establish and maintain long-term partnerships/relationships that advance/expand ongoing laboratory missions and/or provide new opportunities/capabilities; and*
- *Effectiveness in developing and implementing commercial research and development opportunities that leverage accomplishment of DOE goals and projects with other federal agencies that advances the*

*utilization of laboratory technologies and capabilities.*

*The weight of this objective is 30%.*

#### PERFORMANCE SUMMARY

A long range scientific vision for the laboratory was developed and delivered to the DOE as part of the annual business planning process. This business plan followed from the vision and mission that were articulated for the laboratory after the new laboratory director came on board. This was followed by the development of the SLAC agenda. Strategies for the tactical actions (0–2 years), strategic objectives (2–5 years) and critical outcomes (5–10 years) were detailed for both mission and mission support activities at the laboratory. By year end, a formal business planning process for FY09 was started in the Operations directorate. This process is expected to be extended to other directorates in the future. Input to the planning process was a science strategy plan presented to DOE in May 2008. This strategic planning was done against a backdrop of the largest layoff in the history of the laboratory. The layoff was executed to strategically position the laboratory for the future.

#### NOTEWORTHY PRACTICES

- Business plan process organized and accomplished on schedule
- The laboratory plan was well received by the Scientific Policy Committee (SPC) and SC
- Worked with Oak Ridge National Laboratory (ORNL) and Lawrence Berkeley National Laboratory (LBNL) laboratory directors to meet with the Speaker of the House to advocate broadly for science
- Managing of early *BABAR* termination
- Increased engagement of LCLS community
- Effectively communicated through intense period of change at the laboratory in early 2008— leadership changes and major layoffs intensified the importance of internal communication efforts (prompting development of a feedback button in *SLAC Today* Director’s Columns, human resources [HR] web page for layoffs, updates on budget, management, etc.)

#### OPPORTUNITIES FOR IMPROVEMENT

- Need to effectively articulate science expectations for early LCLS operations
- Concern with alignment with Particle Physics and Astrophysics directorate and the Office of High Energy Physics (OHEP)
- Business plans extended to other directorates and divisions for FY09 and FY10
- Realign SII into the line management improvement plans
- Late engaging LCLS user community, but aggressive actions in the latter part of the year helped to mitigate the issue
- Cancellation of public tours is a concern and need to restart with a ‘bang’
- Expand recruitment efforts for underrepresented students to participate in SLAC Undergraduate Laboratory Intern (SULI) program
- Need more aggressive marketing of laboratory locally

**Performance Measure 4.1.1** ► The laboratory business plan or/and other SC defined institutional planning documents provide (s) all required data in a clear and concise manner and is completed within established guidelines and schedules. The laboratory mission included in the plan provides a clear understanding of the distinctive characteristics of the laboratory.

**Target 4.1.1.1:** B+ = The business plan or/and other SC defined institutional planning documents will be quality documents(s) consistent with DOE schedule and guidance. The laboratory will demonstrate that it is managing to the strategic agenda of the laboratory through management actions and plans (e.g., laboratory business plan or/and other SC defined institutional planning documents).

**Grade: B+ (3.4)**

The SLAC laboratory plan for FY09 was submitted on April 21, 2008 and was presented to Ray Orbach on May 12, 2008.

- Articulated vision, mission and core values for the laboratory
- Alignment of business plan with laboratory vision
- Clear identification of business lines with laboratory program activities and mission development
- Integrated facilities and infrastructure budget crosscut

**Performance Measure 4.1.2** ▶ Strategic partnerships are developed that demonstrate the laboratory's leadership, leverage DOE resources and support collaborative programs with other DOE laboratories, academic and industry groups to advance the SC business plan.

**Target 4.1.2.1:** B+ = Demonstrate growth and progress in the development of quality research partnerships and collaborations, particularly in support of Photon Sciences and Particle Physics and Astrophysics.

**Grade: B+ (3.1)**

- LCLS user policy and planned user workshops to engage community
- New initiatives in private partnerships with Google (Large Synoptic Survey Telescope [LSST]) and Moore (Detectors)
- Worked to develop a national light source strategy jointly with LBNL
- Increased participation in ATLAS at the Large Hadron Collider (LHC)
- Development of strategic partnerships to deliver instruments for LCLS hutch 1 and 6 for early LCLS science
- Memorandum of Understandings (MOU's) with DESY and UK for LCLS partnerships

**Performance Measure 4.1.3** ▶ Laboratory leadership strives to improve diversity of the workforce and the quality of the working environment and requires workforce diversity planning by all directorates.

**Target 4.1.3.1:** B+ = Demonstrate work environment improvement planning, by conducting workforce diversity planning in each directorates; and by developing and implementing a quality workforce climate survey, completing an analysis and preparing recommendations for improvement to the work environment based on the survey results.

**Grade: B (2.8)**

- Workforce diversity planning has been completed within laboratory directorates and will be formally reflected in the FY09 Affirmative Action Plan (AAP) and submitted to DOE. A diversity integration initiative is underway to develop more innovative ways to create a climate for diversity and inclusion. Included in this initiative is the assignment of responsibilities for diversity to the line departments and each directorate.
- During FY08, laboratory leadership was primarily focused on the reorganization efforts and dealing with the unexpected budgetary issues. Substantial layoffs (voluntary and involuntary) and continued uncertainty associated with the budget has made work force planning imprecise.
- The survey was postponed due to post-layoff sensitivities. More clarity is needed on the SLAC budget situation and its impact on the future workforce before we attempt a workforce climate survey. As a general rule, climate surveys should be done well after a work place trauma (e.g., after an involuntary layoff) and stability is restored to get a true reflection of sentiments.

**Performance Measure 4.1.4** ▶ Effectiveness in maintaining appropriate relations with the community to include providing for science education opportunities, outreach and open and honest communications.

**Target 4.1.4.1:** B+ = Deliver on science education outreach activities that utilize the resources of SLAC to enhance and improve science teaching and learning in local school districts, as well as continued efforts to leverage and attract resources for science lessons in local schools.

**Grade: B+ (3.4)**

- Started revamp of tour program and visitor center

- Developed a partnership with universities and laboratories to place undergraduate students interested in a teaching career in research internships
- Increased number of underrepresented undergraduates participating in SULI program
- New program for future teachers funded by Bechtel Foundation
- New funding from NSF to evaluate impact of research internship on future teachers
- New funding from NSF to bring a faculty/undergraduate team to work on LSST in summer 2009

**Target 4.1.4.2:** B+ = SU will maintain open, honest and effective communication with the laboratory's many communities about the mission of the SC, the laboratory's scientific and technological achievements and the priority initiatives as articulated in the business plan.

**Grade: B+ (3.4)**

- Communications Office website was redesigned and launched in January, 2008.
- *symmetry breaking* launched in March with a redesign of the *symmetry* magazine website. Since its launch, the site has continued to attract a growing audience—it currently sees over 200,000 unique visitors a month.
- Photon science communication efforts intensified over the past year, particularly with regard to LCLS. Developed content and design for new LCLS website, which launched in April. Content was also developed for the new PULSE and SIMES websites.
- Successfully built a strong communications collaboration with NASA and DOE for the GLAST/Fermi Gamma-ray Space Telescope, which launched in June. This will be the foundation for future joint projects such as Joint Dark Energy Mission (JDEM).
- New communications director hired in September, 2008.
- New laboratory logo designed and submitted to DOE.
- Logo and branding rolled out in October, 2009.
- The Communications Office hosted visits from: Ray Orbach, Under Secretary for Science; Her Royal Highness Princess Sumaya bint El Hassan of Jordan; Yves Caristan, a Director at CEA Saclay; representatives from the San Francisco French and British Consulates; the Chinese Academy of Sciences; Pakistan's National University of Sciences and Technology; and more.
- SLAC-related clues were featured in a dedicated "Accelerator" category on the game show JEOPARDY.
- Photographic spreads highlighting the laboratory were included in Wired, Seed and 7x7 magazines.
- News about SLAC was featured on PBS, ABC, National Geographic, Bloomberg radio, Nature, Science, New Scientist, Discover, San Jose Mercury News, Palo Alto Daily, Stanford Daily, Stanford Report and more.

**Performance Measure 4.1.5** ▶ Develop a baseline for understanding and trending the cost of doing business.

**Target 4.1.5.1:** B+ = Identify and bin major laboratory costs identifying direct and indirect labor fulltime equivalents (FTEs) and costs as well as various operating costs, such as utilities, by December 31, 2007. The cost structure and associated baseline cost of doing business is sufficiently detailed (i.e., including all funding and costs, both direct and indirect with associated FTEs) so the laboratory and DOE/SSO have a common understanding of how the money is spent and the various cost drivers that effect the laboratory's cost of doing business.

**Grade: B+ (3.2)**

- Indirect category definitions as well as FY07 costs and FTE were identified and sent to the DOE/SSO as scheduled
- In January 2008, the formats of both major laboratory costs and various operating costs were agreed upon with the DOE/SSO site manager and staff

- New staffing category details by directorate and major non-labor expenditures to highlight the laboratory's main cost drivers
- New format of total operating costs by major categories

## Objective 4.2

### ***Provide for Responsive and Accountable Leadership throughout the Organization***

*In measuring the performance of this objective the DOE evaluator(s) shall consider the following:*

- *Leadership to include corporate office leadership's ability to instill responsibility and accountability down and through the entire organization; and*
- *The effectiveness and efficiency of leadership, to include corporate office leadership, in identifying and/or responding to laboratory issues or opportunities for continuous improvement.*
- *Corporate leadership maintains a sense of the laboratory (knowledge of significant progress and issues) and acts to ensure the resolution of significant issues.*
- *The role of the University Board of Trustees in managing the SLAC contract will be a factor in assessing the level of corporate leadership. Effective involvement is important.*

*The weight of this objective is 40%.*

### PERFORMANCE SUMMARY

FY08 began with a new acting laboratory director who became director in December 2007. In late FY07, a management review aimed at evaluating the current management and operational functionality and comparing it to best practices at other multi-program laboratories provided a report outlining an improvement plan. Key elements of the recommendations are:

- To establish a Stanford oversight and assurance plan
- To establish a laboratory management framework of leadership, responsiveness and accountability
- Implement a performance management methodology

The SII was started in response to the management report and focused on key improvements in areas of concern as described in target 4.2.5.1. At the end of FY08, these projects are being merged into the line managements responsible for them, where the improvements will continue.

The oversight function of SU was significantly strengthened and improved to fully support the laboratory and provide the appropriate level of assurance to DOE. The SLAC Board of Overseers (SLACOB) was set up with subcommittees to cover science as well as operations including ES&H, finance and HR.

### NOTEWORTHY PRACTICES

- New leadership in the corporate office (Vice Provost for SLAC) and at the laboratory (new director and chief operating officer [COO]) have led to dramatically increased corporate responsibility and accountability. A culture of transparency between the laboratory, SU and the DOE/SSO has greatly improved the performance of the laboratory
- To assist SU and the laboratory director to track significant risks to contract performance, the Office of Assurance (OA) continued to maintain the PEMP risk registry, which was developed in FY07
- SLAC implemented its comprehensive assessment program, including external independent assessments, independent internal assessments (IIAs), OA verification and validation activities, ES&H program assessments and line self-assessments
- The OA continued to validate 100% of the all corrective actions that were completed in FY08 and assesses the effectiveness of these actions as required
- First meetings with core SLACOB were very productive and the transition from previous oversight mechanisms (ESHAC, SPC) was completed

## OPPORTUNITIES FOR IMPROVEMENT

- In FY09, SII activities will be managed within the Operations directorate, either by existing departments or by departments/groups to be created to house the Integrated Performance Management (IPM) activities. IPM will lead business planning, project management, requirement management and assurance.
- The SII is based on a paradigm shift that supports planning and assessment efforts in the line and greater emphasis on customer service. Success is predicated on:
  - Appropriate staffing and leadership in the line
  - Adequate financial resources
  - Ability to partner with SU
  - Sustainability of processes and customer involvement
  - Robust and reliable IT infrastructure (local or campus) and support
  - Adequate training for users on policies and procedures

**Performance Measure 4.2.1** ▶ Level of corporate and institutional leadership oversight and response to laboratory Issues and opportunities is commensurate with the level of significance and severity.

**Target 4.2.1.1:** B+ = SU's SLACOB operates effectively with a regular schedule of meetings which allow for review of significant, self-identified issues or potential concerns that the SLACOB and the laboratory management address collaboratively to provide assurance that the performance of work is accomplished in a manner that meets the terms and conditions of the contract. SU provides a timely and comprehensive annual assurance letter attesting to the adequacy and functionality of management controls for SLAC activities.

**Grade: B+ (3.4)**

- Hired several key leadership positions for the laboratory, facilitated by corporate support
- SLACOB is constituted

**Performance Measure 4.2.2** ▶ Leadership maintains an effective assurance function with cognizance of significant issues/concerns and CAPs and insures their timely closure.

**Target 4.2.2.1:** B+ = SLAC's OA is operating effectively. Areas for continuous improvement are identified. A consolidated corrective action tracking system is implemented.

**Grade: B+ (3.3)**

The OA was established in May 2006. With the addition of a new staff member in FY07, OA continued to be comprised of 2.2 full time professionals including the director. Effective implementation of this target occurred in FY08, based on current resources, with ongoing activities as appropriate in the following five program areas.

**Issues Management Program (IMP)**

During FY08, the OA continued to oversee the IMP and Corrective Action Tracking System (CATS). Nine IMP committee meetings were convened and the minutes posted on the OA website<sup>1</sup>. SLAC continued to make progress to expand CATS to include other areas (outside of ES&H), including financial management systems and internal audit (see noteworthy practices for objective 6.1 and target 6.1.2.1) and DOE/SSO was provided full access to CATS data. Tracking and trending analyses to ensure effective communication is not being implemented as necessary and as identified in the *DOE ISMS Effectiveness Review of SLAC and DOE/SSO* report dated August 2008 (completing Office of Independent Oversight's [OIO] corrective action D6-3).

**Performance Evaluation and Measurement Plan (PEMP)**

During FY08, OA coordinated the FY08 self-evaluation and continued to maintain the PEMP risk registry to assist SU and the laboratory director in tracking significant risks to contract performance.

<sup>1</sup> <https://www-internal.slac.stanford.edu/oa/impc/>

## Assurance

In FY08, the safeguards and security assurance system was put into place. Development of the emergency management assurance system was initiated to comply with DOE O226.1 and is expected to be completed in FY09.

## Independent Internal Assessments (IIAs)/OA Verification and Validation Activities

In FY08, SLAC continued to implement its comprehensive internal self-assessment program by completing the following assessments:

- Hazardous Waste Collection Areas, February–November, 2007
- Lockout/Tagout Program, March 30–April 1, 2008
- Environmental Management System (EMS), May 12–16, 2008
- Building Manager Program, July/August 2008
- Workspace Compliance Assessments, FY08

All findings and concerns as identified in the reports were evaluated by the responsible SLAC organization and have been or are being tracked to completion in CATS.

In addition, OA continued to provide independent verification and validation of the efficacy of SLAC's self-assessment activities, closeouts of corrective actions and effectiveness in incident/injury analysis, as necessary (see Section 5.1.6/2).

Coordinated visits to 69 buildings for the DOE/SSO facility walkthrough program in 25 events. Six events produced 11 findings that were entered into CATS, with the four remaining open items on track to be completed as scheduled. There are 51 buildings that remain on the original list of 154 buildings to visit.

Collected data for an extent of condition analysis of facility emergency plan currency and completeness. Report to be written in FY09.

## Quality

In FY08, OA completely overhauled the suspect/counterfeit items (S/CI) program as documented on the OA website<sup>2</sup> and initiated activities to overhaul the document control process in FY09.

**Performance Measure 4.2.3** ▶ Level of corporate leadership involvement in assessing best practices management approaches and systems utilized at the laboratory to ensure they are comprehensive and sufficient to address risks attendant to laboratory operations and strategic mission accomplishment.

**Target 4.2.3.1:** B+ = A lessons learned and best practices database for M&O functions is developed and implemented. The system will serve as a repository of lessons learned.

### Grade: B+ (3.4)

- *A Lessons Learned and Business Operating Experience Policy*<sup>3</sup> has been developed to meet DOE O220.1 requirements and resides in the SLAC Policy Repository.<sup>4</sup>
- A list of recipients of lessons learned consists of directorate ES&H coordinators and other interested parties, as defined by the lessons learned policy.
- Recipient responses to lessons learned are stored in the lessons learned SharePoint site along with each distributed lesson.
- The business operating experience will be deployed in the future.

<sup>2</sup> <http://www-group.slac.stanford.edu/OA/suspectcounterfeit.htm>

<sup>3</sup> <http://www2.slac.stanford.edu/policy/docs/Lessons%20Learned%20and%20Operating%20Experience%20Policy%20GEN-0007.PDF>

<sup>4</sup> <http://www2.slac.stanford.edu/policy/>

- Business best practices are being reviewed with SU to seek opportunities for improving business services through shared resources.

**Performance Measure 4.2.4** ▶ Leadership is committed to a pervasive safety culture and strives for continuous safety performance improvement.

**Target 4.2.4.1:** B+ = During FY08, laboratory management will ensure that the corrective actions resulting from the DOE FY07 OIO/ISM Review are implemented and operating effectively.

**Grade: B+ (3.3)**

In response to the DOE OIO/ISM inspection of SLAC's ES&H program during October and November 2006, a joint Corrective Action Plan (CAP) was developed by SC, DOE/SSO and SLAC (with assistance from McT and the Integrated Support Center [ISC], Oak Ridge Office [ORO]). As of October 1, 2008, 80 of the 102 (78%) OIO CAP items have been completed on schedule (no overdue) with the remaining 22 open items on track to be completed as required in FY09. Progress continues to be monitored very closely by the OA and regular progress reports are sent to the ES&H Coordinating Committee (ES&HCC) and responsible individuals to assure that all corrective actions are completed on schedule. SLAC has kept DOE/SSO apprised of progress on open action items through regular meetings, formal correspondence and the OIO CAP closure documentation SharePoint site, which allows DOE/SSO full access to monitor and evaluate the status of all SLAC OIO corrections actions at any time. SLAC has met the target for this area.

