

Fiscal Year 1997

**Annual Performance Evaluation
and Appraisal**

Lawrence Berkeley National Laboratory



Prepared by:

**U.S. Department of Energy
Oakland Operations Office
December 1997**

FY 1997 Annual Performance Appraisal for
Lawrence Berkeley National Laboratory

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Executive Summary

Executive Summary

Introduction

This report, produced by the U. S. Department of Energy (DOE) Oakland Operations Office (DOE OAK), addresses the performance appraisal requirements expressed through Appendix F of contract DE-AC03-76SF00098/M145. Appendix F is the performance-based management system agreed to by DOE and the University of California (the University or UC) to annually measure the University's overall performance of administrative, operational, science and technology/programmatic performance and managerial obligations under the contract.

There may be programs, systems, compliance requirements or observations not covered by Appendix F presented in this report. By management agreement, these additional observations will be limited to items of performance not effectively covered by Appendix F performance measures, but still requiring the attention of the Laboratory Director. These "observations" will not be factored into an overall rating of Laboratory performance under Appendix F.

Performance Period

This appraisal addresses the DOE OAK assessment of operational, administrative, institutional, and programmatic performance of the Lawrence Berkeley National Laboratory (the Laboratory or Lab) from October 1, 1996 through September 30, 1997 (Fiscal Year 1997). Certain performance measures are on a calendar year basis and they are identified in the "Narrative Summary" section of the report.

Appendix F - Objective Standards Of Performance And Contract Requirements

This report provides DOE's Fiscal Year 1997 rating and validation of the University's self-assessment of performance in its management and operation of LBNL for the U.S. Department of Energy under the contract. In this contract, the University and DOE have agreed to use a performance-based management system for Laboratory oversight. Also, the parties agreed to use clear and reasonable, objective performance measures as standards against which the University's overall performance of administrative and/or managerial obligations under the contract will be assessed. DOE and the University also agreed that the University would conduct an ongoing self-assessment process, including, self-assessments done by the Laboratory, as the principal means by which the University would evaluate compliance with the performance measures contained in Appendix F.

DOE OAK, for its part, conducts a validation effort against the University's self-assessment, and evaluates and rates the University's performance. The validation effort is conducted by teams responsible for the various functional areas represented in Appendix F. These teams, with guidance from DOE OAK management, are responsible for developing an adequate, independent basis for assessing the quality, credibility, and accuracy of the University's self-assessment, and a basis for DOE OAK's rating of the University's performance.

This report fulfills the requirements of the contract (Appendix F), and specifically supports and meets the following contract requirements:

- Provide a summary of the results from the conduct of the DOE OAK validation program and evaluation of performance of work under this contract, as required by Article VI, Clause 6.
- Provide a written assessment of the University's performance under the contract based upon the DOE OAK appraisal program and the Contracting Officer's evaluation of the University's self-assessment, as required by Article VI, Clause 6.
- Provide the basis for and a determination of the Executive Program Salary Increase Authorization (SIA) Multiplier, as required by paragraph III, F, 6 of Appendix A and Section B, part II of Appendix F.

Observations not covered by Appendix F

Laboratory Management

Because the report is completed prior to the FY 97 budget closeout, LBNL was not able to provide overall productivity metrics, i.e., MacLachlan metrics, for FY 97. However, since the FY 96 assessment, the Laboratory has finalized metrics for FY 96 and reported them to Headquarters. The ratios show a continuing positive trend in all areas. The Laboratory's effort to analyze and control overhead costs would be expected to continue to positively affect these metrics. The magnitude and the effort for calculating these metrics currently makes it difficult to track and trend performance throughout the year, thus obviating their effectiveness in driving performance improvement. The Laboratory and DOE need to work together to identify useful and cost effective productivity metrics for FY 98.

Environment Safety and Health

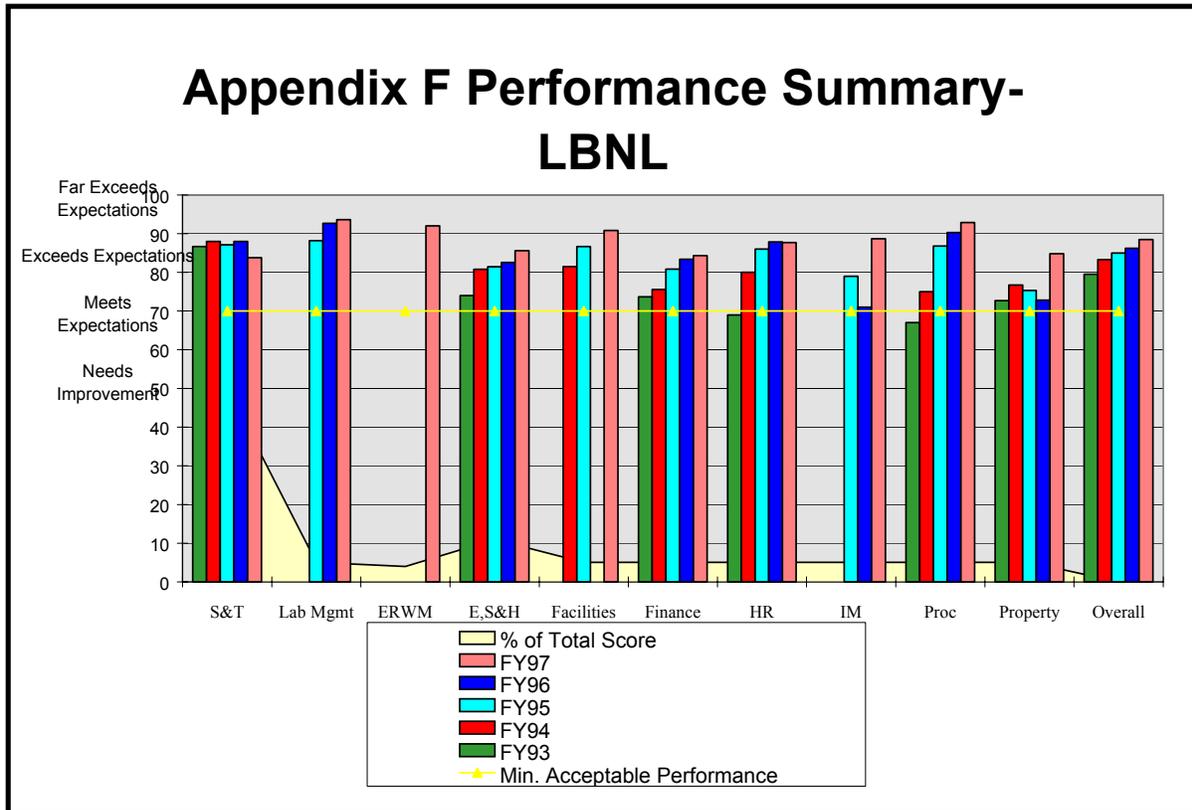
During the FY97 ES&H Annual Appraisal, a review of the processes to improve training was conducted. Although good processes were noted in identifying the work needed to improve training, the processes used to perform the work were not as effective. The portions of the work that would provide improvement and would monitor the quality and effectiveness of training have not been completed. Because of these observations noted in the training improvement system, it is unknown whether training needs are being adequately addressed and there is uncertainty that proficiency and skills are being obtained in order to do work safely.

Human Resources

LBNL successfully negotiated with HRMD, a Memorandum of Understanding (MOU) for the FY1998 Equal Opportunity (EO) Objective which includes a mutually acceptable definition of "assessment period" and specific timing of deliverables, i.e., the results oriented plan for high priority areas. For FY 1998, LBNL did not provide a results oriented plan at the beginning of the assessment period as required under the EO objective. The successful development of the MOU for FY 1998, one of the products of the partnering efforts between LBNL's HR staff and HRMD, is expected to result in the identification of high priority areas and the development of a timely results oriented plan for FY 1998.

FY 1997 Appraisal Results in Brief

A. Overall Results



DOE rates the overall performance of LBNL as **EXCEEDS EXPECTATIONS** for FY 1997.

B. Administration and Operations

Laboratory Management

In the area of overall Laboratory management, LBNL provides outstanding leadership in its efforts to communicate vision, values and objectives and in providing strategic direction.

The Laboratory has continued to enhance the quality of communication with DOE at both the field and headquarters level, has improved its internal communication systems and has, despite significant challenges, effectively focused on community concerns. The Laboratory has been consistently recognized for fostering an effective partnership with DOE. LBNL continues to excel in strategic and institutional planning, effectively communicates the importance of planning and of integrated planning throughout the organization and has been especially effective in integrating its planning efforts with the overall strategic plans and direction of the Department. The Laboratory strives in its strategic decision making to look beyond its own institutional benefit to its role within the DOE system of laboratories and programs.

LBNL's cost management performance continues to be notable. The Laboratory has an effective system for prioritizing programmatic administrative and operational support costs which enables it to make sound decisions regarding expenditures. LBNL continues to promote a culture of effective cost management with a goal of delivering world class research while keeping support costs as low as reasonably possible and continuing to provide for short and long term institutional needs.

The Laboratory's systems for managing commitments continues to perform effectively. The Comprehensive Planning Calendar assures that major requirements are met. The various tracking systems are fairly mature and provide management with information to enable sound decisions regarding resources and scheduling. Major commitments are met in a timely manner. There are some instances of disagreement with DOE regarding completion and timeliness of some corrective actions tracked; none of these instances has a major impact on safety, cost or programmatic performance.

Environment Restoration and Waste Management

Environmental Restoration

In FY 1997 the LBNL Environmental Restoration Program (ERP) continued to demonstrate a high level of commitment to project/program performance. The Laboratory measures its performance of projects/programs against schedule and cost baselines. The ERP program had a positive Cost Variance of > 10% and a positive Schedule Variance of > 5%, which indicates the project is ahead of the baseline schedule and below the baseline cost. This performance would have achieved an adjectival rating of Far Exceeds Expectations, however when the ER results were combined with the performance of the Waste Management Program, the adjectival rating for Criteria 1.4 was Exceeds Expectations.

The ER Program also continued to develop innovative solutions to advance the Environmental Management Program. Four points were achieved for the use of innovative technology by the ER Program. These technologies included use of cryogenic drilling (1 point), the cone penetrometer technique for soil sampling (1 point), and the use of a collection trench for control and removal of the main source of groundwater contamination at LBNL(2 points). Two points were awarded for the collection trench because the idea was developed at LBNL and used at LBNL.

LBNL maintained an aggressive approach toward completing release sites. Seventeen sites were approved for "no further action" status in FY 97. In an effort to reflect the current character of the environmental restoration program, Performance Criterion 1.3 is being revised. The new performance criterion will continue to reflect EM's commitment of completing restoration activities in the shortest duration of time.

Waste Management

LBNL Waste Management has streamlined the program to maximize the use of EM funds for the safe and proper disposal of waste. LBNL also successfully shipped mixed waste, low-level waste, and hazardous waste while transitioning operations to the new facility. LBNL has performed well in executing the approved technical scope of their Baseline in accordance with the work schedule and approved budget. In addition, WM worked within the EM-30 Baseline Change Proposal process to secure additional funds for agreed upon scope.

Environment Safety and Health

The overall 1997 ES&H Performance Rating for LBNL is Exceeds Expectation. An active and effective leadership role in developing two of the new DOE initiatives has served to prepare the Laboratory to be ready to implement Integrated Safety Management. These initiatives are Work Smart Standards, and the ES&H Line Oversight Pilot. The Laboratory's contributions in these efforts have been recognized DOE-wide. During the performance period a continuing trend of overall improvement is noted. This trend was achieved with fewer resources.

Performance exceeds expectations in all objectives, except in Integration and Accountability. In general, the Laboratory's performance indicates that work is done safely, and management has been effective in identifying and controlling the hazards. In the area of Integration and Accountability there are opportunities for improvement. The calculated performance at the measures level is a meets expectation. However, DOE has factored in observations made during operational awareness to rate overall performance of the objective at the criteria level. The four measures were adequate to measure all of the performance expectations for Integration and Accountability. Operational awareness observations provided additional information which needed to be considered to accurately assess performance. Operational awareness indicated serious managerial issues associated with two of the occurrences during the period (the phosphorus 32 incident and the reconciling of the inventory of sealed sources), and difficulties in meeting the gradients of two of the other performances measures. The Laboratory successfully met the expectations in the new Risk Management performance measures. It was successful in meeting the criteria for external and internal customer satisfaction.

However, the Laboratory faces continuing challenges with external customer satisfaction, and a well planned strategy is needed for ongoing success.

Based on evaluations, the successes and opportunities for improvement are as follows:

Successes

Radiation Protection of the Worker-There continues to be a downward trend, and doses are well below the regulatory limits and internal controls as a result of effective management;

Radiation Protection of the Public-There continues to be a downward trend, and doses are well below the regulatory limits and internal controls as a result of effective management.

Radiological Prevention-The fact that there was one incident of clothing contamination met the expectations of the measure. However, additional incidents just outside of the performance period indicates that continuous management attention to this area is warranted.

Chemical Exposure and Prevention-The reduction in the number of exposures above acceptable limits indicates a well documented and managed risk-based approach to controlling and assessing exposures.

Accident Prevention - The accident and injury statistics for the three measured accident and injury types were reduced; however, there was one imminent danger accident during the performance period.

Medical and Safety Health Integration-The laboratory has a well integrated program in this area, and has played a lead role in identifying improvement processes to enhance programs at all three Labs.

Waste Reduction and Recycling-The Laboratory has made noteworthy reductions in the four waste streams chosen, and it is expected that the Laboratory will meet the Secretary's year 2000 goals.

Pollution Prevention-The Laboratory has made excellent progress in its pollution prevention projects, reduction of mixed waste, and three Return on Investment Projects are considered noteworthy.

Tracking and Trending of Environmental Finding and Violations-The Laboratory continues to be a good steward of the environment as evidenced by only one violation, and its compliance with the environmental laws and requirements.

Tracking and Trending of Environmental Releases-The environmental releases at the Laboratory continue to remain low. The one release this year is not considered indicative of an upward trend rather it is considered to be a one time event. A proactive management strategy is in place.

Occupational Safety and Health- The accident injury statistics are lower than the previous performance period, and the downward trend is result of management proactive efforts. There is one imminent danger incident by a subcontract factored into the rating

Corrective Actions-Corrective Actions associated with Occurrence Reporting have been completed on schedule. Timeliness of categorization times was worse for CY96, but improved significantly during CY97.

Emergency Preparedness- The Laboratory has a fully functional emergency response capability. All the expectations of the measure were met.

Hazards Analysis-The Laboratory's hazard analysis processes were found to be effective, and no violations operational safety requirements were found during the Integrated Functional Appraisals.

Internal /External Customer Focus-The Laboratory has played a leadership role in development and support of DOE new initiatives. It continues to address issues concerning the environment raised by external customers. This challenge continues, and will require a well planned strategy to resolve issues.

Opportunities for Improvement

Integration and Accountability- Overall the Laboratory needs to improve efforts to ensure that managers of Laboratory project/programs are knowledgeable of their ES&H responsibilities and properly plan and execute projects/programs with due regard to ES&H issues. There were some events during the period that raised concern about how well these responsibilities are discharged. These included the problems related to the control of sealed sources and the phosphorus 32 incident which demonstrated failure to plan and execute research consistent with Laboratory policy and guidance.

Integrated Self-Assessment Program- The four identified divisions for this measure completed all of the planned appraisals except one. However, the completion rate of the corrective actions for deficiencies found was low and needs improvement.

Institutional ES&H Training-Not all of the expectations for this measure were met, and training completion continues to be an issue.

Facilities Management

The FY 1997 assessment of Facilities Management is 'Far Exceeds' (90.8%), with three objectives (Real Property, Comprehensive Planning and Utilities/Energy Management) rated 'Far Exceeds' and two objectives (Project Management and Maintenance Management) rated 'Exceeds'. LBNL's performance is noted for its continuing high level of achievement across all areas of Facilities Management and a remarkable absence of any significant deficiencies. FY 1997 Facilities Management plans and schedules created at the start of the Fiscal Year were comprehensive, well coordinated with DOE-OAK and accomplished without deviations.

Financial Management

LBNL's overall Financial Management rating is "exceeds expectations." The point score is slightly higher than last year's rating. LBNL received a lower rating on objective one, primarily attributed to the trial-use of Baldrige criteria and scoring. LBNL earned higher point ratings in the remaining two objectives. Compared to last year (latter two objectives), the Lab rated equally in two measures and higher in ten others. LBNL measure ratings reflect incremental improvements in every area and significant improvement in several. A summary by performance objective is as follows:

Customer Focus & Satisfaction. LBNL's Financial Management customer focus and satisfaction meets expectations. Prior year performance elements were consolidated into this objective and evaluated with Malcolm Baldrige Quality Award techniques. Scoring was by Team consensus; the Team composed of DOE, LBNL and UC representatives. Team conclusions and recommendations are described within. Baldrige scoring criteria consider approach, deployment, and results. Considerable objective evidence of results is required and consequently scores tend toward more conservative levels. The Baldrige approach and criteria were applied to this single objective on a trial-basis this year, therefore, general comparisons with prior years are not equivalent.

Operational Effectiveness. LBNL's performance is rated far exceeds. Annual Budget submission and supplements were submitted early or on-time and the Lab achieved cost and cycle time improvements through proactive budget planning and technology enhancements. Periodic and special reports were responsive and timely. The CFO submitted a well organized financial management systems plan. Major effort was devoted to tactical planning and start up of the Lab's new financial management system in FY98. During the year, the Lab replaced three financial subsystems, enhanced several others, and integrated two web-based information links. Finance surpassed all cost targets and achieved trend or incremental improvements in all cost/cycle time areas; beat target in six, reduced trend in two, met target in two, met or slightly exceeded standard in two. LBNL deployed work force effectiveness strategies including: functional reorganizations and mergers, initiation of special purpose teams, training, lab-wide communication and incentive programs. Results and outcomes of these initiatives are not yet determined.

Financial Stewardship and Integrity. LBNL's performance exceeds expectations. Costs and commitments are controlled according to expectations and no reportable violations occurred. Principal processes rely upon coordination, communication and monthly reporting. Control of funds is similarly managed. The new financial system will offer opportunity for enhanced funds control through on-line access and monitoring. LBNL has successfully maintained low imprest fund levels and LOC bank balances. The Lab set up an improved inventory tracking system and converted precious metals inventories as required by DOE. It has taken steps to aid DOE in complying with 1996 Debt Collection Act. Construction Work-In-Process accounts need closer monitoring and control.

Internal control and compliance assessments show LBNL takes prompt and aggressive action to correct deficiencies. The Lab's assessments of three of the four reviewed areas this year are satisfactory; we recommend further action on one, and additional evaluation and documentation is suggested on another. A Risk Assessment system was started late this year; results and outcomes are anticipated in FY98. LBNL conforms with Cost Accounting Standards (CAS) reporting requirements, has increased awareness of requirements, and substantially improved CAS coordination and communication with DOE. We suggest some testing and further support documentation of financial practices. It met all DOE Functional Cost information needs. LBNL prepared plans and schedules for

meeting Financial Statement requirements and deadlines. It completed special asset write downs and quickly assisted DOE in meeting last-minute Managerial Cost distributions. However, it did not adequately test important certifications made to DOE, both in 1996 and 1997, which are critical elements of Government Management Reform Act (GMRA) and Audited Financials.

Human Resources

Institutionally, effective human resources management is recognized as an important element to the success of the Laboratory's programmatic initiatives. Thus, one of the most important challenges for the Laboratory's Human Resources Department during FY 1997 was to determine how to improve upon value added support to the Laboratory's research missions. There are references throughout the Laboratory's self-assessment report with regard to finding ways to anticipate customers' needs and the identification of impediments to achieving expected deliverables. The HR Department utilized various mechanisms to gather customer input designed to improve responsiveness to customer requirements, expectations and preferences. Through the use of these feedback mechanisms, the HR Department's systems/processes are being shaped to provide for better focus on cost effectiveness, customer needs and alignment with the Laboratory's mission/business strategy. LBNL-HR focus and commitment during FY 1997, with regard to system and process improvements in the HR area, should ensure continued performance above expectations over the long term.

LBNL continues to focus on cost effective salary administration. The Laboratory has moved forward most effectively in reviewing and improving its job classifications and adhering to salary administrative guidelines.. However, there was a decline in the number and percentage of classifications which met market comparison targets. The Laboratory's response to the new criterion Review and Evaluation of HR Systems and Processes far exceeded expectations during FY 1997.

For FY 1996, LBNL received a performance rating for Equal Opportunity (EO) of Meets Expectations above midpoint. For FY 1997, the Laboratory's performance resulted in a rating of Meets Expectations below midpoint. The FY 1996 assessment revealed substantial deficiencies in the Laboratory's performance related to placement of African Americans. The Laboratory's performance with regard to the placement of African Americans continues to reflect substantial deficiencies for the FY 1997 rating period. Substantial deficiencies with regard to Hispanic Americans is also a significant concern. In the aggregate, LBNL's efforts in the EO area resulted in slight progress in the representation of minorities and women.

Although LBNL's FY 1997 self-assessment report referenced high priority areas for the EO performance objective, the Laboratory did not provide a results oriented plan at the beginning of the assessment period. Year end data; i.e., candidate pools, interviews, placements, attrition and assessment of performance with regard to each selected high priority area, was not made available.

Information Management

The Laboratory earned an exceeds rating for FY1997. Information Management is managed as a corporate resource, and the IM organizations do an excellent job in supporting the Laboratory mission.

The Laboratory did an excellent job in its Information Management Planning. Planning was integrated with the Laboratory's institutional planning and supports both the Scientific mission and the Business and Administrative mission. Information Management activities were defined and prioritized, with focus on the 'vital few' projects. Extensive customer involvement was obtained. The planning resulted in substantial improvements.

The Laboratory has done an excellent job in the performance of its self assessment activities, which have identified opportunities for improvement and have resulted in significant added capability and reduced operating costs. Self assessment activities are integrated into the management processes. Customer feedback has been aggressively pursued.

In the area of customer satisfaction, the Laboratory exceeded expectations. Customer input was pursued diligently through the use of customer satisfaction surveys, just-in-time evaluations, surveys through email, service level metrics, and periodic surveys on particular topics. Inclusion of customers in the planning and self assessment activities also had beneficial effects of focusing on activities of interest to the customers. The results of survey activities indicates general satisfaction with IM products and services.

The Laboratory far exceeded expectations in demonstrating measurable improvements in the form of new systems and products with added capabilities. In addition these activities resulted in cost avoidance of over \$2 million. Most of these cost avoidances are recurring and thus will accrue in future years as well.

Procurement

Lawrence Berkeley National Laboratory (LBNL) achieves an overall rating of Far Exceeds Expectations at 92.9% in the Procurement operation. This is a significant improvement in all objective areas from the FY 96 Far Exceeds Expectations rating at 90.3%. The efforts throughout the year results in Far Exceeds Expectations in five performance measures and Exceeds Expectation in one performance measure. Contributors to this success are the excellent partnering and communicating with DOE and the University of California representatives, proposing and negotiating goals and gradients, implementing streamlined and cost efficient processes to reduce cost of operations, pursuing improvement with the various customers concerns, improving on-time delivery of goods and services, and meeting socioeconomic commitments. In addition, the annual self-assessment document is well written and provides the necessary details for an evaluation. The summary by performance objective is as follows:

Management of Procurement Business Requirements: LBNL Procurement has a well documented, reliable, creditable, and in-depth review process for self-assessing the health of the purchasing system. The Procurement Manager exhibits strong leadership and is instrumental in implementing the necessary remedial actions to deficiencies found during the reviews.

Procurement System Cost Effectiveness: The Procurement Department continues to streamline and improve processes to achieve cost effectiveness and operate at optimum efficiency levels. The most

notable achievements for FY 97 are in cycle-time reduction, cost as a percentage of revenue, competition, and increased credit card usage.

Customer Satisfaction: Working customer needs showed improvement in the customer categories of Procurement Personnel, Vendors, and Requesters for the specific issues selected and focused on for improvement. The overall survey scores for the customers categories of DOE, Procurement Personnel, Vendors, and Requesters indicated that the most improved was with DOE and Procurement Personnel. Vendors and Requesters scores declined very slightly indicating continuing attention is needed in satisfying the main concern of a better understanding of the procurement process.

