FY07 Self-Evaluation

Contractor Performance Evaluation and Measurement Plan

For

Management and Operations

of the

Stanford Linear Accelerator Center

Volume 2, Management and Operations, Goals 4 – 8

Submitted to the U.S. Department of Energy
October 31, 2007

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Introduction

Leland Stanford Junior University (Stanford University) is under contract with the Department of Energy (DOE) to manage the Stanford Linear Accelerator Center (SLAC). Clause H.15 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, 2006 to September 30, 2007 (FY07) is the FY07 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:

- Provide for Efficient and Effective Mission Accomplishment
- Provide for Efficient and Effective Design, Fabrication, Construction and Operations of Research Facilities
- Provide Effective and Efficient Science and Technology Program Management
- Provide Sound and Complete Leadership and Stewardship of the Laboratory
- Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health, and Environmental Protection
- Deliver Efficient, Effective, and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)
- Sustain Excellence in Operating, Maintaining, and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs
- 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, Stanford University, 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 failed to meet many of the performance Goals and Objectives established in the PEMP. For each of the five M&O Goals (4 through 8), performance was in the range from B to C+ using the DOE letter grade/numeric score scales established in the PEMP. The Laboratory's overall score is 2.70 (B-).

The overall management and operations functionality of SLAC has been sub standard for many years. The systems were originally optimized for a Laboratory with a single program focus, High Energy Physics (HEP). With time, the formality of the systems was allowed to lapse. Management informality became routine practice. Many of the mission support functions lost their sense of customer service. When the Stanford Synchrotron Radiation Laboratory (SSRL) was merged into the Laboratory, systems were maintained to meet the needs of the sub units, SSRL and the HEP program, rather than for the Laboratory as a whole.

As the Laboratory has become truly multi-program in this decade, it has become increasingly clear that management formality is essential in order to ensure appropriate support for all programs and

projects across the Laboratory. It has also become clear that true customer focused mission support services are needed.

In FY07, both Stanford University and SLAC acknowledged the need to improve the M&O functionality of the Laboratory and have embarked on what will be a multiyear program to bring the Laboratory to the standards that it needs for optimal operations. The first steps of this process have been to bring in external expertise to assess the current functionality and make recommendations for improvement. The external expertise, the McCallum Turner (McT) consulting firm, has been brought in and by the end of FY07, the process was underway and first steps were being taken. By the end of CY07, a projectized implementation plan for the improvement agenda will be in place.

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	2.88	20%	0.58	
5	Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health, and Environmental Protection	C+	2.10	25%	0.53	
6	Deliver Efficient, Effective, and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)	B	3.00	20%	0.60	
7	Sustain Excellence in Operating, Maintaining, and Renewing the Facility and Infrastructure Portfolio to meet Laboratory Needs	B	2.91	15%	0.44	
8	Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems	B	2.80	20%	0.56	
					Total Management & Operations Score	**2.70**

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 20%.

Executive Summary

Goal 4 has three Objectives with thirteen Measures. The following is a summary of accomplishments in each of the three areas.

The Laboratory realized excellent science: all three focus areas namely photon science, particle physics and particle astrophysics produced many high quality publications and a Nobel Prize was awarded for work done in large measure at SLAC.

In FY07, both Stanford University and SLAC acknowledged the need to improve the M&O functionality of the Laboratory and have embarked on what will be a multiyear program to bring the Laboratory to the standards that it needs for optimal operations. The first steps of this process have been to bring in external expertise to assess the current functionality and make recommendations for improvement. The external expertise, the McT consulting firm, has been brought in and by the end of FY07, the process was underway and first steps were being taken.

The Communications Office reviewed its communication strategies and activities, and developed a Communications Plan in collaboration with the DOE Stanford Site Office (DOE/SSO) that met the requirements set out in Contract Clause I.072, which implements DEAR 952.204-75 Public Affairs (Dec 2000). Several other initiatives were implemented resulting in high performance in this area.

The Laboratory made significant progress in space planning, resources, and budgeting supporting the Laboratory's transition in primary sponsorship from HEP to BES.

As such, an overall goal score of 2.88 (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	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	B	2.99	35%	1.05	
4.2	Provide for Responsive and Accountable Leadership throughout the Organization	B	2.93	35%	1.03	
4.3	Provide Efficient and Effective Corporate Office Support as Appropriate	B-	2.68	30%	0.80	
					Performance Goal 4 Total	**2.88**

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 35%.

PERFORMANCE SUMMARY

The Laboratory realized excellent science: all three focus areas namely photon science, particle physics and particle astrophysics produced many high quality publications. Roger Kornberg was awarded the 2006 Nobel Prize in chemistry—the crucial data supporting his discovery was taken at SPEAR. Results from *BABAR* on D mixing have had a major impact on our understanding of models for new physics at the TeV scale.

In FY07, advances were made in key elements that support that mission.

A Space Working Group (SWG) was convened and formulated a detailed plan for accommodating the loss of the LCLS Central Lab Office Complex (CLOC) building. The space plan was favorably reviewed for BES by a team of consultants added to an LCLS Lehman review, and approved by BES management. BES consequently included major funding in the FY08 President's budget for implementation of the part of the space plan dealing with laboratories and offices for the Photon Ultrafast Laser Science and Engineering (PULSE) Center. In addition, funding was made available in FY07 by Laboratory Management to get a jump start on implementing this portion of the space plan.

As discussed below in Target 4.2.1.1, the University and the Laboratory mounted an initiative to strengthen the M&O support elements of the Laboratory. The first step of this initiative was hiring the McT consultants to perform an assessment of the M&O functionality of the lab, as well as to help formulate a detailed multi-year plan of improvements.

Many long term partnerships continued successfully in FY07. *BABAR* was constructed as a partnership of DOE and HEP funding agencies in eight foreign countries, with foreign governments providing 40% of the construction funds. The collaborating nations, which now number 10, have continued to provide significant portions of the *BABAR* Operating Common Fund and computing costs. Half of the over 600 scientists working on *BABAR* are from non-US institutions. Researchers from both Lawrence Berkeley National Laboratory (LBNL) and Lawrence Livermore National Laboratory (LLNL) work on *BABAR*; the remainder of the US users come from about 35 US university groups. Fiduciary oversight for the collaboration is achieved through the *BABAR* International Finance Committee which meets twice a year. In FY07, the foreign collaborators contributed $1M to the operation of the detector and *BABAR* computing at SLAC. In addition, the foreign collaborators provided $1.4M of in-kind contribution for *BABAR* computing.

The user community at SPEAR3 is largely, but not exclusively, US-based. The major leveraging for the SSRL DOE support comes from the National Institutes of Health (NIH), with $6.0M in FY07. About 54% of the NIH funding supports the structural molecular biology beam lines and

instrumentation, and the associated user program. The other 46% is associated with two structural genomics consortia which involve US research institutes and universities. For some experiments, industrial users carry out private sector research and are charged full cost recovery. In FY07, this amounted to $0.4M. In addition, institutional and industrial partners in Collaborative Research Teams contributed $1.0M towards the costs of beam line operations and improvements. Construction of a new macromolecular crystallography beam line was completed in FY07 with $12.4M funding from the Moore Foundation. Another macromolecular crystallography beam line is under fabrication in collaboration with an industrial partner who provided $1M in FY2006.

GLAST is a collaboration of DOE and NASA in the US and HEP and space agencies from Italy, Japan, Sweden and France. NASA-funded SLAC efforts in FY07 of $6.2M are primarily in support of the GLAST LAT instrument integration with the spacecraft. Following the successful *BABAR* model, a GLAST Operation Collaboration Fund is established and its fiduciary oversight is entrusted to an International Finance Committee. In FY07, the foreign collaborators contributed $0.4M to the GLAST effort.

SLAC has been an intellectual leader in the International design effort for the ILC. The US invested $42M in the ILC in FY07. Contributions from Europe and Asia are approximately equal to that of the US.

SLAC is the lead DOE Laboratory in the R&D for Large Synoptic Survey Telescope (LSST); we partner with Brookhaven, LLNL, and other US universities in this R&D. DOE is leveraging off the NSF and private donors who, are by far the major fund sources for this R&D. SLAC is also a collaborator with LBNL on SuperNova Acceleration Probe/Program (SNAP), which is a leading contender for the DOE/NASA Joint Dark Energy Mission (JDEM) instrument.

As seen in previous years, Stanford University continued to make major investments in the Laboratory in FY07. Stanford operates and maintains the 112-room Guest House with room-rates that are available to the SLAC community at significantly below local market prices. Based on typical annual room occupancy, the savings to the SLAC research community afforded by the Guest House is estimated to be in excess of $1M per year. During FY07, Stanford contributed over $2M of support to the Kavli Institute for Particle Astrophysics and Cosmology (KIPAC), PULSE, XLAM and SLAC operating budgets, $0.7M of salary support for SLAC faculty appointments that are joint with campus departments, and $0.5M of salary support for SLAC faculty who hold endowed chairs. Stanford University is funding the McT process, which totaled $0.3M in FY07. These items total $3.5M in FY07. In addition, SLAC is the full beneficiary of funds that the University has allocated in start-up packages for faculty that have been hired at SLAC. These funds, which total $8.8M since 2003, are expended typically over a three to five-year period.

The Communications Office reviewed its communication strategies and activities and developed a Communications Plan in collaboration with DOE/SSO that met the requirements set out in Contract Clause I.072, which implements DEAR 952.204-75 Public Affairs (Dec 2000). Several initiatives were implemented resulting in a high performance year in this area.

Finally, the Laboratory provided and adhered to detailed roadmaps in space planning, resources, and budgeting supporting the Laboratory's transition in primary sponsorship from HEP to BES.

NOTEWORTHY PRACTICES

Noteworthy practices are given in the Performance Summary section above.

OPPORTUNITIES FOR IMPROVEMENT

The Laboratory must continue to make improvements across all M&O organizations to support the mission and vision of the Laboratory.

Performance Measure 4.1.1 ▪ Effectiveness in meeting required milestones in the development and/or update of the Laboratory Vision and Strategic/Work Plan.

Grade: B- (2.5)

The Laboratory Mission, which articulates the Vision for the Laboratory, has three components:

1. To make discoveries in photon science at the frontiers of the ultrasmall and the ultrafast in a wide spectrum of physical and life sciences,
2. To make discoveries in particle and astroparticle physics to redefine humanity's understanding of what the universe is made of and the forces that control it and
3. To operate a safe Laboratory that employs and trains the best and the brightest, helping to ensure the future economic strength and security of the nation, did not change from FY06 to FY07.

The Laboratory realized excellent science: all three focus areas namely photon science, particle physics and particle astrophysics produced many high quality publications. Roger Kornberg was awarded the 2006 Nobel Prize in chemistry – the crucial data supporting his discovery was taken at SPEAR. SLAC has continued its central role in the successful on-going integration of the GLAST LAT with the launch vehicle, with launch anticipated by NASA in early 2008. The ILC Global Design Group successfully completed the Reference Design Report.

In FY07, advances were made in key elements that support that mission.

A Space Working Group (SWG) was convened and formulated a detailed plan for accommodating the loss of the LCLS CLOC building. The space plan was favorably reviewed for BES by a team of consultants added to an LCLS Lehman review, and approved by BES management. BES consequently included major funding in the FY08 President's budget for implementation of the part of the space plan that deals with laboratories and offices for the PULSE ultrafast science center. In addition, funding was made available in FY07 by Laboratory Management to get a jump start on implementing the PULSE portion of the space plan.

In the area of photon science, major strides were made in advancing the two centers for excellence, PULSE and XLAM. The proposal submitted to BES for support of PULSE, which incorporated a five-year funding plan, was reviewed and recommended for funding. As discussed above, space was identified for PULSE and implementation of the PULSE space commenced. Three new faculty were successfully recruited; Prof Deveraux at the tenure level and two assistant professors, Wendy Mao and Aaron Lindenberg. The Kavli Institute continued its rapid growth. In FY06, the Office of HEP conducted an in-depth review of Kavli; the committee report is highly complimentary.

As discussed below in Target 4.2.1.1, the University and the Laboratory mounted an initiative to strengthen the M&O support elements of the Laboratory. The first step of this initiative was hiring the McT consultants to perform an internal assessment of the M&O functionality of the lab, as well as to help formulate a detailed multi-year plan of improvements

Given the very lengthy Continuing Resolution (CR), FY07 was a particularly challenging budget year for federally funded laboratories. Given that SLAC did not receive its final budget allotment until March, 2007 and given the large shortfalls relative to what was in the President's budget, damage to the program goals was unavoidable. This was particularly evident for LCLS, which notwithstanding heroic efforts by BES, received approximately $8M less than what was in the President's request. The Laboratory was able to avoid canceling the major construction contracts that were ongoing, but many anticipated new procurements had to be delayed. The consequence of the CR was to incur and overall delay of one year, to FY10, for project completion. However, x-ray FEL light and first science can still commence in 2009. The planned build-up of operations support at SSRL was also a casualty of the CR. There were also shortfalls in the key program elements of the HEP program.

Performance Measure 4.1.2 ▪ The Laboratory Vision provides a clear understanding of the distinctive characteristics of the Laboratory.

Grade: B (2.8)

The Laboratory Mission is given in Measure 4.1.1. The current mission statement articulates the existing vision for the Laboratory. The scientific program of the Laboratory accurately comports with this vision. The Laboratory programs are world-leading in quality and are well contained within the mission, with no appropriated funds expended on areas that fall outside of the mission.

In FY07, a process was begun to crisply articulate the long range vision for the Laboratory in a more coherent framework. This process will be completed in FY08.

Performance Measure 4.1.3 ▪ The Laboratory Business Plan provides all required data in a clear and concise manner and is completed within established guidelines and schedules.

Grade: B+ (3.1)

The SLAC Laboratory Business Plan[1] was updated and submitted to SC on schedule. The plan incorporates all the required data and is concisely presented. Additional clarity was achieved by adding two new Business Lines: a) Accelerator Science and Technology and b) Advanced Scientific Computing, which had formerly been incorporated as cross-cutting activities. All quantitative information, like budgets, number of employees, number of users, Total Recordable Cases (TRC) and Days Away or Restricted (DART) rates, etc. was updated to accurately portray FY06.

The updated Business Plan was posted on the SC web page in April, 2007 along with those of the other SC Laboratories.

Performance Measure 4.1.4 ▪ Strategic partnerships are developed that demonstrate the Laboratory's leadership, support the leveraging of DOE resources, and support collaborative programs with other DOE laboratories and industry groups.

Grade: B+ (3.1)

All of the Laboratory's major program elements are national and international partnerships. The DOE funds that come to SLAC are leveraged both through major collaborations with foreign governments and other US agencies. In addition, Stanford University makes significant investments in the Laboratory.

The user community at SPEAR3 is largely, but not exclusively, US-based. The major leveraging for the SSRL DOE support comes from the National Institutes of Health (NIH), with $76.0M in FY07. About 40% of the NIH funding supports the structural molecular biology macromolecular crystallography beam lines, instrumentation, and associated user program. The other 60% is associated with two structural genomics consortia which involve a number of US research institutes and universities. For some experiments, industrial users carry out private sector research and are charged full cost recovery pay for beam time. In FY07 this amounted to $0.4M. In addition, institutional and industrial partners in Collaborative Research Teams contributed $1.0.7M towards the costs of beam line operations and improvements. Construction of a new macromolecular crystallography beam line was completed in FY07 with $12.4M funding from the Moore Foundation. Another macromolecular crystallography beam line is under fabrication in collaboration with an industrial partner who provided $1M in FY06.

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[1] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.3-SLACBusinessPlan.pdf

institutions. Researchers from both LBNL and LLNL work on *BABAR*; the remainder of the US users come from about 35 US university groups. Fiduciary oversight for the collaboration is achieved through the *BABAR* International Finance Committee which meets twice a year. In FY07, the foreign collaborators contributed $1M to the operation of the detector and *BABAR* computing at SLAC. In addition, the foreign collaborators provided $1.4M of in-kind contribution for *BABAR* computing.

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SLAC is the lead DOE Laboratory in the R&D for LSST; we partner with Brookhaven, LLNL, and other US universities in this R&D. DOE is leveraging off the NSF and private donors who, are by far the major fund sources for this R&D. SLAC is also a collaborator with LBNL on SNAP, which is a leading contender for the DOE/NASA JDEM instrument.

As seen in previous years, Stanford University continued to make major investments in the Laboratory in FY07. Stanford operates and maintains the 112-room Guest House with room-rates that are available to the SLAC community at significantly below local market prices. Based on typical annual room occupancy, the savings to the SLAC research community afforded by the Guest House is estimated to be in excess of $1M per year. During FY07, Stanford contributed over $2M of support to the KIPAC, PULSE, XLAM and SLAC operating budgets, $0.7M of salary support for SLAC faculty appointments that are joint with campus departments, and $0.5M of salary support for SLAC faculty who hold endowed chairs. Stanford University is funding the McT process, which totaled $0.3M in FY07. These items total $3.5M in FY07. In addition, SLAC is the full beneficiary of funds that the University has allocated in start-up packages for faculty that have been hired at SLAC. These funds, which total $8.8M since 2003, are expended typically over a three to five-year period.

Performance Measure 4.1.5 ▪ The Laboratory will achieve coherence with Office of Science communications goals

Target 4.1.5.1: B+ = The Lab Communications Office will review its communications policies and procedures to assure they meet the Contracting Officer's procedures and guidelines for meeting requirements laid out in Contract Clause I.072, which implements DEAR 952.204-75 Public Affairs (Dec 2000).

Grade: A- (3.5)

The Communications Office reviewed its communication strategies and activities and developed a Communications Plan in collaboration with SSO that met the requirements set out in Contract Clause I.072, which implements DEAR 952.204-75 Public Affairs (Dec 2000). The Communications Office would like to thank Georgia McClelland for her excellent work as contact person for communication.

A new relationship was established with the DOE Public Affairs Department at Oakridge National Laboratory. A new system of press release approval was established.

The Office of Communication would also like to recognize the extremely positive collaboration between the DOE Office of Science Public Affairs Office and our group. Peter Lincoln has been extremely efficient, helpful and, above all, fast in every interaction we've had.

We would like to mention two examples of communication activities that supported the guidelines in DEAR 952.204-75.

- In October 2006, Roger Kornberg was awarded the Nobel Prize in Chemistry. Kornberg's research was carried out at the Stanford Synchrotron Radiation Laboratory at SLAC. The Communications Office understood immediately the good publicity this could create for the Laboratory and led a campaign with Stanford University's News Service which led to enormous worldwide media coverage. (See SLAC Today, October 5, 20062.)
- Michael Hughes, a carpenter at SLAC, is an admirable man. Throughout his life he has volunteered for a whole range of activities to help his local community. The Communications Office arranged for him to be awarded the President's Call to Service Award, the highest honor given for a lifetime of volunteer service. The award was presented to Hughes by Dennis Spurgeon, Acting Under Secretary for Energy, at a ceremony at SLAC. Hughes received a certificate signed by the President of the United States, George Bush. (See SLAC Today, April 13, 20073.)

Target 4.1.5.2: B+ = B+ = The Laboratory Communications Office, in concert with Laboratory and DOE management, will analyze its relationship with the surrounding community and determine any necessary steps to enhance that relationship.

Grade: B+ (3.1)

Relations with the local community were a priority for the Communications Group in FY07. Several initiatives were taken to strengthen our relationships.

- One of the major goals of the newly created Education Office is to strengthen SLAC's relationships with the local high schools and community colleges. Until now, our activities have been in response to requests from these institutions, but in FY07 we developed a plan to be more proactive. Susan Schultz, SLAC's Education Officer, has visited principals of all of the local community colleges to establish collaborations and all colleges that teach courses in Physics, Cosmology, Chemistry, or Biology. SLAC can be a very powerful educational resource to illustrate forefront research in these subjects. In the same way, Susan Schultz and Maura Chatwell have established contacts with principals of the local high schools to see how SLAC can help science teachers.
- The ongoing construction of the LCLS has also been a central issue in local community relations. A brochure, called *The LCLS Construction Project: What Does It Mean to Me?*[4], was published explaining the impact of LCLS construction. This brochure was distributed to adjacent communities. Neil Calder is Vice President of the Stanford Hills Homeowners Association. Stanford Hills is the community closest to SLAC. He has given several talks to this group on LCLS activities and the annual meeting of the Homeowners Association was held in SLAC's Kavli Building. LCLS construction is nearly 75% complete and there has only been one contact from the local community inquiring about noise.
- In addition to the brochure, the Communications Group also set up the LCLS Dashboard[5] and two LCLS webcams[6]. These resources allow the local community to stay completely up to date with the progress of the LCLS project.
- The Public Lecture Series[7] continues to be extremely popular with the local community. The

[2] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.1a.pdf

[3] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.1b.pdf

[4] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.2-lclsbrochure.pdf

[5] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.2-dashboard.pdf

[6] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.2-webcam.pdf

[7] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.2-publiclecures.pdf

Panofsky Auditorium has been practically full for each of the six lectures given in FY07.

- The Communications Office operated a large booth at Stanford's Community Day. Volunteers from across the Laboratory answered a barrage of questions from hundreds of members of the community about activities at SLAC. A brand new SLAC brochure[8] was specifically designed to be launched at this event.

Target 4.1.5.3: B+ = The Laboratory develops a Communications Plan in conjunction with the DOE SSO within the first Quarter of the FY07 Performance Period which identifies actions to be completed during the remainder of the performance period.

Grade: A- (3.5)

The Communications Office worked with SSO to establish a strategic communication plan for FY07. The plan appears below and in Target 4.1.5.4.

Strategic Communication Plan, SLAC Communications Office / FY07

The objective of the SLAC Communications Office is to garner support for the Laboratory and the Office of Science through targeted strategic communication. There are several audiences which the Communications Office focuses on and this Target outlines the different objectives and activities to be undertaken in FY07.

1. **The SLAC Community**

   SLAC has undergone a major change of scientific objectives and complete management reorganization. A sense of purpose and motivation within the SLAC staff is essential to drive the Laboratory forward. The Laboratory's scientific future is outstanding but everyone concerned must be fully informed about and integrated in these developments.

   - Measure: Maintain vitality and quality of SLAC Today.
   - Measure: Produce new issue of SLAC Today on every working day of FY07.
   - Measure: Organize second reader survey during FY07.

2. **Laboratory Safety**

   The SLAC Communications Office will enhance its strong working relationship with the Environmental Safety and Health department to continue to emphasize the importance of safety at the Laboratory. This has been a constant theme of SLAC communication over the past two years and new efforts will be made in FY07 to ensure continued improvements in the Laboratory's safety record.

   - Measure: SLAC Today will publish a safety column every week and a series of Safety Tips appearing each Monday and Tuesday.

3. **Support for DOE Office of Science Communication and Outreach**

   SLAC's Communications Office will continue to work closely with SSO and the DOE Office of Communication and Outreach in 2007. There is an excellent working relationship that will be maintained during this financial year.

   - Measure: SLAC will contribute to the Office of Science exhibition in Washington DC with a cosmic ray counter and a display on the Archimedes Palimpsest experiment at SSRL.
   - Measure: SLAC and the SSO will organize a regional Science Bowl competition for local high schools on February 10, 2007.
   - Measure: Continued ensurance of quality and content in weekly Laboratory media

[8] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.2-brochures.pdf

reports and the 30-60-90 day reports to the DOE.

4. LCLS Communication

The Communications Office organized a Groundbreaking Ceremony for the Linac Coherent Light Source at the beginning of FY07. The Office will continue to concentrate on promoting this outstanding piece of scientific equipment within the SLAC community, the global photon science community and the general public.

- Measure: SLAC Today will maintain a strong emphasis on LCLS construction and development.
- Measure: The LCLS brochure will be revised and reprinted.

5. Local Community

In FY07 there will be an increase in communication directed towards our local community. Although our neighbors are supportive, a great deal more can be done to integrate them into the activities of SLAC.

- Measure: A brochure will be produced informing the local community on possible disturbances resulting from the construction of the LCLS.
- Measure: An LCLS Dashboard will be produced, allowing the local community to stay in touch with the progress made in the construction of the facility.
- Measure: Continued refinement of the SLAC Public Lecture Series. Examine ways of promoting the events and attracting new audiences.
- Measure: A local community taskforce will be established. SLAC staff members will be asked to set up personal connections with leading members of the local community so as to have a direct communication channel from the Laboratory to our neighbors.

6. Office of Education

FY07 will see the inception of an Education Office at SLAC which will be part of the Communications Office. The presence of a full-time Education Officer will enable our Office to better rationalize and boost current educational activities at the Laboratory.

- Measure: SLAC will organize a regional Department of Energy Science Bowl on February 10, 2007.
- Measure: The Education Officer will present an education plan for the Laboratory.
- Measure: A new tour itinerary will be set established.

7. *symmetry* Magazine

symmetry magazine (symmetrymagazine.org), through its print and electronic versions, will continue to bring the central messages of particle physics to a wide variety of key audiences: policy makers and opinion leaders, the news media, local community members, students and teachers, the science-interested public and the worldwide particle physics community. SLAC and Fermilab will actively continue to seek feedback on all aspects of the publication.

- Measure: The SLAC and Fermilab Public Affairs Offices will publish 10 issues of symmetry during FY07.
- Measure: SLAC will employ a writer/editor to strengthen the symmetry production team.
- Measure: SLAC and Fermilab Public Affairs Offices will work together to increase online traffic to over 25,000 visits per month. They will regularly seek and incorporate feedback through a variety of formal and informal mechanisms.

8. International Particle Physics

The SLAC Communications Office has played a seminal role in setting up the successful Interactions Collaboration (www.interactions.org). This group brings together the heads of communication of all the major particle physics labs in the world. Through collaboration, the laboratories have been able to pool resources and work together on identifying common strategies to promote the field of particle physics as a unified science – a collaborative tactic far from the more traditional role where each Laboratory looks out for itself. In FY07, with the entry of SLAC into the ATLAS (A Toroidal LHC ApparatuS) experiment at the Large Hadron Collider (LHC), the Communications Office will help to design and implement a worldwide LHC communication plan in anticipation of first light in fall 2007. SLAC will also continue to play a leadership role in US and global ILC communication, in collaboration with the Linear Collider Steering Group for the Americas (LCSGA) Communication Committee and the Interactions Collaboration.

- Measure: Close collaboration with CERN and other Interactions members to implement the LHC Communication Plan.
- Measure: SLAC and Fermilab will lead the effort to organize a program of envoys from the particle physics community to policy makers and opinion leaders at the national level.
- Measure: SLAC, Fermilab and the LCSGA will develop a dedicated ILC Speaker's Bureau.
- Measure: SLAC, Fermilab and ILC Communicators will produce two publications: a tri-fold ILC brochure and a summary brochure of the Reference Design Report.

9. International Photon Science

The SLAC Communications Office was the catalyst for setting up the sister organization to the Interaction Collaboration, Lightsources.org. There are now 52 synchrotron radiation laboratories in the world and the aim of Lightsources.org is to develop common communication strategies and streamline the sharing of resources. This initiative has been extremely successful and the Communications Office will continue to have a guiding role in this development.

- Measure: SLAC will maintain its influence on the Lightsources.org Editorial Board.
- Measure: SLAC will help organize a Press Breakfast on Photon Science at the American Association for the Advancement of Science (AAAS) Meeting held Feb. 15-19, 2007, in San Francisco.

10. Conference Organization

In 2006 conference organization at SLAC was completely reorganized with the creation of a new post, Laboratory Conference Coordinator. In FY07, all conferences taking place at SLAC will be coordinated through this post. The conference coordinator will handle all photon science and particle physics conferences, as well as the Stanford Summer Institute. This new service will streamline the conference organization process reducing the waste of resources and ensuring quality control across all events.

- Measure: Set up a centralized conference organization web space.
- Measure: Consolidate all conference organization at SLAC.

Target 4.1.5.4: B+ = As stated in the DOE-approved Communications Plan, the Laboratory will meet all required communications actions and milestones identified for completion during the performance period. Should circumstances preclude meeting the milestones in a timely manner, the Laboratory will work with the SSO to negotiate mutually agreed upon schedule revisions at least 30 days before the initial milestone date.

Grade: A (3.8)

The Communications Group worked with SSO to define a Communication Plan for FY07. Below we

describe the measures and the extent to which they were fulfilled.

Strategic Communication Plan Implementation, SLAC Communications Office / FY07

1. The SLAC Community

Measure
Maintain vitality and quality of *SLAC Today*.

Results
At the beginning of this project, there was concern that we would not be able to find enough news and activity to maintain this very challenging schedule. However, to the contrary, we have found that there is too much news. The staff is aware of the potential of *SLAC Today* and very much like seeing their own activities published. *SLAC Today* has established itself as the central communications source for the Laboratory, and probably the most vital internal communication tool in any science laboratory. The number of outside subscribers doubled in FY07.

Measure
Produce new issue of *SLAC Today* on every working day of FY07.

Results
SLAC Today was published every working day of FY07.

Measure
Organize a second reader survey during FY07.

Results
The Communications Group decided not to go ahead with a second reader survey as there was so much input and positive response from the community that the survey seemed unnecessary.

2. Laboratory Safety

Measure
SLAC Today will publish a safety column every week and a series of Safety Tips appearing each Monday and Tuesday.

Results
SLAC Today publishes a safety tip every week.

The Communications Group, in collaboration with ES&H, launched a completely new safety communication channel in FY07. *SAFE'07* highlighted the work of individuals and groups who had made a positive contribution to the overall safety of the Laboratory. Each month, a major article was published in *SLAC Today*. This article was published on the same day as a major poster campaign around the Laboratory. Communications staff pinned up over 600 posters on every notice board in every building onsite. By concentrating on the successes of SLAC safety policy, the *SAFE'07* campaign has re-launched safety communication within the Laboratory. The September *SAFE'07* article and poster[9] are online.

3. Support for DOE Office of Science Communication and Outreach

Measure
SLAC will contribute to the Office of Science exhibition in Washington DC with a cosmic ray counter and a display on the Archimedes Palimpsest experiment at SSRL.

[9] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.3-safe07-lcls-injector.pdf

Results

This exhibition was postponed.

Measure

SLAC and the SSO will organize a regional Science Bowl competition for local high schools on February 10, 2007.

Results

SLAC's Regional Science Bowl in FY07 was an extremely successful event, with the Laboratory hosting 24 participating teams (the maximum that can be accommodated at SLAC) from high schools around the greater Bay Area. With contributions from Cisco, Sun Microsystems, Google and more, the event saw unprecedented interest and support in 2007, a trend expected to continue in 2008. Over 200 people participated in the event.

Measure

Continue ensurance of quality and content in weekly Laboratory media reports and the 30-60-90 day reports to the DOE.

Results

The Communications Group continues to oversee and maintain the quality of both weekly reports and the monthly 30-60-90 day reports for the DOE.

4. LCLS Communication

Measure

SLAC Today will maintain a strong emphasis on LCLS construction and development.

Results

Nearly 100 separate articles were published in *SLAC Today* on the LCLS in FY07.

The Communications Group also organized 3 major events to publicize the LCLS.

- LCLS Groundbreaking: On October 20, 2006, amid a contingent of outsized earth-movers, a crowd of 1,200 SLAC employees, distinguished Stanford guests and government officials gathered to celebrate the official groundbreaking for the LCLS. Department of Energy Under Secretary of Science Raymond Orbach hosted the event and delivered the keynote address, along with remarks by congress members Anna Eshoo, Mike Honda and Zoe Lofgren. The festivities concluded with a first-ever performance at SLAC by the Stanford marching band (See October 20, 2006 Press Release[10].)
- LCLS Ice Cream Social: In celebration of the first electrons created and accelerated by the LCLS injector facility, SLAC threw a Laboratory-wide party called "LCLS Ice Cream Social." A team of the Laboratory's highest administrative officers, including Director Jonathan Dorfan, served 24 gallons of ice cream and toppings to more than 550 people. The party included music by a steel-drum calypso band, and a giant, inflatable "electron" for the crowd to bounce around.
- LCLS Tunneling Breakthrough Webcast: To mark and publicize the completion of the first portion of tunneling for the LCLS, SLAC Communications and SLAC Central Computing Services coordinated a live webcast from the construction site. Online viewers tuned in to watch live as the roadheader punched through the last remaining inches of earth into daylight, preceded by a handful of congratulatory remarks by Photon Science Director Keith Hodgson and Director of LCLS Construction John Galayda.

[10] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.3_20061020PR.pdf

Measure

The LCLS brochure will be revised and reprinted.

Results

The LCLS brochure has been completely redesigned and the new version will be available in November 2007.

5. Local Community

Measure

A brochure will be produced informing the local community on possible disturbances resulting from the construction of the LCLS.

Results

A brochure, *The LCLS Construction Project: What Does It Mean to Me?*[8], was produced and distributed in FY07.

Measure

An LCLS Dashboard will be produced, allowing the local community to stay in touch with the progress made in the construction of the facility.

Results

The LCLS Dashboard[5] was set up in FY07 and has been a very useful indicator of the progress of construction of the different elements of the LCLS project. The site can be accessed freely by anyone around the world.

The Communications Group also established two webcams[6] which allow staff members and interested public to follow the progress on the construction sites in real time. This has been a very popular feature.

Measure

Continued refinement of the SLAC Public Lecture Series. Examine ways of promoting the events and attracting new audiences.

Results

Six extremely successful public lectures[7] were held in FY07. The advertising for the lectures was much strengthened by increasing the number of people on the mailing list and specifically targeting participants of science courses at local community colleges.

Measure

A local community taskforce will be established. SLAC staff members will be asked to set up personal connections with leading members of the local community so as to have a direct communication channel from the Laboratory to our neighbors.

Results

This taskforce was not set up. However, the idea is still strong and with the increased resources in the Education section, we hope to achieve this goal in FY08.

6. Office of Education

Measure

SLAC will organize a regional Department of Energy Science Bowl on February 10, 2007.

Results

This measure appears in an earlier section, we repeat the previous entry below.
SLAC's Regional Science Bowl in FY07 was an extremely successful event, with the Laboratory hosting 24 participating teams (the maximum that can be accommodated at SLAC) from high schools around the greater Bay Area. With contributions from Cisco, Sun Microsystems, Google and more, the event saw unprecedented interest and support in 2007, a trend expected to continue in 2008. Over 200 people participated in the event.

Measure

The Education Officer will present an education plan for the Laboratory.

Results

Susan Schultz was appointed SLAC Education Officer in February, 2007. She has been working with the Communication Group to establish the priorities planned for education at SLAC. This plan will be presented to Acting Director Persis Drell in October, 2007.

Measure

A new tour itinerary will be set established.

Results

A new tour itinerary has been established but safety concerns have led to frequent interruptions in access to some of the tour stops. However, tours are seen as a priority in SLAC's educational program and to this end, a new post has been created for a Tour Coordinator who will have responsibility for developing a completely new tour program including new itineraries, new materials and a renewed Visitors Center. Interviewing for this post will start in November, 2007.

7. *symmetry* Magazine

Measure

The SLAC and Fermilab Public Affairs Offices will publish 10 issues of *symmetry* during FY07.

Results

Ten issues of *symmetry* were published in FY07. The magazine continues to be extremely popular and has won several awards (2006 American Graphic Design Award[11] and the Davey Award[12]).

Measure

SLAC will employ a writer/editor to strengthen the *symmetry* production team.

Results

We were delighted to employ Glennda Chui as Deputy Editor of *symmetry* magazine in March, 2007. In her previous position as Science Editor of the San Jose Mercury News, Glennda was one of the best known science journalists in the US.

Measure

SLAC and Fermilab Public Affairs Offices will work together to increase online traffic to over 25,000 visits per month. They will regularly seek and incorporate feedback through a variety of formal and informal mechanisms.

Results

Visits to the *symmetry* website have risen much faster than anticipated. The average monthly viewer ship is 40,000, peaking in May, 2007 with 80,000 unique visits. The website has been constantly improved, including a much wider range of links associated with the articles in the magazine. Several *symmetry* articles have been featured on Slashdot.com and Google News. This is real progress.

8. International Particle Physics

Measure

Close collaboration with CERN and other Interactions members to implement the LHC

[11] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.3_11-21-2006.pdf

[12] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.3_02-09-2007.pdf

Communication Plan.

Results

SLAC Communications Office worked closely with CERN to develop a communication plan for the LHC and in particular to develop a media plan for the start-up of the new accelerator in May 2008. The Communications Office also helped initiate the US/LHC communication effort. A new US/LHC website (www.uslhc.us) has been created.