**Performance Measure 4.2.5** ▶ SU and laboratory leadership undertakes a review and analysis of the management and operations organizations to identify management initiatives that will improve laboratory operations. The improvement initiatives should streamline and where appropriate automate processes, standardize and institutionalize practices and improve the management of resources.

**Target 4.2.5.1:** B+ = The improvement initiatives targets for 2008 shall include, but not be limited to the following areas: (1) Infrastructure (e.g., number and condition of buildings, utilities, plant services major scientific facilities and equipment, D&D requirements); (2) Business Systems (e.g., accounting, HR, payroll, project management and safeguards and security); and (3) Programs (e.g., organizational structure, staffing levels and strategic planning for the future).

**Grade: B (2.9)**

The SII is a multi-year effort, launched in November 2007, to provide optimal management structure and operations services in support of the vision and mission of the laboratory. A resource-loaded implementation plan was drafted, based in part on the recommendations of the McT report. While budgetary difficulties and layoffs delayed progress, the SII launched a series of projects to address important shortcomings identified during the McT evaluation and the SII planning process.

SII includes the following projects.

**Integrated Performance Management - Programs** (e.g., organizational structure, staffing levels and strategic planning for the future)

- Leadership: vision, mission, core values and lab agenda; decision making process
- Business planning and assessment
- Requirements management
- Management systems
- Command media

**Line Initiatives**

- Acquisition
- Enterprise systems
- R2A2s and performance evaluation
- Work planning and control

*Note: Infrastructure (e.g., number and condition of buildings, utilities, plant services major scientific facilities and equipment, D&D requirements) is addressed within goal 7 and safeguards and security within goal 8.*

### **SII Management Framework**

- SII management consists of a project office staffed with a project manager, a business manager and a cell of technical support staff that assists all projects as needed. The IPM projects are coordinated by the IPM project manager. The line initiatives are managed from existing departments in the organization. The SII project manager insures sufficient horizontal integration to leverage efforts among initiatives and maintain consistency of approach and deliverables as appropriate.
- A SharePoint site was created for document tracking and collaboration among all projects.
- Master plan update and status reporting mechanisms are in place.
- SU Internal Audit Services (SUIAS) and Institutional Compliance (IAIC) initiated a project during FY08 to assess management of the SII. IAIC reviewed the SII infrastructure, including project management, IPM and business line initiatives. This project will continue during FY09 as IAIC monitors and assesses implementation of individual initiatives.

### **Objective 4.3**

#### ***Provide Efficient and Effective Corporate Office Support as Appropriate***

*In measuring the performance of this objective the DOE evaluator(s) shall consider the following:*

- *Corporate office involvement in and support of business and other infrastructure process and procedure improvements;*
- *Establishing joint appointments that are aligned with the strategic objectives of the laboratory;*
- *Assisting the laboratory with infrastructure improvement opportunities; and*
- *Providing staff, expert advice, management systems, or similar assistance to achieve SLAC's mission.*

*The weight of this objective is 30%.*

#### **PERFORMANCE SUMMARY**

The SU president was instrumental in building a new management team at SLAC starting with hiring the new laboratory director. He also played a strong role in filling management team vacancies. SU created and filled a new position of vice president for SLAC to provide executive capability to manage the relationship and assurance role between the University and the DOE.

#### **NOTEWORTHY PRACTICES**

In addition to establishing a vice president for SLAC, SU also established a SLACOB to assure that the full expertise of the University is utilized in both assistance and oversight of SLAC.

**Performance Measure 4.3.1** ► Corporate support of programs and laboratory operations, including business administration, finance, HR, facilities and process and procedure improvements.

**Target 4.3.1.1:** B+ = SU SLACOB meets regularly with an agenda that is balanced between scientific and operational topics. The SLACOB provides a written report to include recommendations to the president of the University concerning the management of the laboratory and the quality of the University's support and oversight, including the effectiveness of the SLAC and SU's assurance functions. SU will follow-up on recommended improvements.

#### **Grade: B+ (3.3)**

- Established Stanford Office of the Vice President for SLAC to manage DOE/SU/SLAC relationship
- Filled vice president for SLAC position
- Established SLACOB and committees
- Developed charter for SLACOB and committees

- Science, HR, Operations and Finance
  - Selected committee members
  - Held orientation sessions for committees
  - Held first meetings of the SLACOB and four committees
  - In the startup year, began to identify areas of concern and opportunities to add value to the management of SLAC

**Performance Measure 4.3.2** ▶ Corporate leadership maintains cognizance of significant commitments made and assures their timely accomplishments; or provides corporate expertise and reach back to demonstrate its commitment to the success of the laboratory.

**Target 4.3.2.1:** B+ = Corporate leadership ensures that contractor commitments made to DOE are successfully accomplished as planned.

**Grade: B+ (3.3)**

- Began internal oversight audits by Stanford
- Science committee: repopulated the SPC and included some Stanford professors
- HR and finance committees: considering ways to import systems, engaged Deloitte in study
- Operations committee: phased out ES&H Advisory Committee (ESHAC, external ES&H) in favor of SU internal ES&H oversight under Larry Gibbs
- SU asserted definitive role in hiring new laboratory director, attorney for SLAC, Operations director and ES&H director to ensure a strong management team at SLAC

**Performance Measure 4.3.3** ▶ The demonstrated accomplishment of the contractor to enter into and maintain faculty appointments.

**Target 4.3.3.1:** B+ = New SU appointments in the areas that are aligned with the strategic objectives of the laboratory (e.g., Photon Sciences and Particle and Particle Astrophysics broadly defined and independent of disciplinary boundaries and in a number of areas of DOE mission).

**Grade: B+ (3.3)**

- New faculty appointments in process (Martinez, Riess, Schwartzman)

## Goal 5 Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health and Environmental Protection

*The contractor sustains and enhances the effectiveness of integrated safety, health and environmental protection through a strong and well deployed system.*

*The weight of this goal is 20%.*

### Executive Summary

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Goal 5 has three objectives, 22 measures and 32 targets. The following is a summary of accomplishments toward this goal.

SLAC has focused on improving ES&H performance through improvement in leadership, technical personnel and programs. In FY08, SLAC hired a permanent ES&H director, a work planning and control (WPC) manager, two fire protection/emergency management professionals, an industrial hygienist and a safety engineer to provide the leadership needed to dramatically improve safety through the development and implementation of ES&H programs and support into the line organization.

SLAC's total recordable case (TRC) and days away or restricted time (DART) rates have both declined since FY07. We attribute this to increased focus by management and staff on injury prevention. This is significant given the high risk work conducted in FY08 (e.g., LCLS construction).

Significant program improvement initiatives include:

- Event reporting and investigation
- WPC
- Hot work permit
- Environmental sustainability and pollution prevention
- Significant hazard and waste reduction (lithium hydride, tritium, radioactive and hazardous waste)
- Nanomaterials safety

Programmatic weaknesses have been identified through our assessment program and we have submitted noncompliance tracking system (NTS) reports outlining noncompliances with 10 CFR 851. We have CAPs in place for these programs to achieve compliance.

The August 2008 Integrated Safety and Environmental Management (ISEMS) effectiveness review concluded that SLAC is on the right track with improving implementation of ISEMS and has made significant improvements over the past year.

Based on the individual target scores and relative weights, an overall goal score of 3.2 (B+) was achieved. However, SLAC management believes that while we performed better in FY08 than in FY07, we are not meeting our or DOE/SSO expectations for goal 5. SLAC's ISEMS self declaration acknowledges that ISEMS elements are in place, that we are on the vector to have an effective ISEMS, but for now a 'B' is an appropriate assessment of SLAC's performance in FY08.

## Summary Evaluation

	Element	Letter Grade	Numerical Score	Objective Weight	Weighted Score	Total Score
5	Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health and Environmental Protection					
5.1	Provide a Work Environment that Protects Worker Safety, Health and the Environment	B+	3.3	30%	1.0	
5.2	Provide Efficient and Effective Implementation of Integrated Safety, Health and Environment Management	B	3.0	55%	1.7	
5.3	Provide Efficient and Effective Waste Management, Minimization and Pollution Prevention	A	3.9	15%	0.6	
<b>Performance Goal 5 Total</b>						<b>3.2</b>

### Objective 5.1

***Provide a Work Environment that Protects Worker Safety, Health and the Environment***

*In measuring the performance of this objective the DOE evaluator(s) shall consider the following:*

- *The success in meeting ES&H goals.*

*The weight of this objective is 30%.*

#### PERFORMANCE SUMMARY

SLAC's ES&H program in FY08 made significant steps toward performance improvement throughout the institution. Under new executive leadership, the line organizations have made advancements in integrating safety and work planning into day-to-day operations. The end of the FY07, a significant "near hit" involving an explosion of a PVC pipe occurred. During FY08, SLAC took the situation seriously and immediately began to restructure how it investigated its incidents, manages its employee and subcontractor workforce and correctly plans its work, or doesn't do it.

After two years of increasing injuries/illnesses ('05-'06 +140%; '06-'07 +33%), SLAC reversed that trend with a reduction of the number of TRC and DART cases by 31% and 27%, respectively. Notably, excluding subcontractor construction injuries associated with the LCLS construction project, SLAC showed an even more substantial improvement of 42% for both TRCs and DARTs. This trend should only be considered the beginning. Even with this reduction, SLAC was still higher than the DOE SC performance metrics. In addition, SLAC still has more to do to implement the new WPC process and make improvements in our incident investigation processes. On-going process development and implementation, combined with effective ES&H training programs and increased subject matter technical expertise will continue to make SLAC a safe and sustainable place to work.

#### NOTEWORTHY PRACTICES

- No Type A/B incidents
- No reportable environmental or radioactive material contamination
- SLAC continued with its *Safe '08* safe work planning case study program with quarterly case studies to highlight and acknowledge work that was well planned and executed to serve as positive examples across the lab
- Conducted annual *Focus on Safety '08* meetings across all departments
- Significant revisions to subcontractor safety program, including oversight and work planning
- Development of pilot program for WPC and initiation of beta testing groups
- OA validated 100% of the all corrective actions that were completed in FY08 and assesses the effectiveness of these actions, as required

## OPPORTUNITIES FOR IMPROVEMENT

- Continued improvements needed for incident reporting (incentivizing reporting at all levels), investigation process and quality of investigation reports
- Full roll out and implementation of WPC process across the site
- Further improvements needed in the University Technical Representative (UTR) process to ensure appropriate communication and implementation of ISEMS with subcontractors
- Further improvements are needed in the self evaluation program (ES&H Manual Chapter 33)

**Performance Measure 5.1.1** ▶ The contractor's progress in meeting the SC FY08 safety goal for DART case rate. In addition to the SC goal, the contractor shows continuous improvement against its historical DART performance.

**Target 5.1.1.1:** B+ = The DART rate for FY08 is equal to the SC safety goal of 0.25.

### Grade: B- (2.5)

- SLAC's recordable injury and DART rates have both declined since FY07
- The FY08 DART rate is 0.81, which is a 25% reduction compared to 1.11 in FY07. Breaking out the DART rate between SLAC operations and the LCLS construction project produces a DART rate of 0.64, while the LCLS construction project rate was 3.18
- SLAC management has continued to focus significant attention on injury prevention and case management
- While this performance is an improvement, it is still not the best in class performance we are striving to reach

**Target 5.1.1.2:** B+ = Demonstrating a process of continuous improvement, the contractor shows reductions against its historical DART rates as compared to a five year baseline. The DART rate for FY08 is equal to or less than 90% of the DART rate over the previous 5 fiscal years.

### Grade: B- (2.7)

- SLAC's previous 5-year average DART rate is 0.85, so 0.81 is 95% (a 5% reduction) of the 5-year average.
- While this is a reduction of 26% compared to FY07, it still represents less than expected performance.
- Breaking out the LCLS construction project results in a reduction of 25% from SLAC's DART rate over the 5 year average. The construction DART rate of 3.18 was less than the average of 3.5 for the industry.

**Target 5.1.1.3:** B+ = SLAC has no Type A or B injury or exposure incidents. This may be mitigated/excluded if there is an incident where the investigation determines that the contractor's program did not contribute to the severity of the incident.

### Grade: B+ (3.3)

- There has been no Type A or B injury or exposure incidents.

**Performance Measure 5.1.2** ▶ The contractor's progress in meeting the SC FY08 safety goal for TRC rate. In addition to the SC goal, the contractor shows continuous improvement against its historical TRC performance.

**Target 5.1.2.1:** B+ = TRC rate for FY08 is equal to the SC safety goal of 0.65.

### Grade: B- (2.6)

- TRC for FY08 is 1.11, which is a 'B-' according to the gradient protocol document.

**Target 5.1.2.2:** B+ = Demonstrating a process of continuous improvement, the contractor shows improvement over FY07. The TRC rate for FY08 is equal to or less than 90% of the TRC rate of FY07.

### Grade: A (3.9)

SLAC's FY07 TRC was 1.5, so an FY08 TRC of 1.11 is 74% (a 26% reduction) of FY07 TRC rate, which is an A according to the gradient protocol document. Breaking out the rate between SLAC operations and the LCLS construction project produces a TRC rate of 0.86, while the LCLS

construction project under Turner Construction Company was 4.44. This is a reduction of 43% from SLAC's FY'07 TRC rate. The Turner TRC rate of 4.44 was less than the industry average of 6.6.

**Performance Measure 5.1.3** ▶ The number of reportable occurrences of release(s) to the environment. Milestones:

1. Update Spill Prevention Controls and Countermeasure Plan (SPCC) per 40 CFR 112 Final Rule.
2. Complete and document monthly above ground tank inspection.
3. Perform annual site wide storm water compliance inspection.
4. Perform annual review of the SLAC Storm water Pollution Prevention Plan (SWPP)

**Target 5.1.3.1:** B+ = There is no more than one reportable occurrence of releases to the environment and four of the four milestones listed above are completed.

**Grade: A (4.0)**

- No reportable releases to the environment occurred in FY08
- All four of the milestones were completed
- Significant revisions were made to the SPCC plan to bring it into compliance with the recently enacted 40 CFR 112 Final Rule
- The Facilities department performs monthly inspections of above ground tanks and documents the inspections, findings and corrective actions
- The SWPP was reviewed and revised. This revision incorporated all the amendments that had been made annually as well as new and revised best management practices
- A site-wide storm water compliance inspection was performed in May and the results were included in the annual storm water monitoring report. The inspection indicated housekeeping activities across SLAC have improved over past years

**Performance Measure 5.1.4** ▶ The number of instances of uncontrolled spread of radioactive contamination meeting the criteria of DOE M 231.1-2.

**Target 5.1.4.1:** B+ = There are no instances of uncontrolled spread of radioactive contamination per DOE M 231.1-2.

**Grade: B+ (3.2)**

- There has been no instance of the uncontrolled spread of contamination greater than the limits stated in DOE M 231.1-2 Subgroup B
- The number of posted contamination areas has been reduced due to the shutdown of programs of PEP-II, positron system and ESA
- RP has established a "search and survey" program and is conducting organized radiological surveys of non-radiologically controlled areas and non-radioactive material areas where radioactive materials, including legacy radioactive materials, may be located if protocols have not been followed
- During FY08, thorium contamination amounts of less than 10 times the 10 CFR 835 Appendix D limits were found in a sand blasting unit. SLAC halted the use of natural thorium-based grit for sandblasting

**Performance Measure 5.1.5** ▶ Timely identification of ES&H noncompliances and implementation of corrective actions.

**Target 5.1.5.1:** B+ = There are no overdue corrective actions (corrective action issues and/or noncompliance items identified per DOE reporting criteria).

**Grade: C+ (2.4)**

- SLAC had one PVC pipe explosion NTS overdue action (action 10 of 10) related to UTR training
- SLAC reported appropriate events to management and DOE/SSO, but the event reports were not meeting timeliness and quality expectations of either SLAC management or DOE/SSO
- During June and July, SLAC developed and rolled out a more comprehensive event reporting initiative including an action plan to improve causal analysis and reports

- During FY08, there were 15 Occurrence Reporting and Processing System (ORPS) events, with a total of 47 corrective actions. Of these, 36 were closed on time and the remaining 11 corrective actions are on track for on-time completion

**Performance Measure 5.1.6** ▶ Corrective action follow-up and closure tracking mechanisms. This includes on-time notification to the DOE/SSO on safety ES&H corrective actions.

**Target 5.1.6.1:** B+ = 90% of the ES&H safety-related corrective actions are tracked and closed within the original SLAC target completion date.

**Grade: A (3.9)**

- During FY08, SLAC consistently performed at a 96% on-time completion rate.

**Target 5.1.6.2:** B+ = 90% of the SLAC closed findings from facility walkthroughs conducted by DOE/SSO are validated by the OA.

**Grade: A+ (4.3)**

The OA continued to provide independent verification and validation of the efficacy of SLAC's self-assessment activities, closeouts of corrective actions and effectiveness in incident/injury analysis in FY08. Beyond the target for this area and for the second straight FY, the OA verified 100% of the all applicable corrective actions that were taken in FY08 (verification of line self assessments, verification of DOE/SSO Building Walkthroughs, verification of ESHAC corrective actions, verification of IIA corrective actions and verification of FY08 OIO corrective actions) and assessed the effectiveness of the LCLS Injury Analysis CAP and OIO C6 CAP. It should be noted that SLAC believes that it is the only SC laboratory that attempts and achieves a 100% performance level, a best management practice.

**Performance Measure 5.1.7** ▶ The contractor shall complete the development of a chapter in the ES&H manual covering non-ionizing radiation and its implementation plan.

**Target 5.1.7.1:** B+ = Publication of a *Non-Ionizing Radiation Chapter* and its implementation plan in the ES&H Manual is completed by the end of the Q2 in FY08 and implementation plan milestone are met. Final report from the survey of major radiofrequency sources (e.g., Klystron Gallery) conducted in the Q4 of FY07 is completed and actions closed out by end of the Q2 FY08.