Professional and Social Responsibility: The success of the pilot Supplier Management Program is an excellent beginning to the laboratory-wide goal of 90% or better for FY 98 on-time deliveries. Procurement continues to excel in the small business achievements surpassing all four goals established. There is a need to focus on taking more risk in establishing goals and improving the forecasting methodology.

Property Management

Lawrence Berkeley Laboratory's Property Management Program, measured against the objective standards in Appendix F, earned the Laboratory a rating of Exceeds Expectations at 84.8 percent for Fiscal Year 1997.

The "Exceeds" range for performance is found in the 80-89 percentiles. The Laboratory's rating of 84.8 percent represents a marked improvement over the last four years which saw the facility trend at the low to mid level of the Meets range of 70-79.

Improved find rates in the heavily weighted cornerstone areas of sensitive and controlled property inventories paved the way for the overall improvement in the Property Management rating. Continued success in the walk-through program and subcontractor close-outs, at the far exceeds level, and new found success in vehicle utilization complement the inventory program.

Notwithstanding the improvements noted, there remains fundamental concerns about the basic fabric of the Laboratory's Property Management Program. In the area of data accuracy, custodial assignment continues for the third consecutive year to present concerns. In the area of vehicle management, where success in meeting new utilization standards was noted, there are concerns as to the integrity of vehicle database, as evidenced by such inaccuracies as the discrepancy in the number of vehicles reported.

In the inventory process, a statistical sampling methodology failed to produce cost savings by significantly reducing process time. Such a result, especially in a decentralized property environment, brings into question the degree of organizational support for property in the conduct of its cornerstone activity, the inventory of Government property.

The lack of priority placed on the acquisition and installation of a modern support data base, when internal and external customers have uniformly and repeatedly criticized the existing system, is delaying the maturing of the Laboratory's decentralized property system. This is particularly

disconcerting when an apparent state of the art system is being made available license and maintenance free to the Lawrence Berkeley National Laboratory.

The Laboratory deserves recognition for moving from the Meets to the Exceeds level of performance and specifically for achieving much improved results in the critical area of inventory. Such recognition is somewhat diluted by the lingering concerns over whether the Laboratory, as a whole, fully embraces its responsibility for Property Management. At the heart of our concerns is the execution of an inventory process in a manner that simply does not reflect a commitment to “strict individual and organizational accountability.”

C. Science and Technology

The programmatic assessment of the Laboratory is based upon the LBNL self-assessment and peer review of science and technology and the UC overlay, and is validated by DOE HQ program managers and their OAK counterparts. The assessment of performance for research programs is comprised of a combined evaluation of the following programs: Biomedical and Environmental Research, Basic Energy Sciences, Scientific Computing, Nuclear Physics, High Energy Physics, Fusion Energy Sciences and Energy Efficiency & Renewable Energy.

The overall rating of these programs is **EXCELLENT** for FY 1997.

Institutional Level Assessment

The LBNL Institutional Level Assessment addresses the Laboratory's mission and vision, its core competencies, its organizational structure and the range of divisional activities, the research climate at LBNL, and planning for and investing in the future.

The Laboratory continues to excel in the area of strategic planning and demonstrates a strong commitment to the process to ensure LBNL's viability in the future. The lab's clearly articulated mission statement supports the DOE mission and is in line with the DOE strategic plan.

LBNL's management of the institutional programs Laboratory Directed Research and Development (LDRD) and Work For Others (WFO) programs continues to demonstrate the Lab's commitment to investing in research to keep the laboratory on the cutting edge in science and technology. The lab makes positive use of its close proximity to the UC Berkeley campus through interactions and collaborations with the intellectual resources of the campus.

As agreed to with UC and LBNL, the institutional-level assessment is not used as part of the formal Appendix F rating, nor is it used in the overall calculations for determining the Laboratory's point score. DOE rates the LBNL institutional performance as **EXCELLENT**.

Biomedical and Environment Research

Life Sciences related research activities at LBNL include seven research program areas: gene expression and gene mapping; structural biology; nuclear medicine and functional imaging; carcinogenesis; mutagenesis and radiation biology; environmental and health-effects research; and measurement technology. Peer reviews in the last year included the lab's Center for Functional Imaging, and molecular cytogenetics and lipoprotein groups. The review committees voiced strong support for the work being performed in these two centers, and cited the Cytogenetics Group as, "an outstanding group of investigators who are clearly international leaders".

The Lab's Life Sciences Division has a strong publications record and extramural support, and has established excellent collaborations with investigators at other institutions and industry. In FY97, LBNL's Life Sciences Division continued its march to world excellence in biological research and medical applications.

Overall rating is **EXCELLENT** for FY 1997.

Basic Energy Sciences

The Basic Energy Sciences (BES) program within the Office of Energy Research oversees the operation of many of large, state-of-the-art basic research facilities sponsoring federal and private research. The BES divisional areas reviewed at LBNL were: Materials Sciences, Chemical Sciences, and Geosciences. Also included in the review was the area of Accelerator and Fusion Research Division (AFRD) at LBNL; namely the Advanced Light Source (ALS) Facility. The quality of science in the Material Sciences area is outstanding for all aspects of this program. Major contributions are being made to DOE missions. The National Center for Electron Microscopy continues to be an outstanding national user facility resource. The Chemical Sciences program remains of very high quality. There has been an initial effort to better integrate this program with the technology program needs in the Office of Fossil Energy and the Office of Energy Efficiency and Renewable Energy. The Geosciences program continues their tradition of excellence with significant contributions. This program has been recognized for its impacts on DOE technology programs, especially in Fossil Energy and Environmental Management. The aforementioned programs have performed excellent to outstanding in accordance with the criteria outlined; however, the ALS performance under the AFRD program significantly affected the overall rating for BES. The ALS performance is only judged as good in comparison to the outstanding performance of the three other synchrotron radiation light sources in DOE. This rating is based on the recent findings of a major BES Advisory Committee review which reported that the quantity and quality of research emanating from the ALS was significantly less than what was envisioned. In response to the report findings, current ALS activities are aggressively seeking out new and scientific opportunities and exploring new endeavors with the user community.

The overall FY97 performance rating for LBNL in support of BES programs is **GOOD**.

Scientific Computing

The Computing Sciences organization at LBNL provides an extensive range of computing services and capabilities, from supporting desktop computer systems at the Laboratory to operating national research facilities. LBNL is home to the National Energy Research Scientific Computing Center (NERSC), which is the primary high end scientific production computing center for ER researchers who rely on it for the success of much of the work ER funds. The Energy Sciences Network (Esnet), which is a nationwide data communications network managed and funded by DOE to support multiple-program open scientific research, is also located at LBNL.

In the past year NESC has expanded the scope of its consulting with Energy Research (ER) users and its leadership in advocating computational science. The Laboratory continues to provide strong leadership in the area of Computing Sciences.

The overall rating for Scientific Computing is **OUTSTANDING**.

Nuclear Physics

In general, the research efforts of the Nuclear Science Division is considered first-rate. Individual programs are performing primarily in the excellent to outstanding range, with most of the major programs in the upper part of this range.

The Nuclear Science Division scientific efforts were very successful in FY 1997. The relativistic nuclear collisions program is considered world-class research where performance has been “truly outstanding”. Especially notable were the success of the EOS program at Brookhaven’s AGS and the “passing of critical milestones in the construction and testing of the community’s flagship experiment, STAR, at RHIC.”

The operation of the 88-inch Cyclotron and the research carried out in connection with it was also excellent. The Gammasphere project is rated an outstanding success .

The only significant misgivings were expressed in regard to the heavy-element program, which has not been competitive in recent years with the group at GSI (in Germany). Continued vitality of the radiochemistry group depends on making a UC Berkeley faculty appointment in the near future.

It has been stressed to the Division that it needs productive collaborative ties with the Physics Division. Several recommendations were made to achieve this.

Overall the rating for Nuclear Physics is **EXCELLENT**.

High Energy Physics

The high energy physics research and accelerator development programs at LBNL are under the leadership of the Director of the Accelerator and Fusion Research Division (AFRD) and the Director of the Physics Division (PD). The major areas of research are: the Collider Detector Facility (CDF) and D-Zero programs at Fermilab; the B-factory program at the Stanford Linear Accelerator Center; participation in CERN's Large Hadron Collider program; work in theoretical high energy physics and accelerator physics; compilation of high energy data and science education by the Particle Data Group (PDG); astrophysics relevant to high energy physics; detector research and development; and advanced accelerator and superconducting magnet R&D.

The LBNL High Energy Physics program is rated as excellent. This rating is based on the high quality of LBNL's scientific and technical staff, their excellent research facilities, and their contributions to high energy physics research described in evaluation criteria 1, Quality of Science. LBNL continues to be at the forefront of high energy physics by maintaining leadership roles in several of the most important areas of research.

The overall rating for High Energy Physics is **EXCELLENT**.

Fusion Energy Sciences

The Fusion Energy Research (FER) Group within AFRD is the national leader for the development of heavy ion accelerator drivers for Inertial Fusion Energy (IFE) application. Past studies have repeatedly identified heavy ions as perhaps the most promising approach to energy production from inertial confinement fusion, due in large part to the mature technology base and inherent beam pulse repetition rate, efficiency, and reliability of accelerators. The key scientific issues being pursued by the group are centered around the generation, acceleration, manipulation, and control of high current, low emittance, space-charge-dominated heavy ion beams. The group also pursues enabling technology development and cost reduction of ferromagnetic and insulation material for accelerator cores and small-scale experiments to study engineering issues associated with IFE reactors (e.g., target injection and tracking, fluid flows for target chamber wall protection and heat energy removal). The group has close, synergistic collaborations with LLNL and with related work at NRL and several universities.

The overall rating for Fusion is **OUTSTANDING**.

Energy Efficiency and Renewable Energy

The former Energy & Environment Division was renamed and reorganized in mid-FY97 to reflect a new focus on energy technologies that reduce environmental impacts. Concurrently, a new Division Director was appointed. The scope of Environmental Energy Technologies Division (EET) is ~\$35M/year: just over half from DOE/Energy Efficiency and Renewable (EERE), nearly one-third from WFO sponsors, and the balance from several other DOE programs. EET is comprised of five research programs: Energy Analysis, Building Technologies, Energy Conversion and Storage, Indoor Environment, and Environmental Research. Additionally, the division houses two interdisciplinary Coordinating Centers (the Center for Building Science and the Berkeley Electrochemical Research Center), a UC Research Unit (the California Institute for Energy Efficiency), and maintains a small project office in Washington DC primarily supporting the Federal Energy Management Program and industry Motor Challenges Program in FY97.

Buildings (HVAC systems, internal equipment and appliances) currently use ~36% of the primary energy in the U.S. and two-thirds of the nation's electricity. There are interrelationships and trade-offs between the efficiency of building systems, building materials and design, and the quality of the indoor environment. LBNL/EET is a national center-of-excellence in Building Science and Technology, and interdisciplinary integration is a key component of their work. Some key building R&D areas aimed at increasing both energy efficiency and occupant health and comfort include: building design software tools, energy performance simulation, advanced lighting and fixtures, advanced windows and glazings, advanced materials applications, ventilation systems and indoor air quality, intelligent control systems, heat island mitigation strategies, appliance standards, various supporting analyses, et al.

This past year EET's broad Energy and Policy Analysis expertise was tapped for key contributions to several nationally prominent studies, including: the PCAST Report on "Federal Energy R&D for the

Challenges of the 21st Century," the Administration's development of electric utility restructuring legislation, and two inter-laboratory working groups providing input to U.S. policy makers concerning strategies for addressing global climate change - "Scenarios of U.S. Carbon Reductions: Potential Impacts of Energy Efficient and Low-Carbon Technologies by 2010 and Beyond" ("5-Lab" study), and "Technology Opportunities to Reduce U.S. Greenhouse Gas Emissions" ("11-Lab" study). Additionally, EET is prominent for its international energy and global environment analysis work, particularly related to China, which is now the world's second largest user of energy after the U.S. and growing rapidly.

The overall FY97 performance rating for EET is **Excellent**.

Conclusions and Recommendations

Laboratory Management

Laboratory Management performance continues to far exceed expectations.

Environment Restoration and Waste Management

In an effort to reflect the current character of the environmental restoration program, Performance Criterion 1.3 is being revised. The new performance criterion will continue to reflect EM's commitment of completing restoration activities in the shortest duration of time.

Environment, Safety and Health

Continuous improvement has been demonstrated in the 1997 ES&H performance. The Laboratory has reached a higher level of excellence and indicated in an overall score of 85.6. More effort is needed in Integration and Accountability to assure that workers are well trained and that safety is integrated in planning and performing the work.

Facilities Management

Facilities Management at LBNL is thriving under performance-based management, largely due to skilled managers and staff, a 'best in class' culture evident throughout the Facilities Management organization and their proactive approach to partnering with their DOE counterparts. As DOE implements the Life Cycle Asset Management (LCAM) Order (430.1), LBNL achieves recognition as a model organization for facilities management which DOE can use as an example of LCAM's success.

Financial Management

LBNL's overall performance is "exceeds expectations" and the percentage score is slightly higher than last year's rating. LBNL received a lower rating on objective one, primarily attributed to the trial-use of Baldrige criteria and scoring. LBNL earned higher point ratings in the remaining two objectives. For example, LBNL replaced or enhanced several financial sub-systems and broke ground on a new financial management system. The laboratory also achieved cost and cycle time improvements through better budget planning and technology enhancements. It surpassed the majority of operational efficiency targets and made substantial improvement in CAS disclosure and requirements. It is recommended that the laboratory place more emphasis on CAS compliance testing and validation and

construction work-in-process accounts. LBNL must improve reliability and factual accuracy of financial representations.

Human Resources

For FY 1997, the Laboratory was significantly focused and committed to the establishment of HR systems/processes designed to address cost effectiveness, customer needs and alignment of HR activities with the Laboratory's mission/business strategy.

It is recommended that for the FY 1998 Equal Opportunity Objective, Laboratory selection of high priority areas, development and implementation of a results oriented plan, and the subsequent performance assessment reflect evidence of senior management involvement.

Information Management

The Laboratory is managing information as a corporate resource to improve the quality of its products and services. IM is supporting the needs of the scientific mission. IM activities are resulting in excellent customer satisfaction and substantial cost savings.

IMD recommends that the Laboratory integrate its planning, self assessment and performance measurement into a coherent management system. In planning, the Laboratory should continue to improve cross-cutting organizational planning. In performance measurement, the Laboratory should continue to improve its performance measurement systems to ensure it is operating effectively and meeting customer needs.

Administration & Operations

Performance Area: LABORATORY MANAGEMENT

Performance Objective: #1 Leadership Communication and Planning

To support the Laboratory's mission, Laboratory leadership establishes and reinforces expectations for values and effective strategic planning and has systems in place to foster customer focus, communication and trust. **(Weight = 50%)**

Performance Criteria: 1.1 Leadership Communication

Laboratory leadership provides effective direction by stating the vision, goals and priorities, behaviors and values to be used to accomplish its operational and administrative-objectives. The Laboratory listens and responds to its internal and external customers and stakeholders in a fair and open process that encourages dialogue and participation. **(Weight = 30%)**

Performance Measure: 1.1.a Leadership Direction

The Laboratory demonstrates effective systems for identifying its customers and stakeholders to ensure that their concerns are considered in the Laboratory's decision making and planning process and that vision, goals, priorities, expected behaviors, and values are established and communicated throughout the Laboratory and to the appropriate stakeholders and customers. **(Weight = 30%)**

Performance Assumptions:

Measurement Deliverable:

Narrative description of the Laboratory's process/system(s) used to:

1. effectively develop and communicate direction for accomplishing its operational and administrative objectives
2. that identifies customers and stakeholders to ensure that their customers and stakeholders concerns are considered in the Laboratory's leadership decision-making and planning process(es).

Performance Gradient:

Meets Expectation:

Demonstrated effective deployment in a systematic approach which addresses each element of the measure in a consistent and clear manner. The elements are:

Identification of Stakeholders and Customers

- identifies (internal and external) customers and stakeholders
- establishes a process(es) that considers customers and stakeholders concerns into the Laboratory's leadership decision-making

<p>Performance Gradient: (1.1.a continued)</p> <p>process and planning process (e.g. public information/affairs, community and educational outreach, etc.).</p> <p>Communication to the Laboratory and other appropriate audiences</p> <ul style="list-style-type: none"> - Vision/Goals - Prioritization efforts - Expected behaviors/values <p><u>Exceeds and Far Exceeds factors to be considered:</u></p> <ul style="list-style-type: none"> - Evidence of effective deployment and results for achieving a fair and open process that encourages two-way communication with employees, customers and stakeholders and which ensures that concerns are considered in the Laboratory's decision-making and planning processes and - Results of the effectiveness of these efforts
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Performance Narrative:

LBNL continued to improve its efforts to enhance communication with stakeholders during the FY 97 period. Communications were enhanced with DOE Secretary Federico Peña, ER Director Martha Krebs and with James Turner, Manager of the Oakland Operations Office. During 1997 the Lab addressed key DOE and constituency issues, adding, for instance, a number of new efforts in the area of community relations. Community communications was seen as an area of specific challenge. The Lab's Community Relations Advisory Committee stepped up its efforts to address expressed concerns and the Lab hired an expert consultant to identify and characterize these concerns. During the period, Berkeley Lab initiated recruiting efforts for a full-time Community Relations Coordinator, and an additional response to community concerns was the formation of the Tritium Issues Working Group, which the Lab funded with \$100,000 to use for an on- and off-site sampling and measurement program. Other community-related activities included the completion of an automatic response mutual emergency aid agreement; an agreement with The City of Berkeley on transportation of hazardous materials; a partnership for fire control and suppression; and, a \$25,000 contribution to the Berkeley Marina Shoreline Project. The Director initiated a number of direct dialogues with the Mayor of the City of Berkeley.

Through FY 97, over 80% of the planned improvements outlined in the *1994-95 Communications Plan* were completed or initiated and Berkeley Lab plans to review and update this Plan during FY 98. Weekly conference calls between the Office of Communications at the Lab and the Public Affairs Office at OAK were instrumental in keeping OAK up-to-date on current and future events at the Lab.

Responsiveness and outreach to local communities, community officials and news media have heightened public awareness of programs at the Laboratory.

Berkeley Lab has shown improvement in its internal communications systems during the period as well. *Currents* is more readable and a new weekly e-mail notification of events called Headlines are examples of the Lab's efforts to improve communications with employees. The Director also asked the Office of Communications to enhance its communication of the values of respect for diversity and maintaining teamwork.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Criteria: 1.2 Quality Planning

The Laboratory implements a strategic and tactical planning processes that reflects shared Laboratory and DOE objectives regarding Laboratory mission and operational performance.

(Weight = 20%)

Performance Measure: 1.2.a Integration of Planning Efforts

The Laboratory demonstrates an institutional strategic planning process that aligns its mission, core competencies, strategic direction with DOE objectives. Through this process the Laboratory develops area specific long-range plans which are effectively integrated with institutional strategic planning. (Examples of area-specific plans are the Information Resources Management Long-Range Plan, ES&H 5-year Plan, Affirmative Action Plans, etc.)

(Weight = 20%)

Performance Assumptions:

Measurement Deliverable:

Narrative description of the institutional strategic planning process(es) for determining the external environment and customer requirements and expectations and aligning the Laboratory’s mission, core competencies, strategic direction, and operating requirements with these factors and the process(es) for to integrating area-specific plans with institutional strategic planning.

Performance Gradient:

Meets Expectations:

Demonstrates the effectiveness of the approach to:

1. determining external environment and customer requirements and expectations,
2. aligning the Laboratory’s mission, core competencies, strategic direction, and operating requirements (e.g. Laboratory, Strategic Planning, Outreach/inreach efforts, or other) are aligned with these requirements, and
3. integrating area-specific plans with institutional strategic planning.

Exceeds and Far Exceeds:

Evidence of implementation of process(es) for achieving customer input and the analyses of external environmental factors and integrating this information into appropriate Laboratory documents.

Note: Each Laboratory is expected to define its primary management customers.

Performance Narrative:

LBNL continues to demonstrate outstanding systems for strategic and institutional planning and strong management commitment to those plans. The Laboratory has implemented effective processes for determining external environment and customer requirements and expectations. Laboratory management has reinforced expectation for strategic planning by directing its division directors to prepare and present strategic plans demonstrating integration with overall Laboratory plans.

Of particular note is the Laboratory's effort to align its planning efforts with DOE strategic plans and especially with the *Strategic Laboratory Missions Plan*. LBNL's effort to define its role and position itself to optimally support an overall DOE laboratory mission is commendable. LBNL has demonstrated its commitment to fulfilling a national role in partnership with DOE and other DOE laboratories by pursuing initiatives such as the Joint Genome Institute.

LBNL management continually reinforces a strong vision of strategic direction in its support functions as well. Efforts to move forward as a leader in initiatives such as Work Smart Standards, Integrated Safety Management and external regulation are designed to position the Laboratory as a leader and to support the Laboratory's vision of being the location of choice for facilities and programs aligned with its core competencies. The Laboratory continues to pursue its goal of delivering the best research support services at the lowest cost. The Laboratory's investment of additional overhead income, derived from cost efficiencies and an expanded cost base, in infrastructure improvement is further evidence of sound strategic decision making and integration of strategic direction across Laboratory functions.

The success of LBNL planning efforts is affirmed by results such as:

- The successful move of NERSC and its integration with Laboratory programs.
- Completion and operation of the Hazardous Waste Handling Facility.
- The Advanced Sequencing Facility site lease.
- Upgrade to the National Center for Electron Microscopy.
- The Microspectroscopy Beamline at the ALS.

Performance Rating (Adjectival):	Far Exceeds Expectations	98.00%
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Performance Objective: #2 Oversight and Cost Management

To support the Laboratory's mission, Laboratory leadership effectively manages institutional oversight and cost management activities. **(Weight = 50%)**

Performance Criteria: 2.1 Management Oversight

Laboratory leadership establishes effective management oversight and control procedures to meet Contract requirements. **(Weight = 20%)**

Performance Measure: 2.1.a Accountability and Commitments

The Laboratory demonstrates that it has a system for ensuring that major commitments are managed and information on status of commitments is timely and complete enough to allow informed management action. **(Weight = 20%)**

Performance Assumptions:

Measurement Deliverable:

Narrative description of system(s) which ensures that major commitments are managed and that timely and pertinent information regarding the status of those commitments allows informed and effective management action(s).

Performance Gradient:

Meets Expectation:

Demonstrated effective deployment of a systematic approach for managing commitments to meet Contract requirements utilizing appropriate management oversight and control procedures.

Exceeds and Far Exceeds:

Evidence of implementation and deployment of the system and procedures which ensure that major commitments can be effectively managed in a timely manner that allows informed and effective management action(s).

Note: "Major Commitments:" are defined as actions resulting from internal and external oversight activities (e.g. Laboratory self-assessments, internal audits, implementation plans for Directives/Rules/changes to contract clauses and EPA, IG, GAO audit findings or DOE assessments, etc.)

Performance Narrative:

LBNL has effective systems for managing commitments to meet contract requirements. LCATS, LSADS, FMCA and IAS audit standards are mature systems which provide management with necessary information to meet commitments. The Laboratory does not fail to meet major commitments with significant impact on cost, contract compliance or health and safety.

The Laboratory reports a 90% on time completion rate for LCATS which is good. Since completion dates were modified for 9 tasks, however, on time performance for initial target dates is approximately 67%. There have been instances where completion of LCATS tasks was not confirmed by DOE. The improvement in the completion rate for LSAD items is commendable. Completion rates for FMCA and IAS is excellent.

Performance Rating (Adjectival):	Exceeds Expectations	85.00%
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Performance Criteria: 2.2 Cost Management

Laboratory leadership manages its costs to maximize its productivity and competitiveness. **(Weight = 30%)**

Performance Measure: 2.2.a Maximize Cost Effectiveness

The Laboratory demonstrates an effective system for managing and prioritizing administrative, operational support, and programmatic costs. This will include establishing institutional goals for indirect cost controls and a process for measuring progress. **(Weight = 30%)**

Note: The rating for this measure will be based upon equal weight for each of the 3 cost types listed above.

Note: This includes DOE-required ES&H prioritized plans.

Performance Assumptions:

Measurement Deliverable:

Narrative description of system(s) that demonstrates effective management and prioritization of administrative, operational support, and programmatic costs including the establishment of cost-effectiveness and cost-savings goals and a process for measuring progress.