Neil Calder is a member of the US/LHC communication taskforce. This group, composed of physicists and communicators, was asked by the DOE and NSF to make recommendations for a collaborative communication plan for US/LHC involvement. The taskforce has now finished writing its report which will be presented to NSF and DOE on October 17, 2007.

Measure

SLAC and Fermilab will lead the effort to organize a program of envoys from the particle physics community to policy makers and opinion leaders at the national level.

Results

This program was initiated but has not yet come into action. Both Fermilab and SLAC user communities have identified potential envoys and opinion leaders who should be contacted.

Measure

SLAC, Fermilab and the LCSGA will develop a dedicated ILC Speaker's Bureau.

Results

Little progress has been made on this measure.

Measure

SLAC, Fermilab and ILC Communicators will produce two publications: a tri-fold ILC brochure and a summary brochure of the Reference Design Report.

Results

The tri-fold ILC brochure was produced in January, 2007. The brochure is available online for download[13]. A text version of the Reference Design Report brochure was produced for the ILC meeting in Beijing in February, 2007, and the final glossy version has now been printed and will be distributed in October, 2007.

9. International Photon Science

Measure

SLAC will maintain its influence on the Lightsources.org Editorial Board.

Results

Neil Calder has continued to steer the Lightsources.org Editorial Board and Bradley Plummer will take over this role in January, 2008.

Measure

SLAC will help organize a Press Breakfast on Photon Science at the AAAS Meeting held Feb. 15-19, 2007, in San Francisco.

Results

Neil Calder gave a talk at the AAAS meeting on Lightsources.org activities and the SLAC Communication Office put up and staffed a booth at the meeting. This was a very

[13] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.5.3_ilc_brochure_200611.pdf

successful activity with many hundreds of people stopping to ask questions on synchrotron radiation subjects.

10. Conference Organization

Measure
Set up a centralized conference organization web space.

Results
Much work has been done on the conference website, which will be fully operational by CY07.

Measure
Consolidate all conference organization at SLAC.

Results
Important progress has been made with conference organization at SLAC. Previously, individual groups assumed responsibility for organizing their own conferences with much wasting of resources and parallel activities. Now, all conference organization goes through the Communications Group, consolidating a more streamlined approach to this task.

In FY07, the conference organization assisted with seven conferences:

- Cryogenics Operations (May 06, 34 participants)
- LoopFest V (June 2006, 51 participants)
- XXXIV Summer Science Institute (July 2006, 205 participants)
- 9th International Workshop on Accelerator Alignment (September 2006, 90 participants)
- The US High Gradient Research Collaboration Workshop (May, 2007, 57 participants)
- XXXV Summer Science Institute (July-August 2007, 251 participants)
- First ATLAS Physics Workshop of the Americas (August, 2007, 119 participants)

Performance Measure 4.1.6 ▪ The Laboratory will provide and adhere to detailed roadmaps supporting the Laboratory's shift in primary sponsorship from HEP to BES.

Target 4.1.6.1: B+ = Facility Space Plan showing shift of available office space from HEP to BES in accordance with the program growth.

Grade: B (3.0)

With the conversion of the Linac to become the injector for the LCLS and an accelerator test facility, considerable realignment of space allocation is on-going to accommodate support staff, scientists and users. The loss of the CLOC building to support LCLS operations and science has required the Laboratory to refurbish and redeploy lab, office and shop space in support of the new operations and science missions in x-ray and laser pulse science.

The Laboratory has concentrated on three areas to provide appropriate space:

1. The Collider Experimental Hall
   This office/experimental hall (retired from science use in 1998) will be refurbished in 2009 to accommodate approximately 45 support staff within a short walking distance to the LCLS near and far experimental halls. The large open experimental area is already deployed to support staging and final assembly of equipment destined for the LCLS beamline and experimental halls. This area has been used for years as a staging area for SPEAR 3 and *BABAR* upgrades.
2. Building 28 (an office/storage/salvage building)
   This 20,000 square foot building has been mixed use for project offices, materials storage

and salvage operations. Alternatives locations are being sought for the latter two functions so the entire building can be used for about 100 offices in support of LUSI, SSRL and LCLS staff and users. The plan is for two increments from the current office usage to reach beneficial occupancy. In FY08, 65 offices will be available. By FY09, 110 offices will be available.

3. Central Laboratory
   The Central Laboratory two-story wing is being redeployed to house the PULSE center headed by Phil Bucksbaum. A small number of offices are currently in use by PULSE. Several labs are being developed for beneficial occupancy in FY08 and the remainder will be available in FY09. By then the space will house about 50 PULSE scientists and staff and many laser and biolabs and SLAC's Technical Information Services, which supports all sciences at SLAC. Current occupants are being moved to other office or support buildings.

These plans are being accommodated by shifting requirements in HEP and general staff to existing buildings where space is becoming available through changes in the HEP program and reassignment of shop space which is being made available.

Target 4.1.6.2: B+ = Detailed staff "migration plan" demonstrating the reduction in HEP resources commensurate to decommissioning of science installations, with transition of resources to BES activity where appropriate and to HEP where new projects are authorized.

Grade: B+ (3.1)

Through FY08, the major operation of the *B* Factory continues while it is expected to deliver its best luminosity to the *BABAR* Detector and continue to support the commissioning of the LCLS injector and support ILC tests in End Station A. In FY09 the *B* Factory (PEP-II) will enter a decommissioning phase requiring many fewer resources. Occasional use of the first two-thirds of Linac is possible as needs and opportunities arise. LCLS will be completing its beam delivery systems for the x-ray experimental halls, which will begin commissioning and science operations by mid to late 2009 requiring resources, some of which roll off of the PEP-II staff. The planning for this transition began in early 2006 with the formation of the Transition Working Group (TWG) led by Persis Drell (Particle Physics and Astrophysics Directorate) and Keith Hodgson (Photon Science Directorate). The report of the TWG gave an initial view of the transition of resources FY07 to FY09. In April, 2007, a TWG2 was commissioned to refine the level of detail in the transition planning. The outcome will be a lab wide head count and budget through FY09 by department, names, and expected activity. This planning process is expected to continue with yearly updates until the transition is complete.

The current state of the TWG2 planning is shown in the attachment[14]. Initially there is a drop for PPA in FY08 representing the turn off of the PEP storage ring and the corresponding increase to Linac operation to support the new LCLS beam line and experimental halls. The increase in PPA between FY08 and FY09 is due to new initiatives in PPA turning on as they are approved.

A Destruction and Demolition plan for *BABAR* and PEP-II was delivered to DOE in August, 2007. It described a process to bring *BABAR* and PEP-II to a defined Minimum Maintenance State in late CY08 to substantially reduce operating costs and preserve equipment for possible redeployment if a new initiative needs them. Any equipment not redeployed by 2015 will be salvaged or stored as appropriate. The August plan described the level of manpower needed to support the MMS as 16 in FY09 diminishing to four in FY11 until the final disposition of the equipment in FY15.

Target 4.1.6.3: B+ = Detailed bottoms up budget analysis reflecting forecast to actuals for BES and HEP, and reflecting the shift in spending driven by changes in program activity over the course of

[14] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.6.2-twg2.pdf

FY07.

Grade: B (2.8)

FY07 marked the second year of transition of SLAC's Linac Related Operations from HEP to BES. It was a challenging year as the CR for FY07 resulted in a great deal of uncertainty of the budget during the first half of the year. In the end, the funding from HEP and BES did provide enough to allow SLAC to run the *B* Factory with the scheduled number of weeks as planned and to prepare for the transition to LCLS operations.

The overall strategy in executing the program focused on the longer term goal of optimal operations in the LCLS era, taking into consideration the LCLS commissioning requirements and the near term needs of the *B* Factory operations. The actions taken include the following:

- Staffing
  - Hiring plan factored into the planned roll-off from the LCLS construction project, and focused on contributions in the LCLS era
  - Some staffing reduction was made in areas where the skills would not match to the future needs
- Operations
  - Support of LCLS injector commissioning was integrated with PEP-II operations
  - Accelerator downtime was heavily driven by the LCLS installation schedule
- Accelerator Improvement Projects (AIP)
  - The focus has changed from PEP-II to the Linac
  - About $2M was allocated to Linac improvement projects to upgrade aged systems and components in the last ten sectors of the Linac to enhance reliability of operations. Some of these systems date back to the original construction of the Linac.
- General Plant and Operating Infrastructure Projects
  - The priority was to target infrastructure maintenance and upgrade to provide reliable facilities and utilities in support of Linac-Related Operations in the LCLS era
  - Another objective is to improve space utilization
- Equipment
  - Equipment in support of Linac-related operations
  - Equipment in support of site computing

When the technical problems in the PEP-II *B* Factory in spring 2007 resulted in savings in electrical power, the strategy was to apply much of the savings to improve the infrastructure, including AIP for the Linac as well as General Plant Projects (GPP) and operating projects for the support facilities. The Budget Summary Table 4.1.6.3 shows the changes that evolved from the forecast to the actual figures. Details are found online[15].

Table 4.1.6.3 FY07 Linac Operations Budget Summary ($ in Thousands)

	Forecast	Actual
High Energy Physics		
Linac Related Operations	34,840	35,788
Power	14,860	12.701

[15] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.1.6.3-tabledocumentation.pdf

	Forecast	Actual
Subtotal HEP Operations	**49,700**	**48,489**
Equipment	1,400	1,400
AIP	4,000	4,500
GPP	2,000	2,000
Operating Infrastructure Projects	1,000	1,711
	8,400	9,611
Total HEP	**58,100**	**58,100**
Basic Energy Sciences		
Linac Related Operations	37,550	34,011
Operating Infrastructure Projects	2,000	2,889
GPP		650
Total BES	**37,550**	**37,550**
Linac Related Operations Total	**96,650**	**95,650**

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.*

The weight of this Objective is 35%.

PERFORMANCE SUMMARY

In March, 2007, President Hennessy strengthened the corporate oversight by naming Arthur Bienenstock as Special Assistant to the President for SLAC. In April, 2007, President Hennessy and Provost Etchemendy established the Strategic Operations and Management Oversight Committee (SOMOC), charged with the coordination of Stanford's plan to ***strengthen*** Stanford's oversight and remedy the SLAC M&O shortcomings. As a result several key actions have been taken: Stanford has created a new executive position, reporting to the President, the Vice President for SLAC. A person has been engaged for this position and will commence in January, 2008. The charter and structure for an Oversight Board and a set of sub-boards is being established. The new Vice President for SAC will chair. Membership is being established and the first Board meeting will be in early 2008.

In May, 2007, SLAC retained the services of McT to do a detailed internal assessment of SLAC's M&O functions and to work with Stanford and SLAC to establish a plan to correct the problems in a systemic manner. McT is also providing guidance regarding implementation of the oversight functions discussed above and is participating in the implementation of the improvement plan. Stanford University is paying for the McT initiative. McT has been successfully engaged, a full assessment has been made and the recommendations will be turned into a resource-loaded improvement plan by the end of CY08.

Over the course of the year, Stanford University provided significant direct support to SLAC in a number of important areas. Stanford operates and maintains the 112-room Guest House at no direct charge to SLAC; the savings to the SLAC research community afforded by the low guest house room rates is estimated to be in excess of $1M per year. During FY07, a total $3.5M was provided to SLAC in direct support of facility operations, faculty salaries and payment for the McT work. In addition, SLAC is the full beneficiary of funds that the University has allocated in start-up packages for faculty that have been hired at SLAC. These funds, which total $8.8M since 2003, are expended typically over a three to five-year period.

NOTEWORTHY PRACTICES

Noteworthy practices are given in the Performance Summary section above.

OPPORTUNITIES FOR IMPROVEMENT

The oversight function of the University needs to be strengthened and improved to fully support the Laboratory and provide the appropriate level of assurance to DOE. The existing oversight provided by the SLAC Policy Committee (SPC) and ES&H Advisory Committee (ESHAC) are inadequate. Strategic pieces have been identified and will be put in place in FY08 to remedy this situation.

Performance Measure 4.2.1 ▪ Level of Leadership responding to Laboratory issues is commensurate with the issues' level of severity.

Target 4.2.1.1: B+ = Senior leadership at the laboratory is actively engaged in problem identification and development of mitigation strategies as well as capture of lessons learned. Positive reporting of results is provided to DOE at regular intervals and audit trails are maintained.

Grade: B- (2.6)

The SPC, which reports directly to the President, and which is constituted to provide oversight to the University, met twice this year as it always does in December and May. These two-day meetings conclude with a closeout with the University and a written report for the President and Provost. Of particular note at the May meeting was a very strong focus on the M&O concerns, the upcoming competition and the hiring of a new Director.

In March, 2007, President Hennessy strengthened the corporate oversight by naming Arthur Bienenstock as Special Assistant to the President for SLAC. This appointment was communicated to Ray Orbach and others at DOE. In April, 2007 President Hennessy and Provost Etchemendy established the SOMOC, charged with the coordination of Stanford's plan to remedy the SLAC M&O shortcomings. The plan included two main thrusts: several Presidential-level initiatives to strengthen Stanford's corporate oversight of SLAC and a set of actions specifically aimed at fixing the functional and management problems at SLAC. Serving on the strategy group were: Arthur Bienenstock (Chair); Randy Livingston, Stanford's Vice President for Business Affairs and Chief Financial Officer; Debra Zumwalt, Stanford's Vice President and General Counsel; Larry Gibbs, Stanford's Associate Vice Provost (AVP) for EH&S; Stuart Davis, Stanford's Director of Procurement; Rick Moyer, Stanford's Executive Director of Internal Audit and Institutional Compliance; Jonathan, SLAC Director and John Cornuelle, SLAC Chief Operating Officer (COO).

The initiatives to improve Stanford's oversight of SLAC included:

- The creation of a new position, Vice President for SLAC, providing corporate oversight for SLAC, reporting to the University President.
- The SOMOC will transition to a permanent SLAC Oversight Board. The board will be chaired by the Vice President for SLAC and will report directly to the Stanford President.
- The ability to provide strong management of SLAC's M&O functions, in addition to the scientific mission, were established as key requirements for the national search currently under way for a new Laboratory Director.

In May, 2007, SLAC retained the services of McT to do a detailed assessment of SLAC's M&O functions and to work with Stanford and SLAC to establish a plan to correct the problems in a systemic manner. McT is also providing guidance regarding implementation of the oversight functions discussed above and is participating in the implementation of the improvement plan. Stanford University is paying for the McT initiative.

A Vice President for SLAC has been engaged and will commence work in January 2008. The person comes from outside of the University, is exceedingly effective and highly experienced, having close to thirty years of experience working with DOE. In the interim, he is intimately involved on a consulting basis providing guidance on such issues as the new director hire, all aspects of the McT

process and the establishment, charter and membership of the oversight board which he has agreed to chair.

The structures for the Oversight Board, its charter and the charters for the Board sub-committee have been worked out. The Chair has agreed to serve and the remainder of the membership is being finalized. The Board will formally commence its function in early 2008.

The McT process was launched in June, 2007. Substantial effort has been made through a dedicated web-based portal and weekly communications on *SLAC Today* to involve the staff in the improvement initiative. Direct channels for staff input were established for McT. During the first quarter of FY08 the McT recommendations will be turned into a resource-loaded, projectized improvement plan.

Over the course of the year and in addition to the Target, Stanford University provided significant direct support to SLAC in a number of important areas. Stanford operates and maintains the 112-room Guest House with room-rates that are available to the SLAC community at significantly below local market prices. Having the Guest House on-site also obviates the need for rental cars. Based on typical annual room occupancy, the savings to the SLAC research community afforded by the Guest House is estimated to be in excess of $1M per year. During FY07, Stanford contributed $2.015M of support to the KIPAC, PULSE, XLAM and SLAC operating budgets, $0.708M of salary support for SLAC faculty appointments that are joint with campus departments and $0.463M of salary support for SLAC faculty who hold endowed chairs. Stanford University is funding the McT process, which totaled $0.260M in FY07. These items total $3.4M in FY07. In addition, SLAC is the full beneficiary of funds that the University has allocated in start-up packages for faculty that have been hired at SLAC. These funds, which total $8.8M since 2003, are expended typically over a three to five-year period.

In their letter to SLAC following the Laboratory's mid-term presentation on Appendix B performance, the DOE/SSO made the following suggestion: "SLAC Management should consider conducting an in-depth staffing analysis throughout the M&O operations to address skills mix, and succession planning."

SLAC management considered this suggestion, but concluded that it was premature at this time. The Laboratory has engaged the management consulting team of McT who are working with SLAC management to improve the Lab's management systems. Among the action items we anticipate will be the development of an overall SLAC strategic plan. This plan will result in an analysis of our staffing and resources in all the management and operations areas of SLAC.

On the assurance side, SLAC's Office of Assurance (OA) was established in May 2006. With the recent addition of a new staff member, OA is now comprised of 2.2 full time professionals including the Director, Walter Leclerc, Assurance Professional, Ruth McDunn, and a shared administrative support person. This now fully implemented Target operated effectively with ongoing updates and reports as appropriate.

During FY07, the OA coordinated the development and negotiation of the FY08 PEMP, and initiated the development of the final assurance systems for emergency management, and safeguard and security.

Performance Measure 4.2.2 ▪ The Contractor's Leadership response to Laboratory issues was timely and immediate; mitigating actions were identified and implemented as appropriate.

Target 4.2.2.1: B+ = The SLAC Leadership team ensures the SSO receives immediate notification regarding Safety and Security incidents of consequence, in no case later than two hours after the incident occurs. Updated status provided at regular intervals and a closeout status including root cause analysis is delivered.

Grade: B+ (3.1)

- Continue to successfully implement "Argonne model" for site and DOE/SSO notification of incidents. This means, DOE/SSO is informed of "incidents of consequence" immediately after the Occurrence Reporting Processing System (ORPS) Facility Manager's Office is notified, even if all the facts are not yet in hand.
- ORPS Facility Manager Deputy (FMD) On-Call program provides 24/7 capability of notification to Facility Manager (FM) and, in turn, to SLAC Management and DOE/SSO as appropriate.
- Consistent communication between the SLAC ORPS Program Manager and DOE/SSO ORPS Facility Representative provides a basis for strong partnership between SLAC and DOE/SSO in such matters.
- Mitigation (if needed) and lessons learned begins immediately, and DOE/SSO is provided with updates on event as new information is forthcoming.
- As appropriate, significant events are categorized as ORPS-reportable or non-reportable by the FMD On-Call in a timely fashion and written notification submitted for ORPS events through the DOE database by ES&H Division/Chemical and General Safety (CGS) Department within time frame called out by the applicable DOE Order.
- If event is ORPS-reportable (at whatever significance category level), a root cause analysis (via DOE causal analysis methodology) is immediately assigned and the final report submitted through the ORPS database per the schedule called out in the Order.
- If event is non-reportable through ORPS, a new routing system forwards it to the SLAC Noncompliance Tracking System (NTS) Coordinator, who facilitates subsequent reviews of 10CFR851 or 835 applicability and data entry as appropriate. NTS Coordinator (for NTS-reportable incidents) or Accident Investigation Program Manager in CGS (for non-reportable events) initiates or ensures that an investigation takes place and corrective actions are entered/tracked in SLAC Corrective Actions Tracking System (CATS).
- All completed ORPS reports are posted on the ORPS webpage and, in the spirit of lessons learned, SLAC supervisors and ES&H coordinators are informed of this posting.
- Corrective actions are entered and tracked to completion in CATS and closed out in the DOE ORPS database by their deadline.

Performance Measure 4.2.3 ▪ Leadership maintains cognizance of Corrective Action Plans (CAPs) and insures their timely closure.

Target 4.2.3.1: B+ = Leadership audits CAP open and closed items regularly and ensures disposition is adequate, that the responses address the concerns accurately and completely with the appropriate level of quality. SLAC provides read-only access to SSO on request so that periodic quality audits can be performed.

Grade: B+ (3.1)

During FY07, the Director, Office of Assurance, was given the responsibility of overseeing the Issues Management Program (IMP) and CATS. Eight Issues Management Program Committee Meetings were convened and the minutes are posted on the OA website[16]. The purpose of these meetings is to ensure the proper coordination and implementation of ongoing CAPs as well as effective distribution of information between the IMP areas, including NTS, ORPS, CATS, and Lessons Learned. Another highlight in this Target area was that SLAC continued to make progress to expand CATS to include other areas (outside of ES&H), including business operations and emergency management. Finally, the Director, OA, tracked and reported to SLAC Leadership the status of ongoing CAPs during ES&HCC Meetings to ensure that corrective actions accurately and completely address the applicable

[16] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.2.3.1_oa-impc.pdf

concerns. The commitment of SLAC Leadership during FY07 to ensure the disposition of corrective actions clearly meets the Target in this area.

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;*
- *The willingness to enter into and effectiveness of joint appointments when appropriate; and*
- *Where appropriate, the willingness to develop and work with the Department in implementing innovative financing agreements and/or provide private investments into the Laboratory.*

The weight of this Objective is 30%.

PERFORMANCE SUMMARY

The SPC is Stanford University's oversight committee. During FY07, SPC met twice, once on December 1 and 2, 2006 (SPC Fall Meeting) and the other on May 4 and 5, 2007 (SPC Spring Meeting). In doing so, the SPC also provided the Laboratory Director with guidance and some feedback on aspects of SLAC operations and future planning.

Further, SLAC made improvements in OA and CATS as well the development and implementation of five formal CAPs during FY07.

NOTEWORTHY PRACTICES

To assist Stanford University and the Laboratory Director to track significant risks to contract performance, the OA developed a new tool, a PEMP Risk Registry.

SLAC implemented its comprehensive assessment program, including External Independent Assessments, Internal Independent Assessments (IIAs), OA Verification and Validation Activities, ES&H Program Assessments, and Line Self-Assessments.

Finally, the OA continued to validate 100% of the all corrective actions that were completed in FY07 and assesses the effectiveness of these actions according to SLAC policies and procedures as required and necessary.

OPPORTUNITIES FOR IMPROVEMENT

In FY08, SLAC will complete the development of the Emergency Management and Safeguards and Security assurance systems.

In FY08, the contractor oversight function will be significantly revamped and strengthened.

Performance Measure 4.3.1 ▪ Level of Corporate Leadership involvement in reviewing and establishing risk limits for Laboratory operations.

Target 4.3.1.1: B+ = The Contractor Leadership team provides routine oversight and engages in activities associated with Emergency Preparedness, Safety and Security. Risk Assessment requirements identified by DOE are completed on time.

Grade: C+ (2.3)

The SPC is Stanford University's oversight committee. During FY07, the SPC met twice, once on December 1 and 2, 2006 (SPC Fall Meeting) and the other on May 4 and 5, 2007 (SPC Spring Meeting). The dominant topic at the May meeting was the urgent need for more comprehensive corporate oversight and an improvement plan for the SLAC M&O functions. The SPC also provided pointed input on the Director search process and on the upcoming contract competition. In addition to

the closeout with the Provost and Vice-Provost for Research, the SPC provided a written report to the President.

To assist Stanford University and the SLAC Laboratory Director to track significant risks to contract performance, the OA developed a new tool, a PEMP Risk Registry.

Performance Measure 4.3.2 ▪ Level of Corporate Leadership involvement in assessing management approaches and systems utilized at the Laboratory to ensure they are comprehensive and sufficient to address significant risks attendant to Laboratory operations and strategic mission accomplishment.

Target 4.3.2.l: B+ = Contractor management applies continuous improvement techniques in assessing the business and logistics systems and business processes utilized by the laboratory, pursuing tactical solutions and identifying strategic deliverables that will enhance the existing tools or provide upgrade paths to better meet the SC mission.

Grade: C+ (2.3)

During FY07, SLAC continued to look for opportunities for improvement. For example, the OA developed three key documents during FY07.

- An Independent Assessment Manual (27 March 2007) that addresses qualification and assignment of personnel conducting independent assessments and the initiation, execution, and reporting of these activities and results.
- A Risk Prioritization Manual (3 August 2007) that applies to the process of detailed planning, including prioritization of ES&H programs, issues, and activities relating to internal independent assessment scheduling.
- A PEMP Development Manual to assist PEMP functional team leaders and members from DOE/SSO and SLAC in the development of the management and operations (M&O) Measures and Targets required under Prime Contract Number DE-AC02-76-SF00515.

Further, CATS grew from 60 assessments and 704 corrective actions in December, 2006 to 117 assessments and 1,541 corrective actions as of September, 2007. CATS is now tracking numerous items such as DOE/SSO facility walkthroughs, ORPS items, workplace compliance inspections pursuant to Chapter 33, various audits, and accident and incident reports and corrective actions.

There have been numerous technical advancements made to allow the increase in CATS usage. All of the upgrades made are documented[17]. Some items to highlight are:

- An Excel spreadsheet template for loading items in bulk.
- Application built to upload the items in bulk.
- Email reminders updated and sent out in consistent intervals of 30, 7 and 3 days.
- Additional space added for finding statements, corrective action statements and status/completion statements.

Performance Measure 4.3.3 ▪ Level and comprehensiveness of Corporate Leadership assessments of the implementation of management systems and approaches to ensure they are working as intended and are effective in controlling the risks attendant to Laboratory operations and mission accomplishment within acceptable risks.

Target 4.3.3.1: B+ = Contractor provides lifecycle management oversight and does self assessments as required by DOE and the Laboratory Quality Assurance office guidance.

Grade: B (3.0)

[17] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.3.2.1-CATS.pdf

During FY07, SLAC fully implemented its comprehensive assessment program, including:

External Independent Assessments

The ES&H Advisory Committee (ESHAC) advises both Stanford University and the Laboratory Director on the overall performance of the Laboratory in regard to ES&H management and risk. This includes evaluating the operating practices and organizational systems that are in place, reviewing and establishing risk limits, and identifying possible areas for improvement.

The committee met in October, 2006 and April, 2007, each meeting held about one month before the SPC meeting, where the ESHAC Chair, Larry Papay, presents the results of the ESHAC review. To facilitate in-depth study, the committee continues to use a method of revolving focus to look closely at selected areas rather than look at the entire Laboratory at every meeting. The details of the revolving focus and the time in which the entire Laboratory would be reviewed is coordinated by the ESHAC Chair. The revolving focus areas are: Assurance Program, Roles & Responsibilities, Recruitment of Qualified People, Beam Switchyard Review, Tritium Review, Collective Dose, LCLS Review, LCLS Construction, Radioactive Materials Storage Yard (RAMSY), DOE Office of Independent Oversight (OIO), Emergency Management System (including EMPs), CATS, Injury Case Management, ES&H Performance Indicators, and Training.

During the April, 2007 meeting, the OA presented the results of the DOE OIO inspection of SLAC's ES&H Program, which occurred in October and November 2006, details of the CAP, and discussed the details of the plan to make improvements.

The agenda of the meetings and areas of focus are proposed by the Laboratory Director in concurrence with the AVP for Environmental Health and Safety at Stanford University, and in consultation with the ESHAC Chair.

The committee had verbal close outs with SLAC Senior Management as well as the AVP at the end of each review. The final reports were delivered to the Laboratory Director and the AVP, and were made available to the SPC during their meetings in December, 2006 and May, 2007.

IIAs

Safety Overview Committee (SOC)-Chartered Accelerator Safety Audits

- As required by the SOC charter, which states that each SLAC accelerator facility is to be audited at least once every five years, the Chairman of the SOC, Ken Moffeit, conducted an Accelerator Operations Safety Audit of the Stanford Synchrotron Radiation Laboratory (SSRL) lead by Frank O'Neill, PPA ES&H Coordinator. The charge of the audit team included an:
    - Assessment of the facility's safety systems
    - Assessment of compliance with SLAC ES&H policies and procedures
    - Evaluation of ES&H training programs and records
    - Evaluation of conduct of operations
- The audit was conducted over the months of June and July, 2007 and consisted of walkthrough inspections, interviews, and field observation of activities. Audit teams were encouraged to interact directly with workers in the field by asking about the top three hazards in their work space, the methods to mitigate these hazards, and the related procedures and documentation. Overall, the audit team found that SSRL operations are very well organized and managed, with safety receiving the appropriate level of attention in all the areas reviewed. The audit team was generally impressed with both the professionalism of the SSRL personnel involved and the support they provided to the auditors.

OA IIAs

- The OA conducted two IIAs, which were planned and scheduled pursuant to the SLAC Five-Year Integrated Assessment Schedule as well as three additional IIAs as follows:

    - Radiation Protection Program (RPP) IIA, December 2006
    - Chemical Management Services (CMS) and Hazardous Materials Program (HMP) IIA, June, 2007
    - Radiological Environmental Protection (REP) Program IIA, July, 2007
    - Job Hazard Analysis and Mitigation (JHAM) Program IIA, June and July, 2007
    - Hazardous Waste Collection Areas IIA, FY07
  - IIAs are an internal self-assessment process that includes Laboratory staff, program managers or subject matter experts, peers invited from other DOE laboratories (LLNL, LBNL, Sandia National Laboratory [SNL], etc.), and in some cases contractors. Refer to the SLAC Assurance Program Description[18] (SLAC-I-770-0A17B-001-R000), Section 3.1.2 "Independent Internal Assessments," details this process.
  - Four reports were submitted to DOE/SSO during FY07. The Hazardous Waste Collection Areas IIA report will be submitted in 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 with the exception of the JHAM identified Concerns, which were evaluated by the applicable McT representatives and incorporated into their final analysis as appropriate.

OA Verification and Validation Activities

- 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. Beyond the target for this area, the OA validated 100% of the all applicable corrective actions that were taken in FY07 and assesses the effectiveness of these actions according to SLAC policies and procedures and as necessary. SLAC believes that it is the only SC Laboratory that attempts and achieves a 100% performance level, a Best Management Practice.

ES&H Program Assessments

ES&H Division Program Self-Assessments are aspects of the ES&H Division's "Roles of ES&H Program Managers" policy. A series of ES&H programs have been identified for review on a three or more year cycle to ensure the entire ES&H program is reviewed in a reasonable amount of time and is part of the overall assessments/audits process coordinated with the DOE/SSO and OSC. For FY07 the following programs were assessed:

- CMS & Hazardous Material Management Program
- Industrial Hygiene Program
- Emergency Management Program
- Excavation Safety Program
- Powered Industrial Vehicle (Forklift, etc.) Safety Program
- Storm Water Program
- Fall Protection & Ladder Safety Program
- Laser Safety Review

Line Self-Assessments

SLAC line-management is responsible for conducting self-assessments as required by ES&H Manual Chapter 33, "Self Assessment." Line self-assessments are an important part of the assessment program that helps ensure the assurance programs are fully implemented and effective feedback and

[18] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.3.3.1-assurance.pdf

continuous improvement mechanisms are in place. The line self-assessments conducted in FY07 include:

- Line Management Walkthroughs
- Line Management-directed ES&H Compliance Assessments
- Line Management-led Work Procedure Assessments
- Annual Directorate ES&H Self-Assessment and Report
- Other Line Management Self-Assessments, including:
- Line involvement in setting internal ES&H goals and metrics such as accident prevention, JHAM audits, and Area Hazard Analysis (AHA) reviews
- Flow down of ES&H goals through each Directorate
- Quarterly reports to the ES&H Coordinating Council (ES&HCC) that include directorate assessments of performance against both ES&H contract performance measures and internal goals and indicators
- Input to the quarterly ES&H report coordinated by the ES&H Division and submitted to the DOE/SSO and Stanford University
- Annual area hazard analysis reviews
- Annual JHAM process reviews
- Biennial SAD reviews
- Building Manager Inspections as required by the Building Manager Program Manual

Performance Measure 4.3.4 ▪ Level of Corporate Leadership involvement in development of corrective actions for identified issues or deficiencies at the Laboratory; involvement in reviewing progress in implementing CAPs; and the effectiveness of the corrections as implemented.

Target 4.3.4.1: B+ = The Laboratory Quality Assurance office or COO oversee the development of CAPs that properly target areas in need of improvement and provide fixed timeframes for completion of corrective actions. Any schedule deviations are negotiated with the QA Laboratory Executive and the Laboratory COO and executive briefings are presented to the SSO at periodic intervals so there are no surprises. Further, the COO or the designee will be accountable for the quality of execution pertaining to the corrective action(s).

Grade: B+ (3.1)

During FY07, SLAC developed and implemented five formal CAPs as follows:

- OIO CAP – In response to a DOE OIO inspection of SLAC's environment, safety, and health (ES&H) program during October and November 2006, a joint CAP was developed by SC, DOE/SSO, and SLAC (with assistance from McT and the Integrated Support Center [ISC], Oak Ridge Office [ORO]). Each SLAC finding was reviewed for causal factors and systemic program weaknesses. Opportunities for Improvement (OFIs) were also addressed during the CAP development and effectiveness verification reviews were incorporated into corrective actions to ensure completeness and effectiveness of implementation as well as to institute further improvements in feedback and improvement processes. As a result, many of the corrective actions are interconnected, complex, and directed at correcting institutional problems such as work planning and controls, requirement management systems, and feedback and improvement. As of October 1, 2007, 43 of the 101 (43%) OIO CAP items have been completed on schedule (no overdue) with the remaining 58 open items on track to be completed as required in upcoming FY08 and FY09. Progress continues to be monitored very closely by the OA and regular progress reports are presented to the ES&HCC to assure that all corrective actions are completed on schedule.
- LCLS PEP Ring Road Excavation Safety CAP – In response to a DOE/SSO request, a CAP was developed and submitted on schedule to DOE/SSO on June 29, 2007. The four

corrective actions (i.e., ES&H Manual, Chapter 11; excavation familiarization, Excavation Safety Daily Inspection Checklists, LCLS – ES&H MOA, and stopping unsafe activity familiarization) contained in the CAP were tracked in CATS and completed on schedule during FY07 as required.

- LCLS Injury Analysis CAP – In response to a DOE/SSO request, a CAP was developed and submitted on schedule to DOE/SSO on August 3, 2007. The three corrective actions (i.e., the analysis of high risk activities, management safety walks, and review of the completeness of Job Safety Analysis forms) contained in the CAP were tracked in CATS and completed on schedule during FY07 as required. As this corrective action will be a continuing process, the OA will conduct an effectiveness review in FY08 to assess the effectiveness of the corrective actions taken.
- Jacobs Engineering (A/E) Review CAP – At the request of SSO, an internal review of the Jacobs Facilities Corporation Subcontract No 515-S-46231 was performed. The review commenced on January 12, 2007 and was completed on February 9, 2007. The review consisted of the original award valued at $2,679,305 and included Modifications 1 through 24. The review consisted of file documentation supporting reasonableness of price, adequacy of the documentation supporting the transaction, and compliance with Purchasing Department policies and procedures. Findings and recommendations were presented in the Jacobs Summary Audit Report[19] submitted to DOE/SSO on February 13, 2007. As of September 30, 2007, all corrective actions in reference to those recommendations were completed on time as scheduled in the CAP.
- Procurement Evaluation and Reengineering Team (PERT) CAP – In response to the PERT review conducted from June 5 to 8, 2007, a CAP[20]was developed and submitted to DOE/SSO on August 21, 2007. The CAP was divided into two parts: Part One (Attachment A) was SLAC's response to the PERT significant observations and Part Two (Attachment B) was SLAC'S response to the weaknesses observed in the review of the Purchasing Department's operations as documented in the Contractor Purchasing System Assurance Criteria matrix. All corrective actions will be validated by Stanford University Internal Audit in FY08.

[19] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.3.4JacobsCAP.pdf

[20] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/4.3.4PERTCAP.pdf

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 25%.

Executive Summary

Goal 5 has three Objectives with 20 Measures. The following is a summary of SLAC's outcomes within these Objectives.

SLAC did not meet its annual goals for DARTs, TRCs, work planning, and lessons-learned. The accident rates and the PVC pipe explosion that occurred near the end of the fiscal year on September 13, 2007 are indicators that, while much progress has occurred since FY04, more remains in order for SLAC to achieve a world-class ES&H program.

SLAC met or exceeded the Targets for most of its performance measures in this Goal. Achievements included proper management of chemicals, production of new training courses in waste minimization and pollution prevention, the surpassing of targets for training, minimization of generation of waste of all kinds, and successful isolation of radioactive and non-radioactive hazardous wastes from the environment. As a result, SLAC and its enveloping regions were well protected.