**Grade: B+ (3.4)**

- A new non-ionizing radiation chapter<sup>5</sup> was published and approved on time
- A complete survey of all radiofrequency sources was completed at the end of Q1 and a report prepared and delivered to affected areas

## Objective 5.2

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***Provide Efficient and Effective Implementation of Integrated Safety, Health and Environment Management***

*In measuring the performance of this objective the DOE evaluator(s) shall consider the following:*

- *The commitment of leadership to effective implementation of Integrated Safety Management and strong ES&H performance is appropriately demonstrated.*
- *The maintenance and appropriate utilization of hazard identification, prevention and control processes/activities.*
- *The identification of hazards and appropriate hazard controls is effectively implemented during the work planning process and prior to formal authorization of work activities.*
- *Staff, line managers and contractors have received appropriate safety training and possess demonstrated skills, knowledge and abilities prior to commencement of work activities.*
- *Hazards and ES&H noncompliances area identified, tracked in a consolidated site-wide database and corrected in a timely manner.*

*The weight of this objective is 55%.*

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<sup>5</sup> <http://www-group.slac.stanford.edu/esh/eshmanual/pdfs/ESHch50.pdf>

## PERFORMANCE SUMMARY

SLAC met or exceeded many of the metrics in this section such as in ES&H training; corrective action tracking and execution; revision and improvement of the hot work permit program; and implementation of fire protection impairment process. However, several of the fire protection program targets were not accomplished. The recent addition of a fire protection engineer position will help to ensure SLAC's ability to comply with the fire protection requirements of DOE O 420.1B in FY09.

SLAC's overall performance in this section is a 'B.'

## NOTEWORTHY PRACTICES

- Formalized a partnership with SU for the redistribution and use of excess laboratory chemicals. This allows SLAC free access to excess inventory at SU as well as reducing SLAC inventory
- Reduced toxic inventory by storing trichloroethane (TCA) at the Haas Fresno Hub, thereby reducing the need for SLAC oversight and management and providing a much safer storage alternative
- Coordinated and updated DOT Site Specific Security Plan and devised a method for training. The security plan updates are now coordinated at a high enough SLAC management level to facilitate the various stakeholder groups. Training to the plan has been made very simple and can be conducted by group leads and entered into the ES&H training database
- Launched an automated email process notifying personnel when their training becomes overdue, as well as reminders to attend scheduled training
- Revised or launched many new ES&H courses including: Defensive Driving; Hoisting and Rigging; Building Manager Training; DOT Hazmat Security Awareness; Lock Out/Tag Out; and Stormwater Awareness. Further conversion of course content to web-based delivery including: Building Manager Training; Construction Safety Orientation; General Employee Radiological Training (GERT); Laser Safety Exam

## OPPORTUNITIES FOR IMPROVEMENT

- The addition of a fire protection engineer at the end of FY08 will allow SLAC to ensure effective fire safety, life safety, fire suppression and alarm inspection and evaluations in FY09. Also, SLAC will be developing a plan for the implementation of DOE O 420.1B in early FY09 and will complete the milestones identified in that plan during FY09.
- Tracking training for subcontractors is labor intensive and an improvement in this area will be evaluated.

**Performance Measure 5.2.1** ► Safety and environmental training and other competence requirements for SLAC employees and SLAC contractors, are fully identified. Training for SLAC employees is tracked in SLAC's training database metrics reporting. SLAC contractors are responsible for ensuring training identified by the contract UTR or point of contact and are required to provide written confirmation that their workers at SLAC are compliant with the training requirements.

**Target 5.2.1.1:** B+ = Mandatory ES&H training requirements for SLAC employees (defined as safety training as required by regulation) are completed to a level of 90% per the SLAC training database metrics reporting system.

**Grade: A- (3.6)**

- End of year compliance for the laboratory stands at 94.1%. This is an improvement of 2.6% over the mid-year PEMP review. In addition, each individual directorate reported >91% compliance.
- We attribute this improvement to our new email reminder notification system launched in the 2<sup>nd</sup> half of the year and improvements in the course catalog (clarifying who needs to take training). SLAC has also had an opportunity to clean up personnel records since the layoff, which has led to more accurate training data.

**Target 5.2.1.2:** B+ = Reviews of subcontractor Site Specific Safety Plans (SSSPs) indicates that training

requirements for SLAC contractors are maintained current to a level of 90%.

**Grade: B (3.0)**

- The SLAC SSSP, in use since March 2008, requires SLAC contractors to certify their employees have been trained in accordance with their company safety program. Construction SSSPs are reviewed and approved either by the ES&H division or by directorate safety coordinators. The reviewers confirm that the training requirements have been addressed by the contractor and that the training is appropriate for the hazards of the work activities being performed.
- The SLAC training database is used to maintain records of subcontractor ES&H training and contractors who are granted SLAC badges. For *all construction* subcontractors managed by Facilities and LCLS, ES&H Course 375 (*Construction Safety*) is now required training. At the end of FY08, the site-wide compliance with this requirement is at 79%. LCLS, which is a major construction project, is at 94% compliance. There are a significant number of subcontractors in the Operations directorate that show overdue training. However, we discovered that a significant number of these subcontractors no longer service SLAC. We are in the process of purging the database to remove the names of those who no longer work at SLAC and will continue to do this in FY09. Until we improve this recordkeeping aspect, we feel an appropriate overall grade for this target is 'B.'

**Performance Measure 5.2.2** ► Safety management systems are developed and implemented that enhance the process for work planning, identifying hazards and ensuring that controls and formal written procedures are in place prior to authorizing and conducting work, including construction activities.

**Target 5.2.2.1:** B+ = In FY08, 95% of the corrective actions from ISM reviews and DOE assessments that are tracked in either the SLAC CATS database or the Office of Health, Safety and Security (HSS) CATS database are completed by the DOE/SSO approved completion dates.

**Grade: A- (3.7)**

During the past year we have performed consistently at a 96% on-time completion rate. We also implemented CATS enhancements based on customer feedback and the OIO D6 (issues management program) requirements.

Examples of enhancements include:

- Unique web pages for all corrective actions
- Unique web pages for all assessments
- Enhanced sorting functionality
- Programming which supports improved system performance
- Expanded list of hazard types with associated definitions
- Enhanced trending functionality

**Performance Measure 5.2.3** ► Staff and line managers fully understand and implement the seven guiding principles and five core functions of ISMS and the ISO 14001 elements of EMS.

**Target 5.2.3.1:** B+ = Quarterly report on trending and casual factors is provided to DOE as related to safety occurrences.

**Grade: B (3.0)**

- Quarterly reports required in this target are included in the reports generated for target 5.2.5.1.

**Performance Measure 5.2.4** ► Contractor shall provide ES&H trending analysis as it relates to injuries, illness and safety events in an effort to provide a causal analysis and proactive identification of any systemic safety or programmatic gaps or weaknesses.

**Target 5.2.4.1:** B+ = In FY08, ISMS reviews produce no more than two concerns or findings related to staff and line management's understanding of ISMS and the elements of EMS.

**Grade: B+ (3.3)**

An effectiveness review of the Integrated Safety Management System (ISMS) was performed by ORO in August 2008 at the request of the DOE/SSO site manager.

The team found significant improvement in several areas including site housekeeping, especially in the construction areas and a positive change in the overall attitude concerning the correction of problems by both line managers and support staff.

The team identified four Priority 2 (P2) and six Priority 3 (P3) findings relating to SLAC. None of the findings point to the lack of understanding by staff or line management of ISEMS. The P2 findings are:

- A written un-reviewed safety issue process has not been developed or implemented to improve the contractor's safety authorization basis process.
- There is no formal, structured and/or comprehensive institutional WPC process in place at SLAC.
- Assessments identified in ES&H Manual Chapter 33 are not consistently being performed, documented, or tracked by SLAC, as required.
- As required in 10 CFR 851.11(c)(2), contractors must submit annually to DOE either an updated Worker Safety and Health Program (WSHP) for approval or a letter stating that no changes are necessary in the currently approved WSHP. The revision to SLAC's WSHP was submitted to DOE/SSO for approval two months after the annual submission date of the plan.

The P3 findings included:

- Specific roles and responsibilities for facility management between operations of the electron beam and operations of the photon beams were not addressed in the safety assessment documents (SADs).
- Beam authorization sheet instructions do not allow for handwritten changes.
- The hazard analysis approval within the SADs needs to be strengthened.
- Accelerator safety envelopes need to be improved to effectively communicate the risks associated with operating accelerators.
- The accelerator readiness review process is not formalized.
- Metrics are not being established and trending information is not being provided to senior management, as required by the *SLAC Assurance Program Description*, Section 3.4.

**Performance Measure 5.2.5** ▶ Contractor shall provide ES&H trending analysis as it relates to injuries, illness and safety events in an effort to provide a causal analysis and proactive identification of any systemic safety or programmatic gaps or weaknesses.

**Target 5.2.5.1:** B+ = Submit all quarterly reports to DOE on trending and causal factors related to safety occurrences.

**Grade: B (3.0)**

- Beginning in Q1 FY08, SLAC began providing ES&H and other related statistical information to DOE/SSO on a monthly basis. This information is prepared and presented as part of the monthly joint DOE/SSO/ES&HCC meeting. SLAC is continuing to work on improving the metrics that are reported by identifying better leading and lagging indicators. During the summer, the monthly reporting was replaced by other joint meetings between DOE/SSO and the ES&HCC to address incident reporting procedures and the ISEMS review. A final trending analysis for Q4/entire FY08 will be provided.
- The Industrial Hygiene (IH) group has created a web-based application for tracking and charting IH sample data for the last 15 years. This application allows for trending analysis of "similar exposure groups" and "sample types" and includes a chemical information module that connects the hazard with OSHA, NIOSH and NIST web pages.

**Performance Measure 5.2.6** ▶ Contractor will develop a comprehensive control program and an auditable mechanism for tracking its successful implementation for Hot Work operations.

**Target 5.2.6.1:** B+ = Contractor will have a comprehensive and effective Hot Work control program and mechanism for tracking its implementation by end of the Q3 FY08. No significant finding identified during conduct of subsequent audits and reviews (internal, external or DOE).

**Grade: B+ (3.3)**

At the end of FY07, SLAC experienced a significant accident (PVC pipe explosion) triggered by a hot work activity. SLAC accelerated the upgrade of the hot work control program to improve the inspection process. The new procedure requires 100% prior field review of hot work projects by an approved inspector (the "Permit Authorizing Individual" per NFPA 51B). In Q3, SLAC rolled out a documented and comprehensive on-line hot work program. Approved inspectors operate under the authority of the SLAC fire marshal. In the first four months of operation (July to September), 152 hot work permits were approved and 32 declined.

**Performance Measure 5.2.7** ▶ Contractor will develop a comprehensive fire protection systems impairment control program and an auditable mechanism for tracking its successful implementation.

**Target 5.2.7.1:** B+ = Contractor will have a comprehensive and effective fire protection systems impairment control program and mechanism for tracking its implementation by 06/30/2008. No significant finding identified during conduct of audits and reviews (internal, external or DOE).

**Grade: B (2.9)**

In Q3, SLAC rolled out a documented fire protection system impairment tracking program that complies with NFPA requirements. The program is administered by the SLAC fire marshal. Compensatory measures are applied to extended outages as required by code. This process was extensively tested with the multi-day failure of the Gamewell site-wide fire alarm reporting system near the end of FY08. In this case, notification of affected parties (including DOE and site management) occurred rapidly. Hot work activities in the many affected buildings were suspended and periodic fire watches were implemented using security personnel.

**Performance Measure 5.2.8** ▶ Contractor will maintain an effective fire safety review and inspection program for facilities and operations. All deficiencies are documented complete with recommended mitigations and corrective actions tracked to completion.

**Target 5.2.8.1:** B+ = Contractor will have a documented and auditable fire safety review and inspection program by 7/31/08. No more than one scheduled review/inspection missed or two significant deficiencies documented and tracked.

**Grade: B- (2.7)**

The Palo Alto Fire Department completed fire safety walkthroughs of 192 SLAC buildings by Q3, as part of their routine annual and triennial building fire safety inspections. Deficiencies were documented with findings tracked by the SLAC fire marshal. Additional fire safety self-assessments were performed by building managers as documented in the *Building Manager Program Manual*<sup>6</sup>. Plans are in place to shift the primary responsibility for fire safety inspections in high occupancy and high value buildings to a new facility fire protection assessment program. These assessments will be conducted under the supervision of a qualified fire protection engineer. Implementation of this program was delayed to Q1 FY09 based on filling an open ES&H fire protection engineer position on September 29, 2008.

**Performance Measure 5.2.9** ▶ Contractor will provide an effective program to ensure compliance with life safety code requirements.

**Target 5.2.9.1:** B+ = Contractor will assess the effectiveness of the life safety code compliance. All deficiencies are documented complete with report of findings, recommended mitigations and corrective actions tracked to completion by the end of the Q3 FY08.

**Grade: C+ (2.4)**

SLAC buildings were prioritized for life safety analysis based on size, number of occupants and building age to maximize value from outside consultant support. Four buildings (B024, B040, B041 and B084) were selected for analysis by subcontracted fire protection engineers in FY08. The initial analysis work was conducted in Q3. The 578 occupants of these four buildings represent

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<sup>6</sup> <http://www-group.slac.stanford.edu/esh/references/BMPM.pdf>

approximately one quarter of the site population. The reports, with findings, were submitted to the DOE/SSO subject matter expert for review on October 3, 2008 and findings are tracked by the SLAC fire marshal.

**Target 5.2.9.2:** B+ = Contractor will have a documented and auditable life safety review and assessment program in place by the end of the Q3 FY08 to demonstrate compliance with the life safety code.

**Grade: C+ (2.4)**

Documentation for a comprehensive facility fire protection assessment program (reference in 5.2.8.1 above) was drafted in Q3 and submitted to the DOE/SSO subject matter expert for preliminary review. This program includes life safety and fire suppression reviews. Further implementation of the program was delayed until FY09 based on filling an ES&H fire protection engineer position on September 29, 2008.

**Performance Measure 5.2.10** ► Contractor will provide an effective program to ensure compliance with fire suppression requirements.

**Target 5.2.10.1:** B+ = Contractor will assess the effectiveness of the compliance with fire suppression requirements such as fire sprinkler systems. All deficiencies are documented, complete with report of findings, recommended mitigations and corrective actions tracked to completion by the end of the Q3 FY08.

**Grade: C+ (2.4)**

SLAC buildings were prioritized for fire suppression system analysis based on size, number of occupants and building age to maximize value from outside consultant support. Four buildings (B024, B040, B041 and B084) were selected for analysis by a subcontracted fire protection engineer in FY08. The initial analysis work was completed in Q3 FY08. The reports, with findings, were submitted to the DOE/SSO subject matter expert for review on October 3, 2008 and findings are tracked by the SLAC fire marshal

**Target 5.2.10.2:** B+ = Contractor will have a documented and auditable fire suppression review and assessment program in place by the end of the Q3 FY08 to demonstrate compliance with applicable codes and criteria with no more than two minor deficiencies uncorrected.

**Grade: C+ (2.4)**

Documentation for a comprehensive facility fire protection assessment program referenced in 5.2.9.2 includes fire suppression system evaluation.

### Objective 5.3

#### *Provide Efficient and Effective Waste Management, Minimization and Pollution Prevention*

*In measuring the performance of this objective the DOE evaluator(s) shall consider the following:*

- *Significant progress on implementation of SLAC Chemical Management Services (CMS) project in reducing chemical inventories and improving ES&H data management.*
- *Identify opportunities for waste minimization, emission reduction and/or resource conservation.*
- *Improvements in implementation and performance of SLAC EMS, e.g., pollution prevention opportunity assessments, EMS training).*

*The weight of this objective is 15%.*

#### PERFORMANCE SUMMARY

SLAC exceeded most and met the rest of the targets in this objective. Highlights include:

- The SLAC cafeteria composting program for kitchen waste and the nearly complete project to convert flatware and containers to compostable varieties
- Reduction of toxic and hazardous materials through a redistribution program for chemicals run in conjunction with SU
- Recycling 85% of LCLS construction debris
- SLAC shipped 1,272 cubic feet of legacy waste, well above the required 420 cubic feet

- Disposed of an activated lithium hydride cylinder that had been ranked as the highest risk waste item at SLAC
- The Chemical Hygiene Plan (CHP) has been updated and most of the affected lab users have been trained
- The primary low-level radioactive waste (LLRW) generators have been identified and trained
- Replaced 346 PCB capacitors with non-PCB capacitors
- Eliminated unauthorized storm drain connections at ESA/ESB
- Completed seismic calculations for outdoor tanks and above ground storage tank integrity testing. Projects are underway to repair or replace tanks, as needed

#### NOTEWORTHY PRACTICES

SLAC works towards sustainability and protection of the environment through outreach, setting standards and requirements and engaging numerous stakeholders. SLAC focuses on outreach to the site through *SLAC Today* articles, events such as Earth Day, SME environmental assistance for large or complex projects, project reviews and meetings with stakeholders whose work has a greater impact on the environment. Environmental planning is incorporated into processes such as WPC, the UTR classes and manual, procurement specifications and NEPA. SLAC partners with DOE, SU and regulators to move the best ideas forward in the common goal of protecting the environment. We strive to include everyone at SLAC in ideas and dialogue for sustainability and environmental compliance.

#### OPPORTUNITIES FOR IMPROVEMENT

In FY09, SLAC will recertify its EMS to meet the new requirements of DOE O450.1A and expand the EMS to encompass pollution prevention/sustainability initiatives throughout SLAC, including those required through EO 13243. SLAC program managers are working with DOE, SU, regulatory agencies, interested citizens groups and taking numerous classes (such as LEED certification) to learn about and successfully implement sustainability initiatives at SLAC.

**Performance Measure 5.3.1** ▶ Complete milestones to develop, implement and maintain certification equivalence of SLAC Performance based EMS is achieved. Milestones:

1. Review environmental aspects and impacts.
2. Determine the set of significant environmental aspects.
3. Revise existing Environmental Management Programs (EMPs) as needed, or develop new ones.
4. Complete internal annual assessment.