Performance Gradient:

Meets Expectations:

Demonstrated the effectiveness of the process(es) that manage and prioritize each of the following cost types:

- administrative
- operational support
- programmatic

Exceeds and Far Exceeds:

Evidence of effective deployment and results of systems for achieving cost-effectiveness and cost-savings. (Note: Examples of results include DOE Headquarters required metrics, Lab-specific goals or targets, historical trends in cost categories, or other relevant results.)

Performance Narrative:

LBNL has once again exceeded this measure by demonstrating a thorough and aggressive approach in its system for managing and prioritizing programmatic, administrative, and operational support costs. The Director continues to emphasize cost management with his programs to reduce overhead rates and the enhanced system of delegated cost management. During this rating period, the Laboratory system

of cost management controls resulted in maintaining the FY96 base overhead level through efficiencies deployed by the lab management.

The Director’s Action Committee (DAC) develops policies, initiatives, and establishes key priorities. Proposed spending plans are established by line management with quarterly reviews by the Director, deputies, and DAC. The broad based Project Coordination Committee (PCC) evaluates and scores proposed activities using risk-based prioritization systems and provides recommendations to the Director regarding capital projects, equipment requirements, and new initiatives. The systems utilized are the Capital Asset Management Process (CAMP) and the ES&H Risk-Based Priority Model (RPM).

The Laboratory management goals of reducing costs and cost containment initiatives are developed in alignment with DOE streamlining and quality management initiatives. For measuring results, the Director implemented a program that assesses Laboratory overhead, develops cost projections and tracks costs. This process also allows the Laboratory to target and eliminate non-value added work.

Participation in the Tri-lab initiative with Lawrence Livermore National Laboratory (LLNL) and Los Alamos National Laboratory (LANL) allows LBNL to share ideas and best practices. Benchmarking activities were shared to identify areas for potential cost savings and cost and cycle time metrics. LBNL and LLNL continue to realize efficiencies and cost savings by jointly sharing costs for travel services.

LBNL continues its ongoing cost saving by implementing automation efficiencies and reengineering daily operations. These enhancements include the new Financial Management System (FMS), which is an integrated financial system that will provide enhanced financial data laboratory wide. The new systems will provide greater flexibility and improved quality of management information, resulting in greater operating efficiencies at both institutional and programmatic levels.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Area: ENVIRONMENT RESTORATION AND WASTE MANAGEMENT

Performance Objective: #1 Environmental Restoration and Waste Management

The Laboratory will conduct Environmental Management (EM) waste operations in a safe manner that protects human health, the environment and the public and prevents adverse impacts thereon; the Laboratory will develop innovative solutions to advance the Environmental Management Program; and the Laboratory's Environmental Restoration Program will continually strive to improve efficiency and maximize remediation. **(Weight = 100%)**

Performance Criteria: 1.1 Waste Management

The Laboratory's facilities and operations for handling waste will be managed to minimize the impact on the environment and to maximize the efficient use of EM operating funds. The Laboratory operates its waste facilities to continually strive to improve efficiency and reduce the waste inventory. **(Weight = 25%)**

Performance Measure: 1.1.a Waste Management

The Laboratory will collect data on the volume of waste shipped for disposal or recycling (or made "road-ready") per total operations dollar spent (per fiscal year). This data will be trended for improvement in efficiency and compared established "Baseline Year". **(Weight = 25%)**

Performance Assumptions:

- The FY97 performance period is October 1, 1996 through September 30, 1997. Budgets and waste volumes not available for the self assessment will be projected to the September 30, 1997 date.
- Total program funding is actual budget spent at end of fiscal year for operating and capital equipment (General Plant Project funds are excluded). Currently, these funds are in the Facility Operations and Maintenance Activity Data Sheets.

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Performance Assumptions: (1.1.a continued)

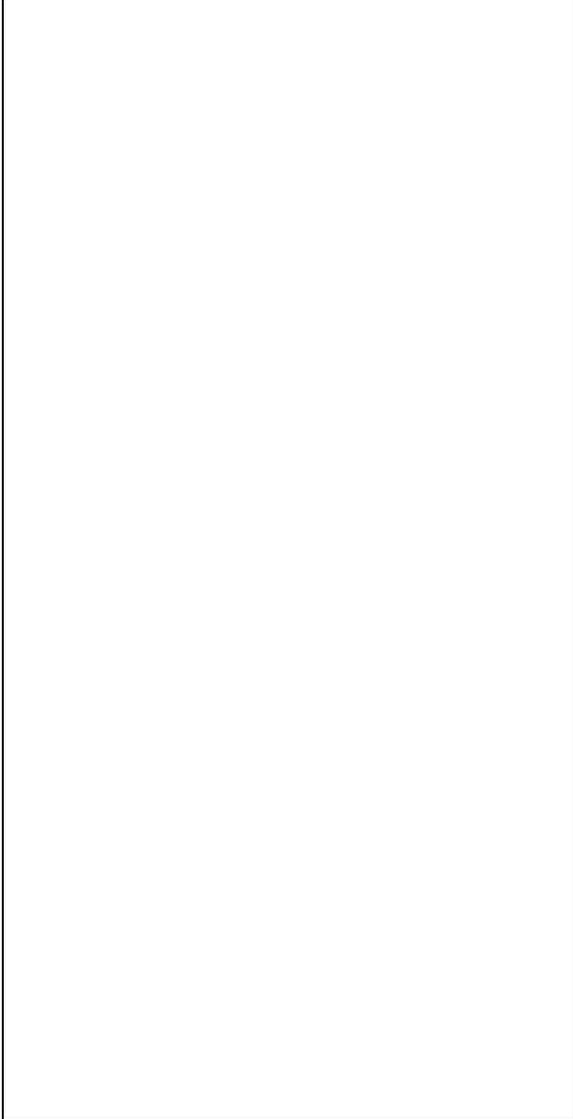
Performance Gradient:

The score for this performance measure will be based on the following table.

<u>Rating:</u>	<u>Range:</u>
Far Exceeds Expectations	90-100%
Exceeds Expectations	80-89%
Meets Expectations	60-70%
Needs Improvement	<60%

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- Funds allocated for (1) new waste reduction or treatment units designed to improve efficiency or to reduce the amount of wastes for shipment or (2) meeting new DOE or regulatory requirements are excluded from the gradient calculations for this performance measure. These funds, however, shall be tracked and applied toward the next performance period.
 - Waste volumes shall be limited to those funded by DOE-HQ(EM-30).
 - Certified "Road Ready" volumes will be used for waste without disposal options, e.g. transuranic (TRU).
 - Disposal credit will be given to waste volumes discharged to sewer.
 - Success Criteria and Waste Type Matrix Elements will be renegotiated every year. The primary objective of the renegotiation will be to establish goals which will ensure that performance is improved versus the baseline.
 - Performance Improvement will be adjusted for inflation.
 - Low-level wastes (LLW) with CA-only constituents are managed as LLW.
 - Toxic Substances Control Act and medical waste will be included with hazardous wastes (HW).
-
- Mixed wastes (MW) is defined as Federal Facilities Compliance Act mixed waste.
 - "Other Waste" is defined as DOE-HQ(EM-30) waste not otherwise included (i.e. nonsewerable).
 - Baseline year will be average of FY95 and FY96.
 - The conversion factor of the specific density of water (1.0) will be used to convert the weight of wastes to volume measurements.



Performance Gradient: *(1.1.a continued)*

The Success Criteria Gradient is arrived at through application of the following formula:

$$\text{Score} = \frac{\sum \text{Waste Type Matrix Points}}{\text{Total \# of Waste Types}} \times 100\%$$

Waste Type Matrix Points are assigned from the table below by calculating for each applicable waste type the Performance Improvement (PI) :

$$\text{PI} = \frac{\text{Baseline Year Factor} - \text{Performance Year Factor}}{\text{Baseline Year Factor}} \times 100$$

Where:

$$\text{Performance Year Factor} = \frac{\text{Total Program Funding for Performance Year}}{\text{m}^3 \text{ Waste Type Disposed}}$$

$$\text{Baseline Year Factor} = \frac{\text{Total Program Funding for Baseline Year}}{\text{m}^3 \text{ Waste Type Disposed}}$$

Waste Type Matrix

Waste Type	PI < -5%	-5% < PI ≤ 5%	5% < PI < 10%	10% ≤ PI < 15%	PI ≥ 15%
HW	0	1	1	1	1
LLW	0	0.25	0.5	0.75	1
MW	0	0.25	0.5	0.75	1
TRU	0	0.25	0.5	0.75	1
Other	0	1	1	1	1

Performance Narrative:

LBNL has reduced the unit cost per operations dollar for disposal or recycling of each of the waste types. It should be noted that LBNL had limited shipping options for MW and LLW in FY95 and FY96 which accounted for the significant improvement over the Baseline Year Factor. LBNL has a mature Hazardous Waste program which shows a 5% improvement. This is more in line with expectations, but may need to be revisited if Waste Minimization activities succeed.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Criteria: 1.2 EM Program Innovation

The Laboratory will develop innovative solutions to advance the Environmental Management Program. The EM Program includes Environmental Restoration, Waste Management, and Technology Development. **(Weight = 25%)**

Performance Measure: 1.2.a Advancement of the EM Program

The Laboratory will advance the state of the art technologies by implementing their usage; participate in the corporate advancement of the EM Program by providing solutions or assistance to other DOE/OAK sites; and identify and implement innovative technological solutions or business practices that result in savings. **(Weight = 25%)**

Performance Assumptions:

- The performance period will be a single DOE fiscal year.
- It is recognized that actions may result in cost savings that extend for more than one year. Credit for cost savings may be taken in each year in which cost savings are realized, up to a total of five years.
- In general, accomplishments are expected using existing resources. In some cases, additional funding may be required to undertake specific innovative solutions. With the agreement of both parties, DOE-HQ(EM) may provide additional funds and/or allow the Laboratory to use cost savings realized to meet this performance measure.

Performance Gradient:

The degree of innovation achieved will be measured by a point system. Points will be awarded in each of several performance categories, with a total score from all categories being the final score for the performance measure. Projects may receive credit in more than one performance indicator category. The performance indicators and associated award points will be as follows:

- Advance the state of the art technologies by implementing the usage of Laboratory technologies at DOE or other sites, or utilize other EM technologies at the Laboratory.
 - Use of EM technology at the Laboratory
1 point each technology
 - Use of Laboratory developed technology at other sites
1 point each technology
 - Use of Laboratory developed technology at any DOE site
2 point each technology
- The Laboratory participates in the corporate advancement of the EM program by

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Performance Gradient: (1.2.a continued)

	<p>providing solutions or assistance on projects at other DOE sites. Projects should result in at least one of the following:</p> <ul style="list-style-type: none"> - Cost savings - Efficiency improvement (i.e., quicker, better quality, etc.) - Liability or risk reduction - Use of laboratory resources and/or facilities to aid others (1 point will be awarded for each project that meets one or more of the criteria listed.) <ul style="list-style-type: none"> • Provide cost savings by identifying and/or implementing innovative technological solutions or business practices. Innovative technological solutions or business practices are defined as those that represent a significant change from current solutions or existing practices (technological or regulatory). They can not simply be refinements of existing technological or business practices, nor be cost savings due to a simple reduction in scope of work or deliverables. <ul style="list-style-type: none"> - LBNL will be awarded 1 point for every \$100,000 saved 								
	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"><u>Rating:</u></td> <td style="width: 50%;"><u>Range:</u></td> </tr> <tr> <td>Exceeds Expectations</td> <td>>9</td> </tr> <tr> <td>Meets Expectations</td> <td>4-8</td> </tr> <tr> <td>Needs Improvement</td> <td>0-3</td> </tr> </table>	<u>Rating:</u>	<u>Range:</u>	Exceeds Expectations	>9	Meets Expectations	4-8	Needs Improvement	0-3
<u>Rating:</u>	<u>Range:</u>								
Exceeds Expectations	>9								
Meets Expectations	4-8								
Needs Improvement	0-3								

Performance Narrative:

Innovative Business Practice : LBNL Waste Management has integrated the Oracle-based database, Shoebox, into the waste management operations. It incorporates site specific requirements to ensure compliance with Federal, state, DOE Orders, and LBNL WM Operational Safety Requirements.

Use of Catalytic Oxidation: NTLF is currently conducting a treatability study for their mixed waste stream. They are at the beginning stages for completing the study on the waste stream as specified in the FFC Act Site Treatment Plan.

The environmental restoration (four points) and waste management (two points) programs achieved six points in accordance with the criteria outlined in Performance Measure 1.2.a. The four points were awarded as follows, use of cryogenic drilling at LBNL (1 point), use of the cone penetrometer technique for soil sampling (1 point), and use of a collection trench for control and removal of the main source of groundwater contamination at LBNL (2 points). Two points were awarded for the collection trench because the idea was developed at LBNL and used at LBNL. The waste management program awarded two points as described above.

Performance Rating (Adjectival):	Exceeds Expectations	89.00%
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Performance Criteria: 1.3 Environmental Restoration

The Laboratory will strive for continuous improvement (increase) in the number of potential release sites (Solid Waste Management Units and Areas of Concern) completed per total ER dollars spent.
(Weight = 25%)

Performance Measure: 1.3.a Environmental Restoration

This measure will track increases in the Site Completion Index, where:

$$\frac{[(\# \text{ of active sites in previous fiscal year})(S DR_i)]}{[(\# \text{ of active sites in current fiscal year})(\text{total ER project dollars in millions})]} = \text{Site Completion Index,}$$

where DR_i is the difficulty rating for site i completed in the current fiscal year **(Weight = 25%)**

Performance Assumptions:

- Potential release sites are considered completed when the lead RCRA regulator approves “No Further Action” for the site.
- Potential release sites will be weighted in accordance with their difficulty to complete, ranging from 1 for easiest to 10 for most difficult sites to complete. These difficulty ratings will be included in the Current Year Work Plans developed by LBNL and approved by DOE at least annually. Revisions to the difficulty ratings will be managed through the existing Baseline Change Control procedures.
- The Site Completion Index is measured per fiscal year. Data from FY96 accomplishments will be used to develop the performance baseline. The factor (# of active sites in previous fiscal year)/(# of active sites in current fiscal year) has been included to make the calculation statistically consistent. This factor for the base year is considered to be unity.
- It’s currently anticipated that the majority of
(continued on next page)

Performance Assumptions: (1.3.a continued)

Performance Gradient:

Percentage increase in Site Completion Index*

<u>Rating:</u>	<u>Range:</u>
Far Exceeds Expectations	Index Increased >20%
Exceeds Expectations	10% < Index Increased < 20%
Meets Expectations	-10% ≤ Index Increased < 10%
Needs Improvement	Index Increased ≤ -10%

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· sites which can be completed in a short time frame will be completed by the end of FY98. At that time, this measure will be revised to reflect the future character of the program.

Performance Gradient: (1.3.a continued)

* Where the percentage increase in the Site Completion Index (SCI) is calculated as follows:

$$SCI = \frac{(\text{Site Completion Index current FY} - \text{Site Completion Index previous FY}) (100)}{(\text{Site Completion Index FY96})}$$

Performance Narrative:

The measure is tracked by the increase in the Site Completion Index, where:

$[(\# \text{ of active sites in previous fiscal year})(S DR_i)] / [\# \text{ of active sites in current fiscal year})(\text{total ER project dollars in millions})] = \text{Site Completion Index}$, where DR_i is the difficulty rating for site i completed in the current fiscal year.

Total active sites for FY-96 = 82
 Total active sites for FY-97 = 59

Total number of sites approved for No Further Action in FY - 96 = 19
 Total number of sites approved for No Further Action in FY - 97 = 17

Total funds spent for soil and groundwater and program management in FY-96 = \$2.98 M
 Total funds spent for soil and groundwater and program management in FY-97 = \$2.8 M

For FY-96:

$$SCI = (1) (19) / 2.98 = 6.38$$

For FY-97:

$$SCI = (82) (17) / (59) 2.8 = 8.44$$

Change in SCI Index = $[(8.44 - 6.38) / 6.38] \times 100 = 32.3\%$
 Performance Rating(Adjectival) & Percentage Score Rating:

17 sites were closed in FY - 97.

Performance Rating (Adjectival):	Far Exceeds Expectations	96.00%
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Performance Criteria: 1.4 Cost and Schedule Variances

The Laboratory’s Environmental Management Program will be managed to improve project/program performance. The Laboratory measures its performance of projects/programs against schedule and cost baselines. **(Weight = 25%)**

Performance Measure: 1.4.a

The cost measure will track Laboratory’s performance in executing projects in accordance with an approved and validated project cost baseline. The schedule measure will track the Laboratory’s performance in executing projects in accordance with an approved overall schedule. **(Weight = 25%)**

Performance Assumptions:

- Cumulative percent cost variance (%CV) and cumulative percent schedule variance (%SV) will be obtained from the September Project Tracking System (PTS). The Cumulative CV, SV and BCWP values will be only for the fiscal year being evaluated.
- Baseline change proposals are reviewed and made, if approved, by DOE in 30 days.
- If the FIS Report contains an accounting error, CV, SV and ACWP values provided by LBNL and verified by the respective DOE Site Representative may be used.
- Includes the following DOE-HQ(EM)-funded activities by ADS No.: SF148211, SF148231, SF148212, SF3914, and SF3931.
- These DOE-HQ(EM)-funded activities do not include ADSs measured in the other Performance Measures.

Performance Gradient:

<u>Rating:</u>	<u>Range:</u>
Far Exceeds Expectations	CV,SV>5%
Exceeds Expectations	0%<CV≤5% 0%<SV≤5%
Meets Expectations	-5%<CV≤0% -5%<SV≤0%
Needs Improvement	CV,SV≤-5%

(A) Cost. The cost measure will track the Laboratory’s performance in executing projects in accordance with an approved and validated project cost baseline.

$$CV = \frac{\text{Cumulative CV}}{\text{Cumulative BCWP}} \times 100\%$$

Given: CV = BCWP - ACWP
 CV = Cost Variance
 BCWP = Budgeted Cost of Work Performed
 ACWP = Actual Cost of Work Performed

(B) Schedule. The schedule measure will track the Laboratory’s performance in executing *(continued on next page)*

Performance Gradient: (1.4.a continued)

projects in accordance with an approved overall schedule.

$$SV = \frac{\text{Cumulative SV}}{\text{Cumulative BCWS}} \times 100\%$$

Given: SV = -BCWP -BCWS
 SV = Schedule Variance
 BCWS = Budgeted Cost of Work Scheduled
 BCWP = Budgeted Cost of Work Performed

Performance Narrative:

Waste Management

LBNL has performed well in executing the approved technical scope of their Baseline in accordance with the work schedule and approved budget. In addition, WM worked within the EM-30 Baseline Change Proposal process to secure additional funds for agreed upon scope. LBNL worked closely with DOE to reduce uncostered funds and to close out inactive ADSs.

Environmental Restoration

Upon review of the Project Tracking System report for the end of the fiscal year (September 97) the Cost Variance is > 10% and the Schedule Variance is > 5% for the Environmental Restoration Program.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Area: ENVIRONMENT, SAFETY AND HEALTH

Performance Objective: #1 Protection and Prevention

The Laboratory will conduct operations in a safe manner that protects human health, the environment and the public and prevents adverse impacts thereon. **(Weight = 53%)**

Performance Criteria: 1.1 Effective Protection and Prevention

An effective Environment, Safety and Health Program will identify, control and respond to hazards. The intent of the following group of performance measures is to assure that the Laboratory's ES&H systems effectively address protection and prevention. They represent key protection and prevention elements that are adequate to demonstrate the effectiveness of ES&H systems. **(Weight = 39%)**

Performance Measure: 1.1.a Radiation Protection of Workers

Occupational external and tritium (excluding accidental exposure and/or intake) radiation doses from DOE operations will be managed to assure that applicable 10 CFR 835 limits are not exceeded. An effective ALARA program is in place to manage collective dose. **(Weight = 7%)**

Performance Assumptions:

- For FY97 the performance period is January 1, 1996 through December 31, 1996.
- Any actual or anticipated significant change in workloads (interpreted to be an increase or decrease of 10% or more) that would affect radiation doses will be brought to the attention of UC and DOE and appropriate adjustments will be made.
- The Laboratory will define any change in its control level for collective dose in coordination with its local DOE office by October 1 for use during the following calendar year.

Performance Gradient:

Meets Expectations:

- A proactive management strategy (such as an effective ALARA Program) is in place to manage and reduce exposure for the optimum individual and collective dose.
- All individual doses are below 10 CFR 835 limits.
- Collective dose is within 5% of the Laboratory's 3 year running average.
- A Laboratory specific control level for collective dose is established.

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<p>Performance Gradient: (1.1.a continued)</p> <p><u>Exceeds Expectations:</u> Is evaluated by considering a combination of the following:</p> <ul style="list-style-type: none"> • Collective dose is reduced by at least 10% of the Laboratory's 3 year running average or the collective dose is below the control level. • Evidence of Senior Management involvement/leadership in the ALARA Program. <p><u>Far Exceeds Expectations:</u></p> <ul style="list-style-type: none"> • Laboratory ALARA goals for individual exposures are achieved.
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Performance Narrative:

All collective doses were below the three year running average, and well below the control level of 6 rem. The RWA Program, a tool that the Laboratory uses manage dose from operations has been effective in keeping doses low. The Annual individual doses are below internal control and regulatory limits. The Laboratory reorganized its ALARA management efforts by forming the Radiation Safety Committee. The reorganization continues to provide an effective ALARA program. The ALARA goals that no individual exceed 500 mrem was set and achieved for individual exposures. Individual doses above 50 mrem whole body were investigated.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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<p>Performance Measure: 1.1.b Radiation Protection of the Public</p> <p>Public radiation doses to the maximally exposed individual from DOE operations will be measured or calculated and controlled to assure that applicable Federal limits are not exceeded. An effective ALARA program in place to manage dose to the public. (Weight = 6%)</p>
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<p>Performance Assumptions:</p> <ul style="list-style-type: none"> For FY97 the performance period is January 1, 1996 through December 31, 1996. Any actual or anticipated significant change in workloads (interpreted to be an increase or decrease of 10% or more) that would affect radiation doses will be brought to the attention of UC and DOE and appropriate adjustments will be made. Each Laboratory will define any change in its site control level for the maximally exposed individual dose in coordination with its local DOE office by October 1 for use during the following year.

<p>Performance Gradient:</p> <p><u>Meets Expectations:</u></p> <ul style="list-style-type: none"> An effective ALARA program is in place to manage and reduce dose, or to maintain dose at the control level. Federal limits are not exceeded. Maximally exposed individual dose is within at least 5% of the site's 3 year running average. A Laboratory site control level is established. <p><u>Exceeds Expectations:</u></p> <ul style="list-style-type: none"> Public dose is reduced by 10% percent from the site's three year running average (this criterion is not a factor if the Laboratory is at or below its site control level). <p><u>Far Exceeds Expectations:</u></p> <ul style="list-style-type: none"> Public dose is maintained below 1 Orem.
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Performance Narrative:

The Laboratory met 5, out of the 6 successes specified in the gradients. The dose to the Maximally Exposed Individual was reduced from last year. Doses to the public were far below the Federal limits and Laboratory Administrative Limits.

Emissions from the NTLF have been reduced down to 5 Ci. There is an effective ALARA program in place.

Performance Rating (Adjectival):	Exceeds Expectations	85.00%
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<p>Performance Measure: 1.1.c Radiological Exposure Prevention</p> <p>Unplanned internal exposures to radioactive material and ORPS reportable occurrences of skin or personal clothing contamination are managed and minimized. (Weight = 7%)</p>
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<p>Performance Assumptions:</p> <ul style="list-style-type: none"> For FY97 the performance period is January 1, 1996 through December 31, 1996. The severity of the events is to be considered in the evaluation. The weighting from high to low severity is: intakes of greater than 100 mrem, skin contamination, then clothing contamination. Data for this measure is reported as a normalized number of occurrences or exceedances. Some variability is expected which may not be indicative of a trend.

<p>Performance Gradient:</p> <p><u>Meets Expectations:</u></p> <ul style="list-style-type: none"> A proactive management strategy is in place to reduce frequency and severity which includes follow-up to occurrences or exceedances. The number of occurrences will be maintained to within 5% of the baseline (calendar year 1994) or a number agreed upon by the Laboratory and the local DOE office. <p><u>Exceeds Expectations:</u></p> <ul style="list-style-type: none"> The number of occurrences meets the goal for a decreasing trend set by agreement between the local DOE office and the Laboratory. <p><u>Far Exceeds Expectations:</u></p> <ul style="list-style-type: none"> The reduction in the number of occurrences exceeds the goal established between the local DOE office and the Laboratory.