Regarding the shortcomings in this Goal, SLAC recognizes that minimizing TRCs and DARTs, and better implementation of ISEMS (via formalized work planning, for example) are site wide challenges, and are not centered in any one Division or Directorate.

These collective outcomes equate to an overall score and grade for this Goal of 2.55 (B-). However, in recognition of the severity of the PVC pipe explosion incident, and in light of SLAC's high DART and TRC case rates, SLAC recommends an overall score of C+ (2.1) for this Goal to help reinforce the seriousness with which SLAC self-assesses its own safety performance and recognition of the importance of reducing TRCs and DARTs and improving implementation of ISEMS.

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-	2.67	30%	0.80	
5.2	Provide Efficient and Effective Implementation of Integrated Safety, Health and Environment Management	C+	2.2	50%	1.11	
5.3	Provide Efficient and Effective Waste Management, Minimization, and Pollution Prevention	B+	3.22	20%	0.64	
					Performance Goal 5 Total	**2.55**

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 performed well on all PEMPs associated with leading indicators. Radioactive materials were properly controlled, no corrective actions were overdue, ES&H items were all closed in a timely manner, and an assessment of the Industrial Hygiene Program was completed on schedule. The lagging indicators of TRCs, DARTs and their respective rates were above target levels for the year, which kept this Objective from warranting an overall grade higher than a B-.

NOTEWORTHY PRACTICES

The ES&H Division undertook the following measures in FY07:

- Launched a new site wide safety promotion campaign called Safe '07. The campaign produces and 'markets' employee safety modules, each of which emphasizes a particular safety discipline. ES&H also collects and publishes 'Good News' stories about safety successes at SLAC.
- Created and administered a new training course for management titled ES&H 418 training, "ES&H for Supervisors and Managers"
- Begun trending injury/illness/accident data to discern trends and focus safety attention and resources on disciplines and work practices that the trends indicate are causing elevations in TRC and DART numbers.
- Created an Incident Review and Assistance Team (comprised of the Incident Prevention Program Manager, Occupational Physician, and HR Workers' Compensation Specialist) to review all medical cases with the responsible supervisor and ensure that the investigations are completed in a timely manner and that appropriate corrective actions are identified and tracked to completion.

On the assurance side, the OA developed an OIO CAP Closure Documentation SharePoint Site, to which DOE/SSO has full access to monitor and determine the status of all SLAC OIO corrective actions at any time. SLAC considers this to be a Best Management Practice.

OPPORTUNITIES FOR IMPROVEMENT

Use of injury and accident data to help raise worker awareness during both new employee orientation, safety training scheduled via the STA system, corresponding improvements made to the ES&H Manual as trends indicate would be prudent, and site-wide communications such as *SLAC Today*.

Help enhance work planning formalization and related controls.

Increase ES&H presence in the field.

Performance Measure 5.1.1 ▪ The Contractor's progress in meeting the Office of Science FY07 safety goal for days away or restricted or transferred (DART) case rate.

Target 5.1.1.1: B+ = The DART rate for FY07 is equal to the SC safety goal of 0.25 and SLAC has no Type A or Type B accidents.

Grade: C- (1.1)

SLAC had no Type A or Type B accidents in FY07. SLAC's DART rate, a trailing indicator of safety performance, showed an unwelcome increase in FY'07 to a rate of 1.06. However, SLAC did

experience a PVC pipe explosion incident on September 13, 2007 that it is treating internally with the same scrutiny as a Type B accident investigation. SLAC is experiencing an unprecedented ratio of TRCs that are becoming DARTs (70% of all cases). It is not yet clear as to why this is the case. However, there is a significant decrease in the severity rate of our DART cases over the past few years, decreasing from a rate in FY03 of 113 days per 200,000 hrs worked down to 60 days per 200,000 hours worked in FY07. This decrease indicates that rapid medical care and case management of those cases that are occurring has improved.

The overall DART trend since 2000 had been downward, but does include an unusual dip in FY05 because of the post-Type A incident safety stand-down. Since then, it has gone back up. During this post-Type A period, SLAC's underlying ES&H program has actively been overhauled to include a complete re-development and update of its core ES&H policies and procedures.

To address the problem of the increase in our rates, in FY07 SLAC implemented a public safety awareness program through our *Safe '07*[21] campaign. This activity included monthly case studies in *SLAC Today* and posters focusing on excellent examples of team approaches to safe planning and execution by project teams and departments. Additional training has been provided to all supervisory personnel, and in various formats to our staff. As the primary research and management at the Laboratory changes, initiatives are being reviewed to enhance ES&H such as embedded ES&H services, a liaison program, enhanced customer service, deployment of an effective work planning control process, and Human Performance Improvement (HPI) initiative.

The Laboratory is committed to continuous improvement of systems to influence the organization through communications, processes and assistance that target the varied stakeholders at the Laboratory. SLAC has undergone extensive external and internal reviews over the past two years and is now actively making progress on enhancement of our ES&H systems based on the recommendations of these reviews. In early Q1 FY08, ES&H will provide a strategic and tactical plan to strengthen the safety program and work toward an accident-free workplace.

Performance Measure 5.1.2 ▪ The Contractor's progress in meeting the Office of Science FY07 safety goal for total reportable case (TRC) rate.

Target 5.1.2.1: B+ = The TRC rate for FY07 is equal to the SC safety goal of 0.65 and SLAC has no Type A or B accidents.

Grade: C- (1.1)

As with the DART rate, the TRC rate also showed an unwelcome increase in FY07, to a rate of 1.49. While it is above the SC goal as established by the DOE, the learning experience due to the goal has been invaluable in establishing methodology to attack the issue for FY08. Human Performance Initiative (HPI) is being reviewed for implementation, and new methods of conducting incident investigations employed. Several on-site programs have been used to raise the consciousness of accident prevention throughout the site, including:

- *Safe '07* Campaign
- Articles in *SLAC Today*
- The institution of a comprehensive incident investigation program, Focus on Safety[22]. This is a site-wide campaign of safety and brainstorming sessions using material based on accident analysis and trending, and a new management training course: ES&H 418: "ES&H for Supervisors and Managers".
- To improve the quality and timeliness of the accident investigation program, ES&H created

[21] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.1.2.1-safe07.pdf

[22] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.1.2.1-FocusOnSafety.pdf

an Incident Review and Assistance Team [IRAT] (comprised of the Incident Prevention Program Manager, Occupational Physician, and HR Workers' Compensation Specialist) to review all medical cases with the responsible supervisor and ensure that the investigations are completed in a timely manner and that appropriate corrective actions are identified and tracked to completion. This review process was initiated in the fourth quarter of FY07.

Although we exceeded the DOE rate goals, we believe that SLAC's performance on Performance Measures 5.1.1 and 5.1.2 warrant a grade of C-.

Performance Measure 5.1.3 ▪ The number of reportable occurrences of release(s) to the environment.

Target 5.1.3.1: B+ = There are no reportable occurrences of release(s) to the environment.

Grade: A- (3.6)

During FY07, there were no reportable releases to the environment.

In addition to having no reportable spills, SLAC performed the following work as part of our ongoing program to protect the environment:

- The transformer secondary containments at IR-8, 12, and 4 were repaired by sealing cracks and lining the containments with waterproof material.
- The project to evaluate outdoor chemical storage tanks for earthquake protection was completed. The evaluation identified that less than half (approximately 42 percent of the tanks) need additional safeguards to ensure they will withstand a major earthquake. The design work will be performed in FY08, with the installation of the safeguards to follow. Although the evaluation found most of the repairs will be minor, at least one of the tanks will be replaced. Funding was approved to replace this diesel storage tank at B505a with a new double-walled tank. The replacement is anticipated to be completed by the end of CY07.
- SLAC performed integrity testing on SLAC's 13 oil storage tanks. Integrity testing included a visual inspection and non-destructive testing. The report is presently being drafted.
- An external assessment of the Spill Prevention, Controls, and Countermeasures Plan (SPCC) was initiated. This work is part of a program assessment and will focus on reviewing the current plan against the new federal and state regulations to ensure it conforms to them and is complete.
- A module was developed and added to SLAC's Basic Incident Information (BII) Database to summarize each spill for tracking and trending purposes.

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 232.1-1A.

Grade: A- (3.6)

The quantity of radioactive contamination at SLAC generated from accelerator operations or from work operations of beam components is minimal. Locations in the accelerator housings where radioactive contamination is likely and where beam loss is likely to occur, such as beam dumps and collimators, are posted and identified as Contamination Areas to have positive access controls in the event radioactive contamination exists. Additionally, when work operations such as machining of radioactive components are to be conducted, a Contamination Area is established prior to the start of work. SLAC conducts frequent contamination surveys of accelerator housings where accelerator components are located with a potential for contamination and during and after work operations which may generate contamination. Work operations were carefully evaluated for contamination production potential, and contamination areas were established for operations posing such a probability. SLAC generated over 100 Radiation Work Permits during FY07 to ensure tight controls

were established for work with a potential to generate contamination. In FY07 the Field Operations supported the End Station B dismantling operations, which posed a higher than normal potential for contamination due to the broader scope of activities involved and the involvement of multiple groups in the activity. There were no instances of uncontrolled spread of radioactive contamination.

Performance Measure 5.1.5 ▪ Timely identification of ES&H non-compliances and implementation of corrective actions.

Target 5.1.5.1: B+ = There are no overdue corrective action issues and non-compliances are reported timely per DOE reporting criteria.

Grade: B+ (3.1)

During FY07, SLAC had 16 ORPS events that were investigated and reported to DOE in a timely manner. The ORPS events resulted in 27 corrective actions that were tracked and implemented. All corrective actions were completed within the scheduled deadlines.

Performance Measure 5.1.6 ▪ Timely corrective action follow-up and closure tracking mechanisms. This includes timely notification to the DOE/SSO on safety ES&H corrective actions.

Target 5.1.6.1: B+ = Timely corrective action follow-up and closure for safety ES&H items.

Grade: B+ (3.1)

During FY07, there were no overdue corrective actions. SLAC has kept DOE/SSO appraised of progress on open action items through weekly ES&H/OA/DOE/SSO meetings, formal correspondence, and the OIO CAP Closure Documentation SharePoint Site[23]. Specifically, in reference to formal CAPs, all OIO CAP items scheduled for completion in FY07 were completed on schedule (no overdue) and reported to DOE/SSO as appropriate. Further, all LCLS CAP items (from both CAPs) were completed during FY07 as scheduled (no overdue) and reported to DOE/SSO as appropriate. With the development and implementation of 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 5.1.7 ▪ The Contractor shall conduct a comprehensive review of their Industrial Hygiene (IH) Program by the third quarter of FY07.

Target 5.1.7.1: B+ = IH self-assessment program review conducted by 3rd quarter of FY07.

Grade: B+ (3.1)

The Industrial Hygiene Group's Program Assessment[24] was presented to the ES&H Department Head on June 20, 2007. The self assessment methods consisted of a review of three major audits of SLAC (OIO 2006, OSHA 2004, and DOE focused assessments in FY05 & FY06), a document review of all work smart related standards and all industrial Hygiene related documents in the SLAC ES&H manual, and observations by the self assessment team members. The corrective actions that resulted from this process were:

- Submission of beryllium related information to the DOE Epidemiologic Studies Office.
  - Information submitted on July 19, 2007[25].
- Incorporation of the 10CFR Part 850 medical consent form for all beryllium medical surveillance physicals.

[23] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.1.6.1.OIO-cap.pdf

[24] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.1.7.1-self-assessment-presentations.pdf

[25] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.1.7.1.beryllium.pdf

    - Updated form in effect since July, 2007 at SLAC Medical. There have been no beryllium physicals since the form became effective.
- Completion of a non-ionizing radiation survey for facilities with Klystron tubes including the Klystron Gallery, the PEP-II klystron buildings, Next Linear Collider Test Accelerator (NLCTA), SSRL and the Test Laboratory.
    - This is being measured in the FY08 SLAC Performance Evaluation and Measurement Plan and is scheduled for completion within the next quarter.
- Asbestos class 2 worker training has a minimum requirement of 8 hours of class time including hands-on training.
    - This will be corrected by a subcontracted AHERA qualified training organization with classes scheduled for October 23 and December 17, 2007.

Objective 5.2

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; and*
- *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 non-compliances area identified, tracked in a consolidated site-wide database and corrected in a timely manner.*
- *A lessons learned program plan has been developed and approved, with initial implementation in the preconstruction and construction areas.*

The weight of this Objective is 50%.

PERFORMANCE SUMMARY

All mandatory and supervisor-required training was conducted in a timely manner, all corrective actions from ISM reviews were closed on schedule, work was properly planned, and injury/illness/accident incident trending analysis was conducted on a timely basis. SLAC also created an Incident Review and Assistance Team to conduct timely reviews of accidents/injuries/illnesses and work with line supervisors to ensure that appropriate corrective actions are identified and are successfully tracked in CATS. The Lessons Learned Program underwent a change in personnel, resulting in a postponement of the internal assessment of that Program until early FY08. Also, while SLAC meets its related metrics, ISEMS still is not completely integrated in all levels of SLAC, especially with regards to subcontractor safety and work planning and control.

NOTEWORTHY PRACTICES

DOE/SSO walkthroughs are now being tracked in CATS; FY07 is the first year CATS was used for tracking the progress to completion of findings resulting from these walkthroughs.

OPPORTUNITIES FOR IMPROVEMENT

Strive for zero overdue items in CATS.

Add a review of DOE Lessons Learned for each new work task and design project.

Performance Measure 5.2.1 ▪ Safety and environmental training and other competence requirements for staff, line managers, and SLAC contractors are fully identified, implemented, and formally tracked in a timely manner.

Target 5.2.1.1: B+ = Mandatory and supervisor-required ES&H training requirements are completed to a level of 93% per the SLAC Training Database Metrics Reporting System.

Grade: B+ (3.3)

Efforts to improve training compliance continue to pay off. Average compliance for mandatory and supervisor required training has gone up two percentage points from the beginning of FY07, from 93% to 95%. This level of participation demonstrates line management's commitment to safety training. Supervisor required training in particular has improved from 87% in the 2nd quarter to 93% by the end of the last quarter.

The total score is derived from the combined average percentage of both supervisor required and mandatory training. Mandatory training makes up the larger portion of training assignments, outnumbering supervisor required training assignments approximately 3 to 1. The combined score is weighted accordingly.

ES&H provided training to 10,886 students in FY07 for a total of 28,603 hours of lesson time received by SLAC staff.

In addition, ES&H oversees subcontractor training through a subcontractor prequalification process. All construction and high-risk non-construction subcontractors must be pre-qualified based on their OSHA recordable rates, workers' compensation experience, and their corporate Injury & Illness Prevention Program (IIPP). ES&H reviews the IIPP to ensure that the subcontractor's program includes the necessary and required ES&H training needed to perform the job for which they are being contracted. If there are deficiencies, ES&H will either work with the subcontractor to assist them in fixing those their deficiencies. During FY07, ES&H reviewed and approved 104 subcontractor IIPP plans, including the training elements. In addition, 326 subcontractors received the Safety Orientation for Non-SLAC Employees (SON) or Employee Orientation to ES&H (EOESH) training so they could receive a badge.

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 FY07, 95% of the corrective actions from ISM reviews and DOE assessments requiring DOE/SSO approval of completion dates 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, or have a revised completion date approved by DOE/SSO.

Grade: B+ (3.3)

For FY07, CATS is tracking 23 Assessments from ISM reviews and DOE assessments. There are 248 corrective actions with 97% (above the target in this area) that are completed by the DOE/SSO approved completion dates, or have a revised completion date that was approved by DOE/SSO.

Performance Measure 5.2.3 ▪ Line management is ensuring that work is formally authorized by line management and work activities are adequately and routinely monitored for compliance with ES&H requirements.

Target 5.2.3.1: B+ = There are no documented incidents of unauthorized work during FY07.

Grade: C- (1.1)

There were a large number of Excavation Permits, Hot Work Permits, Radiation Work Permits (RWPs), Beam Line Authorizations, Beam Authorization Sheets, and hoisting and rigging plans issued and reviewed in FY07. There were 136 lift plans related to RWPs and 13 sub-contractor lift

plans.

Almost all work authorizations were successfully secured and implemented with the exception of the work plan for the September 13, 2007 PVC pipe explosion incident. This incident, as well as the OIO Audit, indicates that SLAC still has work-planning challenges that must be overcome.

Performance Measure 5.2.4 ▪ 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 5.2.4.1: B+ = ISMS reviews performed in FY07 do not identify significant concerns or findings related to staff and line management understanding of ISMS and the ISO 14001 elements of EMS.

Grade: C- (1.1)

The DOE OIO conducted an audit of SLAC in October and November, 2006. They found positive aspects and weaknesses to SLAC's ES&H programs:

- SSRL's experiment proposal review process effectively integrates safety.
- SLAC's has taken significant steps to strengthen its electrical safety.
- SSRL has controlled radiological hazards through extensive engineered and administrative systems.

There were significant weaknesses in SLAC's implementation of ISMS:

- Inadequate work planning and control
- Inadequate requirements management process
- Insufficient rigor in certain radiation protection programs
- Deficiencies in feedback and continuous improvement for ES&H programs

On environmental issues, there was one opportunity for improvement in pollution prevention.

A CAP is in place and on schedule.

The August 2007 DOE/SSO review of the environmental program has not generated a report at this time. However, at the closeout no staff or manager level deficiencies were found.

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+ = Quarterly report on trending is provided as related to safety occurrences.

Grade: B+ (3.4)

Quarterly reports are generated and provided as needed. Trend reports can include but are not limited to accident type, body part injured, accident causation factors, time in job, and age. Additionally, the summary is broken down by Directorate. Quarterly trending analysis is used to develop training and awareness programs as described in Objectives 5.1 and 5.2.

Performance Measure 5.2.6 ▪ Contractor shall conduct a comprehensive review of their lessons learned program, based on internal data and external data across the DOE Office of Science (SC) Complex. DOE Corporate Lessons Learned Program may be used as a guide (Ref. DOE-STD-7501-99, latest revision). The lessons learned program review shall include a comprehensive focus in the area of construction safety, including preconstruction planning.

Target 5.2.6.1: B+ = Comprehensive self-assessment program review of lessons learned program conducted and results submitted to DOE/SSO.

Grade: C- (1.1)

The Lessons Learned program[26] is currently being assessed and a change in program ownership is underway. The assessment criteria are being evaluated while the program continues during this transition. In addition, the Lessons Learned Coordinator has been appointed to the standing Issues Management Program Committee to ensure proper coordination and effective distribution of information with other areas such as ORPS, NTS, and CATS.

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 CMS project in reducing chemical inventories and improving ES&H data management.*
- *Increased efficiency and effectiveness of efforts to minimize the generation of sanitary and hazardous waste and low-level radioactive waste and enhance site-wide recycling.*
- *Improvements in implementation and performance of SLAC Environmental Management System (e.g., pollution prevention opportunity assessments, EMS training).*

The weight of this Objective is 20%.

PERFORMANCE SUMMARY

A new radioactive waste minimization training course and an environmental management system awareness training course were successfully launched. SLAC also met its Target for recycling non-hazardous waste and exceeded its Target for reducing hazardous waste generation. The CMS project underwent an assessment with favorable results. A scrap metal inventory also was developed. Seven Pollution Prevention Operational Assessments (PPOAs) were conducted. The Lessons Learned program underwent a change in personnel, which has temporarily delayed completion of the comprehensive review of same.

NOTEWORTHY PRACTICES

SLAC increased efforts to remove legacy radioactive and non-radioactive hazardous wastes from the site.

OPPORTUNITIES FOR IMPROVEMENT

SLAC plans to conduct seven CMS continuous improvement projects over the next 2-3 fiscal years. These projects include:

- Planning and implementation of the final phase of SLAC's legacy chemical cleanout project.
- Documentation of SLAC's entire chemical supply chain using the Haas ISO 9000 (quality) specifications process.
- Full integration of CMS reporting tools into SLAC's industrial hygiene and pollution prevention programs, so that further safety and environmental benefits may be targeted and achieved.
- Completion of a feasibility study regarding whether additional SLAC services may be successfully executed using the CMS contract vehicle.

Performance Measure 5.3.1 ▪ Significant increase in post-consumer recycling of non-hazardous waste.

Target 5.3.1.1: B+ = SLAC recycles 56% of non-hazardous waste.

[26] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.2.6.1lessons_learned.pdf

Grade: B+ (3.1)

SLAC achieved over 56% recycling of non-hazardous materials—paper, corrugated cardboard, bottles/cans, garden waste, wood, metals, soils, and electronic equipment.

Performance Measure 5.3.2 ▪ Success in minimizing waste generation (low-level, hazardous).

Target 5.3.2.1: B+ = Based on FY06 baseline, SLAC evaluates waste reduction opportunities for low-level waste generation from routine operations and provides recommendations to DOE.

Grade: B+ (3.2)

This Target was completed on time and the report submitted to DOE/SSO on September 26, 2007.

The evaluation was performed primarily on the volumes generated in FY06, as required by the target. In addition, well above the target for this area, newly generated wastes were also looked at to see if there were any shifts or additional spikes in waste that could be targeted for reduction. The evaluation showed that there are few routine radioactive waste streams that exist at SLAC, and that the volume generated by these activities is already very low. Further efforts to reduce these waste streams will produce very small returns. The report of this finding and the recommendation to study availability of alternate technologies for the low conductivity water resin filtration and finding non-hazardous light bulbs may lead to additional minimization in this area.

These target activities were conducted in conjunction with an intensive effort to reduce the amount of time waste is stored on site.

Target 5.3.2.2: B+ = SLAC develops a radioactive waste generator training course which emphasizes reduction, reuse, and recycling.

- Training course content and presentation format is completed and approved by SLAC by May 1, 2007.
- Training course draft implementation plan is completed and submitted to DOE/SSO by May 1, 2007.
- Training course pilot is completed and comments received by August 1, 2007.
- Course revisions and final implementation plan are completed and submitted to DOE/SSO by September 1, 2007.

Grade: B+ (3.1)

All milestones for Target 5.3.2.2 were completed on time and formal notifications with requisite documentation submitted to DOE/SSO as each was completed.

Course #140 (Certified Radiological Waste Generator) development activities started in January, 2007, as the responsible individual served two months of Jury Duty in the first quarter of FY07. The Radioactive Waste Manual, October 2006 revision, served as the starting point for the course content development. Much of the course information had been consolidated in Chapter 3, "Guidance for Radioactive Waste Generators." The course focus is waste minimization, recycling, and life cycle planning and incorporates all aspects of ISEMS. It also details the waste generation authorization process in an easy to follow flow diagram.

After submittal of the course content and implementation plan, preparations for the course pilot were initiated. Course pilot participants were selected by compiling generator names from the database from FY04 to YTD FY07. The generators were also grouped by organization and represented staff at the group, department, division, and directorate level. A representative number of generators from each organization was then selected to participate in the course pilot and asked to provide comments and feedback. Alternate participants were selected when first choice candidates were not available. Eleven generators and one DOE/SSO representative attended the pilot course and provided detailed feedback information, which was included in revisions to the presentation and test materials. All participants passed the course and will receive credit when the course catalog descriptions are

complete and the course is officially launched.

During this time-frame the responsible person also developed disposal indices from FY03 to FY07 depicting historical performance, and was involved in the development of the cost estimates and subsequent presentation for the PEP-II and *BABAR* decommissioning.

Target 5.3.2.3: B+ = SLAC reduces by 72% (by weight) the generation of hazardous waste from routine operations by the end of FY07 relative to the 1993 baseline.

Grade: B+ (3.1)

SLAC achieved 73% reduction in routine hazardous waste relative to the 1993 baseline.

Performance Measure 5.3.3 ▪ Significant reduction is achieved on-site toxic chemical inventories and marked improvements demonstrated in life cycle tracking and chemical management through implementation of the recently implemented SLAC CMS project.

Target 5.3.3.1: B+ = SLAC completes an assessment of the implementation and performance of the recently implemented SLAC CMS project. The assessment must demonstrate progress on reducing on-site chemical inventories and costs and implementation of improvements in ES&H data management (e.g., MSDS management, chemical mapping, life cycle tracking), ES&H reporting and other chemical risk reduction activities in FY07.

Grade: A (3.8)

SLAC completed three separate assessments of its CMS program during FY07, all in June, 2007.

- FY07 SLAC CMS/Hazardous Materials Self Assessment. Performed by Butch Byers and Judy Fulton, SLAC's CMS and HMP managers, this self-assessment covered more than 20 physically distinct hazardous materials storage/use areas and eight departments that manage hazardous materials.
- FY07 CMS Contract Performance Review. Performed by Richard Wolfe, the project manager for Haas Total Chemical Management (Haas TCM), SLAC's CMS vendor, this performance review assessed all CMS services rendered during the period 8/1/06 through 3/31/07. Haas TCM demonstrated that, during the performance period, it met or exceeded its 15 negotiated performance measures, which can be broken down into three categories: (1) cost reduction (2) delivery, service, and quality, and (3) safety. Following the meeting, SLAC's CMS customers and UTR recommended to the Contract Manager that SLAC exercise the first option period under the contract.
- FY07 OA CMS/HM IIA. This OA-led audit included chemical management technical staff from LLNL, SNLL, and Stanford University. The IIA identified no significant findings for SLAC's CMS program, but pointed out several improvements and opportunities for future directions that the auditors felt should be investigated.

Well above the target for this area, two additional, significant benchmarking activities of SLAC's CMS program were conducted.

- SLAC's ESH and Business Services Divisions hosted a two day benchmarking of SLAC's CMS program by a seven person, multi-disciplinary team from Pacific Northwest National Laboratory (PNNL), which intends to become the second Office of Science Laboratory to sign a CMS contract.
- At the invitation of the chair, SLAC's CMS program manager participated in the May, 2007 EFCOG (Energy Facility Contractor's Group) Chemical Safety/Lifecycle Management meeting for the express purpose of benchmarking the program with other DOE chemical management approaches. As a result, SLAC was invited to participate in the planning of both the next semi-annual EFCOG meeting and the next annual DOE Chemical Safety Topic Committee meeting.

SLAC has achieved an impressive number of financial, service, safety, and environmental benefits resulting from its implementation of its CMS project, such as:

- Reduction in chemical purchase costs by more than 8% over two years.
- Achieved on-time delivery rates of 100%, >95%, and >90% for its mission-critical, min/max, and order-on-request items, respectively.
- Removed five bulk hazardous material storage tanks from the site, which in total contained almost 10,000 gallons of liquid isobutane, nitric acid, and propane.
- Eliminated thousands of chemical containers from its Stores operations.
- Removed over 100 compressed gas cylinders (and their contents) that were unidentified, abandoned, or left in an unsafe condition.
- Eliminated use of hexavalent chromium from all Plating Shop processes. This reduced worker risk, eliminated a permit by rule (PBR) treatment unit, and reduced the risk of exceeding the permit levels associated with operating SLAC's wastewater treatment facility.
- Environmental reporting has been greatly facilitated and is much more accurate and timely.
- The total chemical management Information System (tcmIS) data backbone utilized by the CMS program SLAC is already well on its way to responding to the forthcoming "global harmonization" of worldwide chemical hazard communication standards.

Performance Measure 5.3.4 ▪ Establishment of pollution prevention (P2) and environmental stewardship objectives and measurable targets in site Environmental Management System (e.g., P2 assessments, waste reduction, environmentally preferable purchasing).

Target 5.3.4.1: B+ = SLAC reviews and updates in FY07 the objectives and measurable targets for pollution prevention and environmental stewardship in the site EMS.

Grade: A- (3.5)

SLAC reviewed and updated the list of environmental aspects, evaluated each aspect for significance, and reviewed and updated each Environmental Management Program's objectives, targets, and actions. This process was completed through the Environmental Safety Committee[27], which is composed of various representatives from the research and operations directorates at SLAC. Objectives and targets were developed in October 2006 and approved by senior management November 2006. Updates are provided to the DOE SSO representative quarterly.

The FY07 significant aspects, objectives and targets are documented in the Environmental Management System[28] program document and include objectives and targets for:

- air emissions
- chemical use and storage
- soil and groundwater contamination
- discharge to wastewater systems
- industrial and hazardous waste generation
- management
- transportation and disposal
- radioactive materials and mixed waste
- surface and storm water
- conservation of resources including energy and water
- construction
- environmental radiation

[27] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.3.4.1-EnvironmentalSafetyCC.pdf

[28] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.3.4.1-ISEMS.pdf

Performance Measure 5.3.5 ▪ Establish operational assessments (OAs) such as pollution prevention opportunity assessments (PPOAs) as measurable targets in the site EMS.

Target 5.3.5.1: B+ = SLAC completes five PPOAs in FY07. The PPOAS must include at least one PPOA in each of the five pollution prevention and sustainable stewardship goals identified in Attachment 3 of DOE Order 450.1, Chg. 2, "Environmental Protection Program." Alternatively, and with adequate justification, SLAC may propose for prior DOE/SSO approval, five PPOAs covering fewer than the five goals identified in Attachment 3 of DOE O 450.1, Chg. 2.

Grade: B+ (3.1)

As of August, 2007, SLAC conducted seven PPOAs, one or more in each of the five (5) pollution prevention and sustainable stewardship goals identified in Attachment 3 of DOE Order 450.1, Chg. 2, "Environmental Protection Program."

The seven PPOAs (details available online[29]) are listed below under each of the identified goals areas.

Waste Prevention

- Improving Scrap Metal Recycling Through Pollution Prevention Measures
- Project to Consider the Feasibility of Reducing and Eliminating the Use of Cyanide Plating Baths in Metal Finishing Operations

Reduction of Environmental Releases

- T1 Transformer Oil Replacement

Environmentally Preferable Purchasing

- Cool Roof Building Design

Environmental Stewardship in Program Planning and Operational Design

- Heating, Ventilation and Air Conditioning (HVAC) Design Considerations
- ILC Waveguide Design

Recycling of Solid Waste

- Compact Disk Recycling

In addition to the above PPOAs, SLAC implemented one of the projects that was identified and developed as a PPOA in FY06. The "Eliminating Hexavalent Chromium from SLAC Metal Finishing Operations" project resulted in removal of 900 gallons of chromic acid solution and approximately 300 gallons of chromate conversion coating solution from plating operations and replaced it with a less toxic material, thus achieving the goal of "Reduction of Environmental Release." Implementation of this PPOA was featured in a *SLAC Today* article[30] on June 26, 2007.

Performance Measure 5.3.6 ▪ Environmental Management System (EMS) Awareness training is incorporated as mandatory training into the SLAC Training Assessment (STA).

Target 5.3.6.1: B+ = SLAC provides report to DOE/SSO on percentage completion of EMS Awareness Training.

Grade: B+ (3.1)

EMS awareness training was incorporated into Courses 219, Employee Orientation to ES&H, and Course 396, Safety Orientation for Non-Employees in January, 2007. Both courses were revised to cover ISEMS at SLAC and environmental protection, as well as several other safety topics.

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[29] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.3.5-PPOAs.pdf

[30] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.3.5.1_06_26_2007.pdf

Descriptions of both training courses are available in the SLAC ES&H Training Course Catalog[31].

EOESH training is required of all personnel who work at SLAC for more than 60 days per year. The percentage of completion of EOESH as of September 20, 2007 was 95%.

Performance Measure 5.3.7 ▪ SLAC will develop an inventory management system for all scrap metals on-site that are currently subject to the DOE suspension on the recycling of scrap metals from radiological areas. The inventory report will be submitted to the DOE/SSO by the end of the 3rd quarter of FY07 and specifically identify storage locations and quantities of scrap metals subject to the DOE suspension.

Target 5.3.7.1: B+ = The scrap metal inventory is developed and submitted to DOE/SSO by the end of the 3rd quarter of FY07.

Grade: B (2.8)

Using the established procedures, as detailed in SLAC's Unmanaged Materials and Chemicals (UMC) Plan, the inventory of all hold material is documented on a salvage form and weights are estimated.

SLAC's UMC plan dated June 2006 describes several areas pertaining to "hold":

- Non-radioactive scrap metals, inventory quantities and storage locations around the site.
- SLAC procedures for management of non-radioactive scrap metals.

The UMC annual report dated October 3, 2006 describes "hold" material:

- The amounts and type of metals
- Types and amounts dispositioned in previous fiscal years
- Reutilization
- Results of annual DOE assessment related to implementation of the Strategy and Site UMC's Disposition plan.

SLAC will continue with the process and procedure established in the UMC Plan. The inventory is not in a database. Salvage does not have the staff to support a project of this magnitude.

To accomplish the current inventory, the salvage forms were reviewed and an identification of the location of the metals correlated. Covered bins were renumbered to allow for better identification and "hold" metals were remarked for a clearer identification. The "hold" metals are still being accommodated in locked areas identified in the plan. Our overall inventory estimate is between 735 – 835 tons. At the end of the 3rd quarter, 85% of the inventory was completed. The final inventory was completed at the end of August, 2007. Results were submitted to DOE/SSO in a letter dated September 13, 2007.

In FY07, we received an additional 35 tons of "hold" metals. None of the "hold" metals were disposed of. Since one of the considerations on "hold" material is reutilization onsite or distribution to other government activities, we have reissued two stands back on site: part number SC-243-311-32 and SC-234-311-33 estimate combined weight of 2700 lbs. No "hold" material has been transferred off site.

A more accurate inventory will be conducted when the moratorium is lifted and the "hold" material is processed through the scrap bid sales process.

[31] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/5.3.6.1_eshtrainingcoursecatalog.pdf

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 20%.

Executive Summary

Goal 6 has five Objectives with fifteen Measures that cover Business Systems consisting of Financial Management; Acquisition and Property Management; Human Resources Management; Internal Audit and Information Management; and Technology Transfer and Commercialization of Intellectual Assets. The following is a summary of accomplishments in each of the five areas.

In Financial Management, several strategies were implemented by the Budget Office and Accounting Department to strengthen controls, accountability, and effective financial management practices throughout the fiscal year. In addition, the Budget Office and Accounting Department were proactive in ensuring a smooth transition from the DOE Chicago Service Center to Oakridge Service Center.

The challenges in Acquisition are reflected in the Procurement FY07 Balanced Scorecard (BSC) Plan score of 79 which correlates to a PEMP score of C. On the other hand, Property Management demonstrated a significant improvement during the second half of FY07 resulting in a Property FY07 BSC score of 20, which correlates to a PEMP score of 3.1 (B+).

Over the years, the HR Department has consistently demonstrated that it is a key strategic business partner to Laboratory Management and FY07 was no different. In the customer satisfaction survey, HR scored 1.7 on a five-point scale, which far exceeds the performance target in this area. Further, in the major systems/processes review area, HR successfully reviewed the HRIS and additional work processes that were considered unnecessarily time-consuming or vulnerable to control issues. Also, the performance scores with regard to HR Department's success in attraction and retention of highly qualified employees were all excellent. Finally, the Diversity Office had another year of excellent performance results with respect to the feeder programs, which enhanced the opportunity to increase diversity Laboratory-wide.

Stanford University's Internal Audit Services (IAS) had a productive year, and met all of the performance goals established for FY07. Specifically, in accordance with the audit plan for FY07, three Stanford University IAS reports related to SLAC were issued and testing related to OMB Circular A-123 was completed.

A Business IT survey was completed and submitted to DOE/SSO on September 28, 2007. This survey is helpful in understanding some of the areas of similarity between SLAC and Fermilab and is an opportunity for ongoing continual improvement.

Finally, the weight for the Technology Transfer and Commercialization of Intellectual Assets Objective is 0%, as technology transfer is not a large enough activity at SLAC to be weighted.

As such, an overall goal score of 3.0 (B) was achieved.

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	Provide an Efficient, Effective and Responsive Financial Management System(s)	B+	3.12	20%	0.62	
6.2	Provide an Efficient, Effective, and Responsive Acquisition and Property Management System(s)	B-	2.67	40%	1.07	
6.3	Provide an Efficient, Effective, and Responsive Human Resources Management System and Diversity Program	A-	3.43	20%	0.69	
6.4	Provide Efficient, Effective, and Responsive Management Systems for Internal Audit and Oversight; Quality; Information Management	B+	3.10	20%	0.62	
6.5	Demonstrate Effective Transfer of Technology and Commercialization of Intellectual Assets	n/a	n/a	0%	0.00	
					Performance Goal 6 Total	**3.00**

Objective 6.1

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

The overall performance (outcomes/results) of the following set of performance measures (tasks, activities, requirements, accomplishments, and/or milestones) shall be utilized by evaluators as the primary measure of the Contractor's success in meeting this Objective and for determining the numerical score awarded. The evaluation of this Objective may also consider other tasks, activities, requirements, accomplishments, and/or milestones not otherwise identified below, but that provide evidence to the effectiveness/performance of the Contractor in meeting this Objective.