**Target 5.3.1.1:** B+ = SLAC completes four of the four target milestones listed above.

#### Grade: A (3.9)

SLAC successfully completed all four listed milestones for SLAC's EMS in FY08. The annual review and establishment of new EMPs was completed during FY08 Q1 and documented in the *Determination of FY08 Significant Environmental Aspects, Objective and Targets for SLAC Environmental Management System*<sup>7</sup> report. The internal annual assessment was completed by the OA in May 2008 and documented in the *Report of the IIA of the EMS*<sup>8</sup>. No major non-conformances were identified in SLAC's EMS and minor non-conformances have been placed into SLAC's CATS to track to completion.

In addition to these milestones, SLAC has remained engaged with the DOE/SSO and DOE Headquarters Office of Nuclear Safety and Environmental Policy on the EMS changes resulting from EO 13423 and revised DOE O450.1A. SLAC staff participates in monthly EMS Assistance Network (EMSAN) and Environmental Sustainability Network (ESN) calls, quarterly Environmentally

<sup>7</sup> [https://www-internal.slac.stanford.edu/esh/general/isems\\_internal/ems/SigAspectEMPs08%20.pdf](https://www-internal.slac.stanford.edu/esh/general/isems_internal/ems/SigAspectEMPs08%20.pdf)

<sup>8</sup> [https://www-internal.slac.stanford.edu/oa/documents/Final\\_EMS\\_Assessment\\_Report\\_073108.pdf](https://www-internal.slac.stanford.edu/oa/documents/Final_EMS_Assessment_Report_073108.pdf)

Preferable Purchasing (EPP) calls and attended the 2008 Federal Environmental Symposium EMS panels. Active engagement with the developing changes in EMS requirements has been important to best position SLAC for EMS compliance re-declaration by June 30, 2009.

To further enhance sustainability efforts at SLAC in FY08, SLAC joined SU's Sustainability Working Group and has participated in monthly meetings since December 2007. SLAC also deployed staff to participate in a number of Stanford's Sustainability Working Teams (see *SLAC Today*<sup>9</sup> article) so opportunities for partnership in new programs or enhancement of existing programs can be explored and implemented, where beneficial. The information exchange between SLAC and SU on the rapidly growing area of sustainability has been beneficial.

SLAC continues to improve its outreach efforts by conducting a well attended Earth Day event and published numerous articles in *SLAC Today* on conservation, environmentally preferable purchasing, green building, chemical waste management and sustainability.

Based on our efforts in FY08, we believe we have exceeded the expectations for a 'B+' score in PEMP target 5.3.1.1 and earned a grade of 'A'.

**Performance Measure 5.3.2** ▶ For designated projects, identification of waste minimization, emission reduction and/or resource conservation opportunities. SLAC will review potential candidate projects and their technical feasibility and SLAC's ability to implement these projects based on available funding and other project priorities. Project implementation will be conducted as feasible. Examples of projects include sustainable building design measures such as white roofing; procurement of environmental friendly products such as product substitutes for wood decking and carpets with recycled content; toxic chemical substitutions and waste prevention measures such as cyanide and sulfur hexafluoride reduction; composting of cafeteria wastes; replacement of cafeteria food packaging with biodegradable or more sustainable materials.

**Target 5.3.2.1:** B+ = SLAC will select and evaluate four waste minimization, emission reduction and/or resource conservation opportunities and implement one project in FY08, or placed in budget cycle for subsequent year (s) and approved by DOE/SSO.

**Grade: A (3.8)**

In FY08, SLAC conducted four pollution prevention opportunity assessments (PPOAs) and implemented three projects identified through PPOAs. The four assessments completed for FY08 include:

- Green janitorial cleaners
- Construction and demolition debris recycling program
- Junk mail reduction program
- Carpet recycling program

These PPOAs have been provided to DOE under separate cover and include a description of the opportunity for improvement, cost analysis, project scope and implementation status. This year, SLAC implemented two of the PPOA projects identified in FY07 and one from FY08. The implemented projects are:

- Green janitorial cleaners
- Recycled paint pilot project
- Behind the counter composting of cafeteria kitchen waste

SLAC implemented a green janitorial cleaning program in May 2008. Composting of "behind the counter" kitchen waste at SLAC's cafeteria was implemented in July 2008 and significant progress has been made converting the cafeteria's food service ware to compostable materials. Roll out of composting to "front of the counter" customers is expected early in FY09. SLAC started using a

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<sup>9</sup> <http://today.slac.stanford.edu/feature/2008/sustainability.asp>

recycled paint product on small exterior projects and use is expected to increase over time, should the paint prove to be as durable as virgin paint.

With completion of four assessments and three implementation projects, SLAC has exceeded the 'B+' target expectations and, therefore, has earned an 'A' under this measure and target.

**Performance Measure 5.3.3** ▶ Results of the OA IIA in FY07 identified several issues in the hazardous materials program for which improvements will enhance hazardous materials operations safety.

- Ensure Hazardous Materials /Hazardous Waste training is current for handlers of hazardous waste.
- Ensure CHP is updated and accurate and workers in covered laboratories have received lab-specific training as required by the plan.
- Subcontractor chemical storage is compliant with applicable OSHA, building, fire codes and SLAC's ES&H Manual Chapter 40, *Hazardous Materials*. Inventory of subcontractor chemicals is integrated into SLAC's overall chemical inventory management.
- Further reduction of legacy chemicals (i.e., those pre-dating the implementation of the CMS) will require the development and implementation of a project plan that will be completed through FY09.

**Target 5.3.3.1:** B+ = Required Haz Mat/Haz Waste Training (i.e., mandatory ES&H training) requirements are completed to a level of 90% in the SLAC training database.

**Grade: B+ (3.2)**

The required Haz Mat/Haz Waste Training (i.e., mandatory ES&H training) level is slightly less than the 90% goal according to the SLAC training database. The *Hazardous Materials* (Course 105)/*Hazardous Waste* (Course 105R) overall completion average to-date is 89% [(Q1= 90%+ Q2= 90%+ Q3= 88.4%+Q4=88%)/4 = 89%]. As a result, the Haz Mat and Haz Waste program managers are working with the ES&H training department to reconfigure the training so it is more available and more accurately tracked. This will be done by separating the hazard communication and hazardous waste training modules, making it available on the web, refining the audience description and eliminating the automatic STA update to course 105R for all those who take course 105. The Haz Waste program manager has increased efforts to tie hazardous waste container requests to training by requiring that all requesters have current training status. The Haz Mat program manager will tie the chemical storage custodian program to the training requirements for Course 105.

**Target 5.3.3.2:** B+ = CHP is updated by December 31, 2007 (Q1) and 90% of the affected lab users are trained by June 30, 2008 (Q3).

**Grade: A (4.0)**

The *CHP*<sup>10</sup> was updated and made an exhibit of the ES&H Manual Chapter 40, *Hazardous Materials*, in November 2007.

A new training class, Course 199, *Laboratory User CHP Training*, was added to the ES&H Training catalog. Laboratory personnel who use hazardous chemicals and work in laboratories identified in the CHP laboratories list<sup>11</sup> are required to be trained and have their training documented in the ES&H training database. Two sessions were conducted for affected personnel in March and April 2008 and all 25 workers successfully completed the course. There was an additional session in August at which another four workers were trained.

**Target 5.3.3.3:** B+ = Subcontractor chemicals stored and used on site are in compliance with applicable regulations and Chapter 40; and inventory integrated by the end of the Q2 FY08.

**Grade: B+ (3.4)**

- Subcontractor chemicals stored and used on site are now in compliance with applicable regulations and Chapter 40 and inventory was integrated by the end of the Q2 FY08.
- The Haz Mat program manager has field verified storage practices of Turner, UBS and Jensen between August and September 2008.

<sup>10</sup> <http://www-group.slac.stanford.edu/esh/documents/techbas/chp.pdf>

<sup>11</sup> <http://www-group.slac.stanford.edu/esh/eshmanual/references/hazmatListCHPLabs.pdf>

- Chemical inventory that is stored on-site more than thirty days will be captured in the hazardous materials business plan inventory if it exceeds the reporting thresholds.

**Target 5.3.3.4:** B+ = Development of a project plan with implementation schedule for further reduction of legacy chemicals (i.e., those pre-dating the implementation of the CMS) by end of the Q2 FY08.

**Grade: A- (3.6)**

- Legacy chemicals are included in the toxic and hazardous materials reduction project plan<sup>12</sup> document.
- To date, six building have been assessed (B84, B120, B040, B102, B026 and B062). SLAC has formalized, through the DOE/SSO, a partnership with SU for the redistribution of laboratory excess chemicals.
- SLAC has also initiated an on-site redistribution function for craft-type chemical products and compressed gasses. This reduces purchase and disposal of chemicals. In addition, the Hazardous Waste (HW) group has continued to assist in laboratory clean-outs, without charge back, to reduce the amount of chemicals on-site.
- The drums of TCA kept on site by the Mechanical Fabrication department plating group have been moved to the Fresno Haas Hub, reducing on-site inventory. Additionally it was agreed that the remaining material will be disposed of within a five years. The topic of “toxic reduction” has been kept visible through *SLAC Today* articles and chemical purchasers are encouraged to purchase “green” chemicals.
- A brown bag seminar series for chemical storage asset custodians and other interested parties began in September 2008 with the first topic being the toxics reduction programs at SLAC.
- These efforts and the continued use of the Haas tcmIS will lead to a more accurate inventory and a reduction in toxic and hazardous materials at SLAC; the speed at which this reduction occurs will be dependent upon availability of FY09 funding.

**Performance Measure 5.3.4** ▶ SLAC actively pursues the reduction of its volume of legacy low-level radioactive waste stored on-site by preparing the waste for off-site shipment (i.e., the waste has been properly characterized and packaged, pending shipment off-site or has been shipped off-site).

**Target 5.3.4.1:** B+ = 360 cubic feet of legacy low-level radioactive waste (based upon disposal container external volumes) has been properly packaged or shipped for disposal by the end of the FY08.

**Grade: A+ (4.3)**

- SLAC successfully reduced the volume of legacy low-level radioactive waste stored on site by characterizing and packaging the waste, followed by offsite disposal. The total volume of legacy waste shipped was 1,272 cubic feet; well above the 420 cubic feet required for an ‘A’ score according to the gradient protocol document. As areas of waste were cleared, allowing for the movement of larger items, the Radioactive Waste Management (RWM) group opted to package several oversized newly generated items in the sea-land containers, which shipped this year. The RWM group took advantage of the additional capacity offered by the sea-land containers and packaged additional legacy waste items to fill the void spaces.
- SLAC disposed of an additional 3,866 cubic feet of newly generated low-level radioactive and mixed wastes during the FY08 for a total of 5,138 cubic feet, 93% over FY07. This was a record breaking year for activated metal waste volume disposal.
- SLAC successfully spearheaded the effort to dispose of an activated lithium hydride cylinder, which had been the highest risk waste item.

**Performance Measure 5.3.5** ▶ SLAC conducts LLRW generator training, emphasizing reduction, reuse and recycling.

<sup>12</sup> V:\ESH\CGS\Hazardous\_Materials\Legacy Chemical Clean Out Project\Project Description\42108 toxic and haz mat reduction plan.doc

**Target 5.3.5.1:** B+ = SLAC identifies a list of primary LLRW generators by November 15, 2007 and conducts three training classes to certify LLRW generators by September 30, 2008.

**Grade: A (4.0)**

- SLAC identified a list of primary LLRW generators before the November 15, 2007 deadline.
- SLAC conducted five training classes in FY08 to certify LLRW generators, which is above the four required in the gradient protocol document for an 'A' score.
- The RWM group proactively engaged in dialogues with workgroups and program managers to discuss waste generation concerns. This included reviewing the downtime plan and identifying activities that could produce wastes, prioritizing the impact of such generation and contacting work leads to ensure proper waste processing and handling.
- RWM provided LCLS construction project with independent evaluations of materials intended to cure and epoxy seal the concrete until materials could be identified and substituted that would not produce mixed wastes if activated.
- RWM participates in the SSRL Radioactive Material Experiment Committee and has provided written guidance to ensure wastes produced can be managed and disposed of safely.

## Goal 6 Deliver Efficient, Effective and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)

*The contractor sustains and enhances core business systems that provide efficient and effective support to laboratory programs and its mission(s).*

*The weight of this goal is 25%.*

### Executive Summary

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Goal 6 has five objectives with 15 measures and 17 targets that cover business systems consisting of Financial Management; Acquisition and Property Management; Human Resources Management and Diversity Program; Internal Audit and Information Management; and Technology Transfer and Commercialization of Intellectual Assets. The following is a summary of accomplishments in each area.

In **Financial Management**, all of the performance measures were met but the priorities were different from FY07. Activities of the SII, audit reviews, engagement of consultants as well as self-assessments showed that SLAC management needs to move forward with changes initiated during FY08. Structure and governance of the business IT systems, including procurement, will be the key focus in FY09.

**Acquisition Management** is currently in a state of transition. Customer, stakeholder and external assessments all indicate the existence of significant improvement opportunities in the SLAC procurement function. Our lower self assessed grades reflect the current state of procurement operations.

During this performance period **Human Resources** did not meet all of its performance goals. This is primarily a reflection of staff focus on layoff programs for several months, which delayed achieving some of the goals. Two of the system related goals were delayed because of a deliberate moratorium on new projects and one due to cyber security issues. Two of the incomplete projects will be implemented early in FY09. Working with laboratory senior management and the DOE/SSO, the department developed and implemented remarkably successful voluntary and involuntary layoff programs. In addition, the staff worked on SII projects and conducted a successful search for a HR director to replace the retiring director.

**SUIAS** has met all of the performance goals established for FY08, planning for and conducting audits of SLAC business functions as defined within the SLAC audit plan. At the request of DOE/SSO, SUIAS has performed additional scope on the procurement audit completing a total of 2,856 actual hours as opposed to the budgeted 2,230 hours.

**Business IT** has taken significant steps to address the SII project. Specifically, it engaged in a three-week Deloitte evaluation on the feasibility of moving critical business IT systems to Stanford; with SUIAS undertook a review of IT governance; and has begun implementing the specific recommendations for practical improvements of business IT systems and policies. The SII project resulted in an investment in improved infrastructure. Based on the Deloitte and SUIAS projects, SLAC is partnering with SU to plan a multi-year integration effort for IT systems, financials, HR and procurement.

Based on the individual target scores and weights, an overall goal score of 2.8 (B) was achieved. However, SLAC management believes that while we performed better in FY08 than in FY07, we are not meeting our or DOE/SSO expectations for goal 6. Although changes are underway, for now a 'B-' is an appropriate assessment of SLAC's performance in FY08 for goal 6.

**Summary Evaluation**

Element	Letter Grade	Numerical Score	Objective Weight	Weighted Score	Total Score
6	Deliver Efficient, Effective and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)				
6.1	B+	3.1	15%	0.5	
6.2	B-	2.6	50%	1.3	
6.3	B	2.8	20%	0.5	
6.4	B+	3.3	15%	0.5	
6.5	n/a	n/a	0%	0.00	
<b>Performance Goal 6 Total</b>					

**Objective 6.1**

***Provide an Efficient, Effective and Responsive Financial Management System(s)***

*In measuring the performance of this objective, the DOE evaluator(s) shall consider the following:*

- *SLAC financial management systems' effectiveness as validated by internal {SU Internal Audit Department} and external audits and reviews {Inspector General (IG), General Accounting Office (GAO)} and DOE and other external reviewers;*
- *SLAC's continual improvement of their financial management system through self-assessments;*
- *SLAC's financial management system process reporting expectations for timely, accurate and complete financial reporting;*
- *SLAC's effective budget management and execution; and*
- *SLAC's effective management of direct and indirect costs.*
- *SLAC's financial policy and procedures.*

*The weight of this objective is 15%.*

**PERFORMANCE SUMMARY**

- FY08 seriously challenged Business Services Division (BSD) management to think of new structures, approaches and solutions
- Results of internal and external reports and self-assessments were incorporated into business and management strategies
- Initiated changes, some immediate and others near- and mid-term
- Recent strong involvement of SU highlighted opportunities to save funds while streamlining processes

**NOTEWORTHY PRACTICES**

- Gathered and organized resources to implement specific improvements despite a serious cutback in budget and staff
- Appointed contact person and started using CATS for recording and tracking all financial related audit findings and recommendations

- Successfully hired an accounting systems analyst who will be user liaison to improve system documentation for users

#### OPPORTUNITIES FOR IMPROVEMENT

- Define and implement IT governance model
- Clearly define division of roles and responsibilities within IT
- Clearly align IT objectives with SLAC's BSD business objectives
- Strengthen management of procurement activities
- Increase communication of financial policies and procedures
- Provide training in applying financial policies and procedures
- Incorporating DOE reporting requirements represents a challenge that must be met with intelligent and adequate programming
- Continue to prepare staff for change, document the changes and train for needed skill set (foster commitment for change)

**Performance Measure 6.1.1** ▶ The effectiveness of the financial management system as validated by internal and external audits and reviews. The audits/results must state that the laboratory's financial management system have been evaluated and has received a positive result, with no notable performance deficiencies identified.

**Target 6.1.1.1:** B+ = The target will be no material findings. A material finding is a failure or shortcoming which is in violation of the contract, applicable laws and regulations, or a violation of internal controls sufficiently large as to cause a serious case of mismanagement, the charging of unallowable costs, or a situation that misstates the facts.

#### Grade: B (2.9)

- Annual Allowable Cost Audit (March 2008, SUIAS) - no material findings
- Procurement Review (July 2008, SUIAS) determined that internal controls are not adequate and effective to ensure that contracts awarded to subcontractors are in compliance with department policies and DOE regulations - no material findings
- Conference Management Review (September 2008, DOE ORO) - no material findings
- Review of IT Governance (August 2008, SUIAS) - no material findings

**Performance Measure 6.1.2** ▶ Financial Management System Continual Improvements. The continual improvement of the laboratory's financial management system is based on recommendations from audits, reviews and self-assessments.

**Target 6.1.2.1:** B+ = SLAC reports to the DOE/SSO semi-annually on the implementation of completed recommendations for improvement.