Performance Narrative:

There was one reportable occurrence during the period. The one incident is below 4, the number of incidences agreed to as a goal in the baseline year (1994). The number of reportable contaminations continues to be low.

The Laboratory has met all of the successes in the measure. A proactive management strategy is in place as demonstrated through the RSC and RWA Program.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Measure: 1.1d Chemical Exposure Prevention

The number of exposures to toxic materials and physical and biological agents that are above applicable occupational exposure and medical removal levels will be tracked. A decreasing trend is expected.
(Weight = 7%)

Performance Assumptions:

- For 1997 the performance period is July 1, 1996 through June 30, 1997.
- "Action level" is defined as one-half of 8-hour TWA, STEL and Ceiling for the OSHA PEL, ACGIH TLV[®], unless a different action level is specified by OSHA.
- Data for this measure is reported as the number of occurrences or exceedances versus the number of measurements taken.
- Exposure measurements will be corrected by the protection factor of the personal protective equipment in use.
- Some variability is expected which may not be indicative of a trend. Changes in operational levels or volumes shall be considered fully.
- Applicable exposures above the OSHA PELs resulting from an accident will be addressed by the local DOE office and the Laboratory.

Performance Gradient:

Meets Expectations:

- Using a risk-based approach, the Laboratory will maintain and improve its site-wide exposure assessment and monitoring plan to characterize employee exposures to hazardous chemicals, physical agents (except ionizing radiation) and biological agents.
- The exposure and monitoring plan is fully implemented.
- The exposure and monitoring plan is of sufficient quality and integrates Industrial Hygiene and Medical.
- Ninety-five percent of the sampled exposures to toxic material/physical agents will be below the OSHA PEL.
- There is appropriate and documented follow-up to exposures above the OSHA PEL.
- A proactive management strategy is implemented to minimize exposures.

Exceeds Expectations:

- Ninety-five percent of the sampled toxic material/physical agent exposures will be below the ACGIH TLV[®] or other published occupational health standards.
- There is appropriate and documented follow-up or response to exposures above the ACGIH TLV[®] or other published occupational health standards.

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Performance Gradient: (1.1.d continued)

- Far Exceeds Expectations:
- Exposures above the action level are followed up by an Industrial Hygienist and controls are instituted to decrease exposure for ongoing operations. The follow-up and controls are documented and implemented within the performance period.
 - Exposures that are below the ACGIH TLV[®] but cannot be reduced below the action level in an economically feasible manner will be given credit at the "Far Exceeds" level.

Performance Narrative:

The Laboratory has an effective program in place to target risk areas and ensure exposures are controlled. New experiments with potential chemical exposures were evaluated prior to operations. The Laboratory has initiated an Integrated Functional Appraisal program, where a team of safety, health, and environmental specialists evaluate current operations. Four of 12 Divisions were evaluated in 1997, and a schedule exists for completion of all Divisions. This program identifies areas of low, medium, and high potential exposures, and includes field verification of controls and employee practices to control exposure.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Measure: 1.1.e Accident Prevention

Severity and frequency of accidents over the baseline 3 years (1991-1993) were analyzed to identify the top 3 personnel accident/injury types in each area. The number of Bureau of Labor Statistics reportable occurrences of these accidents will be tracked. A downward trend is expected as compared to the baseline years.
(Weight = 7%)

Performance Assumptions:

- For FY97 the performance period is January 1, 1996 through December 31, 1996.
- Laboratory statistics will be collected for the baseline population previously defined. It is envisioned that the population will be slightly different for each Laboratory.
- It is recognized that an initial increase may be experienced whenever a new prevention program is introduced and that some variability is expected which may not be indicative of a trend.
- Workers' Compensation costs will be considered during the self assessment.
- For FY97 and future years, the accident/injury types and baseline years will be updated by mutual agreement of the local DOE office and the Laboratory.
- Subcontractor operations/personnel are included if the subcontractor is performing part of the Laboratory's operations. Subcontractors are excluded if they are "servicing" the Laboratory (e.g., copy machine vendors or transient construction workers covered under 29 CFR 1926).

Performance Gradient:

Meets Expectations:

- A downward trend in frequency and/or severity for each of the 3 accident/injury types is achieved.
- The subcontractor work force (as defined in the assumptions) is included.

Exceeds Expectations:

- A downward trend in frequency and severity for each of the 3 accident/injury types is achieved.
- A proactive management strategy is in place to reduce frequency and severity and to include the subcontractor work force.

Far Exceeds Expectations:

- An ongoing process to evaluate the accident prevention records of "transient" subcontractor companies is in place.
- An exceptional reduction in frequency and severity for each of the 3 accident/injury types is achieved.
- An additional 2 "accident/injury types" are identified and reduced.

Performance Narrative:

LBNL has accomplished a reduction in both frequency and severity of all three accident/injury types selected for measurement. The results of this performance measure demonstrate a Lab commitment to reduce accidents and injuries and provide a safe and healthy work place for its employees.

Performance Rating (Adjectival):	Exceeds Expectations	85.00%
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Performance Measure: 1.1.f Medical and Safety/Health Integration

Monitoring data will be provided to the medical staff who will utilize these data in the health evaluation of employees. Continuous quality improvement of the interaction between Safety/Health and Medical will be based on the Peer Review and Improvement Process. **(Weight = 5%)**

- Performance Assumptions:**
- The intent of this measure is to help prevent injuries and illnesses from occupational exposure to chemical, biological and physical agents. The long term goal is primary prevention and enhancement of secondary prevention capabilities (early detection and intervention, minimization of adverse health effects, and implementation of corrective action).
 - The Peer Review and Improvement Process will be refined and used by Laboratory Medical Directors and Laboratory Health and Safety Managers. The process shall include broad objectives for the 3 Laboratories; specific objectives shall be developed for each individual Laboratory.
 - DOE will be invited to participate in the Peer Review and Improvement Process. Medical confidentiality will be maintained in the process. "Peers" are the 3 Laboratory Medical Directors or their designate, and an Industrial Hygiene representative from each Laboratory.
 - The Peer Review should include both qualitative and quantitative evaluations. It may include a random sample of employee medical charts, and/or review of other appropriate documents to evaluate the interaction between Industrial Hygiene and Medical.

- Performance Gradient:**
- Meets Expectations:
- Industrial Hygiene exposure and monitoring information is used by Medical.
 - A quality Peer Review and Improvement Process is in place. Baseline Peer Review has been completed by June 30, 1996.
- Exceeds Expectations:
- Medical surveillance feedback information is used by Industrial Hygiene.
 - The Peer Review and Improvement Process demonstrates the integration of medical with other safety and health disciplines in addition to Industrial Hygiene.
- Far Exceeds Expectations:
- There is optimal two-way interaction between Medical and appropriate safety and health disciplines.

Performance Narrative:

This performance measure involved a peer review of how well the Lab’s Occupational Medicine Program is integrated with the other Safety and Health Programs. The peer review was conducted by a team from LLNL and LANL, and observed by DOE OAK. The peer review group found a very well integrated program. The tri-lab peer review process has achieved additional success by fostering a sharing of ideas. The peer review groups identified a set of program enhancements to be addressed by all 3 labs. While “optimal interaction” is difficult to define, LBNL does have very good interaction

between the disciplines, and the very active participation in this program by LBNL demonstrated the Lab's commitment to enhanced ES&H operations.

Performance Rating (Adjectival):	Far Exceeds Expectations	92.00%
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Performance Criteria: 1.2 Waste Minimization

The Laboratory has a program in place to reduce both the amount of waste generated for disposal and pollutant emissions. **(Weight = 14%)**

Performance Measure: 1.2.a Waste Reduction and Recycling

The Laboratory continues to progress towards meeting the DOE's pollution prevention goals for the year 2000. **Weight = 7%**

Performance Assumptions:

- DOE's pollution prevention goals by waste type, that are measured by this performance measure, are defined as follows:
 - Reduce by 50% the generation of radioactive waste (defined as TRU and LLW) from routine operations
 - Reduce by 50% the generation of low-level mixed waste from routing operations
 - Reduce by 50% the generation of hazardous waste from routine operations
 - Reduce by 33% the generation of nonhazardous waste from routine operations
- For FY97 the performance period is January 1, 1996 through December 31, 1996.
- CY93 waste generation quantities will be used as a baseline for measuring waste reductions. (CY94, corrected reflect previous years improvements, will be used for nonhazardous waste at LLNL)
- Recycling, reuse and exchange are considered to be a method of waste minimization and will be tracked.

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Performance Gradient:

Progress toward reduction goals are evaluated by using the following chart or progress on an agreed-to "waste type" reduction plan:(See below)

Meets Expectations:

- A reduction in generation of each waste type is calculated and scored (1 to 4 points) then summed. The sum for the four waste types is 7, 8, or 9 points.

Exceeds Expectations:

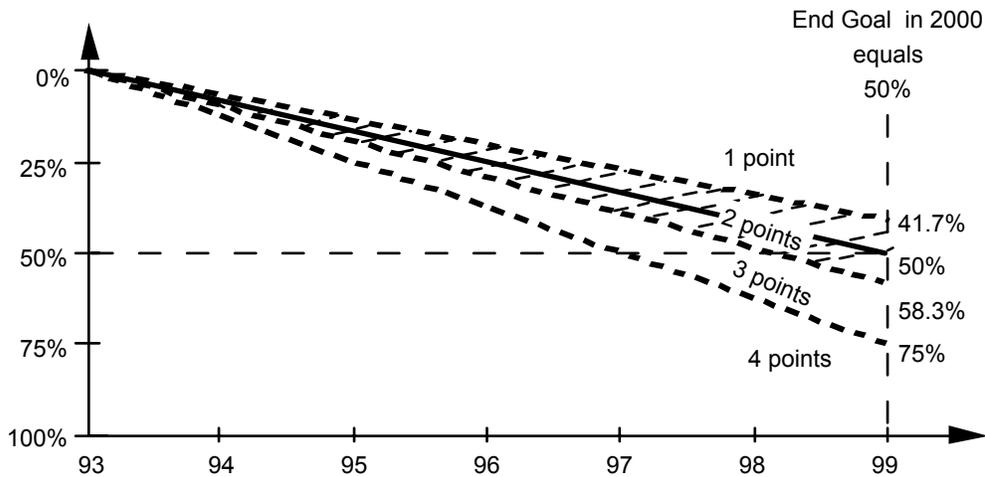
- A proactive management strategy is in place for recycling and substituting materials and modifying processes.
- A reduction in generation of each waste type is calculated and scored (1 to 4 points) then summed. The sum for the four waste types is greater than 9 points but less than 12.

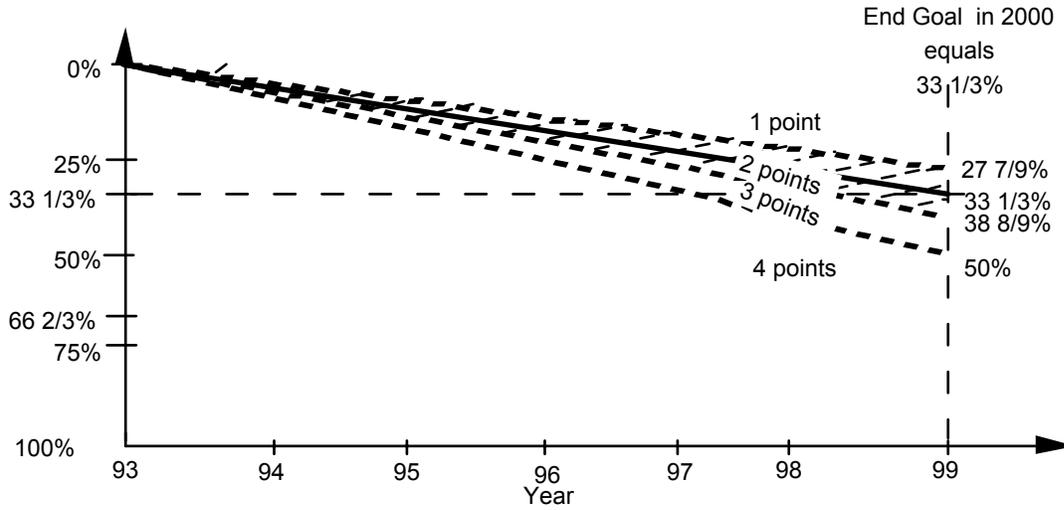
Far Exceeds Expectations:

- Reduction in generation of each waste type is calculated and scored (1 to 4 points) then summed. The sum for the four waste types is greater than 12 points and less than 16.
- An annual increase in the types and amounts of wastes and materials recycled and/or reused onsite or offsite.

Performance Assumptions: (1.2.a continued)

- Any significant new project, activity or increase in workload will be evaluated for pollution prevention/waste minimization opportunities are implemented for the project or activity, the resulting new waste stream will not be included in the waste reduction calculation. Pollution prevention opportunities are tracked in 1.2.b.
- Cleanup and stabilization waste (including environmental restoration waste, stabilization of nuclear and nonnuclear materials, and deactivation and decommissioning of facilities), legacy, construction debris and USEC waste will not be included in the calculations for meeting the waste reduction goals but will be included in the discussion on meeting the recycling goal.
- Waste generation will be reported and measured in the same way that it has been reported for this performance measure in previous years.





Performance Narrative:

The Lab achieved a high level of success in all waste streams identified for this performance measure. LBNL is on track to exceed the Secretary’s waste reductions goals set for the year 2000.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Measure: 1.2.b Pollution Prevention

The Laboratory continues to survey on-site operations for opportunities to reduce waste and pollutant releases to all media. Specific opportunities are identified and success in project implementation and achievement of the agreed-to waste or pollutant reduction project goal(s) are tracked.

(Weight = 7%)

- Performance Assumptions:**
- For FY97 the performance period is July 1, 1996 through June 30, 1997.
 - Criteria for selecting opportunities include reductions in the number of discharge points, chemical substitution or process changes that reduce pollutant mass emissions or releases, process changes that result in the reuse or recycling of potential pollutants, and protecting health and safety.
 - The prioritization uses a weighting factor approach that includes four criteria: quantity, cost, waste type and operational factors.
 - The Laboratory has in place a program of evaluating new projects and activities for pollution prevention opportunities.

- Performance Gradient:**
- Meets Expectations:
- An updated and prioritized list of waste reduction and pollution prevention opportunities is provided to DOE/OAK by October 31 for potential funding in that fiscal year.
 - Good progress is made on funded, site-specific milestones and on achieving the agreed to waste or pollutant reduction project goal(s).
- Exceeds Expectations:
- Once the projects from the October 31 list described above in “Meets” are selected by DOE for funding, the Laboratory selects two additional projects to be funded from program or overhead budgets.
 - Good progress is made on the scheduled milestones for these new projects.
- Far Exceeds Expectations:
- Some of the Laboratory’s pollution prevention projects address the transuranic, low level and low level mixed waste streams which are costly to manage, have a high toxicity and are highly radioactive.

Performance Narrative:

The Lab was successful in developing a list of waste reduction and pollution prevention opportunities. An excellent mix of projects yielded progress in the area of pollution prevention and waste reduction.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Objective: #2 Compliance

The Laboratory will comply with applicable Federal, State and local ES&H laws, regulations and ordinances and with applicable and accepted DOE directives. **(Weight = 12%)**

Performance Criteria: 2.1 Effective Compliance Programs

The Laboratory will have effective programs in place designed to achieve compliance with applicable ES&H Federal, State and local laws, regulations and ordinances and, where cost-beneficial, with applicable DOE orders as provided in Article XV, Clause 3 of the Prime Contract. **(Weight = 12%)**

Performance Measure: 2.1.a Tracking and Trending of Environmental Findings and Violations

The number of validated environmental violations and findings resulting from inspections by regulatory agencies and formal audits will be tracked and trended. A downward trend is expected for each category from the 1993 base year. **(Weight = 4%)**

Performance Assumptions:

- Changes in regulatory procedures after the 1993 base year that increase or decrease the level of occurrence reporting shall be brought to the attention of UC and DOE as soon as possible and adjustments made to the base year figure, as appropriate.
- "Formal" audit is defined as one that results in a formal report to the Laboratory that flows through the appropriate audit tracking departments at the Laboratory (LBNL-OAA).
- All uncontested violations and findings will be counted. Contested violations will not be reported. "Validated" means after the Laboratory and DOE agree that it is a violation or finding.

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Performance Gradient:

Meets Expectations:

- The number of violations and findings are within 20% of the average of the previous three years.
- A proactive management strategy is in place to reduce or minimize findings and violations.

Exceeds Expectations:

- A downward trend in findings and violations is achieved.

Far Exceeds Expectations:

- The Laboratory receives no findings or violations during the year.

Performance Assumptions: (2.1.a continued)

- Data will be normalized based on number of inspections the Laboratory experiences by reporting the number of uncontested violations/findings per inspection or audits. The trending will be done on the number of violations and findings in a calendar year.

Performance Narrative:

DOE concurs with the UC recommendation that this PM should be rated exceeds expectations. LBNL has taken many steps to reduce/eliminate environmental findings and violations. This is reflected in their performance in recent years. In 1995 there were two findings from a total of 66 inspections. In 1996 there was one violation (discharge of Fire Fighting Foam to the storm sewer due to a system malfunction) and no findings from 58 inspections. During the baseline year, CY93 there were 98 findings and/or violations from 52 inspections.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Measure: 2.1.b Tracking and Trending of Environmental Releases

Reportable occurrences of environmental releases exceeding regulatory or permitted levels imposed by local, State or Federal agencies will be determined and trended. A downward trend is expected. Changes in regulatory procedures after the 1993 base year that increase or decrease the level of occurrence reporting shall be brought to the attention of UC and DOE as soon as possible and adjustments made to the base year figure, as appropriate. **(Weight = 4%)**

Performance Assumptions:

- Tracking and trending will not include reports of excursions that do not exceed regulatory requirements. Such excursions are within compliance limits.
- Data will be collected for the period of January 1, 1996 through December 31, 1996.

Performance Gradient:

Meets Expectations:

- The number of occurrences of environmental releases are within 20% of the average of the previous three years.
- A proactive management strategy is in place to reduce or minimize environmental releases.

Exceeds Expectations:

- A downward trend in number of occurrences of environmental releases is achieved.

Far Exceeds Expectations:

- The Laboratory has no occurrences of environmental releases during the year.

Performance Narrative:

DOE concurs with the UC recommendation that this PM should be rated exceeds expectations. LBNL has done a very good job in minimizing environmental releases. There was one release in 1996 caused by a malfunction in the fire suppressant system in the new Hazardous Waste Handling facility. Fire Fighting Foam was discharged to the storm system but no hazardous chemicals were discharged since the HWHF was not yet in use. During the previous three years, LBNL had only one environmental release. The environmental released rate is so low that comparisons with the three year running average has less meaning, since one violation results in a large statistical jump in the average release rate.

In addition to this, LBNL continues to demonstrate a proactive management strategy toward minimizing environmental releases.

Performance Rating (Adjectival):	Exceeds Expectations	85.00%
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Performance Measure: 2.1.c Occupational Safety and Health

Hazards are recognized during Occupational Safety and Health assessments and serious and imminent danger situations are appropriately mitigated. **(Weight = 4%)**

Performance Assumptions:

- Data will be collected for the period of July 1, 1996 through June 30, 1997.
- Imminent Danger situations and Serious violations are as defined by the OSHA Field Inspection Reference Manual and by Section 13(a) of the Occupational Safety and Health Act.
- The performance measure allows time for dialogue, on a case-by-case basis, to determine whether a violation is to be classed as "serious."
- Subcontractor operations/personnel are included if the subcontractor is performing part of the Laboratory's operations. Subcontractors are excluded if they are "servicing" the Laboratory (e.g., copy machine vendor or transient construction workers covered under 29 CFR 1926).

Performance Gradient:

Meets Expectations:

- Routine Safety and Health Assessments are conducted.
- Imminent danger situations are mitigated immediately upon discovery.
- All serious violations are mitigated or corrected within 5 working days or an agreed-upon schedule.
- The Laboratory demonstrates that its safety and health systems effectively address compliance.

Exceeds Expectations:

- A proactive management strategy is in place to minimize the occurrence of imminent danger situations and serious violations.
- The Laboratory's safety and health system achieves one or more of the key program elements that are indicative of exemplary safety and health programs. These program elements include management leadership, employee involvement, worksite analysis, hazard prevention and control, and safety and health training.
- The laboratory improves its process to identify and manage compliance findings.

Far Exceeds Expectations:

- The Laboratory's safety and health system achieves the key program elements that are

(continued on next page)

Performance Assumptions:

Performance Gradient: (2.1.c continued)

indicative of exemplary safety and health programs. These program elements include management leadership, employee involvement, worksite analysis, hazard prevention and control, and safety and health training.

Performance Narrative:

The Laboratory has conducted safety and health inspections each year as part of its comprehensive safety and health program. For FY 97, the lab stated that there was no imminent danger and only four serious violations out of the 128 violations identified as a part of the construction safety inspections system. One incident not mentioned was the sub-contractor incident that occurred on July 2, 1996, within the rating period, at the construction site for the new Human Genome Center. The lab did meet the criteria for timely response, and has recently complied with the requirements of the corrective action plan that was submitted as a result of the incident. The Laboratory has a well established system to track compliance findings; additional improvement can be achieved in the close-out process for low-risk findings and for institutional findings. Of the Key Program Elements: Worksite Analysis and Hazard Prevention/Control are well established; Management Leadership is well established in organizational management and efforts are under way to enhance line management leadership; Employee Involvement is increasing, but additional involvement can be achieved at the “grass roots” level; Safety/Health Training success is moderate, and additional achievement is possible.

Performance Rating (Adjectival):	Exceeds Expectations	82.00%
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Performance Objective: #3 Integration and Accountability

The Laboratory program and line management is accountable for integration of ES&H programs into all programs and conduct of operations. **(Weight = 19%)**

Performance Criteria: 3.1 Planning, Integration and Execution

The managers of Laboratory projects/programs are knowledgeable of their ES&H responsibilities and properly plan and execute projects/programs with due regard for ES&H issues. Planning, integration and execution will be such that adverse consequences, including additional costs, relative to ES&H issues can be minimized. **(Weight = 19%)**

Performance Measure: 3.1.a Integrated Self-Assessment Program

The Laboratory maintains a self-assessment program which identifies both strengths and areas for improvement. A sample of the self-assessment program will be reviewed for effectiveness. The sample will evaluate four divisions at LBNL against the Laboratory's Self-Assessment Program Plan. **(Weight = 4%)**

Performance Assumptions:

- For FY97 the performance period is July 1, 1996 through June 30, 1997.
- By May 1, the Laboratory and local DOE office will mutually select the Divisions at LBNL to be assessed by the Laboratory, UC and DOE.
- The DOE evaluation will be conducted as part of the annual pilot oversight appraisal.
- LBNL's Self-Assessment Program Plan is contained in the Operations Assurance Plan.
- Each Division at LBNL has their own self-assessment plan that they would be evaluated against.

Performance Gradient:

Meets Expectations:

- The plans have been reviewed on an annual basis as required.
- Organizational elements and facilities to be included in the assessment are stated in the plan.
- A summary of the hazards are identified and listed for each facility and operation for that assessment period.
- At least 80% of the scheduled formal self-assessments have been completed and reports issued.

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<p>Performance Gradient: (3.1.a continued)</p> <ul style="list-style-type: none"> • At least 80% of the corrective actions have been completed on schedule. <p><u>Exceeds Expectations:</u></p> <ul style="list-style-type: none"> • At least 90% of the scheduled formal self-assessments have been completed and reports issued. • At least 90% of corrective actions have been completed on schedule. <p><u>Far Exceeds Expectations:</u></p> <ul style="list-style-type: none"> • One hundred percent (100%) of the scheduled formal self-assessments have been completed and reports issued. • Corrective actions are consistently completed on schedule. • Informal self-assessments are documented according to the directorate or division plan. • Inspections and reviews on behalf of the directorate or division have been conducted to assess compliance.

Performance Narrative:

DOE concurs with the UC recommendation that this PM should be rated “Needs Improvement”. Only 1 of 4 scheduled SRC reviews were completed. The field work and division briefings for the 4 IFAs were completed but the IFA reports have not been completed. The timely completion rate of LSAD deficiencies was low.