The weight of this Objective is 20%.

PERFORMANCE SUMMARY

The goal of providing efficient, effective and responsive financial management systems is realized in various ways; through:

- The knowledge gained through self-assessments translated into actions,
- The needed improvements related to systems and management highlighted by internal and external reviews translated into follow-up actions carried out by key management,
- The careful self-evaluation of current processes and the need to adjust them for more effective ways to conduct business, and
- The compliance with DOE guidelines, orders, and requirements.

Efficient, effective and responsive financial management systems are furthermore supported by the missions of the departments mainly involved in financial management:

- The **Budget Office** facilitates the process by which SLAC receives its funding. Through publications such as the annual Budget Request, and other communications with DOE and external parties, the group articulates funding requirements. Internally, the group facilitates the allocation of, and establishes control over, funding to support SLAC's overall goals. The Budget Office also provides information to help management utilize resources effectively.
- The **Accounting Department's** mission is to timely process payments to employees and vendors, to ensure accuracy, reliability, and integrity of financial information, and to provide financial services to the Laboratory, Stanford University, and Department of Energy.

It should be noted that both, the Budget Office and the Accounting Department have been proactive in ensuring a smooth transition from DOE Chicago Service Center to Oakridge Service Center.

NOTEWORTHY PRACTICES

To meet the requirements on the DOE Conference Management Order of SC and DOE/SSO, we have implemented an approval process and created a master database to track the process. The process has worked well and relies on the collaborative efforts of coordinators from each directorate and the office of the Chief Financial Officer (CFO). The database, which holds all the required information, is easily accessible to the staff involved.

OPPORTUNITIES FOR IMPROVEMENT

In the financial management area, we plan to pursue the following activities:

- Review and establish clear and well-defined business rules and standards.
- Review the business system work processes for improvements and document updated/revised work flow processes.

Payroll: The priority is to review the manual processes, streamline them and concentrate on value-adding activities. We would like to revisit the existing internal controls and, where applicable, strengthen those.

Conference Management: In the future, we would like to integrate the conference approval process with the travel approval process.

Performance Measure 6.1.1 ▪ The effectiveness of the Financial Management System as validated by internal and external audits and reviews.

Demonstration of an effective financial management system through a reliance on the work of others requires verifiable documentation from external reviews by the Inspector General (IG), Government Accountability Office (GAO), or other external audit/review organization. The review results must state that the Laboratory's financial management system has been evaluated, and has received a positive result, with no notable areas of diminished performance identified.

Target 6.1.1.1: B+ = Results of Internal and External Audits. To meet the target level for the results from performance audits conducted on SLAC's implementation of OMB Circular A-123, by organizations such as Stanford University Internal Audit Department, DOE, DOE-IG, the Government Accountability Office (GAO), and other external organizations, the outcomes must demonstrate adequate SLAC control over unallowable costs.

Grade: B (2.9)

The following summaries of work performed and conclusions of Internal Audits document the effectiveness of internal controls at SLAC that overall reduce the risk of unallowable costs. Based on the Target, the performance rating equates to a 3.2 (B+). However, since SLAC did not have a policy requiring advance payments from proprietary users until May, 2007, as indicated in the DOE-IG Audit of Management Control over Cash Advances for Proprietary Use of Office of Science Activities, SLAC recommends a score of 2.9 (B) for the Target.

SLAC's Implementation of OMB Circular A-123 - A Proof of Financial Management System's Effectiveness

OMB Circular A-123 Implementation began in FY06 and continued in FY07 with all control sets being tested as required by the circular. SLAC management evaluated the risks related to each area (P2P, B2C, ERM, P2A, and Q2C) and IAD was in charge of testing all high and medium risk areas as well as some low risk, broken out by function. Areas related to Financial Management System's Effectiveness included: Budget to Cost, Enterprise Resource Management, Quote to Cash, Project to Asset and Procure to Pay and, within these, transaction testing. (Internal Audit did not look at all of these areas with transaction testing.)

There were no unallowable costs or inadequate controls found during testing.

Annual Unallowable Cost Review, May 2007 - Adequate Control over Unallowable Costs

SU IAS conducts an Allowable Cost Audit annually as required by DOE and in accordance with their guidelines and procedures published in their IG Audit Manual. International Standards for the Professional Practice of Internal Auditing were also followed. The audit scope included performance of a risk analysis, contract, policy and procedure review, interviews, transaction testing (of FY06 data) and evaluation of the system of internal controls. In May, 2007, the auditors concluded that "SLAC has well-developed controls that monitor whether costs charged to the contract are allowable and in compliance with applicable provisions."

Stanford University Internal Audit - Accounts Payable Review - November 2006

"Out of the 23 areas tested we only identified five where we deemed further attention could improve the process, mostly through documentation of written procedures. We would like to acknowledge that several of the procedures related to Accounts Payable are already in the process of being updated and documented in a more detailed fashion, which will help to further strengthen the overall adequate and strong control environment. We found one area (aging reports) where controls could be enhanced through closer monitoring."

There were no unallowable costs found during testing.

HR and Payroll Review, November 2006

"Overall, based on inquiry, observation, and re-performance, we concluded that both the HR and the Payroll Departments have adequate and properly-functioning internal controls in the areas we reviewed. However, we did note some areas where improvements could be made and which we discussed with management. Based on the management's responses to our recommendations, we believe that the internal control enhancements identified and communicated in this report will be satisfactorily addressed. It is the responsibility of management to weigh possible additional costs of implementing our recommendations in terms of the benefits to be derived and the relative risks involved."

There were no unallowable costs found during testing.

Audit of Management Controls over Cash Advances for Proprietary Use of Office of Science User Facilities, issued September 2007

The above review concluded that the "Department had not always received advance payments for proprietary use of its facilities...Laboratories...had not always established policies requiring advance payments from proprietary users." Please see action taken under point 6.4 "Responsive Management Systems."

Note that due to the transition from the Chicago Service Center to Oakridge, no reviews were done by the DOE service centers in FY07.

Performance Measure 6.1.2 ▪ Financial Management System Continual Improvements

The continual improvement of the Laboratory's Financial Management System is based on audit and review results; the evaluation of A-123 internal controls at the Entity, Process, and the Transaction Levels; self-assessments/internal performance measures including appropriate staff training, and other information.

Target 6.1.2.1: B+ = Financial System Self-Assessment. Semi-Annually, the SLAC CFO reports on improvements to SLAC's financial system resulting from self assessment process or recommendations from internal and external reviewers. This would also include actions taken to address issues in the management system identified during normal operations.

Grade: B+ (3.1)

In many ways, management has been proactively improving SLAC's Financial System. Improvements were initiated as they were identified during regular operations. Recommendations based on internal and external reviews were promptly implemented and two peer reviews were conducted.

Enhanced Internal Controls

The following examples show how management has improved internal controls over Financials:

- Special Payment Requests in Accounts Payable—Additional approval and verification by the Assistant Accounting Officer before vouchers can be posted in the PeopleSoft Accounts Payable (AP) System was implemented. After AP staff finishes input, the Accounting Officer runs a query to verify and finalize the voucher. Once finalized, the AP staff cannot make retroactive changes to the voucher.
- Checks printing—enhanced security control on printer access.

Staff Training

- Staff within the administrative offices has been cross-trained to provide ready backup for continuity in operations.
- Two accounting staff members attended the US Standard General Ledger Training at the DOE Oak Ridge Office.
- The Accounting Officer attended the A-123 Training at the DOE Los Alamos Office.

Evaluation of ACL (Audit Command Language) Software at SLAC

In September, 2007, SLAC obtained a trial version and tested software in view of the revised OMB Circular A-123, Sections A and B: Procedures for Managing, Measuring, and Reporting Improper Payments, and Recovery of Overpayments. ACL is a software tool of audit and financial professionals for data extraction, data analysis, fraud detection, and continuous monitoring. The functionality of the software was compared to the information obtainable using MS Access capabilities. The analysis yielded the following conclusions:

- All the test results were equally obtainable using MS Access software.
- While ACL may offer certain analytical tools that MS Access does not, for the specific tests needed, MS Access appears to be sufficient.
- The purchase and use of ACL would require budgetary resources as well as time and commitment for key user training.
- Currently customized queries in PeopleSoft as well as additional external queries in MS Access may suffice to control over or erroneous payments. It is easy to import data into MS Access and export it to other MS Office tools for reporting.

Discontinuation of SLAC Managed and SLAC Paid Residential High Speed Internet Access Lessens Administrative Burden

Researchers and staff will no longer have their DSL lines paid for by SLAC, even though the Laboratory Management recognizes the high value of the use of high speed internet for SLAC related work after normal working hours. A memo[32] indicating the change went out to Division and Department Heads on July 30, 2007. This new policy will provide a consistent and equitable treatment across the Laboratory and will lessen the administrative burden considerably.

Recommendations Based on Internal and External Reviews

For a full listing of audit recommendations and follow-up action, please refer to Target 6.4.1.1.

[32] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.1.2.1-dsl.pdf

The following are examples of some actions taken based on recommendations:

- Added supervisor name on the preprinted timesheet.
- Added a statement on the non-exempt, hourly, and bargain unit timesheet to address meal breaks and rest breaks.
- Improved procedures on the documentation of receiving chemicals and the matching of vendor invoices.

PEER Reviews

- **Functional Support Cost Peer Review (FY06 data)**
  A Functional Support Cost Peer Review took place in April, 2007. The purpose of the review was to confirm that the data reported by SLAC complied with the guidelines and definitions issued by the DOE and to fulfill a DOE requirement to have all of the reporting sites independently reviewed on a periodic basis. The peers concluded: "that SLAC has met the intent of the SCFAR guidelines and definitions and has achieved a level of accuracy at or above 90%." Three recommendations related to support consistency across the DOE complex in the treatment of categorizing costs were made, of which two were implemented. The third recommendation was agreed upon and even though the DOE guidance was not explicit, SLAC agreed to make changes in future functional cost reporting to support consistency across the DOE complex.
- **PEER Review of Financial Management**
  From May 21-24, 2007 a peer team conducted a review of Financial Management. One observation included in the report stated that "There were no serious concerns or issues found that would suggest poor financial management." Five relevant recommendations were made, and SLAC implemented the first one by instituting weekly meetings with the SSO Financial Liaison. The other four recommendations will be incorporated in the context of the McT analysis and recommendation process involving the entire Laboratory.

Performance Measure 6.1.3 ▪ Financial Management System Performance Expectations. This measure addresses the execution of the fiscal year budget and other financial reporting requirements for programs funded through the Department. This includes ensuring costs and commitments are properly reported and within DOE-authorized funding levels; the proper management of uncosted balances; and that the Work-For-Others (WFO) and Reimbursable WFO costs are managed within DOE requirements and guidelines.

Target 6.1.3.1: B+ = Financial Management System Process Expectations. Examples of Financial Management System processes meeting expectations:

- Timely transmittal of month-end and year-end closings.
- Timely A-123 milestone completions and output product/results.
- Timely submission of all DOE required financial reports.

Grade: B+ (3.1)

Work for Others/Reimbursable WFO is monitored very closely in the Accounting Department and Budget Office to ensure that costs do not exceed funding levels. A spreadsheet shows the funding amount, the cost per month, and the remaining balance.

The Budget Office publishes a monthly report that clearly shows uncosted balances. This tool is used by management to control uncosted balances.

SLAC staff regularly takes extra effort to make sure that DOE deadlines are met. A worksheet is maintained to keep track of the required financial reports due dates and actual submission dates and time. The FY07 DOE Required Reports worksheet[33] shows each report description, responsible

[33] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.1.3.1-DOEReports.pdf

department, frequency, due date, and the actual report submission date.

- Timely Month-end and Year-end
- SLAC's accounting business close is the last day of the month. SLAC consistently meets the STARS submission deadline, which is due at noon on the second work day of the new month.
- A-123 Milestone Completions
- Quarterly reports and year-end assurances were submitted as scheduled.
- DOE Required Financial Reports
- All DOE required financial reports were submitted on time.

Table 6.1.3.1 DOE Required Financial Reports and Submission Frequency

Monthly	Quarterly	Annual
Summary of Collection	OMB A-123 Assessment and Reporting Tool Receivables Due from the Public - Schedule SF220.9 Erroneous Payment	Support Cost by Function Report (SCFR, FSCR) DOE Uncosted Balances R&D Report FY09 Field Budget Request Third Party Receipts from Technology Transfer OMB A-123 Assurance Managerial Representation Letter Recovery Audit Report for prior year improper payments Statement of Cost Incurred and Claimed 3rd Quarter Financial Statement Analysis and Footnote Disclosure Requirements Year-end Financial Statement Analysis and Footnote Disclosure Requirements

Performance Measure 6.1.4 ▪ Effective Budget Management and Execution. The DOE 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 by accurate formulation, effective budget execution, and timely submission of required documents. The annual budget validation must report no significant findings.

Target 6.1.4.1: B+ = Budget Submissions: Timeliness, Format and Validation.

The Laboratory will ensure that their supportable budget submissions/Field Work Proposals (FWPs) all follow the prescribed DOE format, include all data requested, incorporated recommendations from DOE budget validation, and are submitted within prescribed DOE, ISC, SSO due dates. In addition, the subsequent annual budget validation must report no significant findings.

Grade: B+ (3.1)

The annual Field Budget Request was submitted on the due date of March 15, 2007. All required Field Work Proposals, Project Data Sheets, and supporting documents were included in accordance to the DOE guidance.

Since the Oak Ridge ISC did not conduct a budget validation, there was no report issued.

Performance Measure 6.1.5 ▪ Effective management of costs (direct and indirect). The success of the Contractor's management and reporting of Indirect costs will be measured by an evaluation of the Contractor's Direct-to-Indirect Ratio costs (1) as measured by Direct/Indirect cost calculations; and (2) the presentation of a semi-annual analysis to the SSO.

Target 6.1.5.1: B+ = Direct/Indirect Cost Reporting. SLAC must provide, in a semi-annual presentation to the SSO, verifiable documentation of the Indirect cost calculations; evidence that the Indirect cost and rate data has been collected and applied in accordance with any recommendations of the IG, GAO, DOE, or other independent review organization, etc.; and that the Indirect Rate data and performance has been reviewed and evaluated by SLAC's Senior Assessment Team. This semi-annual presentation to the SSO would occur at the Mid-Year Briefing and by August 30 of each year. This presentation should include, at a minimum, the following data:

- A generation of funding sources and cost projections.
- An analysis of the composition of indirect charges: from internal organization source charges, summarized up to the total Laboratory indirect percentage number.
- Related variance analyses.

Grade: B+ (3.4)

The SLAC indirect rates are established based on careful analysis of the estimated costs of the pools and cost basis under the oversight of the CFO and approved by the Lab Directorate. The pre-established rates are monitored on a monthly basis throughout the fiscal year. Where appropriate, adjustments of rates are made with the approval of the Laboratory Directorate.

FY07 Mid-year Briefing in June and Update in August - Composition of Indirect Charges and Related Variance Analysis

A Mid-year briefing of the SSO was conducted in June to review the development of the Laboratory's indirect pools and rates. The budget process to collect the necessary details was explained as well as the make-up of the three pools: Procurement, General and Administrative (G&A) and Common Site Support (CSS). Supporting documentation included:

- The display of indirect cost rates (rates used from the beginning of the fiscal year to May, 2007 and showing the 2% indirect rate change in CSS starting June, 2007.
- Details of the rate calculation including estimates of the base over which rates are applied and an estimate of the pool costs, as well as monthly monitoring through updated estimates of pool costs and base costs. The supporting variance analysis showed that rate changes for G&A and Procurement were not warranted.
- A FY07 Leave Accrual Analysis report was also included.

On August 28, 2007 an update of the June material was presented to the SSO. The information presented was based on year-to-date actuals through July and included revised estimates for each of the pools and a projection of base costs over which the pool was to be allocated.

These meetings provided a good forum for understanding the Laboratory's budget process and methodology for development of indirect rates.

Objective 6.2

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) as validated by internal and external audits and reviews.*

- *The continued improvement of acquisition and property management system(s) through the use of the results of audits, review, corrective action plans, 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 40%.

PERFORMANCE SUMMARY

In Procurement, the BSC Review of the Four Perspectives (Customer, Internal, Learning and Growth, Financial) concluded that the processes and procedures of its Purchasing System are adequate and compliant with applicable laws, regulations, and prime contract terms and conditions to support the continued approval by the DOE. The Total Activity Score for FY07 is 79, which translates into an adjective rating of "Good." However, SLAC self-evaluated performance in this area as a "C" level. Based on survey results, internal customers were 100% satisfied with Procurement staff performance. 100% of Purchase Card holders gave the Purchasing Department satisfactory or above ratings. The 23 SLAC Key Suppliers achieved an outstanding (88%) rating for on-time deliveries, an increase of almost 14% over the FY06. Average cycle time for all procurements of 3.1 days significantly exceeded the target measure of 8–11 days and the 5.0 day result from FY06. The Cost-to-Spend ratio was $0.19, indicating a very efficient purchasing operation.

The PERT review was used in lieu of a self-assessment. There were two additional reviews that yielded findings that sound procurement practices were either not followed or were deficient, and the DOE/SSO reduced the Purchasing Department approval threshold to $100K for contract actions. As a result, SLAC Purchasing took a conservative approach and gave themselves 0 of 10 points in Target 2.1, Effective Internal Controls and developed formal CAPs to address significant observations and other areas of improvement.

In Property, the BSC evaluation showed that they met all but one target (17 of 18, or 94.4%), yielding a total score of 20 out of 20 and a grade of B+. Property was rated as outstanding in all aspects of customer service. Accuracy of custodian assignment and physical location of assigned equipment both achieved a rating of outstanding. Annual Purchase Card training was used as an opportunity to stress the importance of having qualified materials marked and entered into the database within 72 hours of receipt.

NOTEWORTHY PRACTICES

SLAC Purchasing initiated its own review in February, 2007, which self-identified procurement noncompliance issues and inappropriate practices.

Purchasing staff is proactive and customer service oriented and initiates the request for proposal or bid package as early as possible, often before receipt and approval of the purchase requisition.

SLAC reached out to the small business community by participating in the 8th Annual DOE Small Business Conference and a Matchmaking Forum.

Purchase card transaction irregularities are addressed with the cardholders and corrected in real-time, which in addition to annual training, has noticeably improved cardholder awareness of policy and compliance to procedure.

Departments with 100% property accountability are sent a certificate of commendation and acknowledged in an article published in *SLAC Today*.

Searches for missing sensitive equipment are completed immediately after the building inventory, which has reduced the time spent on inventory reconciliation.

OPPORTUNITIES FOR IMPROVEMENT

It is the intent of SLAC to perform an effectiveness review of the PERT corrective actions in FY08 by utilizing Stanford University's Internal Audit Department. Thereafter, SLAC would request a

return of the PERT team, or a smaller team, within one year for validation that all recommendations and corrective actions have been satisfactorily implemented.

Property will review the on-line tools used when doing a data search, based on one survey response.

Continue with the process of replacing all the SUVs with 4x4 trucks, when the vehicle is due for rotation.

Improve customer service and business climate for BIS operators.

Improve contract administration and price analysis training for buyers and contract administrators to ensure adherence to sound procurement practices.

Continue the corrective action set up to achieve more progress in the Direct Connect initiative to make more use of alternative procurement approaches.

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

Grade: B+ (3.1)

Functional Area: *Acquisition*

In response to the PERT review conducted at SLAC from June 5 - 8, 2007, SLAC developed a CAP[34] to address the findings from the review. The CAP was divided into two parts. Appendix A is SLAC's response to the PERT's significant observations. Appendix B is SLAC's response to the weaknesses observed in the review of the Purchasing Departments operations as documented in the Contractor Purchasing System Assurance Criteria matrix. It is the intent of SLAC to perform an effectiveness review of the corrective actions in FY08 by utilizing SU IAS.

Functional Area: *Property*

Property has demonstrated a significant improvement from the DOE/SSO mid-year review. Property Peer Review was conducted in August. Although the final Property Peer Review has not been issued from DOE HQ, we are committed to taking all the necessary steps to correct any finding.

Corrective Action implemented after the mid-year evaluation:

- Increase the number of items sold on-line by 10%.
  - During the mid-year we were failing. Salvage increased the number of items sold to meet a 'passing' grade. The Salvage group is working to increase the number of items put into the Energy Asset Disposal System (EADS) for excess. After excess screening, the items then become available for sale.
- Record purchase card in the property database with 72 hours.
  - Several steps were taken to inform and remind purchase card holders of their responsibility: emails, annual refresher training, article in SLAC Today35 and updating the purchase card brochure. Our rating for this measure is now 'good'.
- Utilization goals/local use objectives were not submitted consistent with DOE guidance.
  - SLAC was using out dated utilization criteria. The Fleet management group worked closely with the DOE/SSO and Oak Ridge and new local utilization criteria have been approved.
- SLAC vehicle inventory was inconsistent with the Oak Ridge vehicle inventory.
  - SLAC has worked with Oak Ridge to reconcile the vehicle records.

[34] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/PERTCAP.pdf

[35] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.1-03-19-2007.pdf

- Establish an acceptable vehicle rotational policy.
  - SLAC has established a new rotational policy.

Performance Measure 6.2.2 ▪ Perform Procurement BSC evaluation in accordance with the FY07 BSC Plan and successfully meet the at least 90% of the BSC targets.

Grade: C (1.8)

The SLAC Purchasing Department Self-Assessment was conducted in accordance with the SLAC 2007 BSC Self-Assessment Plan, dated September 21, 2006.

Purchasing Organization

SLAC Purchasing is organized as depicted in the Organization Chart (see Exhibit I[36]). Changes that occurred within the Purchasing Department during FY07 include:

- In October, 2006 a Senior Contract Administrator was hired to fill a vacancy in the department.
- In June, 2007 the Deputy Purchasing Officer was assigned to the LCLS Procurement Cell to replace the existing Procurement Manager, who had stepped down from his position.
- A Procurement Functional Analyst was hired in June, 2007, to assist in the Direct Connect Project, which is an on-line ordering system business-to-business link up.

Status of Open Items from the 2006 Self-Assessment Review

Purchasing Procedures were updated as of February 1, 2007, and subsequently submitted to the DOE/SSO. But the revised procedures were not approved by the DOE/DOE/SSO which elected to require a substantial re-formatting and rewrite. This requirement is a result of the PERT findings in June, 2007. The Target Date for completion of the procedure rewrite is November 30, 2007.

Participation in General

In May, 2007, the Purchasing Officer participated in the DOE Office of Science Procurement Managers Meeting hosted by Argonne National Laboratory. The group meets bi-annually to discuss common issues and exchange information.

In June, 2007, the SLAC Purchasing Officer attended the DOE Small Business Program Manager's Training Meeting in Washington, D.C. The purpose of this meeting was to facilitate interactions and direct discussions between the DOE Headquarters' Small Business Office of Economic Impact and Diversity and the DOE Prime Contractor's Small Business Managers.

Training

- Purchase Card Training
  - On July 9 and July 12, 2007, the Purchasing Department conducted the mandatory purchase card training. This annual training and review of the policies and procedures for the use of SLAC's Purchase Card involves all Cardholders and Approving Officials. Topics addressed in the training session were: 1) How to document packages when receipts, etc., are incomplete; 2) Proof of delivery on will-calls and pick-ups; 3) Third party billing and internet auction sites; 4) Pre-approvals; 5) Cardholder and approver availability for review; 6) Error reports by email; 7) Books & miscellaneous publications; and 8) Use of the Telephone Order Log. Upon completion of the training, Cardholders were required to sign a document verifying their attendance.
- Ethics Training

[36] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-Exhibit_I.pdf

- No formal ethics training session was held in FY07. However, in September, 2007, all buyers were instructed to study and adhere to the Institute for Supply Management's "Principles and Standards of Ethical Supply Management Conduct" which has become a department guideline.

BSC Review and Analysis

Source of Data used in the Self-Assessment

- The principal data generation source for the Four Perspectives was from the PeopleSoft and BIS. System data was collected from the period October 1, 2006 through September 30, 2007. All other data was obtained through the use of checklists, questionnaires, and vendor-supplied reports as discussed later on in this report.
- A mid-year Self-Assessment was conducted in March, 2007, for the period July 1, 2006 through December 31, 2006. Results of the assessment are discussed throughout this report for comparison purposes.

The Four Perspectives

The four perspectives discussed below were measured as part of the self-assessment process. Each measurement was rated using the BSC Summary Sheet format.

1. **Customer:** This perspective captures the ability of the organization to provide quality goods and services, effective delivery, and overall customer satisfaction.
2. **Internal:** This perspective provides data regarding the internal business results against measures that lead to financial success and satisfied customers.
3. **Learning and Growth:** This perspective captures the ability of employees, information systems, and organizational alignment to manage the business and adapt to change.
4. **Financial:** How effectively and efficiently SLAC meets the needs of its constituencies. This perspective captures cost efficiency, delivering maximum value to the customer for each dollar spent.

1. Customer Perspective

This perspective captures the ability of the organization to provide quality goods and services, effective delivery, and overall customer satisfaction. The level of satisfaction will be rated by the percentage of customer satisfaction with the timeliness, quality, and level of communication provided by the Purchasing Department.

1.1 Customer Satisfaction Rating

1.1.a Transactional Customer Survey (5 Total Points Possible)

SLAC obtained the measurement of this perspective from its' internal customers (Requestors). The Transactional Customer Satisfaction Survey was initiated via e-mail during the month of September, 2007[37] to 100 customers. Requestors were able to respond via email, which facilitated a quicker, more convenient, method of response. Out of the 100 individuals selected, 49 individuals (49%) elected to participate. Each participant was asked to respond to a series of statements (see Exhibit II[38]) pertaining to a

[37] A mid-year self-assessment was performed on this measure in March 2007, for the period July 1, 2006 through December 31, 2006. Results of the survey are shown as a comparison to the results for the September 2007 survey.

[38] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-Exhibit_II.pdf

specific purchase order. The statements were based upon the suggested core and optional questions of the "DOE Balanced Score Card for the Business Systems Performance Measurement and Management Program" guidebook. Areas assessed were timeliness, quality, communications, schedule, overall satisfaction, and performance. The population of participants for this survey was obtained by randomly selecting Requestors from the Business Information System (BIS) data report that were associated with purchase orders that had been awarded within the past fiscal year.

Measure	**Transactional Customer Survey**
Core Elements	**Timeliness** - Extent of customer satisfaction with timeliness of procurement processing, planning activities, and on-going communications. **Quality** - Extent of customer satisfaction with the quality of procurement services. **Communication**s - Extent to which Purchasing communicates accurate information, which impacts the work of the organization. **Schedule** - Extent to which Purchasing is supportive of schedule requirements. **Performance** - Extent to which Purchasing is committed to certain standards. **Overall Satisfaction** - Extent of overall customer satisfaction with Purchasing.
Target	**92% customer satisfaction**
Results	A rating of **100% (5 points – BSC Measured Rating)** was assigned based upon an analysis of the internal customer questionnaire responses. There were 49 respondents to the survey whose satisfaction level was calculated as follows: The transactional survey included six statements that the customer was asked to respond to with a "yes" or "no", as follows:

1. The Procurement was processed in a professional and ethical manner.

   In the survey, 49 out of 49 Requestors responded "yes" to this statement, which translates to **100%** affirmative responses for procurement being processed in a professional and ethical manner.

2. In general, you feel that you are treated as a professional by the Purchasing Department.

   In the survey, 49 out of 49 Requestors responded "yes" to this statement, which translates to **100%** affirmative responses for professional treatment of requestors by the Purchasing Department.

3. The Buyer/Subcontract Administrator was responsive to your needs.

   In the survey, 49 out of 49 Requestors responded "yes" to this statement, which translates to **100%** affirmative responses for buyer responsiveness.

4. The Buyer/Subcontract Administrator completed the order in a

timely manner.

In the survey, 47 out of 49 Requestors responded "yes" to this statement, which translates to **96%** affirmative responses for timely placement of orders.

5. Your input was considered in selection of the vendor.

In the survey, 46 out of 48 requestors responded "yes" to this statement, which translates to **96%** affirmative responses for consideration of requestor's input in vendor selection. (Note that one requestor elected to not respond to this question.)

6. The Buyer/Subcontract Administrator answered your questions courteously and knowledgeably.

In the survey, 48 out of 48 requestors responded "yes" to this statement, which translates to **100%** affirmative responses for buyer courtesy and knowledge in communication with requestors. (Note that one requestor elected to not respond to this question.)

Summary

Survey Item	Total Affirmative Responses	Percent Affirmative Responses
1	49 out of 49	100%
2	49 out of 49	100%
3	49 out of 49	100%
4	47 out of 49	96%
5	46 out of 48	96%
6	48 out of 48	100%
		592%

Total Average of Affirmative Responses (592/6) = 98.7%[39]

Additionally, the transactional survey included one question in which the customer was asked to rate his or her overall satisfaction with the level of service to Requestors. Each response was assigned a mathematical identity as follows:

5 points – Outstanding
4 points – Highly Satisfactory
3 points – Satisfactory
2 points – Below Average
1 point – Poor

In the survey, 49 satisfied respondents (i.e., a rating of 3 or above) were tallied and divided by the total number of respondents to arrive at the percentage gradient.

100% Satisfaction Rating[40] = 49 (Number of Satisfied Customers)/ 49 (Number of Customers Surveyed)

1.1.b BIS Operator Climate Survey (2 Total Points Possible)

[39] The mid-year self-assessment performed for the period July 1, 2006 through December 31, 2006, produced a 97.5% Satisfaction Rating on the six questions.

[40] The mid-year self-assessment performed for the period July 1, 2006 through December 31, 2006, produced a 96% Satisfaction Rating on this question.

This measure was established to determine the level of customer satisfaction concerning the Purchasing Department's level of service to Operators, or those who are responsible for on-line entry of purchase requisitions. This review is performed annually by the completion of a satisfaction survey by the Operators. This survey, as shown in Exhibit III[41], was sent out to the 53 Purchase Requisition Operators in September, 2007, with 19 recipients (36%) who elected to respond. In the survey, the Operator was asked to rate their level of satisfaction, on a scale from 1 to 5, with 1 representing a response of "strongly disagree" to 5 representing a response of "strongly agree". A simple set of questions was devised and the Operators were asked to rate their level of satisfaction on the seven different elements as identified below. An average rating of 3 or above was regarded as a satisfactory response. The survey statements are as follows:

1. You believe you are sufficiently trained by the Purchasing Department representative to efficiently perform your Operator duties.
2. When dealing with PeopleSoft Purchasing software, the Purchasing representative responds to your questions and/or problems in a timely manner.
3. Your questions are thoroughly answered and clearly explained.
4. You believe you are kept current on PeopleSoft upgrades and enhancements of the Purchasing software.
5. The Purchasing representative responds to my voicemails and emails in a timely manner.
6. You feel that you are treated as a professional by the Purchasing Representative.
7. Overall, as an Operator you are satisfied with the customer service provided.

The average rating received by the Operators on each question is as follows:

1. 4.2
2. 4.1
3. 3.9
4. 3.9
5. 4.0
6. 4.1
7. 4.1

As demonstrated above, all questions identified in the survey received an average rating of three or greater indicating satisfaction from the Operators in regards to the customer service that the Purchasing Department provides. Furthermore, of the 19 Operators that responded to the survey, 17 were satisfied (i.e., an average rating of 3 or above) with the level of service to Operators.

Measure	**BIS Operator Climate Survey**
Target	**92% Operator satisfaction**
	89% Satisfaction Rating[42] = 17 (Number of Satisfied Operators) / 19 (Number of Operators Responded)
Results	A rating of **89% (1.5 points – BSC Measured Rating)** was assigned based upon an analysis of the Operator questionnaire responses.

1.1.c Purchase Cardholder Customer Survey (3 Total Points Possible)

In addition to the surveys identified above, SLAC's Purchasing Department also conducted a survey this fiscal year to determine the level of customer satisfaction concerning the Purchasing Department's level of service provided to our Purchase Cardholders. The survey is shown in Exhibit

[41] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-Exhibit_III.pdf

[42] The mid-year self-assessment performed for the period July 1, 2006 through December 31, 2006, produced a 100% Satisfaction Rating on this measure.

IV[43]. Of the 190 total Purchase Cardholders (does not include Approving Officials), 53 have an inactive status as of September, 2007, so the survey was sent to the 191 active Purchase Cardholders and Approving Officials. Of these, 77 recipients (40%) responded. In the survey, Purchase Cardholders were asked to rate their level of satisfaction, on a scale from 1 to 5, with 1 representing a response of "strongly disagree" to 5 representing a response of "strongly agree." A set of questions was devised and the Purchase Cardholders were asked to rate their level of satisfaction on the seven different elements as identified below. An average rating of 3 or above was regarded as a satisfactory response. The survey statements are as follows:

1. You believe you are sufficiently trained by the Purchasing Department representative to efficiently understand your Purchase Card responsibilities.
2. When dealing with Purchase Card issues, the Purchasing representative responds to your questions and/or problems in a timely manner.
3. Your questions are thoroughly answered and clearly explained.
4. You believe you are kept current on Purchase Card requirements and policy changes.
5. The Purchasing representative responds to my voicemails and emails in timely manner.
6. You feel that you are treated as a professional by the Purchasing Representative.
7. Overall, as a Purchase Cardholder, you are satisfied with the customer service provided.

The average rating received by the Purchase Cardholders on each question is as follows:

1. 4.4
2. 4.5
3. 4.4
4. 4.3
5. 4.4
6. 4.4
7. 4.4

As demonstrated above, all questions identified in the survey received an average rating of 4 or greater thereby stating that the Purchase Cardholders "agree" or are satisfied that the Purchasing Department is providing good customer service in these specific areas.

Measure	**Purchase Cardholder Customer Survey**
Target	**92% Purchase Cardholder Satisfaction**
	100% Satisfaction Rating[44] = 77 (Number of Satisfied Purchase Card Holders) / 77 (Number of Purchase Card Holders Surveyed)
Results	A rating of **100% (3 points – BSC Measured Rating)** was assigned based upon an analysis of the Purchase Cardholder questionnaire responses.

2. Internal Business Processes Perspective

This perspective assures that customer requirements and expectations are understood and that appropriate procurement processes are in place to support customer needs. The self-assessment is the principal data generation or gathering source for this perspective. Because the SLAC Purchasing Department was subjected to a PERT review from June 5 – 8, 2007, the PERT observations and

[43] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-Exhibit_IV.pdf

[44] The mid-year self-assessment performed for the period July 1, 2006 through December 31, 2006, also produced a 100% Satisfaction Rating on this measure.

recommendations were considered adequately substantial to not warrant another self-assessment in August, as would normally be conducted. The findings and recommendations of the PERT will be used by Purchasing to monitor its business processes and for the establishment of a baseline against which future performance will be compared.

2.1 Effective Internal Controls (10 Total Points Possible)

A mid-year Self-Assessment was performed in March, 2007 by the Purchasing Department. The results of the self-assessment along with findings and corrective actions are detailed under Exhibit V[45].

Measure % of systems in full compliance with stakeholder requirements (e.g. applicable laws, regulations, procedures, terms and conditions of contracts, ethics, etc.) based on self-assessment.

Target **90% compliance**

Results Of the Purchasing System actions reviewed for compliance with applicable laws, procurement regulations, SLAC Purchasing procedures, prime contract terms and conditions, and Government/University ethical provisions, an average of **0% (0 points – BSC Measure Rating)** were found to be compliant.

Narrative

SLAC Purchasing has taken a conservative approach in rating a 0 point score to this measure. As a result of the PERT findings and recommendations, which resulted in the SSO reducing the Purchasing Department's thresholds of approval to $100K for all contract actions, it was determined that this DOE action was significant enough to warrant a 0 point score for this measure. This decision also took into account the findings of the two reviews conducted on the LCLS Procurement Cell for the Jacobs Engineering and Turner Construction contracts. Both of these reviews showed that sound procurement practices were either not followed and/or were deficient in several procurement related areas. All three reviews are discussed further below. In summary, the reducing of thresholds for approval served the purpose of communicating to the Purchasing Department that the DOE was not confident in SLAC's purchasing system and its adherence to its approved procurement policies and procedures. It also reinforced the need for better training of all buyers and contract administrators in contract administration and price analysis.