#### Grade: B+ (3.3)

- Worked out solution for invoice approval on Haas deliveries
- Successfully hired an accounting systems analyst who will be user liaison to improve system documentation for users
- Appointed contact person and started using CATS for recording and tracking all financial related audit findings and recommendations

**Performance Measure 6.1.3** ▶ Financial Management System Reporting Expectations. This measure addresses the timely execution of the FY financial reporting requirements for programs funded through the department.

**Target 6.1.3.1:** B+ = Financial Management System Process Expectations. Target level performance is timely submittal of 95% of routine financial statement closings and all other DOE routinely required financial reports and analyses. Examples of financial management system processes meeting expectations:

- Timely transmittal of month-end and year-end financial statement closings.
- Timely submission of all DOE required financial reports and analyses.

**Grade: B (2.9)**

As of October 8, 2008, 93% of reports were submitted early or on time:

- 6 (14 %) of reports submitted early
- 34 (79 %) of reports submitted on due date
- 3 (7 %) of reports submitted late

**Performance Measure 6.1.4** ▶ Effective Budget Management and Execution. The DOE Chief Financial Officer (CFO) provides annual guidance for budget formulation for all programs, including formats and submission schedules. Some DOE programs may issue separate, additional guidance. The laboratory will ensure quality budget submissions per formulation guidance, effective budget execution and timely submission of required documents.

**Target 6.1.4.1:** B+ = Budget Submissions: Timeliness and Format. Target level performance is submission of the field budget request within the prescribed DOE headquarters due dates. SLAC will ensure that their supportable budget submissions/field work proposals (FWPs) all follow the prescribed DOE format, include all data requested and are submitted within prescribed DOE due dates. Earlier submission to meet ISC and SSO due dates would merit recognition above the target level.

**Grade: B+ (3.2)**

- The field budget request was sent to DOE on time (March 14, 2008).
- Took rapid action to fit budget to the significant reduction in FY08 funding, which was only revealed in January 2008.

**Performance Measure 6.1.5** ▶ SLAC will ensure that all financial policies and procedures are current, accurate and complete.

**Target 6.1.5.1:** B+ = Changes to SLAC financial policies and procedures are to be effectively communicated to SLAC staff, understood by the applicable staff members and assurance of compliance with the policies and procedures is achieved. Current policies and procedures will be submitted to the DOE/SSO contracting officer by November 30, 2007. SLAC will provide copies of new policies and updates to the DOE/SSO contracting officer.

**Grade: B+ (3.2)**

SLAC management submitted six policies and procedures to the DOE/SSO on November 30, 2007. They are:

1. Accrued Liabilities
2. Conference Management
3. General and Administrative Expense
4. Government Cash Funds
5. Purchase Card Program
6. Travel Reimbursement

There are seven policies and procedures that are in final draft status:

- Account Reconciliation
- Audit Resolution and Follow Up
- Capital Equipment Fabrications and Construction Work in Process
- Funds Control
- Invoice Approval and Payment
- Private Sector
- Signature Authority for Financial Transactions

**Objective 6.2**

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***Provide an Efficient, Effective and Responsive Acquisition and Property Management System(s)***

*In measuring the performance of this objective the DOE evaluator(s) shall consider the following:*

- *The continued certification of the procurement and property systems.*

- *Demonstration of efficient and effective acquisition and property management system(s) support.*
- *The effectiveness of the acquisition and property management system(s) through the use of the results of audits, review, CAPs and other information.*
- *The continued improvement of acquisition and property management system(s) through the use of the results of audits, review, CAPs and other information .*
- *The degree of knowledge and appropriate utilization of established system processes/procedures by management and staff.*

*The weight of this objective is 50%.*

#### PERFORMANCE SUMMARY

Based on a peer review, updated property procedures and the updated personal property management guide, DOE has approved the personal property management system. Based on the peer review finding, a CAP was developed and many of the goals have already been met.

#### NOTEWORTHY PRACTICES

Property updated procedures and the personal property management guide to achieve the approved system rating. Customer service continues to be outstanding. SLAC returned all SUVs to GSA.

#### OPPORTUNITIES FOR IMPROVEMENT

Continue to address the corrective actions in the CAP. Property is continuing the work on upgrading the barcode hardware.

**Performance Measure 6.2.1** ▶ Demonstrate effective acquisition and property management systems through external reviews, surveys and inspection as necessary or required.

**Target 6.2.1.1:** B+ = All corrective actions resulting from any external or internal reviews are completed and implemented by the end of FY08 on accepted milestones. Procurement will report quarterly to the DOE/SSO contracting officer.

**Grade: D (1.0)**

Acquisition systems are rated a ‘D’ as evidenced by the SII report, numerous outstanding corrective action items and potential contract award issues for key site services that were averted at the last minute. New leadership, revised organization structures and business plans were put in place the last two months of FY08.

**Target 6.2.1.2:** B+ = All corrective actions resulting from any external or internal reviews are completed and implemented by the end of FY08 on accepted milestones. SLAC property/fleet will report quarterly to the DOE/SSO contracting officer.

**Grade: B+ (3.3)**

Property management peer review results were issued in April. SLAC has developed a CAP. Improvements through the corrective action have already been completed on many of the findings.

- Establish a system for identifying, controlling and reporting high risk property.
  - SLAC attended the DOE high risk training.
  - SLAC received DOE approval for a high risk procedure.
- Screening for excess property needs to be completed and documented prior to procurement of new items—reutilization first source of supply.
  - The buyer’s checklist was revised.
  - The personal property management guide was updated.
  - Articles were placed in *SLAC Today*.
- Numerous vehicles were left unlocked when unattended.
  - A memo was distributed in December 2007 to all vehicle custodians.
- No local utilization goals/objectives have been established for motor vehicles.
  - Utilization goals were approved for FY07 and FY08.

- Excess semi-trailers are not disposed within 180 days in accordance with Balanced Score Card (BSC) requirements. Four semi-trailers were observed without DOE tags.
  - Two of the trailers were on excess when observed and both were sold. Fleet services have evaluated all vehicles and ordered new tags to be installed on each DOE vehicle.
- Vehicle accidents and incidents are not reported properly.
  - The procedure document was sent out to each custodian and their department head. Fleet services has updated the procedure and reporting section to reflect corrections. An article was placed in *SLAC Today*.
- No accident or incident reports are being submitted through the DOE/SSO or to the ORO.
  - SLAC fleet manager contacted custodians and asked them to complete the SF-91 accident report. A procedure was drafted and forwarded to each custodian and their department head. Additional notifications were incorporated into the facilities department web site and *SLAC Today*.
- SLAC traffic control program does not cover steps that vehicle operators should take when involved in an accident.
  - Fleet services provided a copy of the procedure document to HR to incorporate into the new hire training program. A copy was also sent to ES&H for incorporation into their safety training.
- Removable components with memory capability (e.g., flash drives) are administratively controlled items.
  - SLAC revised the director’s personally identifiable information (PII) memo. The property home page was updated. A memo was sent to computer administrators and administrative associates instructing them to mark all flash drives with a label that states ‘NO PII storage allowed’. New labels are being affixed to all laptops.

**Performance Measure 6.2.2** ► Perform procurement BSC evaluation in accordance with the FY08 BSC plan and successfully meet at least 90% of the BSC targets.

**Target 6.2.2.1:** B+ = 90% of BSC targets are successfully met.

**Grade: C (2.0)**

The full Procurement BSC report is available online<sup>13</sup>.

Target	Description	Points	Target	Results	Points
1.1.a	Transactional Customer Survey	2.5	92%	89.8%	2.5
1.1.b	PeopleSoft Operator Climate Survey	2.5	92%	91%	2.5
2.1	Effective Internal Controls	30	90%	83%	15
2.2	Effective Supplier Management	5	84%	84.4%	5
2.3	Effective Use of Competition	15	90%	86.5	12
2.4a	Percentage of Transactions Placed by Users	2.5	85%	76.7%	1.5
2.4.b	Percentage of Transactions Placed Through Alternative/Rapid Purchasing Techniques	2.5	85%	84%	2
2.4.c	Percentage of Transactions Placed through E-Commerce	5	Range	32.1	1
2.5.a	Average Cycle Time (Days) Transactions >\$100,000	5	25-30 days	31.8	4.5
2.5.b	Average Cycle Time (Days), Transactions <\$100,000	2.5	6-9 days	3.3 days	2.5
2.5.c	Average Cycle Time (Days), All Actions	2.5	8-11 days	3.7 days	2.5
2.6	Good Corporate Citizenship through Purchasing (Socioeconomic Subcontracting)	5	Range	Range	4

<sup>13</sup> <http://www-group.slac.stanford.edu/oa/selfevaluation/2008/6.2.2.1-ProcurementBSC.pdf>

Target	Description	Points	Target	Results	Points
2.7	Effective Purchase Card Management	5	10%	16.2%	5
3.1	Employee Satisfaction	2	90%	90%	2
3.2	Employee Alignment	2	Range	100%	2
3.3	Training of Procurement Personnel	6	100%	92.8%	6
4.1	Cost to Spend Ratio: Optimum Cost Efficiency of Purchasing Operations	5	>.034<.0 25		1
Total		100	90%		71

**Performance Measure 6.2.3** ■ As part of the effective procurement learning and growth, SLAC will demonstrate that all procurement personnel are trained in the following areas.

1. Types of Contracts
2. Cost Price Analysis
3. Contract Administration
4. Contract Law

**Target 6.2.3.1:** B+ = By the end of FY08, 90% of procurement personnel will have completed training in: Types of Contracts; Cost Price Analysis; Contract Administration; and Contract Law.

**Grade: B (3.0)**

The following training courses were completed by procurement staff:

- Contract Law (February 6, 2008)
- Contract Administration (March 4, 2008)
- Cost Price Analysis (March 28, 2008)
- Contract Types (March 18, 2008)

**Performance Measure 6.2.4** ► Perform property BSC evaluation in accordance with the FY08 BSC Plan and successfully meet at least 90% of the BSC targets.

**Target 6.2.4.1:** B+ = 90% of BSC targets are successfully met.

**Grade: B+ (3.4)**

The property control functional area has 23 measures in the BSC and only one measure received a failing rating, for an overall core of 96%. The DOE/SSO approved the SLAC personal property management system on September 4, 2008.

The one failing target was related to internet property sales and these are contingent on the balance of items available after being released from GSAXcess/EADS. Our experience has shown some items just don't sell when advertised on the internet. SLAC will work to increase the appropriate sale items on the internet.

The full BSC report is available online.<sup>14</sup>

Objective		Measure	Weight	Rating
1 (18%)	External Customer Satisfaction	1.1a	4%	Outstanding
	Internal Customer Satisfaction	1.2a	4%	Outstanding
	Accuracy of Property Assignments	1.3a	8%	Excellent
	Timeliness of Custodial Assignments	1.3b	2%	Outstanding
2 (52%)	% equipment property inventory located during physical inventory, by acquisition cost	2.1a	8%	Outstanding
	% equipment property inventory located during physical inventory, by items	2.1b	9%	Excellent
	% sensitive property inventory located during physical inventory, by acquisition cost	2.1c	8%	Outstanding

<sup>14</sup> <http://www-group.slac.stanford.edu/oa/selfevaluation/2008/6.2.4.1-PropertyBSC.pdf>

Objective		Measure	Weight	Rating
	% sensitive property inventory located during physical inventory, by items	2.1d	9%	Outstanding
	% stores property inventory located during physical inventory, by acquisition cost	2.1e	5%	Outstanding
	% stores property inventory located during physical inventory, by items	2.1f	5%	Outstanding
	% motor vehicles meeting utilization standards and objectives	2.2a	5%	Good
	% motor vehicles requiring maintenance is performed within 30 days of due date	2.3a	2%	Excellent
	% increase in the volume of items reported excess and disposed of within 180 days as compared with the previous cycle	2.4a	1%	Pass
3 (1%)	Increase the number of ‘items” sold “online” by 10% per year for two years	3.1a	1%	Fail
4 (1%)	% personal property acquired via purchase card is recorded in the property and financial databases within 72 hours of receipt	4.1a	1%	Good
5 (1%)	% personal property identified in the subcontractor’s property inventory upon review of invoices and/or scheduled inventories	5.1a	1%	Outstanding
6 (6%)	% contractor personal property management employees having performance expectations and training requirements responding to BSC objectives	6.1a	5%	Excellent
	% identified staff required to receive high risk training	6.1b	1%	Outstanding
7 (6%)	Establish a cost and performance baseline for each targeted process and trend the cost annually	7.1a	3%	Pass
	Demonstrate an improving trend in efficiency for targeted processes	7.1b	3%	Pass
8 (3%)	Non-law enforcement SUV - compare the number of trips made that required driving other than normal road conditions with the total number of trips the SUV made	8.1a	3%	Pass
9 (12%)	As compared with FY05 petroleum consumption levels, demonstrate a significant improving trend in reducing the net petroleum consumption by 2% annually through the end of FY15	9.1a	6%	Pass
	Any GSA vehicle not meeting annual utilization goals and without a strong justification as to why vehicle should be retained, should be turned back to GSA	9.1b	6%	Pass

**Objective 6.3**

***Provide an Efficient, Effective and Responsive HR Management System and Diversity Program***

*In measuring the performance of this objective the DOE evaluator(s) shall consider the following:*

- *Demonstration of efficient and effective HR management system support;*
- *The effectiveness of the HR management system as validated by internal and external audits and reviews;*
- *The continual improvement of the HR management system through the use of results of audits, review and other information; and*
- *The degree of knowledge and appropriate utilization of established system processes/procedures by contractor management and staff.*

*The weight of this objective is 20%.*

**PERFORMANCE SUMMARY**

During this performance period, HR did not meet all of its performance goals. This is primarily a reflection of the year when staff was focused for several months on the layoff programs, which

delayed achieving some of the goals. Two of the system-related goals were delayed; one because of a deliberate moratorium on new projects and the other due to cyber security issues. Two of the incomplete projects will be implemented early in FY09. Working with laboratory senior management and the DOE/SSO, the department developed and implemented remarkably successful voluntary and involuntary layoff programs. In addition, the staff also worked on SII projects. The laboratory also conducted a successful search for a new HR director to replace the retiring director.

#### NOTEWORTHY PRACTICES

The layoffs due to the budget reduction were conducted with minimal disruption and in a respectful and humane manner even as judged by the laid off staff. There was only one third party action—a union grievance—regarding the layoffs. We worked with the DOE/SSO to establish a new process for senior management salary approvals and are working on an agreement with the DOE/SSO on the implementation of DOE directive 350.1. HR also initiated a project that will result in the entire laboratory staff having current R2A2s (roles, responsibilities, authorities and accountabilities).

#### OPPORTUNITIES FOR IMPROVEMENT

The major areas of improvement lie in the systems area. Except for one implementation (electronic distribution of routine HR reports) the other projects will be put on hold pending the project to evaluate integration of the SLAC PeopleSoft system with the campus system.

**Performance Measure 6.3.1** ▶ Continuous improvement of HR systems/processes through annually selected projects that streamline or enhance HR services.

**Target 6.3.1.1:** B+ = Three projects are identified and successfully implemented during FY08. The data from these projects are submitted to contracting officer as the projects are completed.

For FY08, those projects are:

1. SLAC HR will provide direction and guidance to the laboratory management to facilitate the ramping down of LCLS construction-phase staff.
2. SLAC will initiate processes to streamline HR work. This includes:
  - Implementing a self service process in which employees can update appropriate information in their personnel records.
  - Coordinate with senior management to propose and implement a training course for departmental level managers which will include the legal requirements of management, communication skills and problem solving skills.
  - Implement the electronic distribution of routine personnel management reports.
3. HR will implement an *Interviewing Skills Workshop* for hiring managers which emphasizes how to identify and select the most qualified candidate for a position.

#### Grade: C (2.0)

1. LCLS management developed a detailed plan—employee by employee—for the conversion of the project from construction to operations and maintenance. This item has earned a ‘B+’ grade.
2. Streamlining HR work
  - Self service has not yet been implemented and may be put on hold until the integration of the SLAC HR system with the main campus HR system has been fully evaluated.
  - The workshop for department level managers has been put on hold pending further guidance from laboratory senior management.
  - The electronic distribution of routine personnel management reports is in its final testing stages, but has not yet been rolled out to SLAC’s managers.
3. The *Interviewing Skills Workshop* for hiring managers has been piloted. Training staff is revising the workshop based on feedback and the course will be rolled out to management in October, 2008.

**Performance Measure 6.3.2** ▶ Success in attraction/retention of highly qualified employees.

**Target 6.3.2.1:** B+ = The in-hire compensation package assures 85% acceptance rate for management and operation personnel in the ES&H, financial, procurement and facilities classifications and (2) the SLAC turnover rate for the classifications above is between 5% and 9%.

**Grade: B (3.0)**

- The in-hire acceptance rate for positions in the stated categories was 82.2%. There were 45 offers made to candidates for these positions and eight were declined for salary reasons. We did not meet this target and earn a ‘B-‘ for this category. This indicates that our salary offers have not been as competitive as we would like. Unless the market softens in light of the economic crisis (which it most probably will), we will need to evaluate our approach to in-hire salary offers.
- During FY08, SLAC experienced significant budget reduction that resulted in large voluntary and involuntary layoff programs. These layoffs, of course, greatly impacted our turnover statistics, making this measure a difficult one to calibrate. The total turnover for those positions, including the layoffs (both voluntary and involuntary) was 26.2%. However, the turnover excluding the layoffs seems to be more consistent with the intent of this measure. That turnover rate was 3.8%. This is the statistic used to establish the target grade.

**Performance Measure 6.3.3** ▶ Diversity Recruitment Plan. Develop and implement a diversity recruitment plan aimed at increasing representation of women and minorities in under-represented job groups (as identified in the annual AAP).

**Target 6.3.3.1:** B+ = A diversity recruiting plan, with milestones for implementation during FY08, will be developed and submitted to the DOE/SSO by November 30, 2007. This plan will be tied to the areas of under-utilization for women and minorities in FY08 AAP.

**Grade: A- (3.5)**

The diversity recruitment plan was completed well in advance of November 30, 2007 deadline and funded.

It is noted that budgetary challenges in FY08 resulted in layoffs (voluntary and involuntary) and prevented the diversity recruitment plan from being fully implemented. To effectively increase representation of women and minorities, SLAC must have hiring opportunities. There were little to no opportunities in those job areas where under-utilization existed.