The FY 97 DOE performance appraisal of LBNL (currently underway) found several weaknesses in the SA program. The Emergency Management System had not been self assessed. Training problems that were self-identified by LBNL in FY 94 and monitored by DOE in FY 95 and FY 96 are still not corrected. While DOE recognizes that LBNL has several mechanisms to self assess a Division (Div. SA, IFA, and MESH appraisals), there is no periodic SA of most EH&S programs across Division lines.

The FY 97 DOE performance appraisal also found positive indications regarding the LBNL SA program. LBNL has examined and improved the ORPS system. The RWA program has an adequate system of feedback and improvement.

Significant improvements are occurring in LBNL's self-assessment program. LBNL's Internal Audit, Services and Assessment (IASA) Department has taken an active leadership role in guiding the Divisional SA program. They have made significant improvements in streamlining the process and collecting useful SA data. IASA and DOE are currently leading a Laboratory SA Process Improvement Team to improve all aspects of the LBNL SA program.

Performance Rating (Adjectival):	Needs Improvement	65.00%
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Performance Measure: 3.1.b Institutional ES&H Training

In 1995, the Laboratory established baseline data for the assessment of ES&H training completion. In partnership with the local DOE office the Laboratory defined the specific parameters for the data set. The data sets included a number of higher risk facilities, a subset of the worker groups within those facilities, and a set of institutional training requirements. The Laboratory will build upon the 1995 baseline by establishing:

- Improvement goals specific to the Laboratory
- Risk based compliance levels with institutional ES&H training requirements in each data set
- Success criteria based on the specific improvement goals or staying at desired levels

(Weight = 6%)

Performance Assumptions:

- For FY97 the performance period is July 1, 1996 through June 31, 1997.

Performance Gradient:

Meets/Exceeds/Far Exceeds Expectations:

- Laboratory specific improvement goals with corresponding success criteria will be established in conjunction with the local DOE office by October 31 of the rating year.

Performance Narrative:

In the Institutional ES&H Training area, where shortcomings were apparent, management attention is required. This area failed to meet its minimum acceptable percentage completion rates for one of the three selected employee groups, and the ability to ensure that all required training was identified for workers was only realized at the end of the rating period.

LBNL and DOE/BSO identified three training categories to be evaluated during this rating period and determined the completion rates that would be used to score this measure. Using this evaluation, one of the three completion rates (chemical hygiene) was not reached for the Meets rating and is identified as an area for an opportunity for improvement.

Training improvements are underway, but progress has been very slow. The most important of these was the proper identification of employees who need mandated training. The complete revision of the Job Hazards Questionnaire (JHQ) was achieved during this rating period and should help identify the required training. Previously identified improvement goals specific to the Laboratory need to be implemented, and management attention is required to ensure an acceptable rate of progress.

Performance Rating (Adjectival):	Needs Improvement	68.00%
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Performance Measure: 3.1.c Corrective Actions

Corrective actions as detailed in final ORPS reports will be completed on or before the target date 95% of the time. The Laboratory will notify the local DOE office and seek their approval for changes in target dates for corrective action. **(Weight = 5%)**

- Performance Assumptions:**
- "Final" means the ORPS report determined to be final by DOE.
 - Address historical corrective action close-out in the discussion of a "Proactive Management Strategy"

- Performance Gradient:**
- Meets Expectations:
- Corrective actions are completed on or before the target date 95% (or one report if less than twenty reports total) of the time.
 - A proactive system is in place to manage completions and changes.
- Exceeds Expectations:
- 95% past corrective actions closed out.

Performance Narrative:

LBNL has completed all CY 1996 ORPS corrective actions on or before the target dates. The Berkeley Site Office has been notified of all changes in corrective action target dates, as required by DOE Order 232.1. The LBNL ORPS administrator tracks upcoming corrective actions due dates and notifies the responsible parties at LBNL of the impending targets. The administrator also regularly publishes a status of the open ORPS reports, indicating pending LBNL actions and due dates for actions, including corrective actions. The problem of late categorization continued to get worse in CY 1996, with the average time increasing to 2.8 days, from 2.2 days in CY 1995. The first half of 1997 saw this trend continuing, but management action in has improved the categorization times significantly in the second half of CY 1997. (The target, per DOE Order 232.1 is 2 hours.)

Performance Rating (Adjectival):	Exceeds Expectations	85.00%
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<p>Performance Measure: 3.1.d Control of Radioactive Material</p> <p>Radioactive material, including radioactive sources and contaminated articles, is managed so that it is not found outside of controlled areas. (Weight = 4%)</p>

<p>Performance Assumptions:</p> <ul style="list-style-type: none"> • For FY97 the performance period is July 1, 1996 through June 31, 1997. • Data for this measure is reported as the normalized number of occurrences or exceedances. • Some variability is expected which may not be indicative of a trend. • This measure is directed toward current management and control of radioactive materials.
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<p>Performance Gradient:</p> <p><u>Meets Expectations:</u></p> <ul style="list-style-type: none"> • A proactive management strategy is in place to reduce frequency and severity which includes follow-up of incidents where radioactive material is found outside of a Controlled Area. • The number of occurrences will be maintained to within 5% of the 3 year running average or within a limit set between the Laboratory and the local DOE office. <p><u>Exceeds Expectations:</u></p> <ul style="list-style-type: none"> • The number of occurrences demonstrate a decreasing trend set by local DOE agreement with the Laboratory. <p><u>Far Exceeds Expectations:</u></p> <ul style="list-style-type: none"> • A reduction in the number of occurrences that is set by the Laboratory and the local DOE office.
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Performance Narrative:

The number of occurrences was not reduced, but was the same as the previous year, and within the 3 year running average. There was one occurrence report which involved the lost of control of 11 sealed sources. To meet the performance gradient of “Meets Expectations”, the Laboratory was to demonstrate a proactive management strategy in the control of radioactive material. Reconciling the sealed source records and locations required numerous BSO interactions, and indicated a “lack of proactive management strategy”, and therefore a Laboratory need for improvement.

Performance Rating (Adjectival):	Needs Improvement	69.00%
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Performance Objective: #4 Risk Management

The Laboratory will ensure that for its programs and operations, ES&H risks are analyzed and controlled. **(Weight = 11%)**

Performance Criteria: 4.1 Emergency Readiness

The Laboratory maintains the capability to respond appropriately to minimize injuries, degradation of the environment, loss of life and property damage in the event of an emergency. **(Weight = 4%)**

Performance Measure: 4.1.a Emergency Preparedness

The Laboratory provides an Emergency Readiness Assurance Plan (ERAP) annually and implements it during the following fiscal year. **(Weight = 4%)**

Performance Assumptions:

- For FY97 the performance period is July 1, 1996 to June 30, 1997.

Performance Gradient:

Meets Expectations:

- The ERAP is completed on time.
- The schedule for exercises and drills is met.

Exceeds/Far Exceeds Expectations:

- Lessons learned from the ERAP drills and exercises are implemented appropriately.

Performance Narrative:

The Laboratory has fully complied with this performance measure. The report was submitted on time and indicates an overall improvement in the emergency management system of the Laboratory. The laboratory continues to use the ERAP reporting requirement as an effective management assessment tool.

Performance Rating (Adjectival): Exceeds Expectations 89.00%

Performance Criteria: 4.2 Facility Safety

The Laboratory plans and designs its facilities, and operates within them such that potential adverse impacts are controlled and mitigated to an acceptable risk. **(Weight = 7%)**

Performance Measure: 4.2.a Hazard Analysis

The Laboratory maintains current and accurate Safety Analysis Reports (SARs) and Preliminary Hazards Assessments (PHAs) and its nuclear and non-nuclear moderate hazard facilities identify and operate within the facility's operating parameters defined as Technical Safety Requirements (TSRs) and Operational Safety Requirements (OSRs). For other facilities, appropriate hazard analyses are completed as required and a safety envelope is established. **(Weight = 7%)**

Performance Assumptions:

- FY97 the performance period is July 1, 1996 to June 30, 1997.
- The performance measure applies to mutually agreed-upon facilities LBNL.
- The Laboratory will use existing guidance to decide the level of detail for hazards/safety analysis documents, TSRs and OSRs for nuclear and non-nuclear facilities.
- Safety Analysis Reports for nuclear facilities are reviewed annually. Hazards analysis for the other facilities are reviewed every five years or as required. Documents are amended whenever significant changes are planned.

Performance Gradient:

Meets Expectations:

- The Laboratory provides a schedule for hazards/safety analysis in the quarterly reports.
- Hazards/safety analysis documents are in place or the schedule milestones are met. If milestones are not met, change requests are submitted to the approval authority before the original milestone date.
- Proactive management systems are in place to monitor operational changes and identify any necessary changes to hazards/safety analysis documents. The hazard /safety documents are updated and facility changes are implemented according to schedule.
- ORPS reportable occurrences of violations of TSRs and OSRs are maintained to within 25% of the previous year.

Exceeds:

- ORPS reportable occurrences of violations of

(continued on next page)

Performance Gradient: (4.2.1 continued)

the Safety Envelope for LBNL are decreased or maintained at the control limits.

Far Exceeds Expectations:

- In facilities with completed SARs, all operational changes were activated after a USQ review has been performed.
- Hazards/Safety Analysis documents for nuclear and non-nuclear moderate hazard facilities are complete. Hazards analysis for other facilities are reviewed every five years or as required.
- Major facility safety upgrades identified through hazard analysis are completed ahead of schedule.

Performance Narrative:

One area of success in this area is that LBNL, in concurrence with the DOE/BSO instituted a very successful Hazards Analysis and Hazards Assessment program within the Chemical Sciences Division and additional successes are expected as this program proceeds throughout all LBNL Divisions.

LBNL and DOE/BSO jointly identified a pilot site for the Integrated Hazards Appraisal with led to an Integrated Functional Appraisal of the Chemical Sciences Division. This comprehensive review of hazards was a part of the Work Smart Standards process. A Safety Analysis was written and completed and a set of Operational Safety Requirement adopted. Protective management systems were in place assigning line management responsibility for hazard assessment. The assessment identified no ORPS reportable violations of Technical Safety Requirement (TSR), or Operational Safety Requirement (OSR).

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Objective: #5 Customer Focus

The Laboratory will conduct its business in a manner that meets or exceeds expectations and, through continuous communications, will foster customer and stakeholder mutual trust and credibility.

(Weight = 5%)

Performance Criteria: 5.1 Customer Expectations

The Laboratory has a system for identifying its ES&H customers and stakeholders and ensuring that their concerns are considered in its decision making and planning processes within the area of environment, safety and health.

(Weight = 5%)

Performance Measure: 5.1.a External Customers

The Laboratory measures and evaluates the environment, safety and health expectations of its external customers and incorporates the input into Laboratory programs as appropriate.

(Weight = 2%)

Performance Assumptions:

- The intent is to obtain feedback such as during and after meetings, presentations and other already established activities and to evaluate the responses received. There is no expectation that the Laboratory will develop community surveys solely for the purpose of this measure.

Performance Gradient:

Meets Expectations:

- The Laboratory has identified a core set of external customers and stakeholders.
- External customers opinions are solicited and analyzed. The Laboratory takes actions to address feedback concerns.

Exceeds/Far Exceeds Expectations:

- The Laboratory communicates actions taken to customers groups.

Performance Narrative:

The Laboratory has done a good job in responding to external customer needs. Much effort has been extended to work with The Tritium Issues Working Group (TIWG), an independent third-party monitoring committee established during the performance period.. It maintains active contacts with the major regulatory organizations which have an interests in activities at the Laboratory.

The Laboratory has been very cooperative with its external regulators, and has been effective. However, to meet the ongoing challenges of satisfying the expectations of its environmentally sensitive neighbors, the Laboratory needs to focus more on proactive planning and systematic strategies to anticipate and reduce the likelihood of these challenges.

Performance Rating (Adjectival):	Exceeds Expectations	82.00%
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Performance Measure: 5.1.b Internal Customer Focus

The Laboratory measures internal customer expectations or needs and maintains/improves services.
(Weight = 3%)

Performance Assumptions:

- There is some existing baseline data.

Performance Gradient:

Meets Expectations:

- Identify and track customer feedback.

Exceeds/Far Exceeds Expectations:

- Take actions to address feedback concerns.

Performance Narrative:

There were a number of activities conducted during the period directed to internal customer focus and Customer surveys for process improvement. These include the IFA Process Improvement, involvement of DOE, various divisions at the Laboratory, and other DOE sites in the development of ISMS, one day workshop entitled Sustaining Excellence in Customer Support Through Division Liaisons.

Performance Rating (Adjectival): Far Exceeds Expectations 95.00%

Performance Area: FACILITIES MANAGEMENT

Performance Objective: #1 Real Property Management
 The Laboratory will effectively manage Real Property **(Weight = 15%)**

Performance Criteria: 1.1 FIMS
 Facilities Information Management System (FIMS) contains validated, complete, and accurate information. **(Weight = 5%)**

Performance Measure: 1.1.a Completed Data Elements
 Number of completed data elements/total number planned for completion. **(Weight = 5%)**

Performance Assumptions:
 A data completion plan will be made a matter of record in the first month of the fiscal year. The plan will address FIMS data requirements and quality assurance. A sampling scheme will be included as part of the plan. Missing or incorrect data are considered incomplete.

Performance Gradient:

<u>Far Exceeds Expectations</u>	- 0.995
<u>Exceeds Expectations</u>	- 0.99
<u>Meets Expectations</u>	- 0.98
<u>Needs Improvement</u>	- less than 0.98 *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

The Lawrence Berkeley National Laboratory (LBNL) almost doubled their planned data population efforts for FY97. The planned number of data elements to be entered into the FIMS was 703. The actual number was 1,255 ($1,255/703 = 1.785$). On July 3, 1997, LBNL conducted their self-assessment that included the validation of data elements contained in the Facilities Information Management System (FIMS). An OAK representative participated in the self-assessment. Four buildings representing a cross-section of facilities and 146 data elements were checked against original sources of information and found to be accurate.

Performance Rating (Adjectival):	Far Exceeds Expectations	100.00%
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Performance Criteria: 1.2 Office Space Utilization

The Laboratory will optimize its total office space utilization (on-site and lease space).
(Weight = 5%)

Performance Measure: 1.2.a Office Space Standard

Square feet per person for permanent and leased office space. **(Weight = 5%)**

Performance Assumptions:

The intent is to efficiently and cost effectively utilize office space consistent with GSA Standards. The office space inventory, space utilization determination and method of calculation of space utilization will be made a matter of record in the first month of the fiscal year.

Performance Gradient:

Far Exceeds Expectations - 10% under standard or 10% reduction from previous year

Exceeds Expectations - 5% under standard or 5% reduction from previous year

Meets Expectations - at standard or closer to standard than previous year

Needs Improvement - above standard and no decrease from previous year *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

LBNL rates a Far Exceeds (97%) rating for FY1997. The Lab's utilization rate is 107 net square feet or 20% under GSA's Standard of 135 net square feet.

Performance Rating (Adjectival):	Far Exceeds Expectations	97.00%
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Performance Objective: #2 Physical Assets Planning

The Comprehensive Integrated Planning Process should reflect current and future Laboratory needs.
(Weight = 10%)

Performance Criteria: 2.1 Comprehensive Integrated Planning Process

The Laboratory develops, documents, and maintains a comprehensive integrated planning process that is aligned with DOE mission needs.
(Weight = 10%)

Performance Measure: 2.1.a Effectiveness of Planning Process

The planning process is executed to achieve maximum effectiveness in anticipating and articulating DOE and Laboratory needs.
(Weight = 10%)

Performance Assumptions:

The Laboratory will work with DOE counterparts in a cooperative effort to continuously evaluate the effectiveness of the comprehensive land-use planning process through the development of Laboratory specific planning elements.

Performance Gradient:

- Far Exceeds Expectations - 0.90
- Exceeds Expectations - 0.80
- Meets Expectations - 0.70
- Needs Improvement - less than 0.70 *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

LBNL Facilities Department continues to demonstrate outstanding performance in FY-97 by developing, documenting, and maintaining a comprehensive integrated planning process that is aligned with DOE mission needs. The Facility Department has partnered with DOE counterparts in

the establishment of value added contractor owned planning processes, procedures and management systems to provide sound performance based life cycle asset management in the planning functional area. The Facilities Department's accomplishments include continued implementation of a sustainable landscape plan, establishment of interior and exterior laboratory wide signage requirements, selection of a new GIS platform, development of the Space Assessment Plan and the publication of the 1997 Comprehensive Facilities Plan (CFP). The CFP is a dynamic "real time" planning approach which provides analysis and policy guidance for the effective use and orderly future development of land and capital assets at the Berkeley Lab site based on planning concepts, the anticipated needs of research programs, and site potential and constraints. The CFP documents current site and space condition, planning analyses and projections, and the 5 and 20 year plans. The CFP also contains a comprehensive analyses of infrastructure needs and assessment of building usage considering rehabilitation, adaptive reuse and redevelopment. In summary, the LBNL Facilities Department far exceeds expectations in executing the planning process to achieve maximum effectiveness in anticipating and articulating DOE and Laboratory needs.

Performance Rating (Adjectival):	Far Exceeds Expectations	97.00%
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Performance Objective: #3 Project Management

The Laboratory will complete construction projects within approved budgets and schedules. **(Weight = 35%)**

Performance Criteria: 3.1 Construction Projects Under \$2000K

Construction projects greater than \$500K and less than \$2000K meet baselines. **(Weight = 6%)**

Performance Measure: 3.1.a Project Schedule

Number of projects completed on schedule/total number of projects scheduled for completion. **(Weight = 6%)**

Performance Assumptions:

The intent is for timely execution of construction projects. Project completions adjusted for uncontrolled forces such as weather, strikes, etc. Beneficial occupancy is considered completion. A list of projects scheduled for completion will be made a matter of record in the first month of the fiscal year. By mutual agreement between the Laboratory and DOE, projects may be weighted for project significance and/or for late/early completion.

Performance Gradient:

- Far Exceeds Expectations - 1.00
- Exceeds Expectations - 0.85
- Meets Expectations - 0.70
- Needs Improvement - less than 0.70 *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

Performance against schedule baselines for construction projects under \$2 million far exceeded expectations. Originally, five projects were scheduled for completion in Fiscal Year 1997. Subsequently, after design completion, the users of the B2 Lithography Laboratory project requested that the start of construction be delayed due to urgent research commitments which could not be

interrupted. LBNL requested and received approval from OAK to put construction of the project on hold.

Performance Measurement of Project Schedule:

Projects completed on schedule / Projects scheduled for completion = 4/4 = 1.00.

OAK Assessment of Performance:

OAK has an outstanding working relationship with the LBNL staff who are responsive and efficient. As noted in the performance narrative, LBNL completed every construction project within schedule baselines. OAK understands and recognizes the realities of programmatic requirements which necessitated the request for delay of the start of construction on the one project. Not only did the performance rating far exceed expectations, OAK rates LBNL's efforts above midpoint.

Performance Rating (Adjectival):	Far Exceeds Expectations	97.00%
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Performance Criteria: 3.2 Construction Projects Over \$2000K

Line-Item projects (including any project \$2000K and over regardless of type of funds) meet baselines. **(Weight = 29%)**

Performance Measure: 3.2.a Total Estimated Cost (TEC)

Estimated cost at completion for all active projects/current baseline TEC for all active projects. **(Weight = 10%)**

Performance Assumptions:

The intent is to measure Laboratory performance in executing projects within the approved TEC. The method of calculating estimated cost at completion and how to handle contingency will be made a matter of record in the first month of the fiscal year. Disposition of pending Baseline Change Proposals, for the purposes of this measure, will be made by mutual agreement in the first month of the fourth quarter of the current fiscal year. By mutual agreement between the Laboratory and DOE, projects may be weighted for project significance.

Performance Gradient:

Far Exceeds Expectations - 0.96

Exceeds Expectations - 0.98

Meets Expectations - 1.00

Needs Improvement - greater than 1.00 *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

Five line item projects were rated for Fiscal Year 1997. The current baseline total estimated cost (TEC) vs the estimated cost at completion for all active projects were as follows:

<u>Project</u>	<u>Baseline TEC</u>	<u>Actual/Estimated</u>
Hazardous Waste Handling Facility (HWHF):	\$13,125,000	\$13,120,000
East Canyon Electrical Safety Project (ECESP):	\$3,854,000	\$3,839,000
ALS Structural Biology Support Facilities (ALS):	\$7,882,000	\$7,881,700
Human Genome Laboratory (HGL):	\$24,634,000	\$24,634,000
Sanitary Sewer Restoration (SSR):	<u>\$2,400,000</u>	<u>\$2,400,000</u>
Totals:	\$51,895,000	\$51,874,700

Performance Measurement for Total Estimated Cost:

Estimated cost at completion for all active projects / Current baseline TEC for all active projects =
 $\$51,874,700 / \$51,895,000 = 1.00 (0.996)$.

OAK Assessment of Performance:

LBNL staff partnered with the contractor on the SSR project utilizing an innovative method of lining the sewer pipes in lieu of digging up the old pipes and replacing them with new piping. This innovative technique resulted in over \$ 1 million in savings to the government. The savings enabled LBNL to expand the scope of the original project to include the remainder of the corroded sewer lines. OAK is rating LBNL well above mid-point on the premise that, had the \$ 1 million dollars been returned rather than used to replace more pipes, LBNL’s performance would have fallen into the exceeds expectations gradient.

Performance Rating (Adjectival):	Meets Expectations	79.00%
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Performance Measure: 3.2.b Project Schedule

Estimated schedule at completion of all active projects/current baseline schedule of all active projects.
(Weight = 7%)

Performance Assumptions:

The intent is to measure Laboratory performance in executing projects in accordance with the approved schedules. Schedule measured in months and cumulative for all Line Item projects. Completion is defined as construction completion or beneficial occupancy as mutually agreed to between DOE and the Laboratory. Disposition of pending Baseline Change Proposals, for the purposes of this measure, will be made by mutual agreement in the first month of the fourth quarter of the current fiscal year. By mutual agreement between the Laboratory and DOE, projects may be weighted for project significance and/or for late/early completion.

Performance Gradient:

<u>Far Exceeds Expectations</u>	-	0.90
<u>Exceeds Expectations</u>	-	1.00
<u>Meets Expectations</u>	-	1.10
<u>Needs Improvement</u>	-	greater than 1.10 *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

The construction schedule for the five line item projects LBNL managed in FY 1997 was as follows:

<u>Project</u>	<u>Scheduled Baseline Months Design through Construction</u>	<u>Actual/Estimated Months</u>
HWHF	110	111
ECESP	58	58
ALS	36	38
HGL	50	50
SSR	<u>32</u>	<u>17</u>
Totals:	286	274

Performance Measurement of Project Schedule:

Estimated schedule at completion of all active projects / Current baseline schedule of all active projects = 274 months / 276 months = 0.96.

OAK Assessment of Performance:

As pointed out in the previous section, LBNL partnered with the contractor on the Sanitary Sewer Restoration project to achieve tremendous savings to the government. Another element to the innovative technology was that the project was completed 15 months ahead of schedule.

LBNL is extremely responsive to impending changes by keeping OAK informed and then following up with rapid Baseline Change Proposals (BCP) when warranted. An example of LBNL's quick response entailed the SSR project whereby LBNL quickly accomplished a BCP request /approval and subsequently obtained a contractor to start the work on the remainder of the sewer lines. LBNL deserves a slightly higher than mid-point rating.

Performance Rating (Adjectival):	Exceeds Expectations	86.00%
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<p>Performance Measure: 3.2.c Work Performed</p> <p>Number of milestones completed on schedule/number of milestones planned for completion. (Weight = 12%)</p>

Performance Assumptions:

The intent is to measure actual progress against that planned for the fiscal year and for the Laboratory to commit and cost funds in a timely manner. A milestone list for all active projects will be negotiated with DOE and made a matter of record in the first month of the fiscal year. Only significant milestones will be listed, but each active project will have at least one milestone per year. By mutual agreement between the Laboratory and DOE, milestones may be weighted for project significance and/or for late/early completion. Negotiated milestones are not to be interpreted as baseline change approval. Milestones must be consistent with either approved or proposed baselines.