2.1.a PERT Review

The SLAC Purchasing Department was scheduled for a PERT review in June 5 – 8, 2007. The PERT observations and recommendations are depicted in the PERT Matrix (Exhibit VI[46]) attached to this report. Also included in the matrix are SLAC's CAP comments. Significant observations of the PERT and recommended areas for improvement in SLAC Purchasing processes and procedures follow.

A. Signification Observation No. 1 (MOU/MOA)

Actions that SLAC identifies as Collaborative Agreements with other Universities

PERT viewed these actions as University Contracts that would normally be implemented through the DOE Standard University Contract. In treating these actions as simple funding distribution vehicles SLAC is circumventing the DOE approved procurement system including:

[45] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-Exhibit_V.pdf

[46] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-Exhibit_VI.pdf

Inclusion of terms and conditions (i.e. Intellectual property, assignment and other key provisions)

Property accountability

Impacts small business and BSC metrics calculations

Potential violation of Procurement Authority from DOE (RE: Aundra Richard's letter February 1, 2006).

Sole source justification requirement

Management Response

a. Inclusion of terms and conditions (i.e. Intellectual property, assignment and other key provisions).

   SLAC has transferred responsibility for the issuance of the implementing contract resulting from any MOU/MOA to the Purchasing Department effective August 1, 2007. The DOE Standard University Contract format will be utilized as the implementing document consummating the understanding between Stanford University and the other participating university. The DOE/SSO has approved the university contract format as of August 8, 2007. A buyer within the Purchasing Department has been designated as the only authorized individual delegated authority to issue this type of contract. In connection with this responsibility, the buyer will be included in the pre-planning discussions on any MOU/MOA to be generated. In addition, SLAC has revised its Memorandum of Understanding format and guidelines for usage.

b. Property Accountability

   SLAC Property Control intends to verify property (if any) developed or purchased under previous MOUs that should be identified as government property will be done so. The target date for completion of this effort is October 31, 2007.

c. Impacts small business and BSC metrics calculations

   As a result of this finding, Purchasing has corrected the data for FY07 awards to universities in the PeopleSoft database as of August 1, 2007. Consequently, the socio economic reporting figures for FY07 should be valid for small business statistics as well as for the BSC Report calculations.

d. Potential violation of Procurement Authority from DOE (RE: Aundra Richards letter 2-1-06).

   Effective August 1, 2007, authority to issue contracts with universities has been transferred to the Purchasing Department.

e. Sole source justification requirement

   Effective August 1, 2007, authority to approve and process sole source justifications connected with MOUs and MOAs shall reside within the Purchasing Department.

B. Signification Observation No. 2 (LCLS Procurement Operations)

The PERT gives SLAC credit for the February (Todaro) review which self-identified procurement noncompliances and inappropriate practices. The May LCLS Turner Construction assessment also highlighted other procurement deficiencies (i.e. small business subcontracting plans and many undefinitized change orders). The PERT sees a large vulnerability to DOE in having so many undefinitized change orders

open.

Based on the recent assessments, interviews and PERT review of the procurement files, the PERT has serious concern regarding LCLS Procurement operations (as described above). Senior level Laboratory and DOE management action is required.

The Laboratory is proposing to move the Laboratory Procurement Deputy Manager to the LCLS project. This appears to be a good move. Equally important will be the assurance that this individual be connected to the central Laboratory organization to ensure that the deficiencies recently observed do not continue and that the approved Business Services Purchasing Procedures will be followed.

Management Response

1. David Pindroh, former Deputy Purchasing Officer, was transferred to the LCLS Procurement Cell as Purchasing Manager effective June 11, 2006. LCLS Procurement has established three collaborative teams to definitize, negotiate, and resolve all outstanding Field and Change Order processes. The teams meet not less than weekly and are composed of LCLS Procurement and Management staff, Turner Construction Procurement & Management Staff, and LCLS Central Facilities Management and staff. Detailed logs and reports have been established to track specific action item assignments and associated completion dates.

   During the period of May 14, 2007 and August 22, 2007, a total of:

   - 21 Field Change Orders (FCOs)/Change Order Requests (CORs) have been settled and completed;
   - 28 new FCOs/CORs have been added for settlement and resolution;
   - 23 old FCOs/CORs remain open and unsettled.

   Completion of the 23 old FCOs/CORs is scheduled for not later than September 28, 2007.

2. Turner Construction Small Business Subcontracting Plan

   LCLS provided Turner Construction with a formal written request to provide an updated Small Business Contracting Plan on March 26, 2007. Additional requests were made to Turner Management to provide an updated plan following the PERT review. On August 9, 2007, Turner submitted an updated Small Business Plan, which was reviewed and found to be incomplete. A formal letter has been submitted to Turner Construction requiring the following actions:

   - Turner Construction is to provide an explanation of the allocation of indirect costs;
   - Turner Construction is to provide a description of the supplies and services NAICS code and associated business category as required in the submittal format; and
   - Turner Construction is to provide an explanation for the percentages associated with HUB Zone, Small Disadvantaged, and Veteran Owned Small Business categories.

   Turner Construction has been requested to provide completed data not later than September 14, 2007 for LCLS review and approval.

C. Based on a review of the files, the PERT Team identified the following other areas for improvements:

1. File Organization: (hard to find specific documents). Recommendation:

uniformity and use of tabs.

Response: SLAC Purchasing has revised its file organization in accordance with DOE/SSO recommendations and employed the use of tabs to separate the file documents. To the best of our recollection this was accomplished around July 15, 2007.

2. Representations and Certifications: The Commercial set lacks Buy-American data to determine foreign content.

   Response: SLAC has drafted the revision to its Representations and Certifications to include the Buy American data to determine foreign content. Revised Representations and Certifications were completed and submitted to the DOE/SSO for review and approval on September 28, 2007.

3. Legal review absent in files where Laboratory accepted vendor's terms and conditions in lieu of SLAC's terms and conditions.

   Response: Buyers have been directed to obtain written Legal concurrence in those instances where a vendor has taken exception to SLAC's terms and conditions and document the "Memo to File" accordingly.

4. Several files were coded as competitive when actual award was made via sole source.

   Response: Without reviewing the actual files wherein this observation was made, it is difficult to understand the basis behind the error in coding. Some procurements could be attributable to placement of awards under the SBA 8 (a) program, Integrated Contractor Purchasing Team (ICPT) program, etc. Notwithstanding, Purchasing Management will more closely review the coding of awards

5. Price analysis file documentation was generally insufficient.

   Response: Increased emphasis on stronger price analysis is now being required on the part of Purchasing Management. Proposed on-site training in price analysis and cost analysis, in fall 2007, should reinforce the need for better documentation.

6. No evidence of small business exception reports when contracts were placed with large business.

   Response: The Buyers Checklist and "Memo to File" will be revised to require the buyer to state the reason why awards were placed with large business instead of small business. Target date for completion of the revisions is September 30, 2007.

7. The PERT questions the soundness of predetermining the use of only Firm Fixed Price (FFP) actions for all procurements without the consideration of the scope of work for the action. Some files reviewed indicated that labor hour arrangements were used, but were defined as FP Level of Effort.

   Response: Purchasing has developed and the DOE/SSO has approved various cost reimbursement and time and material contract formats as of August 8, 2007. Dependent upon the scope of work for a particular effort the use of these formats will be considered and/or employed.

2.1.b LCLS Procurement Cell – Jacobs Engineering (A/E) Review

At the request of the DOE SLAC SSO a review of the Jacobs Facilities Corporation Subcontract No 515-S-46231 was performed. The review commenced on January 12,

2007, and was completed on February 9, 2007. The review consisted of the original award valued at $2,679,305 and included Modifications 1 through 24.

The review consisted of file documentation supporting reasonableness of price, adequacy of the documentation supporting the transaction, and compliance with Purchasing Department policies and procedures.

The complete Jacobs Audit report is attached as Attachment A[47].

The CAP is attached as Attachment B[48].

2.1.c LCLS Procurement Cell - Peer Review of Turner Construction (GM/GC)

As a result of a request by the LCLS Project Officer, an internal assessment[49] focusing on three major areas was conducted by a specially selected team of experts during the period of May15 – 17, 2007. The three major areas of assessment focus were:

1. Turner Trade Subcontract Evaluations
2. LCLS FCO/COR Processes
3. Turner Contract File Review

2.2 Effective Supplier Management (10 Total Points Possible)

This measurement will be obtained by dividing the number of line items delivered on time by the total line items due (or total like items received) for SLAC Key Suppliers. The percentage of on-time deliveries of purchased goods from SLAC's Key Suppliers will be tracked and performance will be measured on a cumulative basis. The following formula will be used:

Measure	**2,944** (Number of On-Time Deliveries by Key Suppliers) / **3,403** (Total Number of Deliveries of Key Suppliers) Key suppliers are identified as commodity vendors within the last three years who have been awarded a minimum of ten orders equaling or exceeding $50,000 per year.	
Target	Unsatisfactory:	< 54.0%
	Marginal:	54.1% – 64.0%
	Good:	64.1% – 74.0%
	Excellent:	74.1% – 84.0%
	Outstanding:	> 84%
Results	Per the Narrative below, **88.0% (10 points – BSC Measured Rating)** of deliveries were on-time for Key Suppliers.[50] Additionally, it is noted that deliveries for all suppliers produced a 79.8% rating for deliveries on time. A total of 12,477 purchase	

[47] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-attachmentA.pdf

[48] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-attachmentB.pdf

[49] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-turnerIA.pdf

[50] The mid-year self-assessment performed for the period July 1, 2006 through December 31, 2006, produced an 80.6% rating on this measure.

order line items were issued for all suppliers. Of these line items, 9,952 (79.8%) were delivered on-time.

Narrative

SLAC has a PeopleSoft query to capture the performance of our key suppliers by line item. On-time delivery is calculated to include those items delivered up to 3 days after the Purchase Order due date so as to accommodate internal processing of the delivered items.

In FY07, the number of key suppliers was 23. For these suppliers, a total of 3,402 purchase order line items were issued throughout the year. Of this amount, 2,994 were delivered on-time resulting in an 88.0% on-time delivery score for the fiscal year. This is a 13.9% increase in performance from SLAC's FY06 achievement of 74.1% and is 4.0% over the 84% target for FY07.

2.3 Effective Use of Competition (20 Total Points Possible)

This measure applies to any dollars obligated during the fiscal year on a subcontract or purchase order that was awarded using effective competition and whose current dollar value exceeds $100,000. Effective competition means, given the size and complexity of the requirement, a sufficient number of potential sources are solicited with the expectation of receiving competitive proposals to support the reasonableness of price or cost. The placement of delivery orders, task orders, or releases against indefinite delivery, indefinite quantity, requirements-type or other similar contracts are considered competitive if the underlying contract was awarded using effective competition.

Measure The percentage of total dollars obligated on actions over $100,000 using effective competition **(20 Total Points Possible)**

The following formula shall be applied to measure the effective use of competition:

$30,695,212 (Total dollars obligated on competitive procurements over $100,000) / **$35,311,775 (**Total dollars for all procurements over $100,000 awarded in FY07)

Target	Unsatisfactory:	< 64.9%
	Marginal	65.0% – 69.9%
	Good	70.0 % – 74.9%
	Excellent	75.0% – 79.9%
	Outstanding	> 80.0%

Results **86.9%** of SLAC's procurements over $100,000 were competed **(20 Points – BSC Measured Rating)**[51]

Narrative

In FY06, SLAC competed $42,477,668 of the $48,463,263 obligated on procurements over $100K, equivalent to a rating of 87.6% for effective use of competition on procurements in excess of $100,000. For FY07, the rating of 86.9% represents a 0.7% decrease in performance from FY06, yet is 6.9% above the target

[51] The mid-year self-assessment performed for the period July 1, 2006 through December 31, 2006, produced a 96.4% rating on this measure.

of 80% for FY07.

2.4 Effective Utilization of Alternate Procurement Approaches (15 Total Points Possible)

This objective is measured in 3 areas: transactions placed by users outside of the Purchasing Department; transactions placed through Alternative/Rapid Purchasing Techniques (RPT), involving both Buyers and the user community; and lastly, transactions placed using e-commerce, including online ordering systems or paperless ordering techniques. The percentage of volume in these areas is determined by the total number of transactions placed by users, RPT, or e-commerce divided by the total number of actions awarded in FY07 (including Purchasing awards).

The total number of actions awarded in FY07 was calculated as follows:

PeopleSoft Transactions* **includes the following:* *ICPT Transactions = 550* *GSA Transactions = 61* *Dell Online Orders = 543* *Office Supply Releases – non-electronic = 235*	=	5,857
Office Supply Releases – online	=	3,457
Haas Chemical Management – online	=	2,565
Grainger – online	=	1,790
U.S. GPO Releases	=	59
Blanket Order Releases	=	1,604
Book Order Releases	=	17
Fabrication Releases	=	57
Purchasing Card Transactions	=	14,003
Petty Cash Transactions	=	1,130
Total Number of Transactions	**=**	**30,539**

2.4.a Percentage of Transactions Placed by Users (2.5 Total Points Possible)

This objective measures the transfer of traditional purchasing activities such as supplier selection, best value determination, and ordering and receiving from the purchasing organization directly to the user organization. The percentage of this volume is determined by the total number of transactions (including Just In Time (JIT), Purchasing Authorization Card, Releases against Basic Ordering Agreements, etc.) placed directly by the user divided by the total number of actions awarded.

Measure Percentage of transactions placed by users, including JIT, purchase cards, blanket order releases, etc.

The following formula shall be applied to measure the percentage of transactions places by users:

80.8% = 24,682 (Number of transactions placed by users) / 30,539 (Total Number of Transactions)

Target 85% or greater of transactions placed through users

Results Using the formula above, a rating of **80.8%** was obtained **(2 Points – BSC Measured Rating)**.

2.4.b Percentage of Transactions Placed Through Alternative/Rapid Purchasing Techniques (2.5 Total Points Possible)

Measure Percentage of transactions placed through alternative and Rapid

Purchasing Techniques (RPT), including purchase cards, long-term purchasing agreements, e-commerce, JIT, ICPT, oral purchase orders, strategic agreements and supplies programs.

The following formula shall be applied to measure the effective use of alternate procurement methods:

Percentage of transactions placed by Rapid Purchasing Techniques shall equal:

87.9% = 26,837 (Total number of RPT transactions placed/ = 30,529 (Total Number of Transactions)

Target 85% or greater of transactions placed through Rapid Purchasing Techniques.

Results Using the formula above, a rating of **87.9%** was obtained **(2.5 Points – BSC Measured Rating)**.

2.4.c Percentage of Transactions Placed through E-Commerce (10 Total Points Possible)

Measure Percentage of transactions placed through electronic commerce. For this measurement e-commerce is defined as transactions for which all communication with the vendor(s) throughout the pre-award and award process is done by electronic means (i.e., paperless). E-commerce tools include the internet, use of CD-ROMs, e-catalogs, email, etc. (Use of fax machines is not included unless it is a paperless fax.)

The following formula shall be applied to measure the effective use of e-commerce:

35.3% = 10.794 (Total Number of e-commerce transactions placed) / 30,539 (Total Number of Transactions)

Target

Unsatisfactory	< 55.0% - 59.9%
Marginal	60.0% - 64.9%
Good	65.0% - 69.9%
Excellent	70.0% - 74.9%
Outstanding> 75.0%	

Results Using the formula above, a rating of **35.3%** was obtained **(2 Points – BSC Measured Rating).**

Narrative

For FY07, only **35.3%** of 30,539 total transactions were placed using e-commerce, which is significantly under the national target of 75%. This is attributed to a delay in implementation of Direct Connect (Business-to-Business) due to the lack of technical resources to devote to the project and technical hardware infrastructure capabilities during the first eight months of the fiscal year.

Corrective Action

With technical resource allocation in the last two months of the fiscal year and hardware reassessment, SLAC was able to achieve more progress in the Direct Connect initiative. Anticipated launch of the first vendor (Corporate Express–office supplies) is February, 2008. Additional vendors link ups are expected to follow throughout the remainder of the FY08.

Target Completion Date: February 28, 2008

2.5 Acquisition Process (15 Total Points Possible)

This objective measures the efficiency of the average cycle time (exclusive of Purchasing Authorization Card) acquisitions process by measuring the time between receipt of an approved purchase requisition and award of the purchase order.

2.5.a Average Cycle Time (Days) Transactions >$100,000 (10 Total Points Possible)

The average cycle time will be determined by dividing the total of time between receipt of requisitions and award by the number of awards. Measurements will be calculated for all transactions.

Measure Average cycle time for all procurements (excluding Purchasing Authorization Card)

Average Cycle Time = Total Time between Receipt of Requisitions and Award/ Total Number of Awards

Target 25-30 days average cycle time for actions greater than $100,000

Results **20.6 days** for actions greater than $100,000 **(10 points – BSC Measured Rating)**[52]

2.5.b Average Cycle Time (Days), Transactions <$100,000 (2.5 Total Points Possible)

The average cycle time will be determined by dividing the total of time between receipt of requisitions and award by the number of awards. Measurements will be calculated for all transactions.

Measure Average cycle time for all procurements (excluding Purchasing Authorization Card)

Average Cycle Time = Total Time between Receipt of Requisitions and Award / Total Number of Awards

Target 6-9 days average cycle time for actions less than or equal to $100,000

Results **2.8 days** for actions less than or equal to $100, **000 (2.5 points – BSC Measured Rating)**[53]

2.5.c Average Cycle Time (Days), All Actions (2.5 Total Points Possible)

The average cycle time will be determined by dividing the total of time between receipt of requisitions and award by the number of awards. Measurements will be calculated for all transactions.

Measure Average cycle time for all procurements (excluding Purchasing Authorization Card)

Average Cycle Time = Total Time between Receipt of Requisitions and Award / Total Number of Awards

[52] The mid year self assessment performed for the period July 1, 2006 through December 31, 2006, produced a 17.4 days result on this target.

[53] The mid year self assessment performed for the period July 1, 2006 through December 31, 2006, produced a 3.3 days result on this target.

Target 8-11 days average cycle time for all actions

Results **3.1 days** for all actions **(2.5 points – BSC Measured Rating)**[54]

Narrative

For FY07, the average cycle time for BIS procurements less than or equal to $100,000 was 2.8 calendar days (6,010 transactions). For procurements over $100,000, the average cycle time was 20.6 calendar days (112 transactions). For all procurements, average cycle time was 3.1 calendar days (6,122 transactions). Transactions are defined as both Purchase Orders and Subcontracts. Processing time is not tracked for the remaining dollars, which are attributable to credit card purchases, blanket order releases, and modifications to existing purchase orders and subcontracts. Measured cycle time begins with the approval by Purchasing Management of the purchase requisition, and subsequent assignment to the buyer, and ends with the award of the purchase order or subcontract. It is important to note that efforts normally defined as pre-procurement planning are not represented in the information system calculations. Purchasing staff is oriented to the customer service process of initiating the request for proposal/bid package as early as possible, which often precedes receipt and approval of the purchase requisition from the requesting organization. This process is deemed to be more responsive to the customer's needs and supportive of SLAC's mission.

A comparison of fiscal year 2006 and fiscal year 2007 data is as follows:

Transaction $	FY06	Transactions	FY07	Transactions
Under $100K	4.6 Days	6,568	2.8 Days	6,010
Over $100K	23.4 Days	126	20.6 Days	112
All Actions	**5.0 Days**	**6,694**	**3.1 Days**	**6,122**

As displayed in the chart above, when comparing the FY07 data with FY06, the purchase requisition processing time decreased for all transactions measured, and SLAC's cycle time in all three categories remained under the national targets set forth by the DOE.

2.6 Good Corporate Citizenship through Purchasing (Socio-economic Subcontracting) (5 Total Points Possible)

This objective measures the success in achieving business practice goals. This will be measured by dividing the number of socio-economic goals achieved by the total number of goals.

Objective **Socio-Economic Subcontracting**

Measure % of subcontract dollars awarded in the following categories:

- Small Business
- Small Disadvantaged Business
- Small Woman-Owned Business
- Veteran-Owned
- HubZone

Target

Small Business	41.30%	(3.0 Points Possible)
Small Disadvantaged Business	6.33%	(0.5 Points Possible)

[54] The mid year self assessment performed for the period July 1, 2006 through December 31, 2006, produced a 3.6 days result on this target.

Small Woman-Owned Business	5.76%	(0.5 Points Possible)
Veteran-Owned	1.25%	(0.5 Points Possible)
HubZone	2.22%	(0.5 Points Possible)

Results As of September 30, 2007, the following percentages of subcontract dollars were awarded in the following categories (**3 Points - BSC Measured Rating)**:

Small Business	57.30%	(3 Points Assigned)
Small Disadvantaged Business	3.69%	(0 Points Assigned)
Small Woman-Owned Business	4.33%	(0 Points Assigned)
Veteran-Owned	0.58%	(0 Points Assigned)
HubZone	0.90%	(0 Points Assigned)

Narrative

During this fiscal year, SLAC's actual reportable dollars for socio-economic goal performance totaled $78,083,976. This is a $41,916,024 less than our originally projected socio-economic base of $120M. During the writing of this report it was discovered that the $120 M base incorrectly included approximately $55M to be awarded as supplemental funding to the Turner Construction subcontract under the LCLS project. It, therefore, should not have been included as part of the "Total Reportable Goal" for new awards in FY07.

Notwithstanding the above, based upon the originally established goal percentage of 41.3% for the Small Business category, SLAC met and exceeded this goal by awarding 57.3% of reportable dollars to small businesses. However, SLAC did not meet its socio-economic goals in the other categories. A significant contributing factor for the poor achievement is the impact of the LCLS project, on behalf of which approximately $13M was awarded to large businesses.

SLAC's efforts in FY07 are summarized as follows:

FY07	Goals ($)		Actual Reportable ($)	
Total	120,000,000		78,083,976	See note[55]
Sm. Bus.	49,560,000	41.3%	44,750,898	57.3%
Sm. Disadv. Bus.	7,596,000	6.33%	2,885,118	3.69%
Sm. W/O	6,912,000	5.76%	3,379,935	4.33%
Veteran Owned	1,500,000	1.25%	55,044	0.58%
HubZone	2,664,000	2.22%	702,504	0.90%

SLAC Purchase Card program continued to have a major impact on our socio-economic results. In FY07, our purchase card usage was $5,149,203, which is $76,320 greater than our level of usage in FY06 (approximately $5.072 M). This increased level of purchase card usage in FY07 continues to eliminate a large portion of the procurement dollars from the reportable base. Of note is that approximately 40% ($2,062,466) of total purchase card spending was awarded to small business, small disadvantaged, woman-owned, etc., under the purchase card program. This amount, however, was not included in SLAC's socio-economic goal achievements.

Outreach Efforts

SLAC participated in the following outreach activities during FY07:

- SLAC participated in the 8th Annual DOE Small Business Conference in Washington D.C. in June 26-28, 2007. In attendance were over 1,100 participants

[55] Includes approximately $13M for LCLS Awards.

consisting of individuals from DOE Program Offices, other M&O Contractors, and other small businesses throughout the country.

- In conjunction with the DOE Small Business Conference, the Purchasing Officer participated in the all-day Matchmaking Forum on June 28. This forum brought together the DOE national laboratories and small business enterprises seeking to do business with the various facilities.

Internal Efforts

The Purchasing Officer, in his role as Subcontracting Plan Administrator, routinely reports socio-economic program progress to the Director, Business Services Division, for his information. He, in turn, disseminates such information to other members of the Directorate to keep them informed of SLAC's progress in meeting the Department of Energy's socio-economic goals. The Subcontracting Plan Administrator, in his capacity as Purchasing Officer, reviews goals, and reports progress on salient ideas and innovative methods during scheduled buyer meetings. On a bi-monthly basis, the buying staff is informed of buyer achievements and overall cumulative progress in meeting the total goals of the Laboratory. All personnel are encouraged to develop new small, small disadvantaged, and small woman-owned sources and assist such firms in becoming viable sources of services and supplies to the Laboratory.

Employee performance evaluations incorporate language that emphasizes the importance of the Socio-economic Subcontracting program and encourages Buyers to solicit small, small disadvantaged, and small woman-owned business concerns at every opportunity. Individual buyer achievements are acknowledged and discussed at buyer meetings along with progress toward meeting SLAC's goals.

Additional Small Business Activities

During FY07, SLAC received correspondence from a large number of small, small disadvantaged and small woman-owned businesses seeking inclusion on our bidder's list. A copy of the letter and any vendor literature is forwarded to the appropriate buyer for reference and inclusion on their bidder's lists.

2.7 Reviews

During FY07, the following audit was conducted that included the Purchasing Department's participation.

2.7.a Purchase Card Audit

In July-September, 2007, an internal audit of all Purchase Card Usage for the month of October 2006 was conducted by the Purchasing Department.

This audit revealed that approximately 33% of the transactions for October 2006 were noted as having at least one transaction irregularity when measured against SLAC Policy and Procedure. This is a decrease from 59% of transactions found with irregularities in the FY06 audit.

In summary, corrective actions for four of the 436 transactions remain open. All others are corrective actions have been satisfied. Effective November, 2006, there has been a review of every Statement of Account to include every transaction. The criteria for these reviews mimics those used for the October 2006 audit. Irregular transactions are addressed with the cardholders and corrected real-time. This remedy, in addition to the annual training sessions held this summer, have shown noticeable improvement in cardholder awareness of policy and compliance with procedure.

2.8 Internal Review Board

The Internal Review Board (IRB) is comprised of the Purchasing Officer, the Deputy Purchasing Officer, and a Senior Contract Specialist/Group Lead with SLAC Legal Counsel serving as an advisor, if necessary. All procurement actions to be submitted to the DOE for approval are required to be reviewed by the Board prior to submittal. In addition, all procurement actions exceeding $100K are to be reviewed by the IRB whether or not they are to be submitted to the DOE. The review focuses on the following areas:

1. Overall completeness of the procurement.
2. Compliance with mandatory requirements of regulations.
3. Quality of documentation in support of contract type, source selection, and price.
4. Proper application of SLAC Purchasing Procedures.
5. Compliance with prime contract provisions.
6. Legal adequacy as a contractual document.

A total of 185 actions were reviewed by the IRB for FY07. The reviews disclosed weaknesses in price analysis, incomplete representations and certifications, purchase orders lacking appropriate language or terms and conditions, conflicting period of performance dates, exhibits referenced but not attached, unclear specification documents, insurance certificate limits not correct, inconsistency or lack of file documentation, and other minor errors and omissions.

2.9 Business Services Division (BSD) Purchasing Procedures

As noted earlier, Purchasing Procedures are currently in the process of being updated. The anticipated date of completion is November 30, 2007.

2.9.a Terms and Conditions

The following terms and conditions formats were updated and revised to be consistent with the Stanford University/DOE prime contract extension and issued effective October 1, 2007.

1. Terms & Conditions for Non Commercial Supplies and Services - M364 (July 2007)
2. Commercial Terms & Conditions for Supplies and Services - M366 (July 2007)
3. Terms & Conditions for On-Site Work - M367 (July 2007)
4. General Terms & Conditions for Fixed Price Construction Contracts with Instructions to Bidders (July 2007)
5. Consultant Agreement and Personal Services Terms and Conditions (July 2007)
6. Architect Engineer Agreement Schedule (July 2007)
7. Architect-Engineer Agreement Terms and Conditions Fixed Price (July 2007)
8. Blanket Purchase Order Agreement (July 2006)

In addition, the following new terms and conditions formats were developed:

9. Terms and Conditions for Cost Reimbursable (No Fee) with Educational Institutions and Non-Profit 10. Organizations (ED & NP) (July 2007)
11. Format for Cost Reimbursement (No Fee) Subcontracts (Pro-Forma) (July 2007)
12. Terms and Conditions for Cost Reimbursable Subcontracts (CRS) (July 2007)
13. Terms and Conditions for Time and Material Subcontracts (T&M) (July 2007)
14. General Provisions for Standard Research Subcontracts (July 2007)

All of the above listed formats were submitted to the DOE SLAC SSO in July, 2007, and subsequently approved thereafter.

The learning and growth perspective measures Purchasing's ability and potential to develop and grow. This perspective looks to the future and sets objectives that strive

for benefit at a later date.

3.1 Employee Satisfaction (5 Total Points Possible)

This objective measures the level of satisfaction of the Purchasing staff in regards to their experience within the working environment. The measurement used to determine employee satisfaction was the Employee Satisfaction Climate Survey Questionnaire (see Exhibit VII[56]). The survey was distributed to 25 individuals, with 18 in the Central Purchasing Department and seven in LCLS Purchasing. From this, 16 individuals responded, 13 from Central Purchasing and three 3 from LCLS Purchasing. Each participant was asked to respond to a series of statements pertaining to the working environment. Employees were asked to rate their level of satisfaction on a scale from 1 (strongly disagree) to 5 (strongly agree). An average rating of 3 or above was regarded as a satisfactory response.

Measure	**Employee satisfaction survey**
Core Elements	Training Adequacy Working Environment Management Support and Leadership Employee Empowerment Information Availability
Target	**90% Employee Satisfaction** **93.8%** = 15 (Number of Satisfied Staff) / Number of Staff Responded (16)
Results	A rating of **93.8% (5 points - BSC Measured Rating)** was assigned based on an analysis of the internal Employee Satisfaction Climate Survey. Out of the 16 responses, 15 gave the Department a rating of 3.0 or greater, providing satisfactory ratings for their surveys. The results of this survey found the majority of responses, ten, registered an average of 4.00 or higher.

3.2 Employee Alignment (5 Total Points Possible)

This objective measures the alignment of individual goals with the organizational goals. Goals are normally established with the employee at the time of performance evaluation. The SLAC one-year evaluation period runs May through April. A review was conducted of the 2006/2007 Purchasing Staff's Performance Evaluations to determine if the goals established as of April 2006, are consistent with and supportive of the organizational goals.

Measure	Employee alignment was measured by dividing the number of aligned employees by the total number of employees with buying functions as shown in the formula below. Total number of aligned employees / Total Number of employees with buying functions	
Target	Unsatisfactory	< 78.0% – 82.9%
	Marginal	83.0% – 87.9%
	Good	88.0% – 92.9%

[56] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-Exhibit_VII.pdf

Excellent	93.0% – 97.9%
Outstanding	> 98.0%

Results The following organizational goals were validated against individual goals for the alignment:

- Continue to be compliant with all Environment, Safety, and Health (ES&H) training requirements. (Site-wide goal)
- Continue to support and foster Continuous Quality Initiatives (CQI) techniques in day-to-day functions and responsibilities. (Business Services Division goal)
- Continue to establish new small vendors and small disadvantaged vendors ensuring SLAC meets its goals established with DOE. (Purchasing Department goal).

100% Alignment Rating = 19 (No. of aligned employees / 19 (No. of employees with buying functions)

All of the performance evaluations reviewed were found to contain the above goals and deemed to be in alignment with the SLAC organizational goals. As a result, employee alignment was obtained at a rate of **100%**. **(5 points – BSC Measured Rating)**.

3.3 Information Availability (0 Total Points Possible)

This objective measures the availability to Purchasing employees of current information on strategic goals and objectives, customers, vendors, internal processes, and financial consequences of their decisions. A survey (see Exhibit VIII[57]) was conducted in September, 2007, to determine the availability of information tools considered necessary for the Buyers/Subcontract Administrators to complete their tasks effectively and efficiently. This was measured by dividing the number of information items readily available by the number of information items necessary.

Target **100% availability**

Survey Results Verification was made of the following informational resources available to each Buyer/Contract Administrator:

- Purchasing Buyers Handbook (BIS)
- Purchasing Procedures
- Conflict of Interest Listing
- Debarred Listing
- Business Information System Web Site
- FAR and DEAR Web Sites
- DOE ICPT Homepage
- FAR Handbook
- SBA 8(a) and SDB Certification Homepage
- Purchasing Department Homepage

Narrative

[57] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-Exhibit_VIII.pdf

Of the ten information tools considered necessary for the Buyer/Subcontract Administrator to perform his/her responsibilities efficiently, all ten were found to be readily available to each Buyer/Subcontract Administrator. Some of the new buyers had difficulty navigating through the Department Homepage to access some of the resource websites. This is likely attributable to a lack of training rather than a lack of resource availability. This translates into a measurement of **100% (0 points – BSC Measured Rating)** for this perspective.

4 Financial Perspective

This perspective measures the functional cost efficiency of the purchasing organization. This will be measured by establishing a cost to spend ratio, which will be calculated by dividing Purchasing organizational costs by the business volume. Organizational costs are the total costs for acquisition, i.e., labor, direct, indirect, fringe benefits, overhead, travel, training, etc. Business volume is defined as the total of all dollars obligated.

4.1 Cost to Spend Ratio: Optimum Cost Efficiency of Purchasing Operations (5 Total Points Possible)

Measure Cost to Spend Ratio = Purchasing Operation's Operating Costs Divided by Purchasing Obligations

Target

Outstanding	=	< $ .025
Excellent	=	$ .025 to $ .0279
Good	=	$ .028 to $ .0309
Marginal	=	$ .031 to $ .0339
Unsatisfactory	=	> $ .034

Results The Purchasing Administration cost to acquire $1 of goods and services at SLAC during FY07 **was $.0192 (5 points – BSC Measured Rating)**. This is calculated as follows:

Total Salaries and Fringe Benefits = $2,978,000
Total Procurement Dollars in FY06 = $155,316,166
Cost to Procure $1 of Goods and Services:
$ .0192 = $2,978,000/155,316,166

Narrative

Purchasing administration includes salaries and fringe benefits and related M&S costs for those Purchasing staff directly involved in the procurement of goods and services.

D. Summary

The analysis of the Four Perspectives (Customer, Internal, Learning and Growth, Financial) of the FY07 SLAC BSC Review concluded that the processes and procedures of its Purchasing System are adequate and compliant with applicable laws, regulations, and prime contract terms and conditions to support the continued approval by the DOE.

The Procurement Performance Assessment Model (PROAM) "Gauge Model" (Exhibit IX[58]) summary depicts the total activity value and total activity score for each of the Four Perspectives as identified in this Balanced Score Card Report for FY07. The Total Activity Score for FY07 is 79, which translates into an adjective rating of **'Good'**.

[58] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.2.2-Exhibit_IX.pdf

Performance Measure 6.2.3 ▪ Perform Property BSC evaluation in accordance with the FY07 BSC Plan and successfully meet at least 90% of the BSC targets.

Grade: B+ (3.1)

Performance Summary: Property

Objective	Weight	Measure	Weight	Rating
1	25%	1.1a	10%	Outstanding
		1.2a	5%	Outstanding
		1.3a	5%	Outstanding
		1.3b	5%	Outstanding
2	20%	2.1a	10%	Outstanding
		2.2a	5%	Excellent
		2.3a	5%	Pass
3	5%	3.1a	5%	Pass
4	5%	4.1a	5%	Good
5	5%	5.1a	5%	Outstanding
6	10%	6.1a	4%	Outstanding
		6.1b	3%	Outstanding
		6.1c	3%	Outstanding
7	10%	7.1a	5%	Pass
		7.1b	5%	Pass
8	5%	8.1a	5%	Fail
9	5%	9.1a	5%	Pass
10	10%	10.1a	10%	Pass

Cumulative Available Points: 20 points

Total Weight: 100%

Performance Objective 1: Customer Perspective

Effective Services/Partnership (i.e. responsiveness, cooperation, quality, timeliness, and level of communication)

Data sources: customer surveys, focus groups, and random samples.

Objective Weight: 25%

Performance Criteria 1.1 - External customer satisfaction

Extent that external customers are satisfied with specific personal property products and services

Criteria Weight: 10%

Performance Measure 1.1.a

Timeliness: Extent of external or customer satisfaction with the timeliness of specific personal property products and services (or) percent of products and services that were delivered to external customers in a timely fashion.

Quality: Extent of external customer satisfaction with the quality of the information and services provided (or) percent of products and services that met external customers' quality expectation.

Partnership: Extent of external customer satisfaction with responsiveness, cooperation, and level of communications with the personal property office.