In spite of limitations in regular, permanent jobs, we did have excellent minority and female representation in all of our special programs (year round and summer).

Program	Female	Minority
SULI	40%	56%
GEM	25%	100%
Work Study	50%	100%
Youth Opportunity	40%	100%

Continued uncertainty surrounding the budget and our inability to commit resulted in reluctance by recruiters to recruit or refer candidates for consideration.

In anticipation of a more robust budget this upcoming year, the FY09 AAP reflects all of the organizational changes during the past year, ties the plan to the laboratory-wide diversity recruitment plan and makes the managerial staff more accountable for the implementation of the plan goals and for success of the recruitment plan.

**Objective 6.4**

***Provide Efficient, Effective and Responsive Management Systems for Internal Audit and Oversight; Quality; Information Management; and Other Administrative Support Services as Appropriate***

*Determination of the (SU) provision of an efficient, effective and responsive financial management system (s) for internal audit and oversight, quality, information management and other administrative support systems will be based upon SLAC’s implementation of DOE directions, guidelines and recommendations; and the reliance on the work of others, particularly the SU Audit Department (SIAD), to accomplish overall assessments of the design and operation of internal controls for these various areas, in the determination of effectiveness for these management system.*

*In measuring the performance of this objective, the DOE evaluator(s) shall consider the following:*

- *Demonstration of efficient and effective management systems support;*

- *The effectiveness of the management systems as validated by internal and external audits and reviews;*
- *The continual improvement of management systems through the use of results of audits, review and other information; and*
- *The degree of knowledge and appropriate utilization of established system processes/procedures by contractor management and staff.*
- *The adequacy and compliance of SLAC's Cost Accounting Disclosure Statement.*

The weight of this objective is 15%.

**PERFORMANCE SUMMARY**

- Completed all projects on the FY08 audit plan
- Performed additional scope on the procurement audit at the request of SSO
- Completed 2,856 actual hours as opposed to 2,230 hours budgeted for FY08

**Performance Measure 6.4.1** ▶ Internal Controls and Audit Findings. SLAC will complete the Defense Contract Audit Agency (DCAA) data requirements, from the CAS disclosure statement compliance and adequacy audit.

**Target 6.4.1.1:** B+ = SLAC will provide all DCAA required data by November 1, 2007.

**Grade: B (2.9)**

- SLAC provided all DCAA required data on November 4, 2007 {E-mail to Teppy Tuy}
- DCAA concluded its review and issued audit report on June 27, 2008

**Target 6.4.1.2:** B+ = SLAC will complete the CAS disclosure statement by January 31, 2008.

**Grade: B+ (3.3)**

- The CFO sent the draft of the SLAC CAS disclosure statement to the DCAA on January 29, 2008. The document included changes that were previously discussed
- SLAC revised the disclosure statement based on comments from DOE and DCAA on June 19, 2008
- Received approval letter from DOE contracting officer for initial disclosure statement in September

**Performance Measure 6.4.2** ▶ Internal Audit Processes. Stanford Internal Audit Department (SIAD) will plan for and conduct audits of SLAC business functions as defined within the SLAC audit plan, or additional work areas as needed and agreed to by the DOE/SSO and SIAD.

**Target 6.4.2.1:** B+ = Target performance level is SIAD performance of 100% of the SLAC audit plan, adjusted for unplanned, DOE-requested changes during the year.

**Grade: B+ (3.4)**

- Completed all projects on the FY08 audit plan
- Performed additional scope on the procurement audit at the request of SSO
- Completed 2,856 actual hours as opposed to 2,230 hours budgeted for FY08

**Performance Measure 6.4.3** ▶ Comparison (benchmark) of Information Technology (IT) cost performance with like industry and government entities for; 1) IT spending as a percent of overall cost plan; 2) percent of laboratory employees in IT jobs; and 3) IT budget per end user.

**Target 6.4.3.1:** B+ = The target is to develop a benchmark and a plan to meet or exceed the benchmark.

**Grade: B+ (3.4)**

New Performance Measure 6.4.3: IT Business System Improvements. SLAC will prepare a semi-annual report with a multi-year plan for SLAC IT business systems improvements. This report and plan will be based on the SII study results used as the reference point, for evaluating the ensuing improvement initiative implementations for SLAC's IT business systems.

New Target 6.4.3.1: B+ The target is to develop a semi-annual report and multi-year plan that will address SLAC improvement initiatives. This status report and plan will be presented to the DOE/SSO prior to the mid-year and annual contract performance assessments, which will evaluate SLAC's

progress and status against the financial system recommendations and multi-year plan. The results should reflect how investments drive continual improvements in the direction and effectiveness of SLAC's IT business systems. (Score 3.4-3.1)

**Accomplishments**

- Three-week Deloitte evaluation of possible Stanford/SLAC IT system integration—feasibility study (FS), fit-gap analysis
- SUIAS review of IT governance with specific recommendations for practical improvements in IT systems
- SII initiative resulted an investment in improved infrastructure
- Strong SU participation in integration efforts
- Initiated the process to migrate to campus-based solution (IT systems, financials, HR and procurement)

**Plan**

- SLAC and SU formed a partnership to provide detailed situational analysis of SLAC IT that will lead to a migration and implementation plan
- SU and SLAC management will develop, validate and monitor detailed timeline for achieving migration by FY10
- SLAC project manager appointed to coordinate and ensure the execution of the project

**Execution**

- Weekly checkpoints with SU to communicate progress
- Started discovery phase

**Specific improvements in procurement related to IT as a result of SII**

- Implemented priority system in requisitions
- Implemented notification for personal service agreements
- Created canned reports for managers, such as contact expiration reports, etc.
- On-line training system developed for requestors
- Contractor evaluation form is implemented (in testing)
- Advanced procurement planning project is in progress

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**Objective 6.5**

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*Demonstrate Effective Transfer of Technology and Commercialization of Intellectual Assets*

The weight of this objective is 0% as technology transfer is not a large enough activity at SLAC to be weighted.

## Goal 7 Sustain Excellence in Operating, Maintaining and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs

*The contractor provides appropriate planning for, construction and management of laboratory facilities and infrastructures required to efficiently and effectively carry out current and future science and technology programs.*

*The weight of this goal is 15%.*

### Executive Summary

Goal 7 has two objectives, 11 measures and 12 targets. The following is a summary of accomplishments toward this goal.

Improvements have been made to optimize usage of existing facilities and infrastructure as well as planning for future facilities and infrastructure to support SLAC’s scientific programs. While striving for and the most part meeting, the specified targets for maintenance investment index (MII), deferred maintenance reduction (DMR), asset condition index (ACI), preventive maintenance, Transformational Energy Action Management (TEAM) initiatives and computerized maintenance management system (CMMS) milestones, there is a solid foundation for sustained and continued improvements in efficiency and effectiveness with our existing facilities and infrastructure. There was good progress made this year to replace aging facilities and infrastructure with the work done related to the environmental restoration and Safety and Operational Reliability Improvement (SORI) projects. There was also great progress made to plan for future needs, especially with the approval of CD-0 of the Strategic Laboratory Projects (SLI) Modernization project. But there is still an opportunity to improve the consistency of the project management delivery process from inception through planning, design, construction and occupancy to ensure accountability for communication, budget, schedule and all aspects of project management. In addition, the life-cycle analysis related to planning for facilities and infrastructure renewal will be a good foundation as the laboratory incorporates the “mission readiness” approach to help prioritize renewal funding to support future scientific initiatives.

Based on the individual target scores and weights, an overall goal score of 3.5 (B+) was achieved. However, SLAC management believes that while we performed better in FY08 than in FY07, we are not yet meeting our or DOE/SSO expectations for goal 7. Although improvements continue, for now a ‘B’ is an appropriate assessment of SLAC’s performance in FY08 for goal 7.

### Summary Evaluation

	Element	Letter Grade	Numerical Score	Objective Weight	Weighted Score	Total Score
7	Sustain Excellence in Operating, Maintaining and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs					
7.1	Manage Facilities and Infrastructure in an Efficient and Effective Manner that Optimizes Usage and Minimizes Life Cycle Costs	B+	3.3	50%	1.7	
7.2	Provide Planning for and Acquire the Facilities and Infrastructure Required to Support Future Laboratory Programs	A-	3.6	50%	1.8	
<b>Performance Goal 7 Total</b>						<b>3.5</b>

## Objective 7.1

### *Manage Facilities and Infrastructure in an Efficient and Effective Manner that Optimizes Usage and Minimizes Life Cycle Costs*

In measuring the performance of this objective the DOE evaluator(s) shall consider the following:

- The management of real property assets to maintain effective operational safety, worker health, environmental protection and compliance, property preservation and cost effectiveness while meeting program missions, through effective facility utilization, maintenance and budget execution; and
- The maintenance and renewal of building systems, structures and components associated with the laboratory's facility and land assets.
- The management of energy use and conservation practices.
- The contractor makes progress toward completing the environment restoration project through strong project management and an effective closure strategy.

The weight of this objective is 50%.

#### PERFORMANCE SUMMARY

SLAC was close to meeting all of the 7.1 targets. Although the MII goal of 2.0% was not met, we came very close at 1.99%. The goals related to the specified \$686K DMR target, scheduled PM, CMMS project, ACI, TEAM initiatives and timely submission of documents were all achieved.

#### NOTEWORTHY PRACTICES

100% of CMMS project milestones were met and the system was successfully implemented on August 1, 2008.

#### OPPORTUNITIES FOR IMPROVEMENT

More refinement on the preventive maintenance program can be done. Now that the CMMS system is implemented, it will allow improved tracking of equipment and preventive maintenance tasks that are planned and executed. Although close this year, there are opportunities for improving the MII.

**Performance Measure 7.1.1** ▶ Achieve the SC MII goal of 2.0% for non-waiver assets.

**Target 7.1.1.1:** B+ = SLAC achieves the SC MII goal of 2.0%.

#### **Grade: B (3.0)**

Although SLAC did not receive the budget anticipated in FY08 and the expectation was that this goal would not be met, SLAC came very close to achieving the MII goal of 2.0%. Based on year end data SLAC spent \$12,662,760 maintaining the facilities in FY08. Subtracting the \$686,000 DMR targeted by the DOE/SSO leaves \$11,976,760 to count against MII. With an "adjusted RPV" (the RPV times the conventional facilities indicator) of \$600,488,389<sup>15</sup> in FY08, the MII is 1.99%.

**Performance Measure 7.1.2** ▶ Effective reduction of Deferred Maintenance (DM). The DMR is expressed as the dollar amount by which the DM Backlog list is reduced during the course of the FY for the site.

**Target 7.1.2.1:** B+ = SLAC meets DM reduction goal as stated in the approved FY08 Ten Year Site Plan.

#### **Grade: B+ (3.1)**

- SLAC has met its target of \$686K overhead funded DMR.

**Performance Measure 7.1.3** ▶ Efficient completion of scheduled preventive maintenance activities for conventional facilities.

**Target 7.1.3.1:** B+ = SLAC completed 85% of planned PM within 30 days. (Planned PM for this measure is defined as those activities that are not dependent on an interruption of operations for completion.)

<sup>15</sup> The SC Infrastructure Division, by its guidance for the Ten Year Site Plan, directs its sites to use the RPV from FY04 for the calculation of the FY07 MII and ACI, the FY05 for the calculation of the FY08 MII and ACI and so on. Since the SLAC high value/low maintenance RPV proposal (resulting in adjusted RPVs for 19 unique facilities) was approved in FY07 for FY07, that base RPV will be used in FY08 as well. The RPV will increase in FY09 due to the addition of the LCLS conventional facilities in late FY08.

**Grade: B+ (3.4)**

Now that our CMMS has been deployed, we can continue to fine tune our program and reporting procedures. Based on our data as an aggregate, we completed 85.5% of the scheduled PMs in FY08 meeting our 'B+' target.

**Target 7.1.3.2:** B+ = Meets 90% agreed-on milestones on the FY08 CMMS Plan.

**Grade: A+ (4.3)**

The CMMS, FAMIS, was implemented August 1, 2008 and all FY08 CMMS milestones were completed.

**Performance Measure 7.1.4** ► The ACI is (1) one minus the Facility Condition Index (FCI). FCI is the ratio of DM to Replacement Plant Value (RPV). The FCI is derived from data in FIMS.

**Target 7.1.4.1:** B+ = Greater than or equal to 95% for all assets.

**Grade: B (3.0)**

Using the FY07 year end DM of \$36,566,149 and the "adjusted RPV" of \$600,488,389<sup>15</sup>, the current site ACI is 93.9%. This performance measure will actually be calculated based upon the FY08 year end DM and an "adjusted RPV" of \$600,488,389<sup>15</sup>. The year end DM will be reduced by DM accomplished, decreased by nearly \$4.5 million with the expected 50% completion of the SORI project, increased by the FY08 condition asset inspection and increased by inflation. It is expected that there will be a net decrease in DM in FY08 and the ACI will increase.

Based on the FIMS FY08 DM of \$26,804,578 and using an RPV of \$600,488,389 our ACI = 95.5%, which meets the target goal.

**Performance Measure 7.1.5** ► In support of the goals of the Department of Energy's TEAM initiative and the goals and objectives contained in Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management, the contractor shall cooperate with Federal site office personnel to provide full and open access to the maximum extent practicable to NNSA/DOE-contracted Energy Service Companies (ESCOs) under Energy Savings Performance Contracts (ESPC), to facilitate on-site assessments of opportunities to improve the site's energy efficiency, water reduction and renewable energy improvements and shall provide advisory assistance in reviewing ESCO recommendations as directed by the contracting officer. The contractor shall ensure ESCO personnel are granted access pursuant to contractual requirements; monitor ESCO activities to ensure that site safety and security are adhered to; promptly provide information requested by ESCO personnel to assist them in developing viable recommendations; and when directed by the contracting officer, assist the DOE/SSO in the monitoring and execution of ESPC Projects.

An update to the Ten Year Site Plan is developed and approved by DOE that adequately addresses the site's contribution to meeting the Agency-wide goals of the TEAM initiative and the goals set forth in EO 13423.

**Target 7.1.5.1:** B+ = SLAC will develop a plan approved by DOE that will address DOE's goal in meeting TEAM initiatives and the goals per Executive Order 13423 by July 31, 2008.

**Grade: A- (3.6)**

- Evaluate private sector third-party financing opportunities through ESPC contracting alternatives in achieving TEAM initiatives by the end of FY08.
  - Results: ESCO selection completed in November 2007, initial proposal submitted in June 2008, board approval of the initial proposal in July 2008, detailed energy survey (DES) kick-off in August 2008, DES completion scheduled for January 2009. The Super ESPC proposal includes nine energy conservation measures (ECMs) that will return guaranteed savings of \$1.2M average annually over 15 years.
- Have an executable plan in place to provide for a 30% energy intensity reduction and 16% potable water reduction before FY15.
  - Results: Submitted "draft" executable plan to DOE/SSO on August 1 and their review was completed on October 1. SLAC management review is currently underway.
- Have executable renewable energy certificates in place as required to achieve the 7.5% goal of on-site renewable energy by FY10.

- Results: The 7.5% renewable energy certificate goal was introduced at the semi-annual DOE Northern California Power Consortium and purchase planning is in place to achieve the target goal.
- Evaluate on-site renewable resources and their adequacy for implementation at SLAC before FY10.
  - Results: Directed Antares Group Inc. to complete a site-wide analysis of potential renewable energy sources at SLAC. The final report was submitted to DOE/SSO in July 2008.
- Have an executable plan in place to ensure all construction >\$5M meets LEED Gold Certification and all other projects incorporate sustainable practices in the guiding principles for Federal leadership in high performance and sustainable buildings starting October 1, 2008. This plan should be comprehensive and provide for not less than 15% LEED certification of the building inventory by 2015 and have reference within the TYSP.
  - Results: The sustainable building requirements were incorporated into the executable plan submitted in July and efforts against that plan are currently underway. SLAC employees are completing USGBC professional accreditation and building updates have been made in FIMS. Additionally, building audits are being coordinated for implementation within CY08.
- Have a plan in place for the installation of energy and water use advanced meters before FY09.
  - Results: The advanced metering plan for electricity and water was submitted to the DOE/SSO and approved within the FY07 requirement. Since that time it was decided to incorporate advanced metering into the ESCO scope of services and include it as a separate ECM. This decision was based on bundling ECMs to help further creative financing through third party alternatives of ESPC. Finalization of the advanced metering plan will be achieved early in FY09, consistent with completion of the DES and with installation following DES approval.
- Have executable plans in place by the end of FY08 to ensure that alternative fuel vehicles run on alternative fuel.
  - Result: The executable plan requirements were achieved by the transportation department consistent with TEAM initiative goals and objectives and within the prescribed time limits.

**Performance Measure 7.1.6** ▶ Timely completion and submission of all plans, reports, data and inputs as requested by DOE according to DOE schedule.

**Target 7.1.6.1:** B+ = SLAC completes all critical tasks and submits all reports, plans and inputs on time as required by DOE to meet required schedules.

**Grade: A- (3.5)**

- Development of TYSP in accordance with DOE guidance (10 out of 10 pts), now called the *Annual Laboratory Plan*
- FIMS validation by 6/1/08 (5 out of 5 pts)
- Energy management performance agreements have been replaced by the draft executable plan SLAC FY09, which was submitted to DOE/SSO by July 31, 2008
- DM reduction (DMR) program (5 out of 5 pts)
- Quarterly maintenance reports (4 out 4 pts)
- Other miscellaneous reports (e.g., FAS monthly reports; ESPC reports, AFDC) (6 out of 6 pts)

## Objective 7.2

### ***Provide Planning for and Acquire the Facilities and Infrastructure Required to Support Future Laboratory Programs***

*In measuring the performance of this objective the DOE evaluator(s) shall consider the following:*

- *Integration and alignment of the Ten Year Site Plan to the laboratory's comprehensive strategic plan;*
- *The effectiveness in producing quality site and facility planning documents as required;*
- *The involvement of relevant stakeholders in all appropriate aspects of facility planning and preparation of required documentation;*
- *Overall responsiveness to customer mission needs; and*
- *Efficiency in meeting cost and schedule performance indices for facility construction projects.*

*The weight of this objective is 50%.*

#### PERFORMANCE SUMMARY

Good progress was made in SLAC's environmental restoration and SORI projects, as well as in facility and infrastructure projects greater than \$250K. There was a good start toward increasing investment in infrastructure to minimize future costs by developing a facilities renewal plan. Coupled with the mission readiness approach, this will be a strong planning tool for renewing our buildings and infrastructure.