Performance Gradient:

(Negotiated with milestone list.) *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

The five line item projects rated in FY 1997 contained a total of 12 milestones. Only one of the projects missed a milestone, the Human Genome Laboratory project. The milestone pertained to beneficial occupancy occurring in September. However, due to problems with the contractor, this milestone slipped to the end of October. The problems with the contractor pertained to start up and testing of the electrical and mechanical systems, which dragged out over several months. Problems included wrong size sheaves on a number of the fans, problems with the deionized water system, etc. LBNL had recognized the problems and written letters and worked with the contractor. However, the contractor wanted compensation for his time and efforts. LBNL felt that they could have taken the contractor to court and won, but made a “business decision” to negotiate a time extension on the premise that such an action would be in the best interests of all concerned.

Performance Measurement of Work Performed:

Number of milestones completed on schedule / Number of milestones planned = 11 / 12 = 0.92.

OAK Assessment of Performance:

OAK recognizes that LBNL made the decision to grant the contractor a time extension on the Human Genome Laboratory project, causing a one month delay in beneficial occupancy. However, the one month slippage pales in comparison to the time saved on the Sanitary Sewer Restoration project.

OAK felt that LBNL exceeded expectations in meeting 11 out of 12 milestones. In light of this, LBNL should receive a higher than mid-point rating.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Objective: #4 Maintenance

The Laboratory will maintain capital assets to ensure reliable operations in a safe and cost effective manner. **(Weight = 25%)**

Performance Criteria: 4.1 Maintenance Management

Maximize the development of the maintenance management program as defined within Appendix E of the UC-DOE contract. **(Weight = 7%)**

Performance Measure: 4.1.a Appendix E Milestones

Sum of completion percentages for all milestones worked/milestones scheduled for completion. **(Weight = 7%)**

Performance Assumptions:

Completion percentage for each milestone will be an average of the completion percentages for each facility included in the milestone. To exceed expectations all high hazard and nuclear facilities must achieve scheduled milestones.

Performance Gradient:

Far Exceeds Expectations - 105%

Exceeds Expectations - 100%

Meets Expectations - 95%

Needs Improvement - less than 95% *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

LBNL has reported and UC has certified the completion of both FY-1997 Appendix E milestones. The milestones completed are:

- 1) The development of maintenance procedures for Category 2 equipment in low-hazard class facilities.
- 2) Verification of the accuracy of the equipment inventory in non-hazard class facilities by the central maintenance organization.

Performance Rating (Adjectival):	Exceeds Expectations	89.00%
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Performance Criteria: 4.2	Maintenance Backlog Control
Manage maintenance backlog to control growth.	(Weight = 3%)

Performance Measure: 4.2a	Maintenance Backlog Amounts
Maintenance backlog amount minus unfunded backlog reduction projects/baseline maintenance backlog.	(Weight = 3%)

Performance Assumptions:

Maintenance Backlog is defined as the amount of all maintenance and repair work not accomplished. Backlog does not include alterations/modifications necessary to bring a facility up to current code. The Maintenance Backlog will be defined by inspection, including all identified deficiencies, and normalized for percent of the site inspected. LLNL baselines are those used for the FY94 POCMs. As more facilities are inspected, the baseline should be adjusted to reflect better accuracy. Maintenance Backlog growth is to be adjusted for inflation. If a reduction is taken as a result of capital funded projects, only the portion that reduces maintenance backlog should be taken for credit. Backlog can also be reduced by closing, deactivating, or demolishing an entire facility and reducing the backlog amount by the portion associated with that facility. A reduction in backlog resulting from verification by the facility manager or others, does not change the backlog for this measure, but does adjust the baseline downward. Unfunded backlog reduction projects must be recognized at the highest Laboratory planning council.

Performance Gradient:

<u>Far Exceeds Expectations</u>	-	0.98
<u>Exceeds Expectations</u>	-	0.99
<u>Meets Expectations</u>	-	1.00
<u>Needs Improvement</u>	-	greater than 1.00 *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

The performance of LBNL controlling Maintenance Backlog, either comprehensive or mission-critical, far exceeds expectations.

Fiscal Year	Maintenance Backlog
	Comprehensive Mission-Based

1994	\$23,351,000	\$7,200,000
1995	\$22,533,000	\$6,894,000
1996	\$18,780,000	\$3,141,000
1997	\$19,370,000	\$3,731,000

Ratios FY97/FY94 0.830 0.519

Performance Rating (Adjectival):	Far Exceeds Expectations	97.00%
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Performance Criteria: 4.3 Preventative Maintenance
 Planned preventative maintenance is performed as scheduled. **(Weight = 4%)**

Performance Measure: 4.3.a Scheduled Maintenance Activities
 The number of planned preventative maintenance activities overdue by 3 months or more/the total number of planned preventative maintenance activities. **(Weight = 4%)**

Performance Assumptions:
 The plan for preventative maintenance will be made a matter of record during the first month of the fiscal year.

Performance Gradient:

<u>Far Exceeds Expectations</u>	-	0.01
<u>Exceeds Expectations</u>	-	0.05
<u>Meets Expectations</u>	-	0.10
<u>Needs Improvement</u> - greater than 0.10 *		

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

The LBNL data for preventive maintenance (PM) activities for FY 1997 are as follows:

Quarter	Planned PM	Actual PM	3-months Overdue
1	19,458	18,648	810
2	18,186	17,347	839
3	20,482	19,697	785
4	28,908	28,523	385

Totals 87,034 84,215 2,819

Ratio = (3-months Overdue)/(Planned PM) = 2,819/87,034 = 0.0324

The ratio of “three-month overdue” to “planned preventive maintenance activities” for the running 12-month period through September 30, 1997 was 0.0324, which exceeds expectations.

Performance Rating (Adjectival):	Exceeds Expectations	85.00%
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Performance Criteria: 4.4 RPIE/PPPE ORs
 Maximize the number of Occurrence Reports (ORs) resulting from failures of Real Property Installed Equipment (RPIE) and Personal Property and Programmatic Equipment (PPPE). **(Weight = 5%)**

Performance Measure: 4.4.a RPIE/PPPE Failure
 The number of final Occurrence Reports that are the result of equipment failure attributed to maintenance program deficiencies or performance of maintenance work/the total number of occurrences. **(Weight = 5%)**

Performance Assumptions:
 Non-performance of scheduled maintenance is considered a maintenance program deficiency.

Performance Gradient:

<u>Far Exceeds Expectations</u>	-	0.05
<u>Exceeds Expectations</u>	-	0.10
<u>Meets Expectations</u>	-	0.15
<u>Needs Improvement</u> - greater than 0.15 *		

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

None of the twenty-eight (28) LBNL Occurrence Reports closed out in FY 1997 were considered to be the result of equipment failure attributed to maintenance program deficiencies or performance of maintenance work.

Performance Rating (Adjectival): Far Exceeds Expectations 95.00%

Performance Criteria: 4.5 Condition Assessment
 Real property and installed equipment capital assets will be surveyed for condition. **(Weight = 6%)**

Performance Measure: 4.5.a Condition Surveys
 Number of completed condition surveys/number of condition surveys planned. **(Weight = 6%)**

Performance Assumptions:
 The intent is to survey all facilities within a 5 - year cycle. Source of condition surveys may be CAS program or similar effort. Survey Plan will be made a matter of record within the first quarter of the fiscal year.

Performance Gradient:

Far Exceeds Expectations - 1.15
Exceeds Expectations - 1.00
Meets Expectations - 0.90
Needs Improvement - less than 0.90 *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

LBNL planned to survey the condition of eleven (11) buildings in FY 1997. The final condition survey data is as follows:

	QUARTERS				ANNUAL
	FIRST	SECOND	THIRD	FOURTH	TOTAL
Planned	4	2	2	3	11
Completed	4	2	2	3	11

The ratio of completed to planned surveys is 1.00, which exceeds expectations.

Performance Rating (Adjectival):	Exceeds Expectations	85.00%
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Performance Objective: #5 Utilities/Energy Conversation
 The Laboratory will maintain a reliable utility system and conserve energy. **(Weight = 15%)**

Performance Criteria: 5.1 Reliable Utility Service
 Maintain reliable utility service. **(Weight = 5%)**

Performance Measure: 5.1.a Electric Service
 Total number of customer hours of electrical service less the number of customer hours of unplanned outages/total customer hours. **(Weight = 5%)**

Performance Assumptions:
 Unplanned outages that are caused by occurrences outside the boundary of the Laboratory's utility system may be excluded. Definition of "Customer Hours" = "X" KVA at "Y" Kv which each Laboratory defines for its electrical system. A 12-month running average will be reported.

Performance Gradient:

<u>Far Exceeds Expectations</u>	- 99.995%
<u>Exceeds Expectations</u>	- 99.990%
<u>Meets Expectations</u>	- 99.982%
<u>Needs Improvement</u>	- less than 99.982% *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

LBNL had only two minor unplanned electrical system outages during the assessment year. The reliability ratio was 99.993. This reliability exceeds the industry norm and contributes substantially to program successes throughout the Site.

Performance Rating (Adjectival):	Exceeds Expectations	89.00%
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Performance Criteria: 5.2	Energy Consumption
Manage energy usage.	(Weight = 5%)

Performance Measure: 5.2.a	Building Energy
The reduction in energy usage from FY85 levels in BTUs per gross square feet of building expressed as a percent of FY85 energy usage.	(Weight = 5%)

Performance Assumptions:

Reduction for FY97 interpolated from the DOE goal of a 20% reduction from FY85 levels by FY2000.

Performance Gradient:

Far Exceeds Expectations - 22%

Exceeds Expectations - 19%

Meets Expectations - 16%

Needs Improvement - less than 16% *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

During FY 1997, LBNL reduced building energy use by 38.1%, as compared to the 1985 base year. This not only exceeds the FY 2000 goal for a 20% reduction, but also puts the Laboratory well beyond DOE's FY 2005 goal for a 30% reduction. Despite this accomplishment, the Laboratory continues to maintain an aggressive energy management program. This is important, since LBNL needs to maintain or improve on this accomplishment in each future year. Maintaining status has become more difficult, as Congress has eliminated appropriated funds for DOE's In-house Energy Management Program, and at the same time, the Laboratory has added energy intensive facilities (NERSC) with no increase in building square footage.

Performance Rating (Adjectival):	Far Exceeds Expectations	100.00%
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Performance Criteria: 5.3 IHEM Retrofits and Studies
 In-House Energy Management (IHEM) retrofit and study projects meet baseline schedules.
(Weight = 3%)

Performance Measure: 5.3.a IHEM Retrofit Schedules
 Summation of the cost of each project times months to complete/summation of the cost of each project times months approved.
(Weight = 2%)

Performance Assumptions:
 Excludes Low-Cost Retrofits and Energy Savings Performance Contracts. Start date is receipt of funds and authorization to proceed. Completion is defined as beneficial occupancy in FY97. Projects are pre-approved by DOE for 24 months unless otherwise agreed.

Performance Gradient:

<u>Far Exceeds Expectations</u>	-	0.90
<u>Exceeds Expectations</u>	-	0.95
<u>Meets Expectations</u>	-	1.10
<u>Needs Improvement</u> - greater than 1.10 *		

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

LBL's IHEM project performance ratio was 1.07. Twelve IHEM projects (TEC \$5.1M) were completed during the year. Most have paybacks of five years or less.

Performance Rating (Adjectival): Meets Expectations 79.00%

<p>Performance Measure: 5.3.b IHEM Study Schedules</p> <p>Summation of the cost of each study times months to complete/summation of the cost of each study times months approved. (Weight = 2%)</p>

Performance Assumptions:

Excludes Low-Cost Studies. Start date is receipt of funds and authorization to proceed. Completion is defined as submission of Study Report to DOE in FY97. Studies are pre-approved by DOE for 12 months unless otherwise agreed.

Performance Gradient:

<u>Far Exceeds Expectations</u>	-	0.90
<u>Exceeds Expectations</u>	-	0.95
<u>Meets Expectations</u>	-	1.10
<u>Needs Improvement</u>	-	greater than 1.10 *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

LBNL's IHEM study performance ratio was 0.94. Two studies (TEC \$68K) were completed, identifying energy saving opportunities in high bay heating and optimized energy control systems.

Performance Rating (Adjectival):	Exceeds Expectations	89.00%
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Performance Criteria: 5.4 Energy Management
 Energy initiatives are managed consistent with a comprehensive energy management plan.
(Weight = 2%)

Performance Measure: 5.4.a Energy Goals
 Energy goals accomplished/goals scheduled to be accomplished in accordance with the plan.
(Weight = 2%)

Performance Assumptions:
 The energy management plan will be made a matter of record in the first month of the fiscal year. Areas to be addressed in the plan are:

- (1) building operation & maintenance,
- (2) central plant operations & maintenance,
- (3) construction/modification,
- (4) identification of energy and water conservation opportunities,
- (5) acquisition of equipment/products/supplies,
- (6) employee awareness,
- (7) real property leases, and
- (8) alternative fuels.

Performance Gradient:

Far Exceeds Expectations - 0.95

Exceeds Expectations - 0.85

Meets Expectations - 0.75

Needs Improvement - less than 0.75 *

Note: * For all gradients in Facilities Management, a linear scale is assumed for scoring in the region below Meets Expectations. Plans, lists, and milestones made a matter of record in the first month or first quarter of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE.

Performance Narrative:

All twelve energy management plan goals were accomplished, resulting in a performance ratio of 1.0. All of the goals had quantifiable, measurable deliverables which have clear contributions to energy conservation at the Laboratory.

Performance Rating (Adjectival): Far Exceeds Expectations 100.00%

Performance Area: FINANCIAL MANAGEMENT

Assumptions:

Where appropriate incorporate, in the self assessment, historical trends as the data becomes available.

Laboratory-specific targets identified by end of January of each year contingent on availability of benchmarking results.

Note: Laboratory-wide cost savings initiatives require the highest level of visibility and Laboratory commitment. For this reason, Performance Objectives, Criteria and Measures (POCMs) addressing cost savings are included in the Laboratory Management POCMs instead of here in the Financial Management section.

Performance Objective: #1 Customer Focus and Satisfaction

The Customer Focus and Satisfaction Category examines the Laboratory's Finance and Budget Organizations' system for customer learning and for building and maintaining customer relationships. **(Weight = 20%)**

Performance Criteria: 1.1

Describe how the Laboratory's Finance and Budget Organizations determine near-term and longer-term requirements, expectations, and preferences of its internal and external customers and develops learning strategies to understand and anticipate needs. **(Weight = 12%, Scoring Code A-D)**

Performance Measure: 1.1

- a. How the Finance and Budget Organizations determine current and near-term requirements and expectations of customers. Include:
 - (1) how customer groups are defined;
 - (2) how information is collected, including what information is sought, frequency and methods of collection;
 - (3) how the finance organization provides information and access to assist customers to comment, and to complain.
- b. How the Finance and Budget Organizations address future requirements and expectations of customers. Include an outline of key listening and learning strategies used.
- c. How the Finance and Budget Organizations evaluate and improve their processes for determining customer satisfactions, requirements, expectations, and preferences in support of missions.

Performance Assumptions:

UC modified Baldrige scoring table will be used to score this section see Exhibit I (see below).

Performance Gradient:

See Exhibit I (see below).

Score	Approach/Deployment
50-59.9%	<ul style="list-style-type: none"> No systematic approach evident; anecdotal information
60% to 69.9%	<ul style="list-style-type: none"> Beginning of a systematic approach to the primary purposes of the Item Early stages of a transition from reacting to problems to a general improvement orientation Major gaps exist in deployment that would inhibit progress in achieving the primary purposes of the Item
70% to 79.9%	<ul style="list-style-type: none"> A sound, systematic approach, responsive to the primary purposes of the Item A fact-based improvement process in place in key areas; more emphasis is placed on improvement than on reaction to problems No major gaps in deployment, though some areas or work units may be in very early stages of deployment
80% to 89.9%	<ul style="list-style-type: none"> A sound, systematic approach, responsive to the overall purposes of the Item A fact-based improvement process is a key management tool; clear evidence of refinement and improved integration as a result of improvement cycles and analysis Approach is well-deployed, with no major gaps; deployment may vary in some areas or work units
90% to 100%	<ul style="list-style-type: none"> A sound, systematic approach, fully responsive to all the requirements of the Item A very-strong, fact-based improvement process is a key

Score	Results
50-59.9%	<ul style="list-style-type: none"> No results or poor results in areas reported
60% to 69.9%	<ul style="list-style-type: none"> Early stages of developing trends; some improvements <i>and/or</i> early good performance levels in a few areas Results not reported for many to most areas of importance to the applicant's key business requirements
70% to 79.9%	<ul style="list-style-type: none"> Improvement trends and/or good performance levels reported for many to most areas of importance to applicant's key business requirements No pattern of adverse trends and/or poor performance levels in areas of importance to the applicant's key business requirements Some trends and/or current performance levels- evaluated against relevant comparisons and/or benchmarks - show areas of strength and/or good to very good relative performance levels
80% to 89.9%	<ul style="list-style-type: none"> Current performance is good to excellent in most areas of importance to the applicant's key business requirements Most improvement trends and/or performance levels are sustained Many to most trends and/or current performance levels- evaluated against relevant comparisons and/or benchmarks - show areas of leadership and very good relative performance levels
90% to 100%	<ul style="list-style-type: none"> Current performance is excellent in most areas of importance to the applicant's key business requirements Excellent improvement trends

	management tool; strong refinement and integration - backed by excellent analysis • Approach is fully deployed, without any significant weaknesses or gaps in any areas or work units
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	and/or sustained excellent performance levels in most areas • Strong evidence of industry and benchmark leadership demonstrated in many areas
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Performance Narrative:

This section was scored using techniques from the Malcolm Baldrige National Quality Award Board of Examiners and/or techniques that have been adapted by state awards and the Department of Energy Quality Awards programs modeled after the National program. Specifically, this section was scored using a consensus scoring team consisting of three DOE Oakland Operations Office (DOE/OAK) personnel from the Budget, Accounting, and Financial Review Divisions; a non-financial representative from LBNL; and a representative from the University of California (UC) Office of the President, Laboratory Administration Office. The scores and words that follow in this section were developed and agreed to by the scoring team using consensus techniques modeled from the awards programs identified above. The scores relate directly to the scoring bands identified in the section immediately preceding this one.

The Malcolm Bridge technique and associated scoring bands, which were used for the first time in 1997 as a pilot, are designed to assess performance based on the stated measures and the Laboratory’s responses. The team used the modified Baldrige scoring tables exclusively to arrive at the consensus score. While the DOE/OAK team members believe the score for this measure does not justly reflect their individual knowledge and perception of the Laboratory’s performance in customer service, their assessment was confined to the stated performance assumptions including the Baldrige scoring table for this measure.

1.1 Customer Learning Methods and Extent of Use

Strengths

Customer segments and their requirements are identified by categories of output that are delivered to them.

Some key customer issues have been identified and the impact documented as with the disuse of financial data and the emergence of customer-developed supplemental financial information systems.

Monthly meetings with internal customers help keep financial personnel aligned with customer needs and satisfaction. The new CFO has met with division heads and top administrators to listen and learn about unfulfilled needs and how to satisfy shortfalls.

Informal validation checks with programmatic customers are routine.

LBNL financial organizations completed their first-ever formal customer satisfaction survey.

Relevant CFO organizations provide customers with awareness training sessions dealing with financial matters. A new committee chaired by Budget/Finance managers will enhance Laboratory staff knowledge of financial topics.

Access to financial functional areas has been enhanced by use of various tools like the CFO Home Page, 100% voice and e-mail capability, and the Accounts Payable (AP) phone messaging and navigational system.

Use of cross-functional teams and forums, Town Hall meetings, and use of issue-specific discussion groups include customer perspectives in a wide array of activities.

The Appendix F process is an effective way to work with two external customers, DOE and UC, in order to align on what is important in assessing overall financial management performance at the Laboratory.

Areas for Improvement

Non-customers are identified as those organizations using shadow systems for reporting financial information, yet there is no information provided as to the size of his population. Rough estimates by LBNL personnel put this percentage at 20% overall and as high as 80% for the Financial Management Reporting System. No targets for penetration of these shortfalls are identified. Although there is mention of commitments by non-customers to become customers, there is no timetable provided.

There is no linkage or description of systematic methods for using, communicating, or prioritization of customer feedback. All methods were defined as “informal” and thus lacked these linkages.

The Customer survey was limited in its coverage of the customer segments identified by the financial organizations and there was no determination made as to the demographics of the limited responses. No external customers were surveyed.

Performance Rating (Adjectival):	Meets Expectations	75.00%
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Performance Criteria: 1.2

Summarize the Finance and Budget Organizations' customer satisfaction and dissatisfaction results using key measures and/or indicators of these results. Compare results with previous periods and competitors where appropriate. **(Weight = 8%, Scoring Code R)**

Performance Measure: 1.2

- a. Current levels and trends in key measures and/or indicators of customer satisfaction and dissatisfaction. Results should be segmented by customer groups and product and service types, as appropriate.
- b. Address any appropriate customer satisfaction information relative to competitors.

Performance Assumptions:

UC modified Baldrige scoring table will be used to score this section see Exhibit I (see below).

Performance Gradient:

See Exhibit I (see below).

Score	Approach/Deployment
50-59.9%	<ul style="list-style-type: none"> • No systematic approach evident; anecdotal information
60% to 69.9%	<ul style="list-style-type: none"> • Beginning of a systematic approach to the primary purposes of the Item • Early stages of a transition from reacting to problems to a general improvement orientation • Major gaps exist in deployment that would inhibit progress in achieving the primary purposes of the Item
70% to 79.9%	<ul style="list-style-type: none"> • A sound, systematic approach, responsive to the primary purposes of the Item • A fact-based improvement process in place in key areas; more emphasis is placed on improvement than on reaction to problems • No major gaps in deployment, though some areas or work units may be in very early stages of deployment

Score	Results
50-59.9%	<ul style="list-style-type: none"> • No results or poor results in areas reported
60% to 69.9%	<ul style="list-style-type: none"> • Early stages of developing trends; some improvements <i>and/or</i> early good performance levels in a few areas • Results not reported for many to most areas of importance to the applicant's key business requirements
70% to 79.9%	<ul style="list-style-type: none"> • Improvement trends and/or good performance levels reported for many to most areas of importance to applicant's key business requirements • No pattern of adverse trends and/or poor performance levels in areas of importance to the applicant's key business requirements • Some trends and/or current

			performance levels- evaluated against relevant comparisons and/or benchmarks - show areas of strength and/or good to very good relative performance levels
80% to 89.9%	<ul style="list-style-type: none"> • A sound, systematic approach, responsive to the overall purposes of the Item • A fact-based improvement process is a key management tool; clear evidence of refinement and improved integration as a result of improvement cycles and analysis • Approach is well-deployed, with no major gaps; deployment may vary in some areas or work units 	80% to 89.9%	<ul style="list-style-type: none"> • Current performance is good to excellent in most areas of importance to the applicant's key business requirements • Most improvement trends and/or performance levels are sustained • Many to most trends and/or current performance levels- evaluated against relevant comparisons and/or benchmarks - show areas of leadership and very good relative performance levels
90% to 100%	<ul style="list-style-type: none"> • A sound, systematic approach, fully responsive to all the requirements of the Item • A very-strong, fact-based improvement process is a key management tool; strong refinement and integration - backed by excellent analysis • Approach is fully deployed, without any significant weaknesses or gaps in any areas or work units 	90% to 100%	<ul style="list-style-type: none"> • Current performance is excellent in most areas of importance to the applicant's key business requirements • Excellent improvement trends and/or sustained excellent performance levels in most areas • Strong evidence of industry and benchmark leadership demonstrated in many areas

Performance Narrative:

1.2 Customer Satisfaction Results

Strengths

There was a timely, successful completion of the Cost Accounting Standards (CAS) disclosure statement.

Division managers promised to eliminate shadow financial systems.

Survey of customers demonstrates a high degree of satisfaction with 12 customers surveyed. The overall score was 17.8 out of 20 possible.

Areas of Improvement

There was a very limited response to the survey. All key customer segments identified were not covered. It was not possible to analyze information demographically.