National Target

- 80% customer satisfaction rating

Formula

- % of Satisfaction Rating = Total number of surveys returned with satisfactory or higher rating / Total number of surveys returned

Performance Gradient

Outstanding	80% and greater
Excellent	70% – 79%
Good	60% – 69%
Marginal	50% – 59%
Unsatisfactory	40% – 49%

Process: A customer survey was sent to our external customers with criteria that included timeliness, quality and partnership.

Survey Questions

- Timeliness
  - Property Control responds to my request in a timely manner
- Quality
  - Property Control provides accurate information/data
  - Property Control is knowledgeable of services they provide
- Partnership
  - Property Control is courteous
  - Property Control is responsive to my requests

Survey Scale

- Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree

Findings: The survey was sent to ten external customers who currently hold our scrap metals bid, the SSO, and to internet sale buyers who have purchased two sales with us in FY07. Three surveys were returned. All the responses were either agree or strongly agree. There were no negative responses. Our external customer satisfaction is rated at 100%, **'Outstanding'**.

> **100 %** satisfaction rating = 3 returned surveys with satisfactory or higher rating / 3 surveys returned

Performance Criteria 1.2 - Internal customer satisfaction

Determine extent that internal customers are satisfied with specific personal property products and services.

Criteria Weight: 5%

Performance Measure 1.2.a:

- **Timeliness:** Extent of external or customer satisfaction with the timeliness of specific personal property products and services (or) percent of products and services that were delivered to external customers in a timely fashion.
- **Quality:** Extent of external customer satisfaction with the quality of the information and services provided (or) percent of products and services that met external customers' quality expectation.
- **Partnership**: Extent of external customer satisfaction with responsiveness, cooperation, and level of communications with the personal property office.

National Target

- 80% customer satisfaction rating

Formula

- % of Satisfaction Rating = Total number of surveys returned with satisfactory or higher rating / Total number of surveys returned

Performance Gradient

Outstanding	80% and greater
Excellent	70% – 79%
Good	60% – 69%
Marginal	50% – 59%
Unsatisfactory	40% – 49%

Process: A customer survey was used to measure performance. An email survey addressed timeliness, quality and partnership.

Survey Questions

- Timeliness
  - Property Control responds to my request in a timely manner
- Quality
  - Property Control provides accurate information/data
  - Property Control is knowledgeable of services they provide
- Partnership
  - Property Control is courteous
  - Property Control is responsive to my requests

Survey Scale

  - Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree

Findings: The survey was sent to over 285 randomly selected property custodians. 60 surveys were returned. The results were tabulated and only one negative response was received. The overall rating is '**Outstanding'**.

98% Satisfaction Rating = 59 survey returned with satisfaction or higher rating / 60 surveys returned

Performance Criteria 1.3 - Accuracy of and consent to property assignments (internal)

Percent of sampled property items confirmed by the individual accountable or organization as being property assigned.

Performance Measure 1.3a: Percent of sampled sensitive items confirmed by the individual accountable or organization as being property assigned.

Measure Weight: 5%

National Target

- 98% of sensitive items properly assigned

Formula

- % of Accuracy = Number of sampled confirmed, properly assigned sensitive items / Total number of sampled assigned sensitive items

Performance Gradient

Outstanding	98.0% and greater
Excellent	95.5% – 97.0%
Good	90.0% – 95.4%

Marginal	85.0% – 89.9%
Unsatisfactory	<85.0%

Process: To assess sensitive assignment, the DOE Stanford SSO requested a sample of 50 sensitive assets be validated. A computer-generated list was run and a random sample was chosen for physical verifications. DOE Stanford SSO and the Property Control Group physically verified 49 sensitive items.

Findings: Of the 50 sensitive items in the sample, 49 were located. The custodian and the department head of the missing item were contacted, without success. The rating for this measure is '**Outstanding**'.

> **98.00 %** of Accuracy = 49 of sample confirmed, properly assigned sensitive item / 50 total sampled assigned sensitive items

After the initial validation, we located all but two items. Emails were sent to the custodians and the departments. Both items were reported to the SLAC Site Security Officer and a report was taken. One item was subsequently found and was validated with DOE/SSO.

Performance Measure 1.3b: Percent of sampled equipment items confirmed by the individual accountable or organization as being property assigned.

Measure Weigh: 5%

National Target

- 98% of equipment items properly assigned.

Formula

- % of Accuracy = Number of sampled confirmed, properly assigned equipment items / Total number of sampled assigned equipment items

Performance Gradient

Outstanding	98.0% and greater
Excellent	95.5% – 97.0%
Good	90.0% – 95.4%
Marginal	85.0% – 89.9%
Unsatisfactory	<85.0%

Process: To assess equipment assignment the DOE Stanford SSO requested a sample of 50 equipment assets be validated. A computer-generated list was run and a random sample was chosen for physical verification. Stanford SSO and a SLAC representative physically verified 50 equipment items.

Findings: The custodian assignment was reviewed for accuracy. All items were physically located with the same custodian. The rating for this measure is **'Outstanding'**.

> 100 % of Accuracy = 50 sampled confirmed, properly assigned equipment items / 50 total sampled assigned equipment items

Performance Objective 2: Internal Business Perspectives

Effective Life Cycle Management of Assets to Meet Departmental Missions

Data Sources: Physical inventory results, equipment issue/usage records, excess and surplus property disposal records.

Objective Weight: 20%

Performance Criteria 2.1 - Asset Accountability: Percent of property subject to physical inventory located during inventory.

Performance Measure: 2.1.a

Percent of equipment, sensitive property and stores inventory located during physical inventory, both by acquisition cost and items.

Weight: 10%

National Target

- Equipment, 99% (Acquisition Cost)

Formula

- % of Acquisition Cost Located = Amount of equipment acquisition cost located during physical inventory / Amount of equipment acquisition cost subject to physical inventory

Performance Gradient

Outstanding	99.0% and greater
Excellent	92.3% – 98.9%
Good	98.8% – 98.0%
Marginal	89.7% – 98.0%
Unsatisfactory	<89.7%

National Target:

- Equipment 98% (Items)

Formula

- % Items Located = Number of equipment items located during physical inventory /Number of equipment items subject to physical inventory

Performance Gradient

Outstanding	98.0% and greater
Excellent	95.5% – 97.9%
Good	90.0% – 95.4%
Marginal	85.0% – 89.9%
Unsatisfactory	<85.0%

Process: Equipment inventory is now conducted on a biennial basis, per DOE Order 580.1. No reporting for this measure will be done in FY07. Equipment inventory results will be reported in the FY08 assessment.

National Target

- Sensitive Property, 99% (Acquisition Cost)

Formula

- % of Acquisition Cost Located = Amount of sensitive item acquisition cost located during physical inventory / Amount of sensitive item acquisition cost subject to physical inventory

Performance Gradient

Outstanding	99.0% and greater
Excellent	92.3% – 98.9%
Good	98.8% – 98.0%
Marginal	89.7% – 98.0%
Unsatisfactory	<89.7%

Process: The Laboratory conducted a wall-to-wall inventory for FY07.

Findings: With the implementation of DOE Order 580.1 the sensitive property items list consists of 10,281 items that need to be inventoried for FY07, with an acquisition cost of $48,050,474. During reconciliation, the inventory team conducted searches for unaccounted for items. In addition, an email was sent to all property custodians containing a computer generated list seeking their help in locating the non-inventoried items. The inventory team was able to find all but 42 items. The unaccounted-for

items had a total acquisition cost of $90,558.74. The percentage of sensitive accounted for by cost is 99.81% equating to a rating of **'Outstanding'**.

> **99.81%** Cost Located = $47,959,916.04 sensitive item acquisition cost located during physical inventory / $48,050,474 of sensitive item acquisition cost subject to physical inventory

All departments with a 100% find rate will be placed in an article in the SLAC on-line newsletter, *SLAC Today*. A certificate will be sent commending all departments having 100% accountability. In addition, a memo and computer generated listing will be sent to the division and departments with equipment not located during the inventory cycle.

National Target

- Sensitive Property, 98% (Items)

Formula

- % Items Located = Number of sensitive items located during physical inventory / Number of sensitive items subject to physical inventory

Performance Gradient

Outstanding	98.0% and greater
Excellent	95.5% – 97.9%
Good	90.0% – 95.4%
Marginal	85.0% – 89.9%
Unsatisfactory	<85.0%

Findings: The inventory team was able to find all but 42 items with a total acquisition cost of $90,558.74. The percentage of sensitive accounted for by item is 99.59% equating to a rating of '**Outstanding**'.

> 99.59 % Items Located = 10,239 of sensitive items located during physical inventory /10,281 of sensitive items subject to physical inventory

National Target

- Stores Inventory, 99% (Acquisition Cost)

Formula

- % of Acquisition Cost Located = Amount of stores inventory cost located /Amount of stores inventory acquisition cost subject to inventory

Performance Gradient

Outstanding	99.0% and greater
Excellent	92.3% – 98.9%
Good	98.8% – 98.0%
Marginal	89.7% – 98.0%
Unsatisfactory	<89.7%

Findings: The sum of the cycle counts for the period 10-1-06 through 9-30-07 showed $4,498,164 worth of inventory acquisition cost was located. This was divided by a stores inventory acquisition cost subject to inventory (cycle count) of $4,498,189. The percent of acquisition cost located is 99.99% equal to a rating of '**Outstanding**'.

> **99.99 %** of Acquisition Cost Located = $4,498,164 stores inventory cost located / $4,498,189 stores inventory acquisition cost subject to inventory

SLAC stores inventory is determined by a perpetual cycle count method. All items in Stores have a SLAC identification number and cycle counted based on their utilization type. The utilization type is established by its unit cost, the more expensive and/or sensitive items counted more often. Some items are cycle counted more than once during a year.

National Target

- Stores Inventory, 98% (Items)

Formula

- % Items Located = Number of stores inventory items located / Number of stores inventory items subject to inventory

Performance Gradient

Outstanding	98.0% and greater
Excellent	95.5% – 97.9%
Good	90.0% – 95.4%
Marginal	85.0% – 89.9%
Unsatisfactory	<85.0%

Findings: The number of inventory items located via the cycle count method was 221,802. The number of stores items subject to inventory was 222,568. The percent of items located is 99.66% for a rating of **'Outstanding'**.

99.66 % Items Located = 221,802 number of stores inventory items located / 222,568 number of stores inventory items subject to inventory

Note: Some items are subject to more than one cycle count per year.

Performance Criteria 2.2: Equipment Utilization

Percent of equipment meeting Federal or local utilization standards or objectives

Performance Measure 2.2.a: Percent of motor vehicles meeting utilization standards and objectives.

Measure Weight: 5%

National Target

- 94% of items meet usage standards

Formula

- % Vehicle Usage = Total number of vehicles meeting or exceeding DOE approved utilization standards / Total number of vehicles subject to approved utilization standards

Performance Gradient

Outstanding	90% and greater
Excellent	80% – 89%
Good	70% – 79%
Marginal	60% – 69%
Unsatisfactory	50% – 59%

Findings: A total of 81.45% gives us an **'Excellent'** rating.

81.45% Vehicle Usage = 180 vehicles meeting or exceeding DOE approved utilization standards / 221 vehicles subject to approved utilization standards

Note: SLAC has developed a new utilization criteria standard used to measure this objective. DOE approved the utilization criteria on September 12, 2007.

Performance Criteria 2.3: Percent of increase in the volume of items reported excess and disposed of within 180 days as compared with the previous cycle.

Performance Measure 2.3.a: SLAC meets the 8% increase of the reported as excess and disposed of within 180 days from previous year.

Measure Weight: 5%

National Target

- 8% increase reported as excess from previous year.

Performance Gradient

- Pass/Fail

Process: A review is conducted of all items entered into EADS. The amount of items and their disposal is tracked for the timeliness of disposal.

Findings: There were 124 items placed in excess in FY07. This represents an increase of **10.48%** from FY06. During FY07, 23 items were not disposed of within 180 days. They were late on an average of seven days. There are currently 31 items pending disposal, all within the 180 day limit. SLAC has met the target to **'Pass'** this measure.

Note: On average, FY07 excess items were resolved within 160 days.

Performance Objective 3: Use of Information Technology to Improve Asset Management Performance

Data Sources: Personal property database, surplus property sales records, and supporting documentation.

Objective Weight: 5%

Performance Criteria 3.1: The percent of surplus items sold using "on line" sales media during the year.

Performance Measure 3.1.a: Meet the percentage of items sold on line by 10%
Measure Weight: 5%

National Target

- Increase the number of "items" sold "on line" by 10% per year for three years.

Performance Gradient

- Pass/Fail

Process: The amount of items sold on line were tracked and compared with FY06 sales.

Findings: For FY07 SLAC listed 52 internet auction lots for sale. The lots were composed of 125 items. In FY07, 66 items were sold on line, compared to 48 items sold in FY06. SLAC met the 10% increase of on line sales for a rating of **'Pass'**.

Sales numbers are dependent on the number of items we receive for excess. Property Control does not have control over the items turned into the Salvage Group. Each custodian and department decides what is excess to their needs. Salvage is working to excess as many items as they can.

Performance Objective 4: Ensure that personal property acquired via purchase card is recorded in the property and financial management system.

Objective Weight: 5%

Performance Criteria 4.1: Percent of personal property acquired via purchase card is recorded in the property and financial database within 72 hours of receipt of property.

Performance Measure 4.1.a: The percent of personal property acquired with purchase card is recorded within 72 hours of receipt of property.

Measure Weight: 5%

National Target

- 98%

Formula

- % = Number of items acquired via purchase card recorded into database within 72hrs of receipt / Total number of items acquired via purchase card

Performance Gradient

Outstanding	98.0% and greater
Excellent	95.5% – 97.9%
Good	90.0% – 95.4%
Marginal	85.0% – 89.9%
Unsatisfactory	<85.0%

Process: The total items acquired by purchase card were tracked by the date the asset was marked against the date the custodian received the asset.

Findings: Assets appropriate for marking and acquired on the purchase card were tracked for marking within 72 hours. In total, 298 purchase card items were assigned a property control number. Of these, 270 were marked within the 72 hour criteria, leaving 28 marked late. The result is 90.60% of eligible items marked on time, for a rating of **'Good'**.

90.60 % = 270 items acquired via purchase card recorded into database within 72 hours of receipt / 298 items acquired via purchase card

Annual Purchase Card training was held for all card holders and approvers. We took this opportunity to again stress the 72 hour criteria. In addition, an email was sent to all the custodians and approvers reminding them of the 72 hour criteria, an article were placed in *SLAC Today*[35]. The Property Control purchase card brochure was updated and recently sent to the card holders. Property Control runs a list at the end of the Purchase Card cycle to ensure all equipment purchases get marked. A list of all items not marked within 72 hours for FY07 has been sent to the purchase card administrator.

Performance Objective 5: Ensure that subcontractor-held personal property is recorded in the contractor's property management system.

Objective Weight: 5%

Performance Criteria 5.1: The 98% of subcontractor-held property is identified in the contractor's property inventory database upon review of invoices and/or scheduled inventories.

Performance Measure 5.1.a: The percent of subcontractor-held property is recorded in contractor's management system.

Measure Weight: 5%

National Target

- 98%

Formula

- % = Number of subcontractor-held property recorded in contractor's inventory database / Total number of subcontractors-held property identified on invoices and/or scheduled inventories

Performance Gradient

Outstanding	98.0% and greater
Excellent	95.5% – 97.9%
Good	90.0% – 95.4%
Marginal	85.0% – 89.9%
Unsatisfactory	<85.0%

Findings: A review was conducted of subcontractor held property. Currently there is only one equipment item located at a subcontractor facility. This item is recorded in the property database. This

meets the rating for **'Outstanding'**.

100 % = 1 (Number of subcontractor-held property recorded in contractor's inventory database) / 1 (Total number of subcontractors-held property identified on invoices and/or scheduled inventories)

Performance Objective 6: Learning and Growth Perspective Employee Alignment
Data Sources: Individual development plans, performance standards, and training schedules.

Objective Weight: 10%

Performance Criteria 6.1: Employee Alignment

Percent of property management employees having performance expectations and training requirements that respond to BSC objectives.

Performance Measure 6.1.a: Percent of scheduled training, supporting BSC objectives, completed by personal property management employees during the period.

Measure Weight: 4%

National Target

- 93% of scheduled training completed

Formula

- % = Number of personal property management employees completing scheduled BSC training /
  Number of personal property management employees subject to BSC training

Performance Gradient

Outstanding	90% and greater
Excellent	80% – 89%
Good	70% – 79%
Marginal	60% – 69%
Unsatisfactory	50% – 59%

Findings: Everyone in the Property Control Department has training requirements identified that are appropriate to support their job. The training requirements are reviewed by their supervisor and the Property Manager. 100% of the training was completed by staff for an **'Outstanding'** rating.

100% = 6 (Number of personal property management employees completing scheduled BSC training) / 6 (Number of personal property management employees subject to BSC training)

Performance Measure 6.1.b: Percent of personal property professional staff with an individual development plan (IDP) based on BSC objectives.

Measure Weight: 3%

National Target

- 90% of personal property professional staff has individual development plans.

Formula

- % = Number of personal property professional staff with BSC objective IDP / Number of personal property professional staff subject to BSC objective IDPs

Performance Gradient

Outstanding	90% and greater
Excellent	80% – 89%
Good	70% – 79%
Marginal	60% – 69%
Unsatisfactory	50% – 59%

Findings: Everyone in the Property Control group has an individual development plan. The plan includes training requirements related to meeting balanced score card goals, job performance and safety training. This meets the rating of **'Outstanding'**.

100% = 6 (Number of personal property professional staff with BSC objective IDPs) / 6 (Number of personal property professional staff subject to BSC objective IDPs)

Performance Measure 6.1.c: Percent of personal property professional staff that received an annual review of performance against BSC objectives.

Measure Weight: 3%

National Target

- 90% of personal property professional staff receives annual performance reviews.

Formula

- % = Number of personal property professional staff receiving performance review against BSC objective / Number of personal property professional staff subject to performance reviews against BSC objective

Performance Gradient

Outstanding	90% and greater
Excellent	80% – 89%
Good	70% – 79%
Marginal	60% – 69%
Unsatisfactory	50% – 59%

Findings: All Property staff receives an annual performance evaluation. The evaluation includes goals as it pertains to meeting the BSC objectives. Their overall performance rating reflects meeting these goals for a rating of **'Outstanding'**.

100% = 6 (Number of personal property professional staff receiving performance review against BSC objective) / 6 (Number of personal property professional staff subject to performance reviews against BSC objective)

Performance Objective 7: Financial Perspective

Optimum Cost Efficiency of Property Management Operations.

Data Source: Accounting Data.

Objective Weight: 10%

Performance Criteria 7.1: Cost of (major) process (e.g. physical inventory, warehousing and disposition).

Performance Measure 7.1.a: The major personal property process is identified.

Measure Weight: 5%

National Target

- Baseline and trend annually
  - Pass: Establish a major process, performed baseline and trend analysis for a minimum of three years.
  - Fail: Did not establish a major process, nor performed a baseline and trend.

Performance Gradient

- Pass/Fail

Findings: The physical inventory process was identified in the FY05 self assessment. The first year

we gathered information to be used as a baseline for future trend and analysis. The second year, FY06, we tracked the cost to perform the physical inventory. Tracking was continued for FY07. SLAC has **'passed'** this measure.

Performance Measure 7.1.b: Efficiency (cost vs. performance) of targeted processes.

Measure Weight: 5%

National Target

Improving trend (lower cost and/or performance improvement)

- Pass: Established a trend.
- Fail: Did not establish a trend.

Performance Gradient

- Pass/Fail

Findings: The cost per asset for FY07 increased to $3.27 per asset. The cost for the FY06 physical inventory 2006 averaged around $2.56 per asset and FY05 averaged around $2.14 per asset. The figures are based on the annual current salary during each fiscal year. SLAC has '**passed**' this measure.

During the periods of FY06 and FY07, we had a long term employee out on medical leave. We had to fill the position with temporary staffing to perform the physical inventory. The result was fewer items were picked up on the wall-to-wall inventory, largely due to inexperience and unfamiliarity of the site. In addition, with the implementation of DOE Order 580.1, the number of items on the sensitive assets category list more than doubled. Considering the obstacles and the increase in inventory items, the trend based on the yearly salary increase is improving. Now we conduct searches immediately after completing the building inventory, which reduces time spent on final reconciliation.

Performance Objective 8: Ensure the fleet is comprised of vehicles needed to meet the site's mission and still achieve maximum economy and efficiency.

Objective Weight: 5%

Performance Criteria 8.1: By each non-law enforcement sport utility vehicle (SUV), compare the number of trips made that required driving on other than normal road conditions with the total number of trips the SUV made.

Performance Measure 8.1.a: 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.

Measure Weight: 5%

National Target

- 90% of each SUV's trips require driving on other than normal road conditions.

Formula

- % Off-Road Trips per SUV = Number of trips logged on SUV trip logs as "off road" / Total number of trips logged for each SUV

Performance Gradient

- Pass/Fail

Findings: Only 6.75% of SUV trips were logged as "off-road." SLAC did not meet the national target for a rating of **'Fail'**.

6.79 % = 523 trips logged on SUV trip logs as "off road" / 7701 total number of trips logged for each SUV

SLAC is in the process of replacing all the SUVs with 4x4 trucks when the vehicle is due for rotation.

Performance Objective 9: Ensure SLAC meets the DOE reduction of petroleum consumption requirement of Executive Order 13149, Greening the Government Federal Fleet and Transportation Efficiency.

Objective Weight: 5%

Performance Criteria 9.1: The percent of reduced petroleum consumption within entire motor vehicle fleet, as compared with FY99 petroleum consumption levels.

Performance Measure 9.1a: As compared with FY99 petroleum consumption levels, for FY05, demonstrate a significant improving trend in reducing the net petroleum consumption, and by FY08, achieve at least 20% petroleum consumption reduction.

National Target

- Pass: Demonstrate a significant improving trend in efficiency and/or cost for targeted process.
- Fail: Did not demonstrate a significant improving trend in efficiency and/or cost for targeted process.

Formula

- % Fuel Consumption Reduction = Baseline FY99 fuel consumption – FY05 fuel consumption / Baseline FY99 fuel consumption

Performance Gradient

- Pass/Fail

Findings: SLAC showed a 62.71% reduction in fuel consumption since FY99. SLAC has **'passed'** this measure.

Fuel Type	Baseline FY99	FY07
Unleaded (gallons)	21,463	1,550
Diesel (gallons)	6,075	8,717
Total Consumption	27,538	10,267

62.71% reduction = 27,538 (FY99 baseline) – 10,267 (FY07 fuel consumption) / 27,538 (FY99 fuel consumption baseline)

Performance Objective 10: Property Management Processes

Although SLAC has a functional and approved property system, certain areas have vulnerabilities for potential loss, theft, fraud, abuse or national security concerns. Some of the property processes will require management attention to assure execution of the actions necessary to enhance the existing property management system and reduce vulnerability.

Objective Weight: 10%

Performance Criteria 10.1: Personal Property Management System

Personal Property management system is in compliance with the Federal Property Management Regulations (FPMR), the DOE Property Management Regulations (DOE-PMR) and applicable DOE Orders to assure the Property Management System are in compliance.

Performance Measure 10.1a: Laboratory Continues to Progress on Potential Area

The Laboratory continues to progress on potential area where additional management attention may be required to assure that Property Management System complies with applicable regulations.

Measure Weight: 10%

Performance Gradient

- Pass: Continued implementation of all recommendations and actions as stated in the

Personal Property CAP.

- Fail: Failed implementation of all recommendations and actions as stated in the Personal Property Correction Action Plan.

Findings: After the mid-year review, Property Control took measures to help meet the following areas of concern.

- Increase the number of items sold on-line.
- The Salvage group is trying to increase the number of items put into EADS for excess. After excess screening the items then become available for sale.
- Record purchase card in the property database with 72 hours.
- Several steps were taken to inform and remind purchase card holders of their responsibility: emails, annual refresher training, article in *SLAC Today*[35] and updating the purchase card brochure.
- Utilization goals/local use objectives were not submitted consistent with DOE guidance.
- SLAC has reviewed, revised and received approval on new local utilization criteria.
- SLAC vehicle inventory was inconsistent with the Oak Ridge vehicle inventory.
- SLAC has worked with Oak Ridge to reconcile the vehicle records.
- Establish an acceptable vehicle rotational policy.
- SLAC has established a new rotational policy.

A "Property Peer Review" was conducted at SLAC in August, 2007. SLAC had an opportunity to review the draft report. Corrective action will be taken on any findings. SLAC has **'passed'** this measure.

Objective 6.3

Provide an Efficient, Effective, and Responsive Human Resources 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 human resources management system support;*
- *The effectiveness of the human resources management system as validated by internal and external audits and reviews;*
- *The continual improvement of the human resources 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

The HR Department at SLAC enables the scientific and educational mission of the Laboratory by guiding human resource matters with creativity and integrity. We provide a full range of human resource services to the organization and all of its employees. We are responsible for administering Stanford University HR Policies within the SLAC environment and for assuring compliance with the Personnel appendix of our contract with the Department of Energy. The Department includes 21 (full-time equivalent) employees in ten functional areas, including Employment, Benefits, Labor Relations, Employee Relations, Workers' Compensation, Personnel Records, Training and Development,

International Services, Housing, and Compensation. (See the SLAC HR organizational chart[59].) This assessment provides information on the provision of those services based on three Performance Criteria mutually agreed upon by SLAC and DOE.

Based on a sample of 8.3% of the SLAC population, HR received an overall rating of 1.7 on a 5 point scale, indicating that they have provided services in a highly commendable fashion and performed extremely well. In the 9 years the survey has been completed, there is a very positive trend in overall survey results. HR exceeded targets in offering total compensation packages that employment candidates found attractive in a very competitive market and in attracting and retaining staff.

Feeder programs at various educational levels continue to play an important role in increasing the diversity of the workforce.

NOTEWORTHY PRACTICES

The FY06 customer survey noted one mention of difficult reaching HR staff. As a result, accessibility of staff to customers was discussed frequently at staff meetings and there were no comments concerning staff accessibility in the FY07 survey.

OPPORTUNITIES FOR IMPROVEMENT

The HR Department will continue to streamline or enhance HR services by implementing three projects during FY08 as indicated in the FY08 PEMP.

Performance Measure 6.3.1 ▪ Effectiveness of HR systems/processes/services as validated through the use of a customer service survey.

Target 6.3.1.1: B+ = Overall customer feedback is between 2 and 2.5 on a five-point scale, or Action plans are implemented and measurable progress/action taken.

The customer survey tool used by SLAC's HR Department measures feedback on a scale of 1 to 5, with 1 being outstanding and 5 the unsatisfactory level. A score of between 2 and 2.5 was identified as appropriate for the B+ level because a score of less than 2 (1-1.9) would be at the A level.

Grade: B+ (3.3)

To assess customer needs and satisfaction with the HR Department, we asked all SLAC staff with e-mail access to respond to the following questions:

1. How well does HR respond to your needs.
2. Are you treated respectfully and professionally by HR staff?
3. Rate the overall HR Department performance.

On each of the three questions, responding staff were asked to rate the Department on a scale of 1 to 5, with 1 being outstanding and 5 being unsatisfactory.

In addition, all responders were asked to give their written comments to the following two questions:

4. What works well in the HR Department?
5. What would you like to see improved in the HR Department?

These questionnaires were distributed and collected by a staff member who specializes in such matters and is not part of HR. He gathered the data, collated it, and presented anonymous numeric results along with the written responses to the questions to HR Department management.

Findings: Results from our customer satisfaction survey were received from 132 (8.3%) of our

[59] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.3-hrorgchart.pdf

population of 1590 SLAC employees.

The quantitative results of this survey are displayed in Table 6.3.1.1 below.

Table 6.3.1.1 – FY07 Survey Results

	Rating						
Question	1 Outstanding	2 Good	3 Acceptable	4 Poor	5 Unsatisfactory	Mean	SD
How well does Human Resources respond to your needs?	62 (47%)	56 (42%)	10 (8%)	3 (2%)	2 (1%)	1.70	.82
Are you treated respectfully and professionally by Human Resources staff?	88 (67%)	36 (27%)	6 (5%)	0	2 (1%)	1.42	.72
Rate the overall Human Resources Department performance.	60 (46%)	59 (45%)	6 (4%)	7 (5%)	0	1.70	.79

Results indicate that our customers rated our overall customer service as a 1.7 on the 5 point scale. As a point of comparison, a chart of the overall average for HR Department performance ratings from 1999 to 2007 is shown in Figure 6.3.1.1 below.

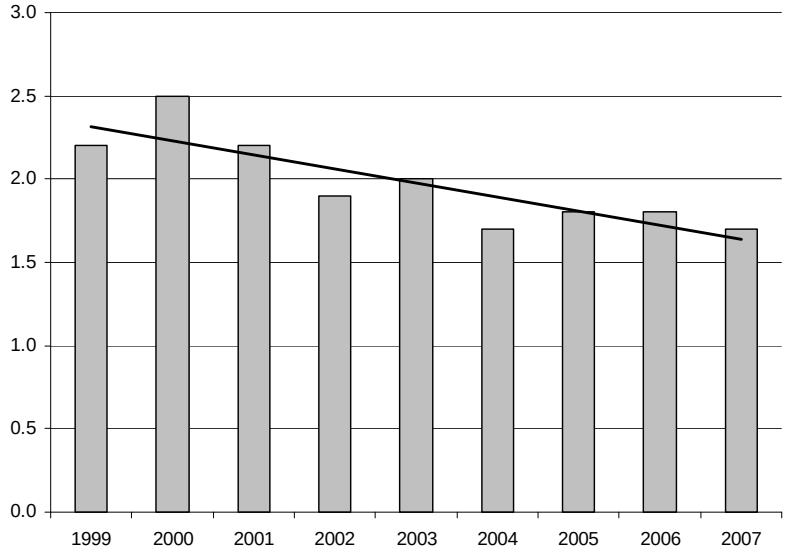

Figure 6.3.1.1: HR Department Performance Ratings from 1999 – 2007
Scale: 1 = Outstanding, 5 = Unsatisfactory

In FY07, 89% of survey respondents rated the department as "Outstanding" or "Good" in all categories. According to our customers, we have provided our services in a highly commendable fashion during this past year.

The quantitative data is supplemented by narrative comments made by responding survey participants. In general, HR staff was very positively acknowledged for their responsiveness, knowledge, and caring. All of the service areas received numerous positive comments.

In summary, SLAC employees perceive the HR Department as performing extremely well.

Based on the performance target (between 2 and 2.5 on a five-point scale), HR has earned an **'A'** rating in customer satisfaction, since our overall customer survey results are significantly less than 2

and are as good as they have been since the inception of this survey model eight years ago. However, in light of the low volume of responses, SLAC recommends an overall score of B+.

Performance Measure 6.3.2 ▪ Continuous improvement of HR systems/processes through annual self assessment.

Target 6.3.2.1: B+ = One or two major systems/process are reviewed annually.

Analysis against baseline data demonstrates clear improvement, or system/process is streamlined, enhanced or eliminated.

Grade: B+ (3.1)

Performance Criteria 6.3a

Human Resource systems and processes will optimize the delivery of services with respect to quality and efficiency.

Performance Assumptions: The system or process reviewed will be characterized in one of three ways. It:

1. currently provides optimal quality and efficiency,
2. needs improvement and a project will be initiated, or
3. needs improvement but it is considered not cost-beneficial to initiate a project.

The Laboratory will identify the status of the system when first reviewed, will report baseline data at that time, and will report the results of either the improvement or the decision to leave the system as is.

Performance Measure: 6.3b

The Laboratory will evaluate HR systems and processes for improvements.

Discussion: For FY07, SLAC HR chose to review HRIS) for its efficiency and control in handling our personnel information. This review was inspired by the OMB Circular A-123 compliance audit, which provided us an opportunity for reviewing processes and contributed substantially to our review. In addition to reviewing the major systems in A-123, HR and systems staff identified additional work processes that they considered either unnecessarily time-consuming or vulnerable to control issues.

Actions and Results: This review led us to address the following subcomponents of our HRIS system.

- We implemented system ID generation within PeopleSoft (PS) and created synchronization of these numbers with the SLAC Institutional Database (SID). This eliminated the double data entry that initially had to be done in SID and then replicated in PS. It also decreased the likelihood that typing errors would occur in manually replicating the 11-digit identification number. Finally, it eliminated the necessity of HR staff logging into the SID system and then again into the PS system.
- We clarified and modified control of Visa data within the PS system.
- The monitoring of visa/job end dates was shared by International Services (ISO) and Personnel Records, which created duplicate effort, and sometimes resulted in the supervisor getting calls from both service areas. With the addition of custom fields in the visa pages of the PS system, ISO is now able to see all necessary information for an individual, and use customized reports generated from PS to monitor both the visa end dates and the work eligibility end dates. This eliminated duplicate effort and clearly housed the responsibility for visa management within the ISO.
- The old process distorted the job data, because the “fixed term end date” was used for both the limitation of the job itself ***and*** for the end of visa eligibility. Therefore, we could not clearly report how many jobs were fixed term. And when the visa was extended, it was

difficult to determine whether the job was ongoing or fixed term–since the visa end date was used for that field. With the addition of the new visa fields and reporting, we have researched the job status of all visa-holders and have removed the fixed term end date for all of those for whom the job was not a fixed term job. This has made more accurate reporting possible.

- We automated most of the letters sent to applicants for open positions at SLAC. This part of the Recruit Workforce module in PeopleSoft had not been well understood and the Employment staff was primarily producing manual letters. Solving this technical problem has substantially improved both the responsiveness and the efficiency of Employment Services.

Based on this performance target, we rate our performance as **'B+'** on the basis that the needed improvement was identified, changes were made, and those that were implemented contributed to the desired results.

Performance Measure 6.3.3 ▪ Success in attraction/retention of highly qualified employees.

Target 6.3.3.1: B+ = (1) In-hire compensation package assures 85% acceptance rate. (2) SLAC turnover (i.e., departure of any benefits eligible employee from SLAC for any reason) is lower than Stanford University by between 15% and 24%. (3) SLAC turnover rate for PhD physicists and engineers is between 5% and 9%.

Grade: A (3.8)

SLAC will attract and retain highly qualified employees, especially PhD-level scientific staff and faculty, by offering competitive salaries and by maintaining a work environment that minimizes undesirable turnover.

Performance Criteria 6.3c (1): In Hire Compensation

For the best identified candidate for each posted position, SLAC will offer total compensation competitive in the local market and consistent with internal equity.

Performance Measure: SLAC will offer an in-hire total compensation package sufficient to assure a positive offer acceptance rate for posted positions.

Discussion and Results: SLAC Staffing Services made offers during FY07 to 226 applicants for positions at SLAC. Of those 226 offers, 20 were declined–7 for compensation reasons. The others declined for various other reasons. The data indicate, therefore, that our offers were accepted 91.2% of the time overall and that 3.1% were declined for compensation reasons. We can conclude that SLAC and Staffing Services were successful in making offers that candidates found attractive. It is clear that the hiring market continues to change and that salary is becoming an increasingly more important consideration for our applicants. We will continue to carefully monitor this development.

Performance Target: Based on the performance target (In-hire compensation package assures 85% acceptance rate) SLAC has earned an **'A'** rating on 6.3c (1) criteria. We significantly exceeded the target of 85%, despite a more competitive employment market. This is attributable to our reasonable salary offers and to the skill of our Employment staff in emphasizing the value of our benefits and the prestige of working for SLAC and Stanford University.

Performance Criteria 6.3c (2): Attraction and Retention of Staff

SLAC turnover, defined as the departure of any benefits-eligible employee from SLAC for any reason, will be compared to the annual turnover for all of the remainder of Stanford University.

Performance Measure: The SLAC work and work environment will be sufficiently attractive that total turnover at SLAC will be less than the total turnover on the Stanford University campus.

Findings: The annual turnover for Stanford University, excluding SLAC, for FY07 was 1401 terminations from an average population of 9072, for a turnover rate of 15.4%. During this same time

period, the overall turnover rate for SLAC was 8.3% (130 terminations from an average population of 1574 employees).

Discussion: The SLAC turnover rate for FY07 was lower than that of the main Stanford campus by 46%. We attribute this difference to the combination of the intrinsic nature of the work we perform at SLAC and to the work environment that exists here at the Laboratory.