#### NOTEWORTHY PRACTICES

- Developed a facilities renewal plan
- There were no TRC or DART cases for the 21,256 work hours of the SORI project in FY08

#### OPPORTUNITIES FOR IMPROVEMENT

- Develop an integrated process for infrastructure planning and facilities renewal to support the "mission readiness" of the laboratory business lines
- Ensure a consistent project management delivery process from inception through planning, design, construction and occupancy to improve accountability for communication, budget, schedule and all aspects of project management

**Performance Measure 7.2.1** ▶ Effective integrated planning for the SLAC environmental restoration project. Complete milestones and make progress as measured against the SLAC prepared, DOE accepted project baseline. The overall performance of the following set of milestones shall be utilized by the evaluator as the primary measure of the contractor's success in meeting the performance expectation.

**Target 7.2.1.1:** B+ = Meet target milestones 7 and 8; Meet five of the remaining six milestones.

Milestones:

1. Completion of the former solvent underground storage tank (FSUST) dual phase extraction (DPE) system construction upgrade.
2. Completion of the Group 1 removal action completion report.
3. Maintain the site-wide database of sample information including incorporation of ID/IQ contractor collected data consistent with the SLAC SOPs and in accordance to the SLAC Quality Assurance Project Plan (QAPP) with all Quality Assurance/Quality Control (QA/QC) items resolved by the project manager(s).
4. Perform Operations and Maintenance activities on the installed treatment systems including those accepted from the ID/IQ contractor.
5. Complete the groundwater volatile organic compound (VOC) operable unit FS and remedial action plan (RAP).
6. Perform groundwater monitoring consistent with SLAC's self-monitoring plan per the Regional Water Quality Control Board (RWQCB) Order.
7. Maintain and report on SLAC prepared, DOE accepted M&O contractor project baseline per DOE O413.3A CRD, as applicable including the development and utilization of an earned value management system and a project baseline.
8. Support transition of DOE environmental management (EM) work to the ID/IQ contractor and provide logistical support to the EM ID/IQ contractor, as applicable, for remedial investigations and removal actions.

**Grade: A- (3.5)**

**Milestone 1** – Completed in October 2008.

**Milestone 2** – Draft report completed and submitted to DOE in April 2008. Additional work since then includes: incorporation of DOE feedback into the draft report, submittal of the draft report to SU for review and presentation and discussion of the content, as well as the site closure process with SU. The report is currently being submitted to the RWQCB for their review. SLAC will respond to their comments and finalize the report. Upon completion, site closure forms will be submitted to the RWQCB for the areas covered under the Group I removal action.

**Milestone 3** – All data collected presently is QA/QC'd and uploaded to the Environmental Information Management (EIM) database. Historical data that was available in electronic format was uploaded to EIM. SLAC is actively working on uploading to EIM historical data that does not have electronic data files. As an example, all tritium data for the tritium OU is being uploaded to EIM, although only a small portion of the data was in an electronic format, a noteworthy effort has gone into hand entering the data into the EIM. All project managers follow the QAPP and the document and database management procedures, which are available to users on SharePoint and in the ERP document library. The IDIQ contractor has not yet collected any data. To enhance the database, SLAC has met with users such as the IDIQ contractor (see milestone 8) to better understand how the database could better meet their needs. These discussions have led SLAC to work with Locus Focus to make changes to the EIM database and that effort continues. SLAC is meeting with the IDIQ database team on a bi-weekly basis to review their data table spreadsheets being prepared for the west SLAC and research yard remedial investigations in an effort to facilitate the remaining historical data upload to the EIM database. SLAC is reviewing the spreadsheets and submitting feedback to the IDIQ contractor. The current process for incorporating data into the database meets future site needs as they are foreseen; nevertheless, efforts will continue to make the database more user friendly, robust and useful for site environmental activities.

**Milestone 4** – Activities associated with the operation and maintenance of the two groundwater treatment systems on site have been performed as scheduled throughout the past year. No systems have been completed by the IDIQ contractor; however, we plan for this effort once the construction is complete. During the past year, the upgrade to dual phase extraction at the FSUST was completed by SLAC and that system has been operating very well, nearly doubling contaminant removal within the first six months of operation. Daily inspections of the treatment systems are performed. During a routine inspection at the FSUST, a small moist spot was observed on the containment pad floor under the granular activated carbon vessel. Upon closer inspection, staff identified pinhole leaks on the outside of the inlet coupling, apparently caused by corrosion. A compression fitting was fabricated to stop the leaks and allow continued operation until a scheduled change out a few months later. The vessel has been retired and will be transferred to salvage for scrapping. A new vessel will replace the failed one. During the past year, SLAC began preparing written monthly groundwater treatment system performance reports with charts on contaminant removal. In addition, SLAC will be writing the annual performance report for the two existing treatment systems.

**Milestone 5** – The draft FS and RAP was completed and submitted to DOE in June 2008. Since that time, SLAC received feedback from DOE and provided a written response to comments. SLAC is incorporating DOE feedback into the revised documents and preparing the next revision for DOE and SU review. Changes to this document made during the draft preparation, such as the DOE request to incorporate additional information on NEPA values, impacted the scheduled completion date for the FS.

**Milestone 6** – Activities associated with groundwater and sediment monitoring, as well as the plume stability analyses, were performed as scheduled throughout FY08. There were no significant problems or delays and SLAC plans to perform a groundwater monitoring study during late FY08/early FY09 to evaluate our sampling procedures and, if possible, introduce efficiencies into our methods.

**Milestone 7** – A comprehensive baseline schedule of work activities for the EM-funded restoration program was submitted to DOE in December 2007. Detailed support documentation such as a project management plan, a risk management plan and other baseline documents were submitted at the same time. Some document revisions were completed and the baseline was approved by DOE in August, 2008. Throughout FY08, monthly earned value reports were provided to the DOE that incorporated work in the baseline schedule. Percent complete and variance analyses were provided to DOE as required by DOE O413.3A CRD. New in FY08 were the written monthly reports that document performance on all tasks in the scope of work, which have been provided to DOE on schedule each month. Configuration control of the baseline has been in place throughout the year with an effective system of DOE notification of changes via the ERP Baseline SharePoint site.

**Milestone 8** – Throughout the past year, the site has provided support to the IDIQ contractor through an individual who acts as the site IDIQ liaison. In addition, the restoration program set up and maintains an information query SharePoint site that enables outside contractors and the DOE to pose questions, which are responded to in a prompt fashion. Each monthly report provided to DOE EM provides a statistical assessment of the timeliness of information query responses.

**Performance Measure 7.2.2** ▶ Comprehensive and integrated planning for the acquisition, utilization, maintenance, infrastructure recapitalization and disposition of real property.

**Target 7.2.2.1:** B+ = SLAC prepares the TYSP and delivers a completed finalized copy for DOE/SSO review, comment and approval ten (10) business days before the deadline established by the DOE guidance.

**Grade:** N/A

The format for providing a plan was changed. There was no call for a TYSP for FY08.

**Performance Measure 7.2.3** ▶ Effective execution of SORI project.

**Target 7.2.3.1:** B+ = SLAC executes the SORI project within 10% of target for cost at Work Breakdown Structure (WBS) level 2 and no level II milestone is more than 3 months overdue as defined in the SORI Project Execution Plan (PEP).

**Grade:** A- (3.7)

DOE/SSO revised the FY08 performance measure for this target to include safety criteria as follows:

Target 7.2.3.1 B+ = SLAC executes the SORI project within 10% of target for cost WBS level 2 and no level II milestone is more than three months overdue as defined in the SORI PEP. Safety is evident in SLAC's execution by having recordable incidents rates that are below those of the site and no significant accidents or incidents that may could cause personnel injury or property damage.

The SORI project meets or exceeds the above FY08 performance expectations in terms of safety, cost and schedule.

**B120 Seismic Upgrade (WBS 1.1.2.7):** Construction 100% complete on 9/18/08, two weeks ahead of schedule (10/3/08) and within budget.

**B140 Seismic Upgrade (WBS 1.1.2.8):** Construction 100% complete on 9/28/07, within schedule and budget.

**Cooling Tower Water (CTW) Piping Replacement at Linac Sectors 21-30 (WBS 1.1.1.4):** Construction 100% complete on 11/19/07, within schedule and budget.

**Chilled Water (CHW) and Hot Water (HW) Piping Replacement (WBS 1.1.1.5 and 1.1.1.6):** Safety and class I soil mitigation work planning complete in May 2008. Construction started 6/2/08 and good progress has been made. Target completion date is March 2009, pending weather conditions. To date this project is on target for cost.

**Cooling Tower (CT) 101 Replacement (WBS 1.1.2.2):** SLAC received a new tower design package from ACT on 7/22/08. Redesign review and approval are scheduled for completion by 10/30/08. Construction mobilization and construction will start mid-December 2008 and construction completion is planned for February 2009. To date this project is on target for budget.

**PEP Mechanical Equipment Buildings Seismic Upgrade (WBS 1.1.2.1):** Construction 100% complete on 10/18/07, within budget and schedule.

**Cooling Tower (CT) 1701 Basin Seismic Upgrade (WBS 1.1.2.4):** Construction 100% complete on 9/18/07, within budget and schedule.

**B044 Seismic Equipment Anchoring (WBS 1.1.2.6):** As of 9/20/2008, construction is 80% complete. Remaining work is the seismic anchoring of the ASTA bunker experimental equipment structure with planned start and completion dates of 11/17/08 and 12/12/2008, respectively. This project is on target for cost and to the approved revised schedule.

**B050 Seismic Upgrade (WBS 1.1.2.5):** There are three components for this task:

1. Main overhead water pipes seismic bracing (all floors): Construction 100% complete on 2/22/08, within budget and schedule.
2. Collector retrofit: Safety documentation including fall protection plan and revised stressing requirement of 120 kips for post tension per bar calculation are in progress. This retrofit work is scheduled to start and finish during SLAC year-end winter closure period (12/22/08 - 01/02/09) since tensioning these bars will require complete evacuation of B050 for safety. This project is on target for budget and schedule.
3. New raised floor systems installation for Areas 1, 2, 3 (with Isobase, Data Center) and Area 4 (without Isobase, Telecom Room):
  - a. Area 1 (Phase 1) construction complete on 4/25/08, within approved revised schedule and budget.
  - b. Area 2 (Phase 2-Rev) construction started on 9/15/08 and planned for completion by 11/21/08, on target for approved revised schedule and budget.
  - c. Area 3 (Phases 3a & 3b-Rev) construction planned start and completion dates are 2/16/09 and 6/19/09, respectively. Note that the approved revised construction completion date for Area 3 was 9/18/09.
  - d. Area 4 (Telecom Room) construction planned start and completion dates are 1/28/09 and 2/16/09, respectively.

#### **SORI Project Safety Statistics for FY08 (10/01/2007 - 9/30/2008)**

TRC - 0, DART - 0 based on 21,256<sup>16</sup> safe work hours broken down as follows:

- B120 Seismic Upgrade: 8,304 hours
- B044 Equipment Seismic Anchoring: 2,600 hours
- B050 Seismic Upgrade: 2,360 hours
- CTW, HW, CHW Underground Piping Replacement: 7,992 hours

**Performance Measure 7.2.4** ▶ Effective execution of facility and infrastructure projects greater than \$250K.

**Target 7.2.4.1:** B+ = SLAC executes effective facility and infrastructure projects (General Plant Project and Operating projects) by completing projects within 10% of target for cost and three months of scheduled completion date. All projects >\$250K will be completed within three years of start date. The cost performance rating is established by calculating the cost variance at completion for each project. The cost variance for each project will be multiplied by a weighted factor based on their Total Project Cost (TPC) all projects > \$250K completed within the FY.

Additionally, SLAC will maintain a list of all General Plan Projects (GPP) and operating projects planned for each FY. The list will be based on the TYSP, the SLAC Facilities five year plan and other inputs. The list may be changed by the SLAC Infrastructure Committee in consultation with the DOE/SSO Federal project director (FPD) during the year as conditions warrant. Before construction is approved by the infrastructure committee,

<sup>16</sup> Note: The work hours were computed based upon the number of signatures of all subcontractor/sub-tier workers, SORI UTR, Task Manager and Project Manager as shown on daily JSAs and 8 hour workday.

each project will have an approved baseline cost estimate and schedule. The baseline cost and schedule may be altered only by permission of the infrastructure committee and in consultation with the DOE/SSO FPD. If this occurs, the project is then tracked and scored against the new cost and schedule baseline.

**Grade: B+ (3.1)**

There were 18 projects that met the criteria for this measure and were tracked on the FY08 performance measure list maintained by ETS planning.

- Nine projects have been closed.
- One project will need extended BU dates established due to a change in procurement approach involving procurement of a long lead item.
- The pathway project was late due to safety and operational concerns about further interference with the loop road at the same time that SORI had a portion of the road closed. This was a justified change in scope.
- Two are over budget by more than 10%
  - Chemical huts is 13% over budget (\$323k vs. \$285k)
  - Removal of ESB shielding wall is 16% over budget (\$292k vs. \$250k)
- The HVAC upgrade for B050 is now closed, but originated in FY02 so it has been more than three years from start date.
- Two projects are over budget for a total of \$80k, which is small relative to the overall project.

**Performance Measure 7.2.5** ► Develop a strategy for increasing investment in infrastructure which minimizes increases to the cost of doing business.

**Target 7.2.5.1:** B+ = Develop strategy by September 30, 2008.

**Grade: A (4.0)**

Developed Facilities 10-year renewal plan for deferred and planned maintenance which includes implementing new software based on lifecycle, and building condition inspections by vendor and in-house staff. This plan will be further refined to incorporate the mission readiness approach and will then be submitted for funding approval. The SLI Modernization proposal has been submitted and CD-0 was approved on 10/6/08 at the Energy System Acquisition Advisory Board. This project will reduce DM in numerous buildings. In the IFI Crosscut, it stated an estimated \$1.73M of potential DM, although this estimate will change based on the current DM numbers and the design of the building/renovations.

## Goal 8 Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems

*The contractor sustains and enhances the effectiveness of integrated safeguards and security and emergency management through a strong and well deployed system.*

*The weight of this goal is 15%.*

### Executive Summary

Goal 8 has four objectives, 12 measures and 12 targets. The following is a summary of accomplishments toward the goal.

During FY08, the SLAC worked on the development of an effective emergency management system, but did not achieve all of the measures in this goal. SLAC had to focus on fundamental and much needed foundational aspects of the program including event reporting, notifications and investigations. In concert with DOE/SSO, a CAP is in place to address these concerns. In actual events, SLAC emergency management systems functioned very well (e.g., grassland fire, 911 responses, etc.). Although SLAC developed a site emergency management plan, at the time of writing it is still in draft form. Finally, SLAC was unable to develop a Continuity of Operations Plan (COOP), thus failing to meet target 8.1.3.1.

With limited resources, SLAC’s cyber security team continued to adjust to new threats and changes to the environment, while supporting an open collaborative research environment that ensures the integrity of open science. In some areas, the team implemented activities that go beyond requirements and conducted a self-assessment that produced a number of items for plans of action with milestones to help continually improve the program.

As for the protection of special nuclear material (SNM) area, SLAC has consistently performed well in this area and FY08 was no exception. There were no SNM safeguard events in FY08 and no shipments to or receipts of SNM at SLAC as defined by DOE M 470.4-6.

SLAC had no instances of PII loss or even known exposure during FY08, which is an improvement over FY07. However, SLAC failed to complete the actions identified in Alexander Merola’s memorandum to Paul Golan dated June 13, 2008. Those actions will be completed early in FY09.

As such, an overall goal score of 2.9 (B) was achieved.

### Summary Evaluation

Element	Letter Grade	Numerical Score	Objective Weight	Weighted Score	Total Score	
8	Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems					
8.1	C	2.0	30%	0.6		
8.2	B+	3.3	40%	1.3		
8.3	A	3.7	10%	0.4		
8.4	B+	3.1	20%	0.6		
<b>Performance Goal 8 Total</b>					<b>2.9</b>	

## Objective 8.1

### ***Provide an Efficient and Effective Emergency Management System***

*In measuring the performance of this objective the DOE evaluator(s) shall consider the following:*

- *The contractor's success in meeting emergency management goals and expectations;*
- *The commitment of leadership to a strong emergency management performance is appropriately demonstrated; and*
- *The maintenance and appropriate utilization of emergency management procedures and processes are effectively demonstrated.*
- *A SLAC site emergency response plan and COOP are developed or updated (in addition to Chapter 37 in the ES&H Manual) and effectively implemented, due to the size and complexity of the lab and it's proximity to major earthquake faults.*

*The weight of this objective is 30%.*

#### PERFORMANCE SUMMARY

SLAC spent much of FY08 evaluating and rebuilding the emergency management infrastructure. This included prioritizing resources to address some fundamental aspects of the program, including developing and educating the population on when and how to report an emergency and starting the re-evaluating of risks at SLAC. In the practical sense, SLAC has met expectations when responding to real events (grassland fire, Building 41 evacuation, etc.) but the strategic elements of the program must be developed (COOP, etc.).

#### NOTEWORTHY PRACTICES

- Developed and implemented a written wild land fire prevention program.
- To address higher wild land wire hazard this summer, initiated and implemented a site-wide restricted smoking program.
- The fire and emergency management group expanded to include a new fire protection engineer position (filled at the end of Q4 FY08.)

#### OPPORTUNITIES FOR IMPROVEMENT

- During FY09, SLAC will complete the process of meeting all of the requirements of DOE O 151.1C and the newly enacted DOE O 150.1 (COOP). This process will lead to the implementation of an effective emergency response organization.
- SLAC will continue to identify methods of reducing inventory of significant sealed sources.