Performance Rating (Adjectival):	Needs Improvement	65.00%
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Performance Objective: #2 Operational Effectiveness

Achieve cost effective and efficient Financial Management operations by applying available resources to continuous improvement efforts. **(Weight = 50%)**

Performance Criteria: 2.1 Leadership in Improving Financial Management Efficiency and Effectiveness

Consistent with DOE requirements and plans, take proactive leadership role to improve the financial management effectiveness and efficiency of the budget processes and financial reporting systems. **(Weight = 20%)**

Performance Measure: 2.1.a Quality Performance in Reporting Process

Budgets, reports and information, analyses, estimates, and proposals submitted have minimal time/form/content deficiencies and incorporate budget validation and other systematic customer feedback. **(Weight = 10%)**

Performance Assumptions:

Annual budget and reimbursable proposal processes will be measured for timeliness and quality by measuring on-time performance. A narrative will describe the continuous process/product improvement and the proactive activities related to this Performance Measure.

(continued on next page)

Performance Gradient:

A Meets Expectations rating is achieved by meeting customer due dates for the annual budget and reimbursable proposal submissions and by demonstrating tangible improvements in these processes and/or in the products developed. Factors that will be considered for a higher rating include:

- reductions in cycle time and/or cost, automation improvements and initiatives
- proactive activities such as training and development of Financial Management staff and internal customers.
- customer feedback and other relevant information.

(continued on next page)

Performance Assumptions: (2.1.a continued)

The measurement of DOE periodic reports and special ad hoc DOE requests regarding budgets, analyses, estimates, and proposals submitted will include only formal written requests with deadlines of 8 or more working hours. Incorporate budget validation and other systematic customer feedback. Narrative will include customer satisfaction information from 1.1.

Performance Gradient: (2.1.a continued)

A Meets Expectations rating is achieved with 90% of on-time performance with acceptable determined from customer feedback. Factors that will be considered for a higher rating include:

- on-time performance greater than 90%
- good customer feedback
- process improvements, cost, and cycle time reductions

Performance Narrative:

LBNL exceeds the expectations for Gradient 1. They provided the Unicall primary budget submission to DOE one day early. The secondary submission, including the reimbursable submission, was submitted on time. The quality of the submission was acceptable to DOE. Due to unclear instructions provided by DOE, the Motor Vehicle Statement submission required revisions.

LBNL implementation of the newly revised data input sheets for the budget formulation process resulted in a more organized and easier submission. LBNL identified that their internal customers considered this a positive improvement in the formulation process. This process resulted in both cost and cycle time reductions.

As in the past, training was provided in many areas related to the budget process. LBNL conducted their annual Budget Preparation Workshop for division administrators and budget analyst. An on-line training publication was also provided, enabling the budget office to clarify data requirements for the resource analyst.

LBNL conducted validations of the Field Work Proposals (FWP) to assure the accuracy of the submission. In addition, the LBNL Director conducted his annual budget review of the submission identifying individual R&D being conducted and the related costs. Both of these events included OAK participation.

LBNL continues to exceed the expectations for this measure related to the reimbursable proposal process. The planned delegation for contract approval of non-federal sponsors to LBNL is expected to expedite the WFO process. The Sponsored Projects/Proposal Tracking System (SPPT) is also being replaced with the implementation of the new Financial Management System (FMS).

The CFO exceeded the expectation of Gradient 2 by consistently exceeding the 90% on time target of responding to DOE requests. In the few instances which LBNL requested time extensions, they would request and receive approval before the due date. OAK is satisfied with the timeliness and quality of all the responses provided by LBNL.

In addition to the regular monthly transaction documents, the Laboratory submits the following periodic reports:

monthly unbilled work for others accounts analysis
quarterly banking activity reports
quarterly accounts receivable schedules
quarterly cooperative research and development report
quarterly construction status report

Ad hoc reports and supplemental information items were requested at various times during the year and at year-end. LBNL CFO staff in Contract Accounting, General Ledger, Property Services and Budget have been responsive to all requests. Information submitted has been complete and correct. Performance rating is based on monitoring reports submitted, on-going activities and responsiveness to numerous ad hoc requests.

Performance Rating (Adjectival):	Exceeds Expectations	89.00%
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Performance Measure: 2.1.b Leadership in Systems Improvements

Seek opportunities to provide proactive leadership in support of DOE and laboratory initiatives for continued contractor systems improvements. **(Weight = 10%)**

Performance Assumptions:

Narrative describing progress in support of this criterion. Use existing tools and the one year systems plan.

Performance Gradient:

Factors that will be considered for rating include:

- timeliness of the plan
- cost and cycle time reductions
- improved capacities
- customer feedback
- progress towards long term initiatives

Performance Narrative:

A timely annual Financial Systems Plan was submitted to OAK. The report indicates a conscientious and coordinated evaluation of existing systems and ongoing enhancements.

Systems initiatives are to improve system capabilities and efficiencies. Implementation of PeopleSoft software which includes General Ledger, Project Costing, and Budget modules were readied for implementation at the beginning of FY 1998. New procedures and software for transmitting MARS information to OAK were successfully tested using FY 97 supplementary data. Based on communications with Laboratory Accounting and Information Services staff, the new systems are ready, staff have been trained and are enthusiastic about the improvements.

Far exceeds rating is based on a timely and well organized One Year Financial Systems Plan, and developing the new Financial Management System. The new system includes a new General Ledger based on the Government Standard General Ledger account structure, project costing, and budget capabilities which include the following:

- on-line access for programmatic staff for real time cost adjustments
- capability to record cost and budget on same line
- increased record fields to include DOE required information on the same record
- interactive project set-up to link BNR codes, overhead codes, and other needed information
- detailed weekly cost reports that include weekly updates from feeder systems
- Lab-wide standard budget development capability with roll-up by Budget Office capability for electronic transfer of budget to project costing and General Ledger

Performance Rating (Adjectival): Far Exceeds Expectations 92.00%

Performance Criteria: 2.2 Transaction Processing Improvements

Reduce cycle times and/or cost per transaction, and improve quality and accuracy for the following transaction processing activities:

- Accounts Payable
- Accounts Receivable
- Suspense Account
- Payroll
- Domestic Travel Accounting
- General Accounting

(Weight = 20%)

Performance Measure: 2.2.a Quantification of Improvement

Trend toward best FMSIC and/or industry quality practices as appropriate per benchmarking data. Achieve measurable improvement over prior baselines.

- accuracy
- cycle times
- cost

Graph monthly cycle times with a minimum standard line and target line and/or graph the cumulative cost per transaction with a minimum standard line and target line.

(Weight = 20%)

Performance Assumptions:

This performance measure includes a series of graphs which chart the accuracy, cycle times, and cost effectiveness of identified production activities. The Laboratory will establish individual maintenance or improvement targets based on management priorities and/or its position with respect to FMSIC and/or industry benchmarking results. It is recognized that activities already performing at acceptable levels may only require maintenance targets. The Laboratory will use graphs and data elements consistent with FY 96 self-assessment.

ACCOUNTS PAYABLE

Discounts: Measure gross cost effective discounts available vs. discounts taken. Discounts \leq \$10 may not be cost effective.

(continued on next page)

Performance Gradient:

A Meets Expectations rating is achieved by having cumulative dollars in suspense account(s) zeroed out at year end. Factors that will be considered for a higher rating include:

(continued on next page)

Performance Assumptions:
(Accounts Payable continued)

Cycle time: No more than 15% of vendor payments occur before or after due date. Cumulative graph line showing % of payments made with 15% minimum standard line and a 10% target line. Consistent with DOE Order 534.1, payment dates to be calculated from date of constructive receipt or invoice date, whichever is later. Use gross number of invoices not just controllable invoices. Measure invoices not dollars.

Cost: Graph production cost per transaction with minimum standard line and target line. Use appropriate benchmarking cost element criteria. Labor costs will include fringe benefit costs and no other burdens. In the case of working supervisors, include measurable time spent on processing accounts payable. Transactions are defined as number of invoices.

Performance Gradient:
(Accounts Payable continued)

- average cumulative dollars in trends down during year
- minimization of cumulative dollars in and cumulative dollars out discrepancy
- improvement in performance from previous year

Performance Narrative (Accounts Payable):

Percentage discounts taken of available discounts meets minimum standard of 85%, however the percentage of discounts taken is below last year's. The Laboratory provided a reasonable explanation that the available discounts decreased due to change to a new major contract labor supplier who does not offer discounts. Change in contract labor supplier and increased use of pro-card have resulted in a decrease in available discounts. Since a large proportion of past discounts were attributed to one major vendor, achieving the same percentage was more difficult in 1997 than previous years. In addition, the Laboratory presented information concerning staff turn-over in the A/P unit which had other beneficial results but had negative impact on discounts taken. While Fiscal Year 1997 results are acceptable under the circumstances, efforts should be directed towards refining systems and procedures to achieve a higher percentage of discounts taken regardless of the available amount.

The Laboratory provided explanation that Accounts Payable cycle time was negatively impacted by changed circumstances -- increase in volume due to NERSC (which was offset by increased use of Pro-Card) and staff turnover. Nevertheless, 86% on-time is better than previous years when prior years are restated to exclude the impact of increased pro-card use and associated costs. Both on-time and cost per transaction measures are better than previous years and better than target.

In order to compare with previous years, cost per transaction is also restated to take into consideration the volume changes as above. When restated, current year cost of \$5.90 is lower than previous years. Exceeds expectations rating is based on consistent better performance in cycle time and cost over the previous years.

Performance Assumptions: (2.2.a continued)

ACCOUNTS RECEIVABLE

Cycle time: Aged receivables will be measured and reduced in 181+ days, 121-180, 91-120, 61-90, 31-60, 1-30 groupings.

Cost: Graph production cost per transaction with minimum standard line and target line. Use appropriate benchmarking cost element criteria, general guidelines, and customer billing assumptions. Labor costs will include fringe benefit costs and no other burdens. In the case of working supervisors, include measurable time spent on processing accounts receivable. Transactions are defined as number of invoices issued.

Performance Gradient: (2.2.a continued)

A Meets Expectations rating is achieved by having cumulative dollars in suspense account(s) zeroed out at year end. Factors that will be considered for a higher rating include:

- average cumulative dollars in trends down during year
- minimization of cumulative dollars in and cumulative dollars out discrepancy
- improvement in performance from previous year

Performance Narrative (Accounts Receivable):

Aged accounts receivable, including all past due balances have been maintained consistently low all year while total receivables have increased. There are only two accounts over 180+ days past due. The only non-Federal account in this category is under control of Alameda County Superior Court. Receivables management seems to be at a good maintenance level. Cost of \$5.15 per invoice is about the same as last year and below the target. Far exceeds expectations rating is based on Contract Accounting's efforts to maintain accounts current and obvious success in maintaining aged balances to a minimum.

Performance Assumptions: (2.2.a continued)

SUSPENSE ACCOUNT

Process Improvement: Improve the process for clearing of suspense account transactions.

Performance Gradient: (2.2.a continued)

A Meets Expectations rating is achieved by having cumulative dollars in suspense account(s) zeroed out at year end. Factors that will be considered for a higher rating include:

- average cumulative dollars in trends down during year
- minimization of cumulative dollars in and cumulative dollars out discrepancy
- improvement in performance from previous year

Performance Narrative (Suspense Account):

Performance has improved progressively over the last three years in that the average cumulative amounts posted to suspense have decreased since late 1994 and 1995. The cumulative average value in, and cleared, fluctuate; but were slightly lower in 1996 and 1997. It is expected that recent extension in use of the Laboratory Electronic Time System to contract labor and additional on-line transaction processing will further reduce the need to post costs to suspense accounts. Exceeds expectations rating is based on improved performance over prior years in decreasing average cumulative dollars in to suspense.

Performance Assumptions: (2.2.a continued)

PAYROLL

Cost: Graph cost per employee with minimum standard line and target line. Use appropriate benchmarking cost element criteria. Labor costs will include fringe benefit costs and no other burdens. In the case of working supervisors, include measurable time spent on processing payroll.

Performance Gradient: (2.2.a continued)

A rating above Meets Expectations is achieved by meeting Laboratory-specific targets. Factors that will be considered for a higher rating include:

- trends
- aggressiveness of targets
- performance improvements over previous years

Performance Narrative (Payroll):

Cumulative average processing cost per employee of \$2.90 (per transaction) is well below the target and minimum standards, \$3.30 and \$3.50, respectively. Far exceeds rating is warranted for realizing actual cost substantially below target, efficiencies which resulted in reduction of one staff position, being recognized by the Internal Revenue Service as Quality Supplier for error-free electronic filing, and bettering industry benchmarking standard for payroll function cost for comparably sized organizations.

Performance Assumptions: (2.2.a continued)

DOMESTIC TRAVEL ACCOUNTING

Cycle time: The Laboratory will establish cycle time reduction/maintenance targets after considering relevant information and management priorities. Performance clock begins when receipts are received in Travel Accounting from the traveler. All receipts are recorded at the end of that business day. Measure is for closure of all domestic travel vouchers submitted. The clock stops when Travel Accounting completes and sends the completed voucher out for signature and/or payment. If the information (receipts and paperwork) received is inadequate to complete a voucher and additional information is needed, a date is recorded which stops the clock until that information is received by Travel Accounting.

Cost: Graph production cost per travel claim with minimum standard line and target line. Use appropriate benchmarking cost element criteria. Labor costs will include fringe benefit costs and no other burdens. Travel claims defined as expense reports submitted. In the case of working supervisors, include measurable time spent on processing travel expense reports.

Performance Gradient: (2.2.a continued)

A rating above Meets Expectations is achieved by meeting Laboratory-specific targets. Factors that will be considered for a higher rating include:

- trends
- aggressiveness of targets
- performance improvements over previous years

Performance Narrative (Domestic Travel Accounting):

Nearly all travel vouchers are closed within the 7-days standard. The \$8.79 cost per claim is much lower than \$13.50 target and much lower than the 1995 cost (18.47) which was the baseline. The cost and cycle time reductions are impressive, however care should be taken to assure there are no adverse impacts on actual travel costs.

Performance Assumptions: (2.2.a continued)

GENERAL ACCOUNTING

Cycle time: Graph a comparison of actual days to close to targeted days to close and cumulative average. Close date is defined as the date that the General Ledger is closed. The Laboratory will establish cycle time improvement targets after considering relevant information and management priorities.

Cost: Narrative and graph (cost per million dollars of previous year's expenditures) that demonstrates a system/method for measuring and reducing these costs compared to industry benchmarking standards/initiatives.

Performance Gradient: (2.2.a continued)

A rating above Meets Expectations is achieved by meeting Laboratory-specific targets. Factors that will be considered for a higher rating include:

- trends
- aggressiveness of targets
- performance improvements over previous years

Performance Narrative (General Accounting):

Cycle time target of 3 days to close the general ledger has been met every month with most months being 2.5 days which usually resulted in transmitting monthly data to OAK in the afternoon of the 4th business day after month end. Laboratory is sustaining performance in General Ledger close and associated Management Accounting and Reporting System data submissions to DOE.

LBNL's 1997 cost of general ledger function is .08% of previous year's expenditures which is better than the .11% target. The target is a benchmark against the Institute of Management Accountants' Continuous Improvement Center (IMA/CIC) multi-company standard in which the Laboratory participated using Fiscal Year 1996 data. LBNL's cost of .11163% (i.e. \$1116.30 per \$1 million of prior year's expenditures) compared favorably with IMA's best practices first quartile which was .1119%.

Actual 91.45%

Performance Rating 2.2.a (Adjectival): Far Exceeds Expectations 91.00%

Performance Criteria: 2.3 Work Force Management

Develop a highly skilled, motivated, empowered Financial Management Work Force.
(Weight = 10%)

Performance Measure: 2.3.a Effective Work Force Management

Develop a narrative report describing processes, systems, and initiatives related to Financial Management work force management.
(Weight = 10%)

Performance Assumptions:

Narrative to describe assessment of Financial Management work force management of processes, systems, and initiatives.

Performance Gradient:

A Meets Expectations rating is achieved by establishing a systematic approach to Financial work force management. Factors that will be considered for a higher rating include:

- span of control ratios
- number and effectiveness of self-directed work teams
- merging of related functions
- training and development activities
- alignment of individual performance objectives/appraisals with Financial Management objectives

Performance Narrative:

The LBNL CFO described its process for developing a highly skilled, motivated, empowered Financial Management work force as consisting of the following elements: career development, training, developmental activities, expanded span of control, self directed work teams and alignment of workforce with financial management objectives. It is also recognized that during FY97, LBNL CFO underwent major organizational changes, as well as, successfully developed and implemented a completely new financial management system.

Career Development

LBNL's self assessment stated there were at least four CFO employees participating in the formal education program. OAK was able to validate only two CFO employees currently utilizing the program. Two other employees had initiated the program, however for various reasons did not

participate in FY97 or were no longer in the CFO organization. LBNL's self assessment did not address the effectiveness of the formal education program or why the downward trend of CFO staff participation from 10% to 3% is occurring.

OAK's interview with a manager in the CFO organization indicated staff are encouraged to continue formal educational training as well as other developmental work assignments. The manager offered the comment, there seems to be a higher rate of participation in the formal education program by the scientific/program side of the house rather than the administrative/support side of the house. Perhaps due in part, to the availability of scientific work related educational opportunities.

Training

LBNL offers a range of on-site computer courses for its employees. CFO/Finance personnel have attended the following classes: Excel intermediate and advanced, cc:Mail, Meeting MakerXP, Word 7.0, PowerPoint, Nuts and Bolts: Employee Compensation, and Windows 95 Transition. OAK validated the attendance of CFO employees attending the computer courses from a roster of courses originating from Human Resources, Employee Development and Training Department, however, LBNL's self assessment did not address employee feedback on post-course evaluations or the effectiveness of the courses.

In addition, in conjunction with the installation and implementation of the PeopleSoft Financial Management System (FMS), OAK validated that approximately 90% of CFO staff have attended various PeopleSoft training courses. Several CFO staff were trained to provide internal training to other CFO staff. This allows the opportunity for staff to attend in house classes as frequently as needed until a comfort level is reached with the new FMS. LBNL's PeopleSoft system also has the capability to allow users to practice on line in an area called the "sandbox" which does not affect the integrity of the data, yet allows for real on line practice. This has proven to be a very effective method of training.

Expanded Span of Control Ratios

LBNL computed their span of control ratios based on organizational information dated March 17, 1997. LBNL calculated an impressive ratio of 17.7 to 1 for processing transactions. Organizational restructuring within and external to LBNL's CFO division occurred since the March 17th statistics which may skew the year end ratios. LBNL was unable to provide the IMA benchmarking data upon which it based its span of control calculations.

Self-Directed Work Teams

LBNL utilized a Work Team concept to develop/implement a new FMS and to recommend a cost-effective, user-friendly automated system to be integrated with existing systems for the acquisition of low-dollar/high volume commodities (WEB/EDI). In the development of the FMS, a comprehensive approach was utilized to embark on a task of this magnitude. Representatives from the affected areas of the lab were tasked with developing/implementing a new FMS. It was noted, however, LBNL did not have an EDP auditor on staff during the development and early implementation phase to ensure audit concerns were addressed. The new system ran parallel with the existing system at year end.

The study and development of a low-dollar/high volume acquisition process was tasked to a team of representatives from Procurement, Facilities, Accounts Payable, Internal Audit and Chemical Sciences

division. The team conducted its fact finding work and developed alternatives to suit the labs unique environment. The team produced a very comprehensive summary of findings which was reviewed by OAK. However, the next phase, presentation to management for a decision on implementation has been delayed due to the higher priority in implementing the FMS.

Alignment of Workforce with Financial Management Objectives

LBNL has identified three areas to demonstrate Alignment of Workforce with Financial Management Objectives. The SPOT Recognition Award, Town Hall Meetings and the development of Work Plans by CFO management.

SPOT Recognition Awards are distributed to employees/employee teams as a reward for outstanding efforts which support management objectives. LBNL CFO indicated their FY97 SPOT Award allocation was \$1,800 of which \$1,550.00 (86%) was distributed. Town Hall Meetings are held to disseminate broad based financial and administrative information and progress to the staff. For example, award presentations, updates regarding new programs at the lab, state of the budget and the new FMS. The May 1997 Town Hall meeting was attended by OAK staff. The atmosphere was lively and employees were provided the opportunity to ask questions and voice concerns.

Finally, LBNL’s CFO instituted a new process during the fourth quarter of FY97 which requires CFO Management and supervisory employees to develop a Work Plan. Work Plans lay out major activities and include target completion dates. It should be noted, non-supervisory employees complete a similar process as part of their annual performance appraisals. As with any new process, the effectiveness of developing Work Plans may take at least the completion of one cycle to fully evaluate. LBNL may want to include an assessment during the FY98 Performance Measure process.

Merging of Related Functions

During FY97, LBNL’s CFO Payroll Division merged with Human Resources, Inventory Accounting merged with Facilities, and the Conference Unit was added to the CFO. The Conference Unit was split with Conference Accounting under the auspices of General Ledger and Conference Coordination part of Business Services. LBNL’s self-assessment did not address how internal controls were impacted or evaluated in light of the realignment and additional responsibilities assigned to the CFO.

Overall, LBNL’s performance exceeds expectations in the development of a highly skilled, motivated, empowered Financial Management Workforce. LBNL instituted two highly effective self-directed work teams, merged related functions and provided ongoing computer training to its CFO staff. An opportunity for improvement for LBNL would be to assure that performance measure results are fully supported with the most current data. Also, the downward trend over the last two years in staff of the employees formal education program may warrant a closer review to determine the value of this element as a performance measure.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Objective: #3 Financial Stewardship and Integrity

Financial management practices provide for financial stewardship, including compliance and data integrity. **(Weight =30%)**

Performance Criteria: 3.1 Cost and Commitments are Managed Properly

Ensure that all costs and commitments are within DOE-authorized funding levels or that costs and commitments in excess of such levels are properly reported and recorded. **(Weight = 6%)**

Performance Measure: 3.1.a Costs and Commitments are Controlled to Appropriate Funding Levels

Identify funding levels. Control costs to B&R Level 9, graph % within funding levels. Control commitments within authorized major funding levels (Obligation Control Level). **(Weight = 2.5%)**

Performance Assumptions:

"Within funding levels" to mean within funding modifications.

"Commitments" definition to be consistent with definition used in Uncosted Obligations Report.

Meeting the objective of this performance measure is applicable only at year end for Construction, Operating, Capital Equipment funds. Line item capital equipment and construction is applicable monthly. The UC grade will be assessed consistent with this statement. Quarterly graphs for Operating, and non-line item capital equipment and construction. Line item capital equipment and construction will be graphed monthly.

Graph costs plus commitments to Obligation Control Level limits.

Graph Costs to Level 9 limits.

Performance Gradient:

A Meets Expectations rating is achieved by staying within funding levels as defined above. Factors that will be considered for a higher rating include:

- monthly trends
- training and development
- other proactive activities to effectively manage and control funds

Performance Narrative:

LBNL exceeds the objectives of this performance measure by maintaining costs and commitments within authorized funding levels (ECOR) and having processes in place to monitor and control costs at the B&R level 9.

During the fiscal year, LBNL continues to reflect positive monthly trends by operating at 100% efficiency and ensuring costs do not exceed funding. No reportable violations occurred. LBNL has effective processes in place to monitor and avoid control violations. Some proactive measures that the CFO initiated are revised internal reports that better support customer needs, increased communication between the budget office and division administrators, and reinstatement of the Finance Forum. These actions increased overall awareness within the financial community and provided a forum to share experiences and best practices.

LBNL did demonstrate some potential vulnerabilities in the management of costs. At the end of one August, a situation occurred where costs would exceed obligations at the ECOR level. LBNL informed OAK in a timely manner of the potential situation and kept us informed in case DOE assistance was required. This could have been a significant event. A review was conducted and adjustments were made that alleviated the situation. Since LBNL experienced this situation of potential cost overrun, they should continue to improve processes to monitor and avoid funds control violations.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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<p>Performance Measure: 3.1.b Control of Funds</p> <p>Proactive activities designed for control of funds. (Weight = 3.5%)</p>
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Performance Assumptions:

Narrative describing initiatives.

Performance Gradient:

A Meets Expectations rating is achieved by implementing an effective process for mitigating administrative control of funds violations. Factors that will be considered for a higher rating include:

- process improvements
- enhancements to controls
- awareness training
- timely notification to DOE of significant changes in projected year-end uncosted balances.

Performance Narrative:

LBNL exceeds the objective of this performance measure by demonstrating in measure 3.1.a that they have a process in place to avoid funds control violations. Budget provides monthly automated reports to the Division Administrators for analysis and to identify potential cost overruns.