Based on the performance target, we have earned an **'A+'** on the 6.3c (2) criteria.

Performance Criteria 6.3c (3): Attraction and Retention of Staff

SLAC will provide a work and scientific environment that will facilitate the retention of PhD-level scientific staff and faculty at the Laboratory.

Performance Measure: The annual turnover rate, excluding voluntary retirements, for PhD physicists and engineers will be between 5 and 9%.

Findings: The annual turnover rate for SLAC PhD physicists and engineers for FY07 was 6.3%.

Discussion: The turnover rate for SLAC PhD physicists and engineers is nearly identical to last year. We are pleased that we have been able to retain so many of our PhD-level staff and attribute this, in part, to the fact that many of them are working on cutting edge projects, including GLAST, LCLS, EXO (Enriched Xenon Observatory), SPEAR3 and numerous particle and particle astrophysics experiments.

Based on the above performance target, SLAC HR has earned only **'A'** for 6.3c (3) performance criteria.

2007 Customer Satisfaction Action Plan Results

Even though our FY06 Customer Survey did not reveal any major problems, we did establish one of focus area for FY07.

The Department will develop an action plan to improve our person-to-person availability during 2007. Success will be indicated by a significant reduction in the number of critical narrative feedback comments on this subject obtained from our survey question, "What would you like to see improved in the Human Resources Department?"

In the FY07 Survey, of the 150 narrative comments identifying what worked well in the Department, 11 named our accessibility. Of the 95 statements identifying areas for improvement, only one mentioned difficulty in getting in contact with our staff. So, even though we did not implement a specific system for handling this issue (although we considered many options), we did discuss it frequently and that has apparently had a positive impact.

In this assessment period, HR believes that it has earned an overall 'A' rating for this measure based on the performance targets.

Performance Measure 6.3.4 ▪ Increase diversity in the workforce through participation of minorities and women in feeder programs. Such feeder programs would serve students at various educational levels including post-high school (Youth Opportunity Program), two year training institutions (Work Study Program), four year colleges (Science Internship Program), and graduate level (Graduate Engineering for Minorities).

Target 6.3.4.1: B+ = Increase in diversity within each of the feeder programs and an increase in participation by technical employees in hosting minorities and female students in their respective departments.

Grade: A- (3.5)

We had an excellent performance result this past fiscal year with respect to the feeder programs. Overall, minority and female representation results during FY07 were 60.0% and 46.7%, respectively.

Between FY06 to FY07, minority representation increased from 57.9% to 60.0% and female representation increased from 44.7% to 46.7%.

We also met our goal of increasing support for our minority and female students by increasing the number of positions and the number of technical employees participating in the feeder programs. The total number of student placements increased by 18.5% from 38 to 45 positions.

Our **'A-'** rating is based not only on meeting all of our goals, but on our strong recruitment and placement efforts. For example, more minority and female offers were made than were accepted in the SLAC Undergraduate Laboratory Intern Program. This year, three additional minorities and three additional females were offered SLAC Undergraduate Laboratory Intern Program (SULI) appointments, but did not accept our offer. Had they followed through and accepted, our minority and female representation in they feeder programs would have been higher at 66.7% and 53.3%, respectively.

The above demonstrates our strong performance efforts in the feeder program which enhances our opportunity to increase diversity Laboratory-wide.

Performance Measure 6.3.5 ▪ Removed in its entirety

Objective 6.4

Provide Efficient, Effective, and Responsive Management Systems for Internal Audit and Oversight; Quality; Information Management

Determination of the (Stanford University) provision of an efficient, effective, and responsive financial management system (s) for internal controls will be based upon SLAC's implementation of the DOE directions, guidelines, and recommendations for OMB Circular A-123; and the reliance on the work of others, particularly the Stanford University Audit Department (SIAD), to accomplish overall assessments of the design and operation of internal controls in the determination of the financial management system(s) effectiveness for financial reporting.

The weight of this objective is 20%.

PERFORMANCE SUMMARY

The revised OMB Circular A-123 and its implementation requirements provided an excellent opportunity to carry out a structured process of identifying and assessing risks, to document their related control sets and to verify, through testing, how effectively those control sets operate. As part of this effort, Internal Audit was asked by SLAC management to conduct an assessment of risk areas and to test controls identified in the Assessment and Reporting Tool (AART), a spreadsheet provided by DOE and completed by SLAC. We understand that OMB Circular A-123 related evaluations are a continuous effort and we are committed to keep the momentum going.

We would like to highlight that in several related reviews the auditors concluded that the overall control environment was adequate, with some recommendations made to further enhance the effectiveness of internal controls. These recommendations were prioritized and implemented as soon as possible. We would like to acknowledge that some necessary changes related to BAS that were triggered by a PeopleSoft Access review in FY06, were implemented in FY07 with the exception of three recommendations which will be completed in early FY08, due to the August, 2007, PeopleSoft HR system version 8.9 upgrade.

The following section reflects in more detail how this performance measure has been overall achieved.

NOTEWORTHY PRACTICES

Noteworthy practices are given in the Performance Summary section above.

OPPORTUNITIES FOR IMPROVEMENT

SLAC is committed to implementing recommendations resulting from Internal Audit reviews in a timely manner after careful review and prioritization. Follow-up action is documented and reported directly to Internal Audit to support timely closure of outstanding recommendations. SLAC is striving to continuously evaluate internal controls and enhance, where possible, taking into consideration changing environments due to technical or operational changes. SLAC may request internal reviews to evaluate controls in a changing environment.

In further discussing IT systems with other institutions, we will be looking for opportunities for improvement.

Performance Measure 6.4.1 ▪ Internal Control and Audit Findings. SLAC will provide for effective financial internal controls; develop and implement a tracking system to effectively monitor audit findings and/or recommendations to ensure timely and effective resolution or appropriate corrective action is accomplished; and/or any other subsequent follow up on external and internal review group findings. Any corrective action findings are prioritized to achieve timely resolution.

Target 6.4.1.1: B+ = Third Party Review of Internal Controls and Oversight. SLAC will evaluate the results, based on a Third Party review of internal controls and oversight, and develop improvements where appropriate while monitoring performance. This target will measure progress toward implementation of actions.

Grade: B (3.0)

Although all audit recommendations from FY07 IAS reviews were completed by the end of FY07, there are four recommendations from the FY06 Application Security Review that were targeted to be completed in FY07, but remain open due to the delay of the implementation of the PeopleSoft HRMS 8.9 upgrade.

Implementation of the DOE directions, guidelines, and recommendations for OMB Circular A-123

DOE annual guidance for FY07 and timelines were followed throughout, testing and necessary updates carried out, the AART was submitted quarterly, and a preliminary and a final assessment of controls over financial reporting were issued.

There were no material weaknesses or reportable conditions identified during the testing phase of OMB Circular A-123. This led to the following positive assurance statement by the Laboratory Director in July, 2007:

"No material Weaknesses: Based on the results of the evaluation, I am providing reasonable assurance that internal controls over financial reporting as of June 30, 2007, were working effectively and no material weaknesses were identified in the design or operation of the specific controls over financial reporting evaluated. This assurance includes a consideration of entity controls, which help ensure accurate and timely financial reporting; it also includes consideration of the results of previous tests of controls." and "The FY07 evaluation identified no reportable conditions."

Overall assessments of the design and operation of internal controls accomplished through work of others (Internal Audit Assessments) in FY07

In accordance with the audit plan for FY07, three Stanford Internal Audit reports related to SLAC were issued and testing related to OMB Circular A-123 was completed.

FY07 Reports Issued	Recommendations	Recommendations Addressed by SLAC
Accounts Payable Review, November 2006	5	5
OMB Circular A-123 Testing of Internal Controls for Human Resources and Payroll at the Stanford Linear Accelerator Center, November 2006	5	5
Allowable Cost Review, May 2007	5	5
OMB Circular A-123 Testing, Quarterly Submission of	2	2

AART, most recent submission in September 2007, Note: Two controls tested required a CAP		
Recommendations Implemented in Percent		100%

Following are examples of conclusions by the Internal Audit Department:

- Accounts Payable Review: "Out of the 23 areas tested we only identified five where we deemed further attention could improve the process, mostly through documentation of written procedures. We would like to acknowledge that several of the procedures related to Accounts Payable are already in the process of being updated and documented in a more detailed fashion, which will help to further strengthen the overall adequate and strong control environment. We found one area (aging reports) where controls could be enhanced through closer monitoring."
- HR and Payroll Review: "Overall, based on inquiry, observation, and re-performance, we concluded that both the HR and the Payroll Departments have adequate and properly-functioning internal controls in the areas we reviewed. However, we did note some areas where improvements could be made and which we discussed with management. Based on the management's responses to our recommendations, we believe that the internal control enhancements identified and communicated in this report will be satisfactorily addressed. It is the responsibility of management to weigh possible additional costs of implementing our recommendations in terms of the benefits to be derived and the relative risks involved."
- Allowable Cost Review: "In our opinion, SLAC has well-developed controls that monitor whether costs charged to the contract are allowable and in compliance with applicable provisions. However, we noted certain unallowable costs were charged to the contract and specific areas where improvement in internal controls is needed." The internal controls were consequently improved; please refer the recommendations[60] noted during this review.

SLAC PeopleSoft (Version 8.9) - Application Security Review, 8/31/2006 (issued in FY06, but implemented in FY07)

Eight recommendations were contained in this report, five of which have been implemented and three are currently being completed (in the status of a final review to ensure accuracy of changes). The delay of the implementation of these recommendations was due to the August, 2007 HR system upgrades that resulted in other priorities in the Business Application Support Department.

SLAC Established Internal Follow-Up Process

Recommendations resulting from reviews on Internal Controls and Oversight were prioritized and implemented. To improve tracking of recommended implementations, a staff member of the CFO office was appointed in September, 2007 to:

- establish an audit and reviews recommendation tracking system,
- contact the responsible parties
- collect information and documentation that would lead to recommendation closure

Furthermore, it was established that the individual would provide the documentation to the respective Internal Audit Manager, in case that has not already occurred. The tracking system includes the original recommendation, the responsible party and department, as well as status of recommendation and follow-up action. Note that all audit recommendations made in FY07 have been addressed timely by the contractor's management.

Accounting Procedures Updated

Accounting procedures have been comprehensively documented for the following topics:

[60] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/6.4.1.1-oversight.pdf

- Accounts Payable
- Accounts Receivable
- Cash Management
- Payroll
- Property, Plant and Equipment

The procedures are saved on the shared storage drive of the Accounting Group.

Performance Measure 6.4.2 ▪ Assessment of Continual Improvement. SLAC will demonstrate efficient and effective business management systems resulting from audit/assessment/benchmarking that drives continual improvement as appropriate.

Target 6.4.2.1: B+ = Comparison of IT Business System Expenditure. SLAC will conduct a comparison study of SLAC's IT Business Systems annual expenditure and average historical investment over a four year period with at least one other M&O contractor organization. This study will be given to the SSO by September 30 each year, and will compare and evaluate the overall level of financial system expenditures between different M&O Contractors at national laboratories. The results should assist in the assessment / benchmarking determination of the effectiveness of SLAC's current IT Business System investment and expenditures. This assessment should drive the opportunity and direction for SLAC's continual improvement in IT Business Systems.

Grade: B+ (3.2)

A Business IT survey was completed and delivered to the DOE/SSO on September 28, 2007. The study compared SLAC's IT Business Systems investments over four years, FY04 through FY07, and compared those amounts to similar categories of business IT investments by Fermi National Accelerator Laboratory (Fermilab). Categories included were: ERP, Cyber-Security, Human Resources, Windows/Backup, Collaboration, Software Licenses, Networks, Telephony and Office Automation/Desktops.

Survey results show that distribution of overall Business IT budget dollars over the 4-year survey period do not significantly differ between labs. The most notable percentage differences between labs are in ERP (SLAC invested 11% more than Fermilab), Office Automation/Desktop (SLAC invested 18% less than Fermilab), Windows/Backup (SLAC invested 10% more than Fermilab). This year (FY08) we will investigate factors for those differences other than Laboratory size and general focus of business IT.

SLAC has a lower Software Licensing budget, due to SLAC being part of Stanford University. Comparing the overall enterprise IT budgets of both labs, there seems to be a general similarity in the relative spending levels, despite the differing missions and organizational structures of each institution.

This survey has been helpful in understanding some of the areas of similarity between both labs and this also becomes an opportunity for ongoing dialog. These data will serve us well for future discussions with Fermilab on their business IT, and with other similar labs as we expand this survey into FY08 and beyond.

Objective 6.5

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 S&T programs.

The weight of this Goal is 15%.

Executive Summary

Goal 7 has two Objectives with nine Measures. The following is a summary of accomplishments in each area.

SLAC has made progress operating, maintaining, and renewing the Facility and Infrastructure Portfolio to meet Laboratory needs. In the operation and maintenance area, there were several notable accomplishments and the foundation has been built for future success. In the planning and renewal area, all milestones have been met.

SLAC met all of the agreed upon energy management goals and spent more than the target amount for deferred maintenance (DM). We accomplished all of the Computerized Maintenance Management System (CMMS) milestones and added staff to this project so we are poised for future success.

Our Replacement Plant Value has been reassessed to a number that more realistically represents the high value low maintenance buildings in our Facility.

Our integrated planning milestones have been met. Safety and Operational Reliability Improvement (SORI) and projects greater than $250K are being completed within 10% of target for cost and within the agreed upon schedule.

SLAC has made reasonable progress in completing the Environmental Restoration Project

As such, an overall goal score of 2.91 (B) was achieved.

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	2.75	50%	1.37	
7.2	Provide Planning for and Acquire the Facilities and Infrastructure Required to support Future Laboratory Programs	B+	3.07	50%	1.53	
					Performance Goal 7 Total	**2.91**

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.*
- *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 has demonstrated improvement in the maintenance and renewal of building systems, structures and components associated with the Laboratory's Facility. Maintenance Investment Index (MII) will increase significantly, due to a high value low maintenance proposal that was accepted for 19 unique facilities at SLAC and additional funds expended on maintenance

SLAC exceeded its target for DM reduction by 26% and improved the Preventive Maintenance (PM) program by assigning a full time PM Administrator. The CMMS program has exceeded all of its milestones and is poised for the successful roll out of the initial phases in FY08. All annual Goals within the Energy Performance Management Agreement have been executed and exceeded.

SLAC has made reasonable progress in completing the Environmental Restoration Project. Project Management has been consistent and thorough.

NOTEWORTHY PRACTICES

VFA, Inc., who conducted the annual facilities condition assessment survey, has proven experience with DOE laboratories, as evidenced by their extensive work LBNL. After the facilities condition assessment surveys are completed, this data is put into the Facilities service request system as DM. For each maintenance shop, two days per month is allocated to work on DM reduction. Shops use the data in the condition assessment reports as a starting point to identify the deficiency. Since the facilities technicians are familiar with the buildings, they are able to validate the data and often fix the issues for less than the cost estimated by the vendor. The technicians are also able to quantify larger projects that will need more extensive resources.

A PM Coordinator position was defined and filled in April, 2007, to work with the shops to establish their PM programs.

The equipment validation and collection process for CMMS was a success. Summer students were hired to survey and barcode the equipment. Over the summer, they were able to survey almost 3,000 pieces of equipment, which was considerably less expensive than hiring an outside consulting firm. Data from the bar-coded equipment was entered into a database that will be used to track the equipment and keep PM history. An outdated database (Benchmate) with past PM and equipment data was retired, so all PM information is now consolidated into one database.

Priority codes for service requests were redefined in the current service request system, which will then be transferred to the new CMMS. Implementing this feature in the current system allows Facilities staff and SLAC customers the opportunity to get accustomed to the new priority system for requests.

Executive Order 13423 requirements regarding SLAC's Environmental Management System were communicated to DOE/SSO, SLAC management, Facilities Engineering staff, and ES&H staff. A communications strategic plan was developed in conjunction with SLAC's Communications Department. This plan highlights DOE milestone events and on-going awareness of DOE energy reduction goals. Articles on energy awareness are published weekly and special communications, such as the "Change a Light" campaign, are published as required in support of DOE action plans.

DOE O 430.2.A and DOE Guidebooks Document #2006.100 and EE-0132 were reviewed to discern actions required for site compliance in energy management and insert those elements into the SLAC five year planning process for energy reduction. The completion of this review brought to light considerations that allow SLAC to reduce its original cost budget projections in site-level Advanced Metering. By applying both the "cost effectiveness" analysis and "exclusions for advanced metering" directions SLAC was able to reduce its original budget projections by $3.7M thus lowering the estimate from $5.5M to $1.79M. The project completion schedule mandate of 2012 will allow SLAC to create a phased installation reducing the capital burden to below $500K per year.

The purchase of Renewable Energy Certificates through the California National Lab Consortium allows SLAC to meet its objective regarding renewable energy requirements. However, SLAC went beyond just meeting the objective and investigated the installation and feasibility of concentrated photo-voltaic technology in partnership with a company that has produced a high efficiency concentrator style solar panel named Sol-Focus. Installation of this system depends on the outside company obtaining funding.

Building Green Seal certification processes are being considered to some degree in all of our current construction activities and SLAC has incorporated sustainable building practices and TEAM Initiative "Guiding Principles" into major renovation designs taking place in FY08 (such as the B040 PULSE LAB and B034 Interior Renovation).

SLAC has made considerable progress toward integrating a Water Conservation Plan into its operations, as mandated by EO 13423. The ES&H storm water discharge program manager communicated the impact of landscape over-watering on the storm water discharge rate. A CAP has been developed identifying immediate, moderate and long term goals in watering time requirements and control. Immediate items have been addressed and corrections completed. An ongoing survey and subsequent design has been priced for inclusion within the overall water meter system integration. A potable water system survey was conducted and a report completed illustrating proposed meter locations. Turn-key meter installation costs (per meter), overall system design, engineered contract documents, and as-built renditions of the water metering project has been bid and funding appropriations are in process. The new design will incorporate wireless metering systems to avoid the high cost of hardwire networking. This approach will effectively reduce the overall cost of metering and enhance scheduling.

OPPORTUNITIES FOR IMPROVEMENT

A new Facilities Information Manager was hired in August, 2007, who has over ten years experience in facilities and has implemented FAMIS CMMS software and subsequent upgrades in previous roles. A new Facilities Maintenance Engineer will be hired in November, 2007, to formulate comprehensive DM and Planned Maintenance plans. Together, they will work with the PM coordinator to focus on more improvements to the PM program by analyzing data collected on the current PM program. More equipment data in the Operations area will be collected in the future. There is currently an open job requisition for a Maintenance Person to assist in data collection.

The Facilities Maintenance Engineer will be focused on gathering data needed to make the CMMS functional for work management and reporting. A detailed project plan has been developed showing all the modules that will be implemented and system interfaces that will be necessary. The project plan still includes all the steps that were defined in the previous report for FY08 CMMS milestones.

Energy-enhancing lighting projects have been completed without pre and post measurement and

validation practices due to the lack of individual metering. Projects are funded based on energy saving calculations but field measurements have not been performed.

The Collider Housing Lighting review by FEMP needs to be addressed by management and DOE/SSO representatives. This project has been in a holding pattern for months and status of the review process by FEMP cannot be ascertained. The project was scheduled for installation during this current shutdown and it is doubtful that we will achieve this objective.

The Environmental Restoration Group is working closely with DOE to support their efforts to bring in an Indefinite Delivery/Indefinite Quantity (ID/IQ) Contractor.

The Environmental Restoration Group is incorporating lessons learned from the new procurement requirements into future construction work scheduling.

Performance Measure 7.1.1 ▪ Achieve the Office of Science MII goal of 2.0% for non-waiver assets.

Target 7.1.1.1: B+ = SLAC achieves the Office of Science MII goal of 2.0% in FY07.

Grade: B (2.8)

SLAC achieved an MII of 1.933% of the "adjusted replacement plant value" (Adjusted RPV) of $602.2M. This Adjusted RPV was determined by excluding the systems and components of SLAC's high value low maintenance unique assets (such as tunnels, other underground structures, and heavy concrete experimental halls that required a considerable amount of excavation to construct and contain large amounts of thick concrete for radiation shielding) that typically does not require maintenance. DOE approved SLAC's Adjusted RPV in September, 2007[61]. About $11,637,962 was spent on maintenance in FY07.

Performance Measure 7.1.2 ▪ Effective reduction of Deferred Maintenance (DM).

Target 7.1.2.1: B+ = SLAC meets DM reduction goal as stated in the Ten Year Site Plan for FY07.

Grade: B+ (3.1)

The DM reduction funding target for FY07 was $792,000.

The actual amount reduced from the DM backlog was $821,498. These amounts do not include the DMR from capital projects for FY07. The planned DM reduction goal has been exceeded although the overall DM estimate increased due to a different methodology and revised estimates by the current condition assessment vendor VFA.

Table 7.1.2.1.a DM by Facilities Shop

Date	Shop	Actual Cost	Estimated Cost
October-06	FAS Carpentry	$3,668	$30,047
October-06	FAS Electrical	$3,360	$8,502
October-06	FAS HVAC	$3,021	$6,184
October-06	FAS OSHA Remediation	$121,482	$353,023
October-06	FAS Paint	$0	$2,635
October-06	FAS Plumbing	$1,768	$3,616
October-06	RFS Equipment and Crane Maintenance	$0	$5,270
November-06	FAS Carpentry	$6,553	$16,389
November-06	FAS Electrical	$10,601	$19,855
November-06	FAS HVAC	$1,727	$2,540
November-06	FAS OSHA Remediation	$17,235	$80,845
November-06	FAS Paint	$500	$532

[61] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/7.1.1.1-RPV.pdf

Date	Shop	Actual Cost	Estimated Cost
November-06	FAS Plumbing	$1,820	$3,930
December-06	FAS Carpentry	$2,133	$9,954
December-06	FAS Electrical	$308	$2,480
December-06	FAS HVAC	$793	$7,569
December-06	FAS OSHA Remediation	$5,955	$1,635
December-06	FAS Plumbing	$520	$914
December-06	FAS Roofing	$235	$1,360
December-06	OPS HV Electricians	$0	$1,773
January-07	FAS Carpentry	$125	$6,047
January-07	FAS Electrical	$5,321	$14,284
January-07	FAS Maintenance Trades	$1,769	$2,002
January-07	FAS OSHA Remediation	$947	$2,280
January-07	FAS Plumbing	$520	$1,102
January-07	FAS Roofing	$1,761	$3,249
February-07	FAS Carpentry	$870	$22,646
February-07	FAS Electrical	$256	$158
February-07	FAS OSHA Remediation	$25,092	$12,525
March-07	FAS Carpentry	$100	$547
March-07	FAS Electrical	$667	$1,243
March-07	FAS OSHA Remediation	$3,473	$9,694
April-07	FAS Electrical	$595	$5,213
April-07	FAS HVAC	$0	$10,978
April-07	FAS Plumbing	$0	$1,517
April-07	OPS HV Electricians	$0	$1,520
May-07	FAS Carpentry	$1,056	$4,785
May-07	FAS Electrical	$812	$1,250
May-07	FAS OSHA Remediation	$860	$1,453
May-07	FAS Paint	$363	$267
May-07	FAS Plumbing	$0	$1,618
June-07	FAS Carpentry	$1,225	$20,274
June-07	FAS Electrical	$547	$1,875
June-07	FAS Plumbing	$0	$781
June-07	FAS Roofing	$2,074	$966
July-07	FAS Carpentry	$0	$435
August-07	FAS Carpentry	$0	$454
August-07	FAS Electrical	$925	$131,970
August-07	FAS HVAC	$396	$973
August-07	FAS Plumbing	$0	$181
September-07	FAS Electrical	$0	$158
		$231,431	**$821,498**

The actual cost of DM for capital projects was $765,708. See Table 7.1.2.1.b for details of DM funding by overhead expenditures.

Table 7.1.2.1.b DM Funding by Overhead Expenditures, for FY07

AID	Accumulator	1Q	2Q	3Q	4Q	YTD
30092	Correct Site Breaker Labels	47,631	84,443	94,017	69,236	295,327
30107	CXL Fire Control	-	25,513	-	-	25,513
30111	Wooden Deck Replacement	14,114	17,400	-	-	31,514
30115	Alpine Gate Road/Drainage	22,560	23,409	10,249	6,301	62,518
30123	B137 Hot Water Repair	-	120	90,070	4,834	95,024
30150	B127 Chilled Water Maintenance	1,723	-	-	-	1,723
30197	Sec 10 Storm drain Repair	1,504	227,489	2,124	22,973	254,089
	Redistributable Indirect Costs	**87,532**	**378,373**	**196,459**	**103,344**	**765,708**

The total spent on DM was $997,139. This was 26% higher than the funding target.

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

Target 7.1.3.1: B+ = SLAC completes 100% of planned preventive maintenance within 30 days.

Grade: C+ (2.3)

Since April, 2007, performance on PM work has been monitored in the service request system. Below is a chart showing that PM work has achieved an overall completion rate of 84% but additional work needs to be done in areas achieving less than 50%

Table 7.1.3.1 Running Total April - August 2007

Shop	Accessible PMs	Completed PMs	Percent Completed
FAS Carpentry	28	26	93%
FAS Custodian	123	56	46%
FAS Electrical	5	2	40%
FAS Fire Techs	72	29	40%
FAS Fleet Services	174	147	84%
FAS HVAC	140	120	86%
FAS Labor Pool	1	1	100%
FAS Paint	12	12	100%
FAS Plumbing	2	2	100%
OPS High Voltage	75	51	68%
OPS Instrumentation	103	65	63%
OPS Mechanical Utilities	1,724	1,523	88%
RFS Equipment and Crane Maintenance	292	279	96%
RFS Facilities and Rigging	19	19	100%
Total	2,770	2,332	84%

Target 7.1.3.2: B+ = Meets agreed-on milestones on the FY07 CMMS plan.

Grade: A- (3.5)

All agreed upon milestones have been complete. We exceeded our data collection goals especially in the HVAC area where our goal was 900 pieces and we actually collected 2,174.

Table 7.1.3.2: Phase 1 estimated to span ~12 - 16 months from installation of software.

Task	Actual Completion Date
Defined project objectives	6/06
Created mission statement for project	8/06
Conducted Focus Groups with CEF staff – intro to new CMMS, address concerns, and what they liked/didn't like about existing system	9/06
Created SharePoint site for project	10/06
Published results of Focus Group meetings to CEF	11/06
Create preliminary project plan	12/06
Designate project teams	12/06
Select advisory team	12/06
Identify stakeholders	12/06
FAMIS Kick-off Meeting	1/07
Install FAMIS software	2/07
Software testing with DBA	2/07
New hardware received	3/07
Implemented priority code process for service requests	3/07
Define business processes and workflow for Service Request and PM cycles	4/07

Task	Actual Completion Date
Conduct "needs assessment" with customers	5/07
Select what equipment data will be input to FAMIS (crane, emergency lighting, etc)	6/07
Configuration (equipment, location, people) assigned	7/07
Start HVAC equipment nameplate data collection & bar coding (~900 pcs)	8/07
Start OPs equipment nameplate data collection and bar coding for equipment designed "mission critical" (~200 pcs)	Rescheduled for 6/08
Start Cryo equipment nameplate data collection & bar coding (~200 pcs)	8/07

Performance Measure 7.1.4 ▪ Effective execution of annual goals within the Energy Performance Management Agreement.

Target 7.1.4.1: B+ = SLAC accomplishes 100% of annual goals identified and agreed to by DOE and SLAC.

Grade: B+ (3.1)

Manage to DOE O 430.2.A and Energy Reduction Initiatives / Comprehensive Energy Management Plan (CEMP) / Grade: B+ (3.3)

- CEMP updated to DOE O 430.2.A requirements.
- Lighting Efficiency Upgrade projects were submitted for the Collider Housing Upgrade, B084, and B040 Central Laboratory.
- Collider Housing Project is under review by the DOE FEMP office.
- The B040 project is complete.
- The B084 project is complete.
- The Advanced Power Monitoring Evaluation and Metering Plans were developed.
- HVAC Upgrade B005 is in progress.
- Outreach Communications programs were initiated and maintained.
- Energy Star purchasing program maintained through procurement oversight.
- EMS4 Database reporting requirement is in process; working with DOE/SSO.
- Complied with George Malosh's Memorandum on Performance 'Required' Agreements
- Sustainable building philosophy integrated into B40 PULSE Laboratory Renovation.
- Evaluating ESCONs for the ESPC Program.

Energy Use Reductions and Green House Gas Reductions Show Continuous Improvement / Grade: B+ (3.4)

- B081 Lighting Efficiency Upgrade project has been approved, funded and construction is scheduled to begin.
- B050 Lighting Efficiency Upgrade is included in area retrofit project that has been funded, approved and under construction.
- Two 30-ton chillers were replaced and pump motors upgraded to high-efficiency.
- Collider Housing Lighting Upgrade project has been submitted for funding re-evaluation.
- Cooling Tower Replacement project has been funded, contracted, and is in-process with an April, 2008, expected completion date.
- B041 DDC Controls Upgrade project is in process.

Purchase at least 3% of Electricity from Renewable Sources / Grade: A (4.0)

- In FY07, SLAC purchased 3% of its total energy use in Renewable Energy through the DOE Northern California Laboratories Consortium.

- Investigations into Sol-Focus Photo Voltaic (PV) Technology, having a higher efficiency collector, were conducted and a pilot program recommended.

New Buildings to Use 30% Less Energy than the ASHREA 90.1 Energy / Grade: B+ (3.4)

- No new buildings are scheduled for design or construction in FY07.
- New existing building 'major renovations' scheduled for 2008 will incorporate "sustainable building practices" into design, i.e., B040 PULSE Laboratory Renovation project.

Install Electric Metering by 2012 / Grade: B+ (3.4)

- Completed a five-year Site Metering Plan that is phased in through 2012 incorporating the advanced metering requirements for "standard buildings" and requirements of "Industrial and Laboratory Facilities" as outlined in DOE O 430.2.A.
- A financial plan for the metering installation over a five year period was developed and submitted to SLAC Management. The plan review is complete and prioritization of the metering project has been assimilated into the site's budget forecast.
- Performed preliminary design requirements for Phase I, 2008 advanced metering installation and have design contracting documentation in-process.

Develop and Implement Water Efficiency Program and Plan / Grade: B+ (3.4)

- Completed Water Usage Survey and Analysis.
- Conducted budget review for design and installation.
- Landscape water system review in process.
- Budget request to management for water metering is in process.
- Meter installation scheduled for FY08 to meet objective.

Performance Measure 7.1.5 ▪ Provide Efficient, and Effective Implementation of Project Management (Relates to 2.1).

Target 7.1.5.1: B+ = SLAC successfully implemented DOE O 413.3A, Program and Project Management for the Acquisition of Capital Assets. The overall performance of the following set of performance measures shall be utilized by evaluator as the primary measure of the Contractor's success in meeting this measure.

- SLAC has developed a Performance Measurement Baseline.
- SLAC has implemented and self-certified their Performance Management System that meets ANSI/EIA-748-A-1998.
- SLAC is maintaining a resource loaded critical path and a project master schedule.
- SLAC has implemented a risk management plan.
- SLAC has implemented a project management plan.

The evaluation of this measure may also consider other tasks, activities, requirements, accomplishments, and/or milestones not otherwise identified above but that provide evidence to the effectiveness/performance of the Contractor in meeting this measure.

Grade: C- (1.5)

In February, 2007, SLAC completed for DOE EM review a draft resource-loaded Baseline schedule comprised of the entire restoration project work (EM and SC) through 2016. The resource loaded baseline was being developed in parallel with a new Performance Management System.

- DOE EM review of the SLAC prepared CD2/3 cost loaded schedule did not occur due to DOE's decision to use an ID/IQ contractor to perform the majority of the environmental

restoration work.

- DOE EM directed SLAC in April to stop work on the baseline project, as well as the associated documents (Jay Tomlin letter to Michelle DeCamara, April 17, 2007[62]) as a result of the decision to use an ID/IQ contractor. This stop work direction impacts the project baseline and all relevant documentation, such as the risk management and project management plans.

Despite DOE EM's direction to stop work on the restoration project baseline[63] and with concurrence from DOE, the SLAC Restoration Group has moved forward with constructing a Performance Management System that is consistent with ANSI/EIA-748-A-1998 using the Draft February, 2007, Baseline schedule as the framework, with the understanding that the schedule will need to be modified once DOE EM approves the SLAC M&O Contractor baseline. This work was initiated at SLAC Restoration Group's request to push forward on work activities.

Overall, SLAC project management and reporting has been consistent and thorough in FY07 with significant enhancements despite major changes and redirection from DOE EM.

Other projects (infrastructure, GPP, etc.) are tracked by the Technical Planning group for cost and schedule performance and we are planning to incorporate a comprehensive resource loaded baseline system in the planning and tracking process in FY08. Continued development of the project management system leading to a draft guide is also planned for FY08.

For work performed under DOE authorization, a B is an appropriate letter grade.

Performance Measure 7.1.6 ▪ Make Substantial Progress in Completing the Project (Relates to 2.2).

Target 7.1.6.1: B+ = Reasonable progress is being made in relations to the amount of funding that is provided to SLAC. The overall performance of the following set of performance measures shall be utilized by evaluator as the primary measure of the Contractor's success in meeting this measure.

- The completion of designs for treatment systems at the Plating Shop and Former Solvent Underground Storage Tank areas.
- Construction of the Former Solvent Underground Storage Tank (FSUST) Dual Phase Extraction (DPE) system is a least 80% complete and the construction of the Plating Shop DPE has commenced.
- Contaminated soil from seven Investigation/Misc. Soil Areas (EBR Table 4-3) has been removed, disposed, and all confirmation sampling completed.
- Issue the Feasibility Study for the Groundwater VOC Operable Unit.
- Obtain and present sufficient data to allow the Core Team to make decisions on whether Investigation Areas and Misc. Soil Sites are either No Further Action or require Removal or Remedial Action.

The evaluation of this measure may also consider other tasks, activities, requirements, accomplishments, and/or milestones not otherwise identified above but that provide evidence to the effectiveness/performance of the Contractor in meeting this measure.

Grade: B+ (3.1)

SLAC was directed in April, 2007, to stop work on the Plating Shop Area (PSA) treatment system design as a result of the decision to use an ID/IQ contractor.

SLAC completed the FSUST DPE preliminary design report in January, 2007. Final design

[62] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/7.1.5.1-tomlin.pdf

[63] The SLAC Restoration Group has established a Change Control Board and implemented Change Control Procedures for the FY07 BCW despite not having a project baseline.

specifications for the wells were completed in February, 2007. Final specifications on the well box and conveyance piping were completed in May, 2007. Final specifications for the blower and panel installation were completed in August, 2007. The preliminary design report for the PSA was completed in February, 2007 and finalized in July, 2007 per DOE direction.

SLAC was directed to stop work on the PSA construction as a result of the decision to use an ID/IQ contractor.

Construction of the DPE Upgrade at the FSUST was 100% complete in September, 2007. Startup and reporting on the new FSUST system will occur in the first quarter of FY08.

Construction work on the five soil action removal sites for FY07 is currently. This project experienced delays during procurement due to new SLAC safety requirements for construction projects and new DOE approval requirements for contracts exceeding $100K. These impacts were not planned for and will be incorporated into future construction projects. Construction began in September, 2007 and the first round of removals is complete. Confirmation sampling is underway, with analytical results scheduled to arrive in early FY08. SLAC proposed to DOE in September, 2007, that due to the lower than expected cost on the soil remediation, we could take on additional soil excavation work while the contractor is mobilized.

SLAC has performed all preliminary work on the Feasibility Study (FS) for the Groundwater Volatile Organic Compound (VOC) Operable Unit (OU). A draft Section 3 of the FS report that includes the Remedial Action Objectives is being reviewed by the Core Team. Once this section is approved, the FS can be completed. Delays on this Target are not within SLAC's control.

Consensus among the Core Team members on Remedial Action Objectives for the Groundwater VOC OU is required prior to completing the Feasibility Study. As of late September, consensus has not been reached; hence, delaying completion of this work.

Of the seven soil areas to be remediated in FY07, SLAC was directed by DOE to remove the Clean Landfill from the list and the Core Team agreed to no further action at the Master Substation; hence; only five sites remain in SLAC's scope of work for this PEMP.