**Performance Measure 8.1.1** ► Emergency management events are reported and mitigated as necessary. Events are documented, corrective action measures are implemented and a “lessons-learned” record is generated.

**Target 8.1.1.1:** B+ = No unreported operational emergency events. All events are documented with follow-up corrective actions tracked and lessons learned issued by the end of the Q3 FY08. No more than one event with incomplete follow-up mitigation.

#### **Grade: B (3.0)**

Emergency events are now reported through a dedicated emergency reporting system (ext. 5555) which triggers a new, effective incident response and investigation system. Mitigation measures are reported through the Incident Investigation and Lessons Learned Program Manager. SLAC did not meet SSO and management expectations with regard to reporting, notification and investigation processes during the first half of FY08. A DOE subject matter expert was brought in by SSO during Q3 to assist in reviewing SLAC emergency notification and investigation processes and this resulted in a significant process revisions. In Q4, SLAC department heads provided training to all employees on the revised emergency notification procedures. Further improvements in the investigation and reporting process are underway, including detailed causal analysis and investigation training in Q1 FY09 for a cadre of investigators.

**Performance Measure 8.1.2** ▶ Contractor will submit a site emergency management plan to the DOE/SSO for review, compliant with program elements outlined in the DOE Emergency Management Guide and DOE O 151.1 C.

**Target 8.1.2.1:** B+ = The SLAC site emergency management plan is submitted and approved by the end of Q3 FY08.

**Grade: C+ (2.3)**

SLAC submitted a preliminary draft of a site emergency base plan to DOE/SSO at the end of Q4. The draft plan complies with the main program elements outlined in DOE O 151.1C and associated guides. This will serve as the foundation for a base operational emergency plan. A site wide hazardous materials assessment was also completed to identify facilities on site that warrant further screening to determine the need for Emergency Planning Hazard Assessments (EPHAs). This screening and EPHAs will occur in FY09. Further development of implementing procedures will be necessary in FY09 to make the plan fully functional. A hazardous material operational emergency plan will also be developed addressing those facilities identified in the EPHAs.

**Performance Measure 8.1.3** ▶ Contractor will implement the COOP for SLAC. This includes the development and approval of an implementation plan and development of mechanism (including drills) to test the effectiveness.

**Target 8.1.3.1:** B+ = Contractor development and approval of a COOP implementation plan for SLAC by end of Q3 FY08.

**Grade: F (0.7)**

SLAC was unable to comply with this measure in FY08. Development of a COOP for SLAC has been deferred to FY09 and will be accomplished under the guidance of the newly issued DOE Order 150.1. Underlying elements of COOP planning have been addressed in the course of creating the new SLAC base emergency plan.

## Objective 8.2

### *Provide an Efficient and Effective System for Cyber-Security*

*In measuring the performance of this objective the DOE evaluator shall consider the following:*

- *The contractor's success in meeting Cyber-Security goals and expectations.*
- *The commitment of leadership to a strong Cyber-Security performance is appropriately demonstrated through security plans, audits and reporting/follow-up on all Cyber-Security incidents.*
- *The maintenance and appropriate utilization of Cyber-Security risk identification, prevention and control processes/activities. One aspect of this area would involve network firewall implementation and audit reviews.*

*The weight of this objective is 40%.*

#### PERFORMANCE SUMMARY

Computer security, with their limited resources, try to keep the primary resources (computers used by users) protected to ensure that SLAC information resources are secure. For systems centrally managed, we have standard builds that are monitored and updated for latest patches of operating systems and primary third party applications (those used across the majority of systems). Virus alerts are monitored and acted upon.

Our assessments, which produced items for plans of action with milestones, help us to continually improve the program.

#### NOTEWORTHY PRACTICES

Although monthly scans of systems are required, computer security provides daily and bi-weekly scans, which exceeds the requirement. Vulnerabilities are not taken lightly and the results of scans are reviewed and remediated, e.g., non-compliant systems are made inaccessible to the network (router blocked).

Computer security has also gone beyond this by increasing our monitoring of virus alerts which notify of infections. This malware could take advantage of a system if it didn't have the latest

patches. Requesting offline, safe-mode scans of these systems ensure that no additional viruses or issues exist.

Computer security has instituted a “hot seat” for Request Tracker (RT) tickets related to security to ensure that each “ticket” is assigned to a specific person for resolution.

The existing awareness campaigns work. Proof of this is the targeted attack by HSS during the Site Assistance Review, where early identification by users notified our email team, who were then able to stop the continued delivery of a malicious message.

#### OPPORTUNITIES FOR IMPROVEMENT

Need broader computer security training, awareness and education.

**Performance Measure 8.2.1** ▶ Cyber-security incidents are reported and mitigated immediately.

**Target 8.2.1.1:** B+ = Mitigation measures are initiated as soon as the computer security team determines an incident has occurred and reporting occurs within 24 hours.

**Grade: B+ (3.4)**

Twelve incidents have occurred over the past year with computer security reporting to CIAC within 24 hours after determining that the events were incidents through RT, which creates a ticket and sends an email to interested parties including the DOE/SSO or designated SME. Through the ticketing system, activities related to the incident are tracked.

**Performance Measure 8.2.2** ▶ Performance of network vulnerability scans of the SLAC network systems are performed on a monthly basis, or after significant system upgrades/changes. Reports from network system scans shall be submitted on a quarterly basis to the DOE/SSO.

**Target 8.2.2.1:** B+ = Network scans are performed on a monthly basis and quarterly reports are delivered to DOE/SSO.

**Grade: A (3.8)**

Three scans of windows systems are performed daily to determine if appropriate patches have been applied. Twice weekly scans are performed for most major 3<sup>rd</sup> party applications (e.g., Mozilla Firefox, QuickTime, Adobe Acrobat and Reader, etc.) to ensure that they have the latest security patches for each specific application. Administrators of systems without appropriate patches are notified and given a deadline to have the systems updated. Quarterly scans are performed on network resources for vulnerabilities identified through the use of Internet System Scanner (ISS). Vulnerabilities are tracked through RT, which notifies the administrator of the system of the vulnerability. The DOE/SSO or designee is sent a quarterly report of the systems scanned and vulnerabilities identified.

**Performance Measure 8.2.3** ▶ In support of demonstrating an effective cyber-security system, SLAC will provide DOE/SSO with a copy of the risk assessment and the current plans for action, study or inaction done in accordance with SC Program Cyber Security Plan (PCSP).

**Target 8.2.3.1:** B+ = A copy will be provided each time the approval of cited report is renewed by SLAC’s Associated Directors Committee on Computing.

**Grade: B+ (3.2)**

The SLAC Cyber Security Program Plan (CSPP) and risk assessment were updated to reflect SLAC’s current cyber security posture, submitted and approved by SLAC management and the DOE/SSO in early 2008. A risk assessment and CSPP for Photon Controls and Data Systems (PCDS) were created for the 9<sup>th</sup> enclave at SLAC and then submitted and approved by SLAC management and the DOE/SSO in May 2008.

**Performance Measure 8.2.4** ▶ SLAC maintains all the Plan of Action and Milestones (POA&M) in accordance with FISMA requirements.

**Target 8.2.4.1:** B+ = POA&M schedule is completed in accordance with FISMA requirements.

**Grade: B+ (3.4)**

There were 14 PO&AMs due in FY08 and they were all completed on time in accordance with FISMA.

**Performance Measure 8.2.5** ▶ SLAC maintains and implements a cyber security program that informs all users of their Cyber-Security responsibilities. The program will require that each individual user provide written acknowledgement of their individual cyber-security responsibilities.

**Target 8.2.5.1:** B+ = A sample copy of the cyber-security responsibility statement is provided to DOE/SSO on an annual basis or when changes to this document are made. Employees are trained on and accepted cyber security responsibilities prior to using SLAC IT systems.

**Grade: B (3.0)**

The verbiage of the *Use of SLAC Information Resources*<sup>17</sup> memo was updated and signed by the laboratory director in March 2008. A copy was forwarded to the DOE/SSO. The memo was promoted through a *SLAC Today* article and is distributed and collected by the system account administrators before accounts are established.

**Objective 8.3*****Provide an Efficient and Effective System for the Protection of SNM and Property***

*In measuring the performance of this objective the DOE evaluator shall consider the following:*

- *The contractor's success in meeting safeguard goals and expectations.*
- *The commitment of leadership to strong safeguards performance is appropriately demonstrated.*
- *Integration of safeguards into the culture of the organization for effective deployment of the system is demonstrated.*
- *The maintenance and appropriate utilization of safeguards risk identification, prevention and control processes/activities.*

*The weight of this objective is 10%.*

**PERFORMANCE SUMMARY**

During FY08, there were no shipments or receipts of SNM as defined by DOE M 470.4-6 to or from SLAC. Quarterly inspections and accountability of the nuclear and SNM (consisting of sealed sources and some depleted uranium) are conducted. This is more frequent than is required by DOE M 470.4-6 and the inspections found no issues or problems. All nuclear materials are maintained in locked cabinets when not in use. Lock combinations are changed frequently and access is restricted to personnel who need to know. When in use, the nuclear materials are under positive observable controls by the Radiation Protection (RP) group.

**NOTEWORTHY PRACTICES**

In FY08, SLAC initiated efforts to reduce the amount of nuclear materials on site by registering them on the Los Alamos National Laboratory Off-Site Source Recovery Program (OSRP) database. SLAC also contacted Y-12 National Security Complex and Iowa State University regarding their need for unused depleted uranium tiles from SLAC inventory.

**OPPORTUNITIES FOR IMPROVEMENT**

As a continuous improvement effort, SLAC is conducting an extensive review of its radioactive source program (including nuclear materials).

**Performance Measure 8.3.1** ▶ Commitment to strong safeguards is evidenced by the security of property and inventory loss controls (e.g., property tags and property management of assets) such that there is no loss. If a safeguard event occurs it is reported and mitigated in accordance with DOE M 470.4A.

**Target 8.3.1.1:** B+ = Radioisotopes are accounted for and controlled in accordance with DOE Orders.

<sup>17</sup> <http://www.slac.stanford.edu/comp/security/csc-policies/info-res-use.html>

**Grade: A- (3.7)**

- There has been no loss of nuclear materials as identified in DOE M 470.4-6.
- There were no events requiring reports to DOE/SSO.
- SLAC did not receive nor ship any nuclear materials.

The RP group conducts quarterly inspections and accountability of the nuclear materials (consisting of sealed sources and some depleted uranium) and reports the inspection and accountability to nuclear materials management and safeguards and to DOE/SSO and bi-annually to the DOE. This is more frequent than is required by DOE M 470.4-6.

All nuclear materials are maintained in locked cabinets when not in use. Lock combinations are changed frequently and access restricted to personnel who need to know. When in use, the nuclear materials are under positive observable controls by the RP group.

In FY08, the RP group initiated efforts to reduce the amount of nuclear materials on site; to this end, several of the SNM sources were registered on the Los Alamos National Laboratory OSRP database in early July. Additionally, the RP group contacted key personnel within the program to negotiate prioritization of their recovery. RP also inquired with Y-12 National Security Complex and Iowa State University regarding their need for unused depleted uranium tiles as potential transfer options for the material currently in SLAC inventory. Efforts in these areas are ongoing.

**Performance Measure 8.3.2** ▶ External or internal reviews, surveys, or inspections will be conducted once per year, unless there is a significant event requiring follow-up and corrective action, which may result in additional reviews being required.

**Target 8.3.2.1:** B+ = All correction actions resulting from external reviews, surveys, or inspections will be completed in accordance with agreed to schedule.

**Grade: A- (3.7)**

RP and DOE/SSO personnel performed an internal inspection of radioactive sealed sources, nuclear materials and radioactive materials governed by DOE-STD-1027-92 hazard categorization for completeness and accuracy. A comprehensive data base and spreadsheet was developed which includes nuclear materials.

Furthermore, RP has recently submitted the inventory baseline of accountable sealed sources to DOE (baseline) inventory of accountable radioactive sealed sources per the requirements as documented in DOE N 234.1. As a continuous improvement effort, SLAC is conducting an extensive review of its radioactive source program (including nuclear materials). Acquisition of proper storage containers for the sealed sources will receive special attention.

**Objective 8.4*****Provide an Efficient and Effective System for the Protection of Sensitive Information***

*In measuring the performance of this objective the DOE evaluator shall consider the following:*

- *The contractor's success in meeting goals and expectations for the protection of sensitive information.*
- *The identification, marking and protection of sensitive information (e.g., Official Use Only) that has the potential to damage governmental, commercial, or private interests if inappropriately disseminated.*
- *The contractor performs a formal assessment of safeguards and security systems for the protection of PII.*

*The weight of this objective is 20%.*

**PERFORMANCE SUMMARY**

During this performance period, the laboratory had no instances of PII loss or even known exposure. However, we have not yet completed the actions identified in the COO's memorandum to the DOE/SSO site manager dated June 13, 2008. Those actions will be completed early in FY09.

**NOTEWORTHY PRACTICES**

HR has assured SLAC that no PII is contained in any report that is distributed outside of the HR office. No SLAC HR employees have external access to the PeopleSoft system, thus preventing inadvertent exposure of PII. All new hires complete the “individual certification,” but we have not implemented a process for assuring that the forms are returned within a week. In addition, we implemented the procedures and policies documented below in section 8.4.2.1.

**OPPORTUNITIES FOR IMPROVEMENT**

In early FY09, we need to implement the actions identified by the COO in his memorandum to the DOE/SSO site manager.

**Performance Measure 8.4.1** ▶ The commitment of leadership to strong protection of sensitive information is appropriately demonstrated.

**Target 8.4.1.1:** B+ = There are no events involving the loss of sensitive information

**Grade: B+ (3.1)**

- There was no loss of PII during this FY08.

**Performance Measure 8.4.2** ▶ Demonstrate an effective security system for the protection of sensitive information through internal and external reviews, surveys and inspections.

**Target 8.4.2.1:** B+ = As a result of contractor’s security systems for the protection of PII there is no loss of PII.

**Grade: B+ (3.1)**

There was no loss of PII during FY08. We implemented the following measures to increase the security of PII.

- Cyber security instituted daily reports to catch new requests which would result in a user having HR access and remote access.
- Property control implemented new policies requiring portable devices to be labeled that they should not contain PII.
- Property control is now asking for certification that any un-inventoried property did not contain PII.
- The DOE HSS reviews and subsequent authority to operate notice validated SLAC’s PII handling policies.

## Appendix A Acronyms and Abbreviations

ACI	Asset Condition Index
ATLAS	A Toroidal LHC ApparatuS (Particle physics experiment at CERN)
BSC	Balanced Score Card
BSD	Business Services Division
CAP	Corrective Action Plan
CATS	Corrective Action Tracking System
CFO	Chief Financial Officer
CHP	Chemical Hygiene Plan
CMMS	Computerized Maintenance Management System
CMS	Chemical Management System
COO	Chief Operating Officer
COOP	Continuity of Operations Plan
DART	Days Away or Restricted Time
DM	Deferred Maintenance
DMR	Deferred Maintenance Reduction
DOE/SSO	DOE SLAC Stanford Site Office
DPE	Dual Phase Extraction
ECM	Energy Conservation Measure
EM	Environmental Management
EMS	Environmental Management System
EPP	Environmentally Preferable Purchasing
ES&H	Environment, Safety and Health Division
ES&HCC	ES&H Coordinating Committee
ESCO	Energy Service Company
ESHAC	ES&H Advisory Committee
ESPC	Energy Savings Performance Contract
FS	Feasibility Study
FSUST	Former Solvent Underground Storage Tank
FY	Fiscal Year
GERT	General Employee Radiological Training
GLAST	Gamma-ray Large Area Space Telescope
GPP	General Plan Projects
HR	Human Resources Department
ID/IQ	Indefinite Duration/Indefinite Quantity
IG	Inspector General
IH	Industrial Hygiene
IIA	Independent Internal Assessments
IPM	Integrated Performance Management
ISC	Integrated Support Center
ISEMS	Integrated Safety and Environmental Management System
ISM	Integrated Safety Management
JDEM	Joint Dark Energy Mission
LBNL	Lawrence Berkeley National Laboratory
LCLS	Linac Coherent Light Source
LHC	Large Hadron Collider
LLNL	Lawrence Livermore National Laboratory
LLRW	Low-level Radioactive Waste
LSST	Large Synoptic Survey Telescope
M&O	Management and Operations
McT	McCallum-Turner

MII	Maintenance Investment Index
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NTS	Noncompliance Tracking System
OA	Office of Assurance
OFI	Opportunity for Improvement
OHEP	Office of High Energy Physics
OIO	Office of Independent Oversight
ORPS	Occurrence Reporting and Processing System
OU	Operable Unit
PEMP	Performance Evaluation and Measurement Plan
PEP	Project Execution Plan
PEP-II	Upgraded SLAC PEP electron-positron collider
PII	Personally Identifiable Information
POA&M	Plan of Action and Milestones
PPOA	Pollution Prevention Opportunity Assessments
PULSE	Photon Ultrafast Laser Science and Engineering center
RP	Radiological Protection
RPV	Replacement Plant Value
RWM	Radioactive Waste Management
RWQCB	Regional Water Quality Control Board
SAD	Safety Assessment Document
SC	Office of Science
SIMES	Stanford Institute for Materials and Energy Science
SLAC	SLAC National Accelerator Laboratory
SLI	Strategic Laboratory Projects
SNM	Special Nuclear Material
SORI	Safety and Operational Reliability Improvement
SPC	Scientific Policy Committee
SPCC	Spill Prevention Controls and Countermeasure Plan
SSO	Stanford Site Office
SSRL	Stanford Synchrotron Radiation Laboratory
SU	Stanford University
SUIAS	Stanford University Internal Audit Services
SULI	SLAC Undergraduate Laboratory Intern Program
SUV	Sport Utility Vehicle
tcmlS	total chemical management Information System
TEAM	Transformational Energy Action Management
TRC	Total Recordable Cases
UTR	University Technical Representative
WBS	Work Breakdown Structure
WPC	Work Planning and Control
WSHP	Worker Safety and Health Program