SLAC has completed 100% of the draft data packages to be reviewed by stakeholders. Over 95% (32/33) of the data packages have been presented at Core Team meetings in FY07.

SLAC was directed to stop work on the following data packages: the Bone Yard; the Lower Salvage Yard; Former Substations 501, 502, 504, 505, 509, 510, 512; and the Research Yard as a result of the decision to use an ID/IQ contractor DOE decided to send the IR-8 Drainage Channel data package directly to Stanford and the Regional Water Quality Control Board (RWQCB) for their information and is not seeking Core Team approval of this package. The IR-8 Fill Area draft data package was completed with clearly identified data gaps that require significant sampling, which the DOE decided to postpone until FY08.

For work performed under DOE authorization, a B is an appropriate letter grade.

SLAC met the FY07 target in this area:

- SLAC is completing a formal document and records management system for the Environmental Restoration Group that is in compliance with DOE and other federal requirements. A final report with recommendations for long-term maintenance of the project is included in the work.
- Completion of the IR6 drainage channel remediation.
- Significant progress in uploading and migrating tens of thousands of historic Laboratory data files to the Locus Focus environmental database was made following the hiring of a database manager.
- Provided support to the Core Team's Technical Advisory Group for the development and regulatory approval of preliminary remediation goals based on human health and ecological

risk assessments.

- Presentation of the Tritium OU remedial investigation scoping package to the Core Team was made in April, 2007. The Tritium OU remedial investigation scoping package was well received by the Core Team. Among other successes, the scope of work required for SLAC to complete the Regional Water Quality Board Order requirements was reduced significantly based on the outcome of this meeting. Specifically, the necessity to complete a Baseline Risk Assessment and a Feasibility Study was removed. SLAC is moving forward with preparation of the Remedial Investigation for the Tritium OU.
- Installation of groundwater monitoring wells for the Tritium OU was completed in 2007 (one in January and one in September).

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 facility planning, forecasting, and acquisition for effective translation of business needs into comprehensive and integrated facility site plans;*
- *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

SLAC completed 100% of the integrated planning milestones. The SORI project met all cost and schedule targets in accordance with the Project Execution Plan. SLAC executed eleven facilities and infrastructure projects within 10% of target for cost and three months of scheduled completion. Overall, SLAC's planning and renewal of facilities and infrastructure to support future Laboratory programs has been excellent.

NOTEWORTHY PRACTICES

Reporting of the DM and Maintenance portions of GPP, Infrastructure and Line Item projects has been incorporated in standard reports produced by the Technical Planning Office.

Sustainable building philosophies and energy saving design have been incorporated into the Building 040 renovation for PULSE.

Accelerated inventory schedule of equipment for CMMS system roll out. Originally we estimated that we would collect about 1,300 pieces of equipment but we ended up collecting almost 3,000 pieces of equipment.

A formal procedure to review SLAC GPP/Infrastructure projects greater than $250K on a monthly basis had been established between DOE/SSO and SLAC Operations Planning, Budget and Facilities.

All changes to GPP/Infrastructure projects' costs and schedules are documented and approved by the SLAC Infrastructure Committee.

All GPP/Infrastructure projects involving subcontracted construction are implemented in accordance with SLAC OA Quality Implementing Procedure (QIP), ES&H Building Inspection Office (BIO) and

Facilities guidelines.

Various bidding strategies were successfully developed and implemented for the project's Work Breakdown Structure (WBS) construction tasks to address challenging construction labor and material costs in the San Francisco Bay Area.

Communication of project status between DOE-HQ Program Manager and the SORI Project IPT was well coordinated via formal DOE/SSO quarterly project reports, and project weekly meeting minutes.

All WBS construction tasks were properly and timely reviewed by DOE/SSO FPD and ES&H Manager, SLAC Facilities Department and ES&H BIO staff for safety and technical acceptance.

OPPORTUNITIES FOR IMPROVEMENT

Increase visibility and distribution of Ten Year Site Plan for use as a reference document throughout the year.

All GPP/Infrastructure projects should be handled through a single Facilities Organization to ensure consistency in facilities design, project and construction management practices.

Additional efforts from engineers and project managers are required to improve construction project cost estimating as well as cost and schedule tracking.

Additional funding should be considered to complete facilities maintenance projects such as re-roofs and HVAC replacements.

Additional reviews of subcontractor daily JSAs by the UTR, WBS Task Leader, ES&H BIO Inspector and Facilities Construction Safety Oversight Officer are required to prevent safety mishaps.

Performance Measure 7.2.1 ▪ Effective integrated planning for the acquisition, utilization, maintenance, infrastructure recapitalization and disposition of real property.

Target 7.2.1.1: B+ = SLAC completes 100% of integrated planning milestones identified and agreed to by DOE and SLAC in the areas of DM, maintenance plan, FIMS and Rehab and Improvement Cost. Prior year carryover shall be 100% costed in the following year. The Infrastructure Recapitalization program consists of small capital projects and may include:

- Strategic Laboratory Projects (SLI)
- General Planned Projects (GPP)
- Energy Efficiency projects
- Other small capitalized projects
- SLAC and DOE did not identify and agree upon the specific milestones for this measure. These milestones are what SLAC would propose for this measure and have been scored as if they were certified. The overall score has been lowered to account for the lack of official agreement at the beginning of the year.

Grade: B+ (3.4)

Identify DM Deficiencies planned for correction by fiscal year for all colors of money: SLI, GPP, direct funded maintenance, indirect funded maintenance, and the SC DM Reduction Initiative.

- "Infrastructure Deferred Maintenance Cost and Funding Report" indicates 16 projects funded for $2710K, of which $2644K was costed.

Identify the maintenance portion of GPP and line item projects that are a combination of improvements and maintenance.

- "Infra All Maintenance Items" report identifies $9627K of maintenance was completed in FY07 through GPP and Line Item funding sources.

CMMS software was purchased and Facilities Information Group Leader Position was filled.

- This positions SLAC for the successful rollout of the initial phases of CMMS in FY08.

Submit the Integrated Facilities and Infrastructure Budget that conforms to Budget Guidance at least one week prior to the date for submission to HQ.

- Submitted on schedule.

Complete annual Condition Assessment Survey (including formal inspection reports with estimates) for all FIMS building and trailer assets scheduled for inspection during FY07.

- Survey of planned building and trailer assets and report completed by VFA, Inc. in September, 2007.

Complete annual Condition Assessment Survey (including formal inspection reports with estimates) for identified FIMS Other Structures and Facilities (OSF) assets scheduled for inspection during FY07.

- Survey of planned OSF assets and associated report completed by VFA, Inc. in September, 2007.

Establish a system for use during FY07 for identification of completed DM to support credible Quarterly Reporting of the amount of DM reduction by funding source.

- A monthly report of DM reduction is routinely produced by the budget office from service request and project completions data cross referenced with the assets condition inspection.

Develop protocols for getting updated drawings into the SLAC drawing database.

- Put 75% of all updated facility drawings generated in FY06 into this database.

Meet applicable goals of SORI SLI project

- SLI SORI is on schedule and within budget of the approved baseline for FY07.

Meet goals of energy efficiency projects (see 7.1.4 for details)

- Several lighting efficiency projects have been submitted for funding.
- Upgrade of the building 005 Main Control Center HVAC system including energy improvements is under construction.
- Sustainable building philosophies and energy savings have been incorporated into Building 040 Renovation for PULSE.

Additional Milestones

- Installed HVAC equipment, flammable storage cabinets, and 400 cryogenic items were inventoried, labeled and nameplate data gathered for eventual use in CMMS.
- Declared as excess property four trailers (288,289,290,293) from SSRL area.
- Started upgrade of Building 028 warehouse to convert more of it to useable office space.

Nine core milestones completed out of nine for a B+, and three additional milestones completed to achieve an A. See metrics gradient below.

Grade	% Complete
A	105
B+	100
B	At least 90
C	At least 80
D	At least 70

Performance Measure 7.2.2 ▪ Effective execution of the Safety and Operational Reliability Improvement (SORI) project.

Target 7.2.2.1: 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). The cost variance will be 10% or less of the approved baseline value established in the PEP.

Grade: B (3.0)

- The SORI project's Underground Mechanical Utilities Replacement WBS construction task numbers 1.1.1.4 (CTW), 1.1.1.5 (CHW), 1.1.1.6 (HW) cost and schedule per attached approved Baseline Change Proposals (BCP) #4[64], 6[65] and 7[66].
- The SORI project's Seismic Upgrade WBS construction task numbers 1.1.2.2 (CT101), 1.1.2.3 (CTH 101, 1701), 1.1.2.7 (B120), 1.1.2.8 (B140 Booster Ring) also met cost and schedule per attached approved BCPs # 4, 6 and 7.
- The SORI project's Seismic Upgrade WBS construction task numbers 1.1.2.1 (PEP Mech), 1.1.2.4 (CT1701 Basin), 1.1.2.5 (B040), 1.1.2.6 (B044) were implemented within cost and schedule per attached approved BCPs # 4, 6, and 7.

Performance Measure 7.2.3 ▪ Effective execution of facility and infrastructure projects greater than $250K.

Target 7.2.3.1: B+ = SLAC executes effective facility and infrastructure projects (General Plant Project and Operating projects) by completing projects within 10% of target for cost and 3 months of scheduled completion. All projects >$250K will be completed within 3 years of start date. The cost performance rating is established by calculating the cost performance index 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.

Grade: B (2.8)

- Eleven construction projects were completed within 10% of target for cost and 3 months of scheduled completion. Refer to the Preliminary FY07 Metric spreadsheet[67], rows # 1, 2, 4, 6, 7, 8, 9, 10, 11, 13, and 14.
- Construction activities on five projects are in progress as of the end of FY07. Refer to the Preliminary FY07 Metric spreadsheet rows # 3, 15, 17, 18, and 23. It is anticipated that four of the five projects will be completed per planned BU dates.
- Four construction projects are in the design phase as of the end of FY07. Refer to the Preliminary FY07 Metric spreadsheet rows # 16, 20, 21, and 24.
- One project related to implementing SLAC CMMS is in progress as of the end FY07. Refer to the Preliminary FY07 Metric spreadsheet row # 12.
- Designs have been completed for two projects. They are awaiting construction funding as of the end of FY07. Refer to the Preliminary FY07 Metric spreadsheet rows # 15 and 19.
- One construction project will be closed out. Refer to the explanation in the "Project Progress" field in the Preliminary FY07 Metric spreadsheet row # 5.

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[64] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/7.2.2.1-bcp4.pdf

[65] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/7.2.2.1-bcp6.pdf

[66] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/7.2.2.1-bcp7.pdf

[67] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/7.2.3.1.pdf

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 20%.

Executive Summary

Goal 8 has four Objectives with fifteen Measures. The following is a summary of accomplishments in each of the four areas.

In light of our challenges, substantial improvements were made to the SLAC Emergency Management System in FY07. SLAC completely rewrote ES&H Manual Chapter 37, Emergency Management and all associated documentation, including the EPP, EPP Implementing Procedures, Comprehensive Hazard Assessment, and Facility Emergency Plan template. All of these plans and documents were completed in a short amount of time, which required extensive collaboration, team work, project management skills, and leadership. In addition, a new training format was devised SLAC Emergency Response Team (SERT) training and a new training program was initiated for making Building Assessment Team (BAT) training SLAC-specific with other improvements. SLAC also participated voluntarily in the No Notice Inspection (NNX) program and initiated the Continuity of Operations Plan (COOP) process and performance of Business Interruption Analysis data call. Finally, the Emergency Management Group participated in the 4th Quarter DOE focused program audit.

SLAC's Cyber Security Team had an exceptional year with a major effort of note. In preparation for an external Security Test and Evaluation (ST&E) review, SLAC embarked on a major effort into a review of evaluation of the requirements imposed by a NIST 800-53a audit. Although there were some deficiencies identified, the reviewers noted that they were minor and recommended the Laboratory be given ATO. Overall, SLAC's Cyber Security Program continues to improve and adjust to new threats and changes to the environment, while supporting an open collaborative research environment that ensures the integrity of open science.

As for the Protection of Special Nuclear Materials area, SLAC has consistently performed well in this area over the years and FY07 was no different. There were no Special Nuclear Material (SNM) safeguard events in FY07 and all corrective actions for external reviews in this area were competed on time and without the need for follow-up action. In addition, SLAC's computerized radioactive material shipping function continued to operate effectively.

Although there was one instance of a release of sensitive information during FY07, SLAC's handled the event quickly and efficiently in cooperation with the San Jose Police Department (and with appropriate notification to the DOE/SSO) as well as met all of the performance criteria in the Protection of Sensitive Information area. In addition, SLAC continues to make progress on securing personal information with enhanced security controls that will increase the effectiveness of the program in the future.

As such, an overall goal score of 2.80 (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	Provide an Efficient and Effective Emergency Management System	B-	2.45	30%	0.74	
8.2	Provide an Efficient and Effective System for Cyber-Security	B	2.98	40%	1.19	
8.3	Provide an Efficient and Effective System for the Protection of Special Nuclear Materials, and Property	B+	3.10	10%	0.31	
8.4	Provide an Efficient and Effective System for the Protection of Sensitive Information	B	2.80	20%	0.56	
					Performance Goal 8 Total	**2.80**

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 is developed (in addition to Chapter 37 in the ES&H Manual), 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 completely rewrote ES&H Manual Chapter 37, "Emergency Management" and all associated documentation, including the Emergency Preparedness Plan (EPP), EPP Implementing Procedures (EPIPs), Comprehensive Hazard Assessment, and the facility emergency plan template.

A new training format was devised for SERT training. This team provides post-earthquake self-help services. Class training expanded from 4 hours to 18 hours.

A new training program was initiated for making BAT training SLAC-specific while greatly expanding the number of participants and team members at SLAC to include SERT members and some building managers to help prevent post-earthquake assessment bottlenecks.

SLAC participated voluntarily in the NNX program, which tested SLAC's Emergency Operations Center (EOC) and Emergency Public Information Office (EPIO) functions.

Initiated the COOP process and performance of Business Interruption Analysis data call.

The Emergency Management Group participated in the 4th Quarter DOE focused program audit.

NOTEWORTHY PRACTICES

Established revised, expanded SERT and associated BAT training programs.

Hosted Santa Clara County-wide first responder drills for confined space tunnel rescue, with associated SERT exercise.

OPPORTUNITIES FOR IMPROVEMENT

Complete National Incident Management System (NIMS) training implementation for the Emergency Resource Organization.

Pursue greater formality in Emergency Management program administrative procedures.

Assess site wide hazardous material threshold quantities.

Pursue alternate EOC (proposal to modify SLAC fire station to serve this function).

Implement the new SLAC-specific BAT training program.

Implement DOE Order 151.1C. 'Comprehensive Emergency Management System'.

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 emergency event in FY07.

Grade: B+ (3.1)

The two methods for identifying emergency management events at SLAC are the fire department run reports and ORPS events. Fire department runs include unwanted alarms and minor incidents that are not currently considered to be within the scope of this requirement. (Fire department run records are tracked separately under the fire protection program and are attached to the minutes of the fire protection safety committee.) Therefore, ORPS reportability (including events initially reported and then determined retroactively to be non-reportable) are used as the basis of this assessment. There were 10 ORPS events sufficient to generate a notification number that were reported to DOE/SSO as required. Two of the events were later determined to be non-reportable. Lessons learned were generated for each incident as a part of the ORPS report.

Performance Measure 8.1.2 ▪ Contractor will provide for an internal assessment of their emergency management response plans, and provide a level of adequacy, including a gap analysis, with corrective actions for any findings. Results of reviews and surveys demonstrate that emergency management systems are effective.

Target 8.1.2.1: B+ = Internal assessment of SLAC Emergency Management Response plans and program conducted by 3rd Quarter FY07.

Grade: B (2.9)

Internal assessment of EM plans and program were presented to SLAC ES&H Management on June 26, 2007, including a gap analysis identifying opportunities for improvement and corrective actions. Gaps identified in the report form the basis of the list given in the Opportunities for Improvement section above. SLAC is currently focusing on gaps related to the following areas.

- EOC training
  - On-line ICS training was provided to EOC members, and plans for providing a NIMS orientation course were developed. Due to a proposed reorganization of the EOC membership and the hiring of a new Emergency Management Coordinator, further implementation of EOC training has been placed in temporary abeyance pending identification of new team members and development of additional training materials.
- Greater formality in administrative procedures of EM program
  - The Fire and Emergency Management Group has begun an initiative to reorganize their computer file space and to make increased use of Microsoft SharePoint sites to more effectively organize their administrative procedures and processes.
- Assessment of site-wide hazardous material threshold quantities

    - In response to an OIO finding and to internal SLAC initiatives, two working groups are planning parallel projects to assess legacy chemicals at SLAC (chemicals procured prior to SLAC's current single-distributor management system was instituted) and to reassess chemical thresholds in lieu of new building code requirements anticipated to be adopted by SLAC in FY08.
- Pursue alternate EOC
    - As of September 28, a proposal for renovation of the fire station was scheduled for funding priority scoring at the next (mid-October) meeting of the Infrastructure Project Working Group.
- Implement more effective BAT training
    - An earthquake is the most likely regional operational emergency event that could occur at SLAC. There is at least a 50% chance of an earthquake occurring with consequences severe enough to activate the EOC in the next 30 years. There is at least a 20% chance of an earthquake occurring that is severe enough to have life safety consequences. SLAC has initiated development of a site-tailored training program that will allow for effective rapid visual assessment of building structures in the aftermath of an earthquake. This training program will be implemented in FY08.

Performance Measure 8.1.3 ▪ Employee and Management awareness of their Emergency Management responsibilities. Develop Emergency Response plans sufficient to show emergency preparedness. Provide training for employee during emergency situations, including building evacuations. Establish points of contact (POCs) for handling site emergencies, including emergency communication services. A formal SLAC Site Emergency Plan should be developed, and submitted to the DOE/SSO for review, compliant with program elements outlined in the DOE Emergency Management Guide, DOE G 151.1-1. Elements of the plan should address:

- SLAC Emergency Plan
- Emergency response procedures
- Sample facility emergency action plans
- Emergency public information plan/procedures
- Plan for public education on emergency plan and protective actions
- Emergency Readiness Assurance Plan (latest)
- Site map and list of facilities
- MOUs and MOAs
- ERO Training program description
- Process/procedure for conducting hazards surveys/hazards assessments
- Hazards screening process
- Record of program exemptions
- Emergency response organization roster
- Latest SLAC emergency exercise package and report
- Emergency drill schedule
- Emergency Action Level and protective action procedures
- Preventive maintenance plan for emergency response equipment and emergency communications equipment
- Offsite notification procedure/form
- Description of consequence assessment methods
- Site Medical Plan (emergency response portion)

Target 8.1.3.1: B+ = Development and approval by DOE/SSO of SLAC Site Emergency Response Plan by 3rd Quarter of FY07.

Grade: B- (2.7)

Revision of Chapter 37, "Emergency Management," and associated documents including the Emergency Preparedness Plan published through ES&H Knowledge Management Department in June, 2007. The chapter and its associated documents, including a Comprehensive Hazard Assessment address all topics requested by this measure.

Performance Measure 8.1.4 ▪ Contractor will develop a COOP during a major emergency.

Target 8.1.4.1: B+ = Contractor development and approval of a COOP for SLAC during a major emergency by 3rd Quarter FY07.

Grade: C- (1.1)

A specialty consultant was hired by ES&H to assist the Fire and Emergency Management Group with COOP preparation. The COOP preliminary draft was completed in June, 2007. In the fourth quarter of FY07, a site-wide Business Interruption Analysis data call was conducted. An analysis of the data was conducted by the consultant. A revised version of the draft COOP is due to be completed in late October. Further development of the COOP program has been placed in abeyance pending an anticipated adoption and implementation of DOE-O-151.1C requirements. (Contractual adoption confirmed as of October 11, 2007.)

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

The Computer Security Team is a very small group of dedicated professionals attempting to balance the very limited resources between providing security services for the site with fulfilling the demanding regulatory requirements.

A major effort during the year consisted of leading the Laboratory into understanding the requirements imposed by a NIST 800-53a audit in preparation for an external ST&E review.

Also of note is the completion of several-year project to update the PeopleSoft business systems and have them placed behind a real firewall rather than a screening router.

The tests used to perform the quarterly Laboratory-wide scans were changed to be more extensive and we added a full-time staff person whose primary function is vulnerability scanning. This increased resource has paid off in our ability to perform scanning for a number of vulnerable third party applications that we didn't have the resources to track in the past—this is extremely important since these applications have been the infection vector of choice for much of the latest malware. The ST&E was completed and the final report received just prior to the end FY07. Although there were some deficiencies found, the reviewers noted that they were minor and recommended the Laboratory be given Authority to Operate (ATO).

NOTEWORTHY PRACTICES

Perform an aggressive schedule of vulnerability scanning and routerblock unpatched machines.

Configuration and patch management for centrally maintained machines running Windows, Linux, UNIX and MacOS.

OPPORTUNITIES FOR IMPROVEMENT

Increase user awareness training.

Improve Intrusion Detection/Prevention systems.

Enhance vulnerability scanning using Nessus in addition to ISS.

Redesign network to separate user managed system from centrally managed systems and regulate access to resources accordingly.

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+ (3.1)

All machines suspected of being involved in a compromise were immediately routerblocked to eliminate any network traffic flowing to or from the machine off its subnet. Within several hours of it being determined that a compromise had taken place, a report was filed with CIAC. Although not all reports filed with CIAC counted as incidents, at least six reports during the year counted as incidents:

- Three cases of a Linux/Unix user having their password compromised elsewhere.
- One case of a weak root password on a freshly installed and user-managed Linux system.
- Two cases of spambots installed on Windows systems.

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 report are delivered to the DOE/SSO.

Grade: B+ (3.1)

Scans for common Windows vulnerabilities are performed three times each day.

Scans for vulnerable versions of third-party software (Adobe, Apple, Mozilla, etc.) are performed at least weekly.

Machines not updated by the patch deadline are routerblocked.

At the start of FY07, we used the SANS Top20 version of the ISS scan to scan the entire site on a quarterly basis. Approximately mid-year, we switched to using a scan detecting high-exposure vulnerabilities version available in the ISS network scanner package. Help tickets were opened for any problems found and at the end of each quarter and a summary of the status was provided to the DOE/SSO.

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 NIST SP 800-37.

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 (ADCC).

Grade: B- (2.6)

DOE/SSO was provided with the a current list of Plan of Action and Milestones (POA&Ms) each quarter, as they are updated for required Federal Information Security Management Act (FISMA)

reporting. As a part of the ST&E process, DOE/SSO has received draft copies of the risk assessment. The risk assessment will be finalized in the next several months as part of a completed Certification and Accreditation (C&A) package requesting an updated ATO based upon the ST&E final report.

Performance Measure 8.2.4 ▪ SLAC maintains all the POA&M on schedule.

Target 8.2.4.1: B+ = POA&M schedule is met.

Grade: B (3.0)

All POA&Ms were closed on schedule with one exception (a finding from the SLAC Auditor during an internal audit in FY06). This finding was expected to be closed in June with the transition to a new version of the PeopleSoft HR system; however, the version upgrade did not occur until August. The finding is now closed.

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 made.

Grade: B+ (3.1)

The cyber security responsibility statement was not updated in FY07. Annual transmission of the relevant section of the "SLAC Appropriate Use" document to DOE/SSO was made on July 2, 2007.

Objective 8.3

Provide an Efficient and Effective System for the Protection of Special Nuclear Materials, and Property

There is very minimal handling of nuclear material at SLAC. 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

There were no SNM safeguard events in FY07.

NOTEWORTHY PRACTICES

SLAC's computerized radioactive material shipping function along with the health physics technician training and understanding of correct usage performed well during the year.

OPPORTUNITIES FOR IMPROVEMENT

The upcoming formalization of the work planning and control process at SLAC will be reviewed for opportunities for integration into radiological work projects and tasks in order to help move SLAC away from any expert-based approaches to implementation of the SLAC Radiation Protection Program.

Radiological training is currently being reviewed and revised based on changes to the radiological program, best management practices, and to be consistent with other DOE labs.

Performance Measure 8.3.1 ▪ Safeguard events are reported and mitigated as necessary. Plans are developed for security of property, and inventory loss control (e.g. property tags, and property management of assets). SLAC assets reside in a database.

Target 8.3.1.1: B+ = Safeguard events are reported within 24 hours to DOE/SSO.

Grade: B+ (3.1)

There were no shipments or receipts of special nuclear materials as defined by DOE M 470.4-6 at SLAC, so there were no events to report.

Performance Measure 8.3.2 ▪ External 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: B+ (3.1)

During FY07, the semiannual compilations of the Nuclear Material Safeguards and Security of found no problems. Hence, no corrective actions were needed.

Performance Measure 8.3.3 ▪ Ability to complete corrective actions for reviews in accordance with approved CAPs.

Target 8.3.3.1: B+ = Corrective actions are completed without the need for follow-up actions.

Grade: B+ (3.1)

No corrective actions regarding special nuclear material management were taken in FY07 since no problems with the management of special nuclear materials occurred or were otherwise identified.

Performance Measure 8.3.4 ▪ Employee and Management awareness of their Safeguards responsibilities – responsibilities are defined, and appropriate training commensurate with the level of responsibility has been completed.

Target 8.3.4.1: B+ = DOE/SSO will review training material to verify that material meets objective.

Grade: B+ (3.1)

The SLAC nuclear materials coordinator completed course MCA-101D from the DOE Central Training Academy on 11 Sept 2005. Since then the DOE manual (DOE 470.4-6) has been updated.

Although SLAC rarely receives a change to the special nuclear materials inventory and the inventory is reported adequately, training should be renewed by SLAC and possibly by the DOE/SSO representative in FY08.

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 Personally Identifiable Information (PII).*

The weight of this objective is 20%.

PERFORMANCE SUMMARY

All SLAC staff and users were notified of a new policy concerning PII and asked to read and sign a form that described potential PII, asked them to certify if they are a PII custodian, and provided specific instructions on how to protect PII if they are a custodian. Originals of the signed forms are kept by the HR Department.

SLAC had one instance of a release of sensitive information during this evaluation period. The event was handled quickly and efficiently in cooperation with the San Jose Police Department (and with appropriate notification to the DOE/SSO) and potentially targeted current and former staff and users were notified.

Progress is underway, based on a Cyber-Security POA&M, to transfer records containing personal information into an enclave with enhanced security controls by December, 2007.

Issues identified by a formal Security Test and Evaluation (ST&E) and Stanford University's Internal Audit Application Security Review of SLAC's PeopleSoft (Version 8x) implementation are being aggressively addressed. Many issues have or will be solved by moving information to EPN2 and by the latest version upgrade of PeopleSoft, which was completed in August, 2007.

NOTEWORTHY PRACTICES

The HR Department created a web page to collect information and links about PII to act as a one stop resource for SLAC staff and users. Links include guidelines, policies, classification chart, how to report incidents, as well as individual and work group PII certification forms.

OPPORTUNITIES FOR IMPROVEMENT

Further develop mitigations to prevent release of sensitive contractor information from HR records.

We have a current Cyber-Security POA&M to transfer collections of contractor records containing personal information into an enclave with enhanced security controls that is scheduled to be complete by December 15, 2007.

Complete the move of PII information into EPN2.

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

Target 8.4.1.1: B+ = Events involving protection of sensitive information are reported and mitigated as necessary.

Grade: B+ (3.1)

SLAC had one incident where sensitive contractor information was lost during this evaluation period. On February 9, 2007, SLAC was notified by the San Jose Police Department that a former temporary employee in the HR Department had been arrested for using personal information of a SLAC employee to open a fraudulent credit card account. Once the extent of the exposure was determined, DOE/SSO was notified of the breach during the week of February 12, 2007. Because the temporary employee had access to paper files containing personal information of all current and former SLAC employees, a notification letter was sent to approximately 9,500 current and former employees. These letters were mailed on February 15, 2007. Future mitigating measures may include converting all personnel information to electronic files and evaluating the use of temporary employees in HR.

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+ = Contractor will perform a formal assessment with corrective actions, as necessary, of security systems for the protection of PII by the end of 2nd quarter of FY07.

Grade: B- (2.5)

In the fall of 2006, SLAC mandated[68] every SLAC employee and user complete and sign a PII SLAC Individual Certification form[69] that accomplished two purposes:

1. It served as a survey of who had access to information of a personal financial nature concerning contractor staff and users.
2. It required a commitment by staff to take every reasonable step to protect any such information that they might need for the performance of their job duties.

In addition, the SLAC HR Department—which possesses much of the personal sensitive information on site—reviewed all of the management reports it distributes and purged them of all such information. The HR staff also confirmed that all paper records that retained sensitive information could be securely stored in locked filing cabinets behind locked office doors. SLAC staff was advised to take these same steps. No personal sensitive information is to be retained on the local drive of any computers or on any mobile or portable devices.

SLAC engaged in a formal ST&E of its security systems in July, 2007, and the final report was delivered in late September, 2007. Five of the ten proposed POA&Ms related directly to weaknesses in the networks used to store or process sensitive contractor records. Many of these weak systems were being used only until the conversion to the newer version of the PeopleSoft HR system was completed. The remaining weaknesses will be addressed at high priority and controls put in place to ensure they do not repeat.

In August, 2006, IAS performed a comprehensive Application Security Review of SLAC's PeopleSoft (Version 8x) implementation. When the Laboratory upgraded its PeopleSoft HRIS and Payroll system to version 8.9 in August, 2007, all eight recommendations were acted upon and corrective actions completed to mitigate issues noted. Actions included moving to a newer technology set of protected networks known as EPN2 plus the implementation of more stringent procedures for allowing access to the data, even for automated processes. An effort to move all centrally maintained collections of contractor data with personal sensitive information into EPN2 was launched and it is expected that this project will be completed in CY07.

Although we conceptually met all of the criteria for a B+, we did not do so by the end of the second quarter. As such, a rating of "B-" for this target has been determined.

[68] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/8.4.2.1_pii-hrwebsite.pdf

[69] http://www-group.slac.stanford.edu/oa/selfevaluation/2007/8.4.2.1_gen-0004-PII.pdf

Appendix A Acronyms and Abbreviations

AAAS	American Association for the Advancement of Science
AART	Assessment and Reporting Tool
ADCC	Associated Director's Committee on Computing
AHA	Area Hazard Analysis
AIP	Accelerator Improvement Projects
AP	Accounts Payable
ATLAS	A Toroidal LHC ApparatuS (Particle physics experiment at CERN)
ATO	Authority to Operate
AVP	Associate Vice Provost
BAT	Building Assessment Team
BCP	Baseline Change Proposal
BES	Basic Energy Sciences
BII	Basic Incident Information Database
BIO	Building Inspection Office
BIS	Business Information System
BSC	Balanced Score Card
BSD	Business Services Division
CAP	Corrective Action Plan
CATS	Corrective Action Tracking System
CFO	Chief Financial Officer
CGS	Chemical and General Safety Department
CLOC	Central Lab Office Complex
CMMS	Computerized Maintenance Management System
CMS	Chemical Management Services
COO	Chief Operating Officer
COOP	Continuity of Operations Plan
COR	Change Order Request
CPV	Concentrated Photo-Voltaic
CQI	Continuous Quality Initiatives
CR	Continuing Resolution
CSS	Common Site Support
CY	Calendar Year
DART	Days Away or Restricted Time
DEAR	Department of Energy Acquisition Regulations
DM	Deferred Maintenance
DMR	Deferred Maintenance Reduction
DOE/SSO	DOE SLAC Stanford Site Office
DOE-PMR	DOE Property Management Regulations
DPE	Dual Phase Extraction
DSL	Digital Subscriber Line
EADS	Energy Asset Disposal System
EFCOG	Energy Facility Contractors Group
EM	Environmental Management
EMP	Environmental Management Plan
EMS	Environmental Management System
EOC	Emergency Operations Center
EOESH	Employee Orientation to Environment, Safety and Health
EPIPs	Emergency Preparedness Plan Implementing Procedures
EPP	Emergency Preparedness Plan
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
EXO	Enriched Xenon Observatory
FAR	Federal Acquisition Regulation

FCO	Field Change Order
FFP	Firm Fixed Price
FMD	Facility Manager Deputy
FMD	Facility Manager Deputy
FPMR	Federal Property Management Regulations
FSUST	Feasibility Study
FSUST	Former Solvent Underground Storage Tank
FWP	Field Work Proposals
FY	Fiscal Year
G&A	General and Administrative
GERT	General Employee Radiological Training
GLAST	Gamma-ray Large Area Space Telescope
GPP	General Plan Projects
HMP	Hazardous Materials Program
HR	Human Resources Department
HRIS	Human Resources Information System
IAS	Internal Audit Services, Stanford University
ICPT	Integrated Contractor Purchasing Team
ID/IQ	Indefinite Duration/Indefinite Quantity
IDP	Individual Development Plan
IG	Inspector General
IIA	Internal Independent Assessment
IIPP	Injury and Illness Prevention Plan
ILC	International Linear Collider
IRB	Internal Review Board
ISC	Integrated Support Center
ISEMS	Integrated Safety and Environmental Management System
ISM	Integrated Safety Management
ISO	International Services Office
JDEM	Joint Dark Energy Mission
JHAM	Job Hazard Analysis and Mitigation
JIT	Just in Time
JSA	Job Safety Analysis
KIPAC	Kavli Institute for Particle Astrophysics and Cosmology
LAT	Large Array Telescope
LBNL	Lawrence Berkeley National Laboratory
LCLS	Linac Coherent Light Source
LHC	Large Hadron Collider
LLNL	Lawrence Livermore National Laboratory
LSST	Large Synoptic Survey Telescope
M&O	Management and Operations
McT	McCallum-Turner
MII	Maintenance Investment Index
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NIH	National Institutes of Health
NLCTA	Next Linear Collider Test Accelerator
NNX	No Notice Inspection
NTS	Noncompliance Tracking System
OA	Office of Assurance
OIO	Office of Independent Oversight
OMB	Office of Management and Budget
OU	Operable Unit
PBR	Permit by Rule
PEMP	Performance Evaluation and Measurement Plan
PEP	Project Execution Plan
PEP-II	Upgraded SLAC PEP electron-positron collider

PERT	Procurement Evaluation and Reengineering Team
PERT	Procurement Evaluation Review Team
PII	Personally Identifiable Information
PM	Preventive Maintenance
PNNL	Pacific Northwest National Laboratory
POA&M	Plan of Action and Milestones
POC	Point of Contact
PPA	Particle Physics and Astrophysics Directorate
PPOA	Pollution Prevention Opportunity Assessments
PROAM	Procurement Performance Assessment Model
PS	PeopleSoft
PSA	Plating Shop Area
PSD	Photon Science Directorate
PULSE	Photon Ultrafast Laser Science and Engineering center
PV	Photo-Voltaic
QIP	Quality Implementing Procedure
RAMSY	Radioactive Materials Storage Yard
REP	Radiological Environmental Protection
RPP	Radiation Protection Program
RPT	Rapid Purchasing Technique
RPV	Replacement Plant Value
RWQCB	Regional Water Quality Control Board
SBA	Small Business Administration
SC	Office of Science
SERT	SLAC Emergency Response Team
SID	SLAC Institutional Database
SLAC	Stanford Linear Accelerator Center
SLI	Strategic Laboratory Projects
SNAP	SuperNova Acceleration Probe/Program
SNL	Sandia National Laboratory
SNM	Special Nuclear Material
SOC	Safety Overview Committee
SOMOC	Strategic Operations and Management Oversight Committee
SON	Safety Orientation for Non-SLAC Employees
SORI	Safety and Operational Reliability Improvement
SPC	SLAC Policy Committee
SPEAR	Stanford Positron Electron Accelerating Ring
SPEAR3	Upgrade of the SPEAR ring, synchrotron radiation source at SSRL
SSO	Stanford Site Office
SSRL	Stanford Synchrotron Radiation Laboratory
ST&E	Security Test and Evaluation
SU	Stanford University
SULI	SLAC Undergraduate Laboratory Intern Program
SUV	Sport Utility Vehicle
SWG	Space Working Group
tcmIS	total chemical management Information System
TRC	Total Recordable Cases
TWG	Transition Working Group
UMC	Unmanaged Materials and Chemicals Plan
UTR	University Technical Representative
WBS	Work Breakdown Structure
WFO	Work-For-Others
XLAM	X-ray Laboratory for Advanced Materials