To further enhance and improve their control process, the new Financial Management System is scheduled for implementation on October 1. This will provide on-line viewing of actual budgetary status, thereby increasing reporting capabilities to assist institutional fund control. Budget staff will follow up on a regular basis to ensure that potential funding concerns are identified and resolved.

LBNL demonstrated their proactive methods with the Cost of Work for Others (WN) funds. Realizing the impact of reduced WN funds, LBNL was proactive and able to obtain an advance from UCB for the Drosophila project. This enabled LBNL to free up WN funds, begin other unfunded projects, and notify OAK in a timely manner of the availability of unused funds so that HQs could better apply them to support other offices within the DOE complex.

LBNL continues to maintain the awareness training to ensure proper funds control.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Criteria: 3.2	Asset and Debt Management
Improve asset and debt management practices.	(Weight = 6%)

Performance Measure: 3.2.a	Document Improvements
Maintain an effective system for identifying, reviewing, and correcting (if identified) financial management internal control/compliance processes.	(Weight = 6%)

Performance Assumptions:

Asset management includes cash, advances, Letter of Credit, inventories, stores, precious metals, valuation of physical plant assets, depreciation, and closings from work-in-process. Debt management includes debt collection processes, allowance for bad debts and write-off. Narrative description describing initiatives in any of the above areas to better manage assets and debts.

Performance Gradient:

A Meets Expectations rating is achieved by demonstrated incremental improvement. Factors that will be considered for a higher rating include demonstrated quantum improvement.

Performance Narrative:

Low imprest fund balances achieved in prior years were maintained in Fiscal Year 1997. Travel advances decreased from \$25,703 at the beginning of the year to less than \$19,000 at year-end. New procedures were established to account for and manage conference costs, including separate bank account, as directed by the Oakland Operations Office and the DOE Inspector General. The Laboratory's General Ledger staff perform daily monitoring of Letter of Credit drawdowns and bank balances to prevent over or under cash draws. Quarterly reports were effective and submitted timely.

Construction work-in-process were not sufficiently monitored resulting in several instances where project accounts were not transferred timely (beneficial occupancy) to completed P&E accounts as required by agency policy. This effect was overstated CWIP account balances and understatement of plant assets during the year, as well as under recording of depreciation expense for the year. Upon learning of this, the Laboratory made account balance adjustments at year-end.

The Laboratory implemented a new inventory computer application to improve real time processing, expedited reordering and inventory accuracy. Increased use of ProCard and "just in time" purchasing contracts were expected to reduce the amount of inventory required. The value of stores inventories actually rose from \$1.8 million at the beginning of the year to about \$2.1 million at the end of the Fiscal Year. The effect of these improvements on inventory levels or expected cost savings are not apparent considering the on-hand inventory increase.

The conversion of precious metals inventory to non-fund accounts were made properly and as requested by DOE. Nuclear Materials inventory appear correctly accounted for. Delinquent receivable balances were monitored and minimized. The Laboratory prepared to implement and assist DOE in meeting goals and requirements of the 1996 Debt Collection Act. The Laboratory currently has no qualifying accounts for Treasury referral under the Act.

High "exceeds" rating is based on Laboratory performance in cash and debt management and efforts to better manage and control inventories. The Laboratory needs to improve capital asset project account monitoring and processes to ensure timely closings and accurate recording of depreciation.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Criteria: 3.3 Effective Internal Controls and Compliance

Provide for effective internal controls and ensure timely and effective resolution of identified weakness. **(Weight = 12%)**

Performance Measure: 3.3.a Internal Controls/Compliance Management

Maintain an effective system for identifying, reviewing, and correcting (if identified) financial management internal control/compliance processes. **(Weight = 12%)**

Performance Assumptions:

Describe and self assess selected systems/processes identified in conjunction with DOE.

Performance Gradient:

A Meets Expectations rating is achieved by accurately describing well designed and well deployed systems/processes for managing internal controls and compliance. Factors that will be considered for a higher rating include:

- a risk prioritization system that demonstrates laboratory focus on high risk financial management control/compliance areas
- prompt completion of corrective actions
- process improvements
- aggressiveness of corrective action schedules
- effective process for identifying with DOE, annual target areas

Performance Narrative:

LBNL and OAK jointly selected four areas LBNL would self-assess during FY97. An overall observation noted during OAK’s validation effort was that LBNL’s documentation and/or description of internal controls was not always prepared in a systematic way which assessed the effectiveness of internal controls. That is, there was not: (i) an identification of control objectives, (ii) a determination of whether needed controls exist and if existing controls are adequate, (iii) a discussion of the scope and methodology or approach used to conduct the self assessment, and (iv) an identification of strengths and opportunities for improvements. OAK’s comments on the jointly selected areas are as follows:

1. Conferences-Cash Management

In response to IG Report WR-V-96-21 on the Assessment of Changes to the Internal Control Structure and their Impact on the Allowability of Costs Claimed by and Reimbursed to LBNL the OIG recommended that LBNL:

1. Cease using the Department's letter of credit to finance unallowable conference and workshop costs, and
2. Cease using the special bank account to deposit registration fees associated with unallowable conferences and workshop costs.

Through the DARTS process, OAK's Finance Division performed a follow-up assessment and certified that the following actions were taken by LBNL and the corrective actions are complete. LBNL established a separate bank account independent of the DOE letter of credit and conference accounting procedures to comply with DOE directions related to unallowable costs. The new account and revised procedures have been in effect since June 1, 1997. Conference Planning budgets, collects moneys and pays conference costs using the separate bank account. Each conference is closed out with any excess funds deposited to the Federal Reserve Bank. However, during our validation visit LBNL informed us that no conferences had been completed which fully utilized the new procedures. Therefore, LBNL was unable to walk us through a completed conference accounting.

2. Honorarium Payments

LBNL's CFO organization has implemented several procedures during FY97 to address internal control weaknesses previously identified during FY96 by the Internal Audit Services Department and DOE. It was identified LBNL lacked formal reconciliation procedures for tax accounts and operated with an inadequate segregation of duties process. As a result, during FY97, LBNL developed procedures to ensure timely and accurate deposits, and adequate segregation and assignment of duties.

In addition, it was identified during FY96, honoraria payments may have been made contrary to LBNL policy. That is, there was no evidence LBNL made a determination whether the guest is an employee of DOE, another federal agency, or a DOE contractor. During FY97, the CFO Finance requested clarification from the DOE Contracting Officer (CO) on the applicability of honoraria payments to a staff person from DOE or another federal government agency. The response provided by the DOE CO indicated federal employees could not receive honorarium payments for teaching, speaking or writing that relates to the employee's official duties whether the employee is on annual leave or on leave without pay status in accordance with the Standards of Ethical Conduct for Employees of the Executive Branch. LBNL CFO Finance interpreted this response to exclude DOE contractor employees and developed a new form to be used to document compliance with LBNL policy that the employee be in leave status. LBNL financial management believes it has initiated more stringent criteria than required by LBNL regulations. However, it is our opinion, LBNL's RPM is inconsistent with the CO's interpretation that federal employees may not receive compensation irregardless of their leave status. As a result, the fundamental question of the appropriateness of honoraria payments to contractor employees still has not been sufficiently clarified. On the other hand, LBNL's RPM categorizes DOE, other federal agency and DOE contractor employees as "government employees." Therefore, should the CO's interpretation

also apply to DOE contractor employees? Accordingly, it is OAK's opinion this issue has not been fully resolved based on the corrective action taken by LBNL. OAK recommends the specific question concerning DOE contractor employees be posed to LBNL's legal counsel and the UC Laboratory Administration Office prior to requesting an opinion from the DOE CO. In addition, LBNL should revise the RPM and its new form to be consistent with the CO's existing decision.

3. Documentation Compliance and Compliance Information Delivery.

During FY97, as a process improvement, OAK observed that the CFO/Finance developed a CFO web site to enhance information dissemination and retrieval for Laboratory staff. The web site explains the function of each unit in CFO department and the appropriate staff to contact for assistance. Also, selected forms used laboratory-wide are available with the goal of promoting consistency and compliance with internal DOE regulations. We believe this is a very good step in making information resources readily available to employees at the lab. We encourage LBNL to take the next step in the continuous improvement process which is to perform an assessment to measure the level of compliance by lab employees in achieving consistency and compliance with contractual requirements now that compliance information is more accessible electronically.

4. Account Authorization/Accountability and Structure

We observed during FY97 that LBNL reengineered, without sacrificing internal controls, the signature authority component of the Account Authorization System. The new Signature Authorization System (SAS) represents a process improvement which simplified and streamlined the signature authority verification, will drastically reduce efforts to maintain the system, represents a Lab-wide practice improvement and should result in increased internal control over the signature authority. Transitioning from the legacy system was also necessary with the implementation of the new Financial Management System. The focus of the new system is to grant and control a specified level of authority to individuals. Under the old system authority was granted by individual account to employees. This was a very cumbersome and time consuming process.

In addition to the four areas jointly selected, LBNL included comments in its self-assessment on: (i) a Risk Prioritization System and (ii) Enhanced Travel VISA and ProCard Processes and Controls. While inclusion of the enhanced travel VISA and ProCard processes and controls were the result of weaknesses which surfaced during FY97, the actions taken by the LBNL in these areas demonstrate prompt and aggressive corrective action. We are hopeful LBNL's financial management team will continue to increase its efforts in proactive measures, such as its recently implemented Risk Assessment and Prioritization System, and initiate corrective actions prior to the incurrence of actual losses but where the potential for losses has been identified. LBNL should also assure that its efforts in this area are adequately documented as it continues to balance its efforts on preventative measures in relation to reacting to issues once identified.

LBNL began the initial implementation of a Risk Prioritization System in August 1997 for all functions within CFO/Finance. Under the system, the Finance Managers are required to sign a monthly assurance letter that states the manager has reviewed all of the high risk areas under his/her sphere of responsibility. High risk areas are ranked to determine whether the risk exposure is high, medium or low and to develop and implement a plan for corrective action. Those areas having a high

and medium mark require a corrective action plan. During our validation we were provided with the risk prioritization assurance letters from the Functional Manager's responsible for (i) General Ledger and Contract Accounting and (ii) Accounts Payable. During FY 1997, 28 areas were risk ranked. The distribution was 11 low, 9 medium and 8 high. No detailed corrective action plans were provided to us during our validation review on the areas identified as medium or high risk.

In general, corrective actions taken by LBNL during FY97 demonstrate prompt attention and aggressiveness of scheduling to strengthen internal control deficiencies which surfaced during the fiscal year.

Overall, OAK believes LBNL's internal controls meet expectations and LBNL has engaged in efforts to be considered for a higher rating such as the recent implementation of a risk prioritization system and process improvements. LBNL should also assure that it documents the results of its activity in the form of a self assessment. As a minimum, the internal control self assessments should include: (i) identification of control objectives, (ii) a determination whether needed controls exist and if existing controls are adequate to achieve the desired objectives, (iii) the methodology or approach used to conduct the self assessment, and (iv) identification of strengths and opportunities for improvements. Also, LBNL should pursue an opinion on honoraria payments to contractor employees and modify the RPM and form to comply with the CO's existing decision pertaining to leave status.

Performance Rating (Adjectival):	Meets Expectations	78.00%
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Performance Criteria: 3.4 Quality of Data Reports

Financial accounts and reports fully disclose the results of operations, and contain accurate, useful, timely information for program and fiscal management needs. **(Weight = 6%)**

Performance Measure: 3.4.a Policies, Data and Reports Consistent with CAS

Policies, Data and Reports consistent with CAS compliance and DOE requirements; financial practices are consistent with approved disclosure statement. **(Weight = 3%)**

Performance Assumptions:

Narrative describing activities and processes in support of this criterion.

Performance Gradient:

A Meets Expectations rating is achieved by having practices consistent with approved disclosure statements. Factors that will be considered for a higher rating include:

- agreed audit report findings
- proactive interaction with DOE
- training and development of staff and relevant program personnel

Performance Narrative:

During FY97 LBNL completely revised and resubmitted its Cost Accounting Standards Disclosure Statement on the new CASB-1 Form. In our opinion, the revised disclosure statement adequately describes LBNL’s cost accounting practices and incorporated the necessary revisions as a result of the OIG audit of adequacy of its disclosure statement. LBNL was proactive in its interactions with DOE and was responsive to issues and concerns raised during our interactions. In addition, LBNL discussed upcoming accounting practice changes being considered by the laboratory with OAK/BEPD in a timely manner and generally kept us apprised of actions and progress.

LBNL has engaged in extensive outreach and dissemination of information regarding the laboratory's cost accounting practices and procedures across the laboratory. This is evidenced in the “CAS Cookbook,” on-line policies and procedures and upgrades to its pricing model.

LBNL submitted its initial Functional Support Cost Report which covered the FY94 through FY98 period ahead of schedule during February 1997. The submission was coordinated with OAK and consistent with Departmental guidance and instructions. This was also true for the FY97 Mid-Year Functional Support Cost Report completed in April 1997.

Usually proposals for submission of provisional rate or cost accounting practice changes are documented and well supported. The recent proposal for FY98 accounting practice changes submitted in September 1997, however, was incomplete. Our concurrent review of the FY1998 through FY2003 Provisional Indirect Cost rates disclosed an accounting practice change which was not mentioned in the letter but had been previously discussed with OAK as a potential change in one of our monthly liaison meetings. Also, proposals should indicate in a concise manner why the lab is making the change.

In addition, during FY97 LBNL discussed OAK's thoughts on how a proprietary recharge rate for the ALS should be developed. OAK advised LBNL that because the ALS is an Energy Research National User Facility any recharge rate developed for proprietary research purposes must reflect full cost recovery consistent with the requirements of DOE Order 2110.1A, Pricing of Departmental Materials and Services. Under the order, the pricing rate development should be based on a pricing study for the 12 month period which reflects expected cost of operations as well as expected available utilization by customers. In our review of the FY98 Provisional Rates submitted in September 1997, we found several issues in the establishment of the ALS depreciation and recharge rates which, as discussed, involved the overstatement of the base used to calculate the depreciation and recharge rates. LBNL acknowledged and corrected the depreciation base issue. The recharge rate utilization base issue is being researched by LBNL. In our opinion, LBNL financial management should understand and validate the appropriateness of the base generated by the programmatic organization prior to final approval. In addition, the base selected should correlate to how the facility is actually utilized by customers in performing their research during the 12 month period of the pricing study.

Accordingly, it is not apparent to OAK what the laboratory does on a consistent/systematic basis to test and document that actual financial practices are consistent with disclosed practices, and DOE requirements. During FY98, LBNL could enhance its performance in this area by developing and implementing an approach to determine the level of compliance of actual practices across the laboratory with CAS, DOE and LBNL requirements as a result of making a substantial amount of information available electronically.

Performance Rating (Adjectival):	Far Exceeds Expectations	90.00%
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<p>Performance Measure: 3.4.b Audited Financial Statements</p> <p>Prepare for FY97 year end audited Financial Statements consistent with DOE requirements. (Weight = 3%)</p>
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Performance Assumptions:

Narrative describing activities and processes in support of this criterion.

Performance Gradient:

A Meets Expectations rating is achieved by demonstrating that the Laboratory is adequately prepared for this effort. Factors that will be considered for a higher rating include demonstrated proactive activities in preparation for audited financial statement audits.-

Performance Narrative:

LBNL reported a formalized, documented procedure and schedule for preparation of financial statements was implemented this year. Financial write-downs of property according to the 1997 change in capitalization criteria were recorded timely throughout the year. Laboratory staff were supportive of DOE goals to account for and report financial information that will withstand audit.

However, LBNL failed to adequately test necessary certifications to DOE on Plant & Equipment closing procedures. The Laboratory certified in 1996, and again in 1997, that its construction project closings conformed with financial requirements. The 1997 IG audit found that in fact it did not. Although the Laboratory acted quickly to remedy the three specified instances, the fact that the Laboratory’s certification was not valid undermines credibility and reliance upon important financial statement representations. The 1997 certification was even more sensitive since it specifically sought assurance of no repeat findings within the Department.

A high ‘meets’ rating is based on the Laboratory’s overall support for meeting financial statement requirements and schedules, reporting transactions and maintaining account balances for Reporting Unit 2 in DOE’s Management Accounting and Reporting System, effectiveness in preparing year-end analyses, and in responding to DOE needs regarding Managerial Cost distribution and reporting.

Financial attestations and certifications are critical elements of audited financial statements. The Laboratory must assure that its financial representations are reliable and certifications are factually supported.

Performance Rating (Adjectival):	Meets Expectations	79.00%
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Performance Area: HUMAN RESOURCES

Performance Objective: #1 Cost Effectiveness

The Laboratory will have cost effective HR practices. Practices could be policies, services, programs, system, processes and procedures. **(Weight = 32%)**

Performance Criteria: 1.1 Compensation

Compensation is administered in a manner which takes into account external and internal equity. **(Weight = 25%)**

Performance Measure: 1.1.a Currency of Job Classification

Cumulative % of classifications reviewed, updated and evaluated in accordance with the Laboratory's current system. Baseline is to have every classification reviewed at least once every 5 years. **(Weight = 6%)**

Performance Agreement:

- (1) Report annually on cumulative % of classifications reviewed (including results/actions) with the goal of 100% by the end of a 5-year period.
- (2) In assessing the value of job classifications, both internal alignment and external market forces must be considered.
- (3) Classifications for which changes are required will be counted under the cumulative % in the year in which the changes have been completed.

Performance Gradient:

Meets Expectations: 100% in 5 years

Exceeds Expectations: 100% in 5 years, plus a quality review process/system institutionalized as a part of normal processes.

Performance Narrative:

The Laboratory continues to move toward reviewing all job classifications within a five year period. This should be obtained during FY98. The total number of classifications to be reviewed continues to fluctuate due to many being absorbed into a new bargaining unit and creation of new classifications to

better match work being performed. LBNL is very proactive in keeping classifications current with changes in work performed by Laboratory employees. This reflects the quality review process in place at the Laboratory.

Eighteen exempt administrative classifications were modified for implementation in FY 1997. This was accomplished with a minimal staff of compensation professionals.

Performance Rating (Adjectival):	Far Exceeds Expectations	98.00%
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Performance Measure: 1.1.b Effectiveness of Implementation of Market-Based Pay Policy

% of weighted classification average salaries fall within $\pm 5\%$ of target agreement. **(Weight = 10%)**

Performance Agreement:

This measure may be limited to those classifications with 10 or more incumbents. Classification average salary will then be compared to the target and designated "yes" if the classification average falls within $\pm 5\%$ of the target and "no" if they do not. The populations of classifications designated "yes" will then be added and the sum divided by the total population in the covered classifications. Targets for the fiscal year shall be established prior to the implementation of the salary review for that fiscal year.

Performance Gradient:

Meets Expectations: 50% or greater but less than 70%

Exceeds Expectations: 70% or greater but less than 85%

Far Exceeds Expectations: 85% or greater

Performance Narrative:

Data submitted by LBNL shows there are 24 classifications with 10 or more nonrepresented employees. Of these, 17 or 71% were within $\pm 5\%$ of the range control points. The ranges control point is the classification mid-point, which reflects market rates. Seven classifications were more than $\pm 5\%$ of the range midpoint. Five of the seven classifications that exceeded $\pm 5\%$ of the range control are scientific or technical. The other two are administrative.

Performance Rating (Adjectival): Exceeds Expectations 82.00%

Performance Measure: 1.1.c Adherence to Salary Administration Guidelines

Annual Laboratory guidelines for setting salaries which ensure consistency, pay for performance, and equity, internally and externally, are approved by management and implemented prior to the annual salary review. **(Weight = 9%)**

Performance Agreement:

The purpose is to achieve and demonstrate consistency and equity in guidelines--not new guidelines annually. Guidelines will be reviewed annually and revised as appropriate.

Evaluate Laboratory performance against annual salary guidelines using the following:

Annual salary review adjustments:

Report the number and percentage of zero or minimum merit increases by S&E, administrative, and technical employee groups. Also report the salary increase distribution for each employee category, except for the step structure at LLNL.

Performance Gradient:

No gradient provided.

Performance Narrative:

Laboratory annual salary review guidelines were updated for all non-represented employees. This included a merit plan matrix guide that illustrates the link between an employee's position within the salary range and the performance appraisal rating. They have been incorporated into a comprehensive salary administrative manual which is now available to all employees on the Web. These continue to strengthen the close relationship between pay and performance.

The Laboratory Director continues to review performance appraisal summaries and proposed salary increases for all Scientists and Engineers (S&Es) with each Division Director. This is done to ensure adherence to guidelines and a consistent approach to performance evaluation and salary setting for all S&Es.

Performance Rating (Adjectival):	Far Exceeds Expectations	98.00%
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Performance Criteria: 1.2 Review and Evaluation of HR Systems and Processes

All HR systems and processes are designed to optimize the delivery of services with respect to quality and cost. **(Weight = 7%)**

Performance Measure: 1.2.a Review of HR Systems and Processes

The Laboratory will critically examine HR systems and processes using a variety of techniques that may include internal customer feedback mechanisms, cost benefit analysis, work flow analysis, process mapping, benchmarking, etc., to streamline, reengineer, outsource, or eliminate existing systems and processes or implement new initiatives. **(Weight = 7%)**

Performance Agreement:

No agreement provided.

Performance Gradient:

Meets Expectations: Major HR systems or processes (as defined by the Laboratory) are prioritized for review. Project plans are developed for one or two, and action is initiated.

Exceeds Expectations: As a result of reengineering, outsourcing or other actions, improvements are achieved as evidenced by internal customer feedback, improved cycle times, benchmarking earlier outcomes vs current outcomes, cost benefit analysis, or comparisons with other organizations which have made similar efforts, cost savings, etc.

Far Exceeds Expectations: As a result of reengineering, outsourcing or other actions, significant improvements are achieved as evidenced by internal customer feedback; improved cycle times; benchmarking earlier outcomes vs current outcomes, cost benefit analysis, or comparisons with other organizations which have made similar efforts, cost savings, etc.

Performance Narrative:

The Laboratory has undergone significant restructuring. It continues re-evaluation of its systems, procedures, and practices to increase efficiency and cost effectiveness. The acting department head has created a management team which meets daily to provide direction and coordination of departmental system and process reviews and works to prioritize projects.

Current and future HR workloads have been analyzed to develop an HR Staffing Plan. This has resulted in the hiring of five new HR professionals.

To more effectively focus HR on its core functions, the payroll unit was transferred from Finance to Compensation and Benefits. Conference Coordination and Employee's Buying Service were moved from HR to Finance. Administrative policy activities were moved from the Operations directorate to HR.

The Human Resources Information System (HRIS) is being implemented along with a new Financial Management System (FMS). These are under the direction of project managers who evaluate procedures and processes for reengineering before they become part of HRIS. In addition, process improvement teams, all customer based, are reviewing and analyzing current HR processes and procedures to implement one point of entry for HR actions to reduce hand-offs, delays, and redundancies.

The HR department is partnering with the new Administrative Services Department (ASD) and Site Access Office to develop seamless service for new employees and guests. This involves joint planning meetings to streamline processes and reengineer as needed.

Performance Rating (Adjectival):	Far Exceeds Expectations	98.00%
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Performance Objective: #2 Work Force Excellence

The Laboratory will develop and motivate its work force to excel in meeting programmatic needs of the Laboratory and its customers. **(Weight = 17%)**

Performance Criteria: 2.1 Performance Management

Effective employee performance management. **(Weight = 12%)**

Performance Measure: 2.1.a Individual Development Plan

% of employees with a current development plan. Baseline is 75%. **(Weight = 5%)**

Performance Agreement:

A 2% random sample of the covered population will be drawn to review development plan for acceptability. An IDP will not be counted as current unless it has the elements set forth in laboratory guidelines.

Performance Gradient:

Meets Expectations: 75% or greater but less than 80%
Exceeds Expectations: 80% or greater but less than 85%
Far Exceeds Expectations: 85% or greater

Performance Narrative:

The requirement for annual performance appraisals, which includes preparation of an Individual Development Plan (IDP) for each employee, has been institutionalized as part of the annual merit increase process. For FY 1997, Laboratory Divisions validated an IDP completion rate of 96%. Although this completion rate is below the FY 1996 rate of 98.5%, LBNL continues to perform very well with regard to completing IDPs for Laboratory employees.

For FY 1997, a random sample was drawn to review IDPs for acceptability. LBNL continues to draw a 5% sample instead of the 2% random sample agreed to. The 5% sample drawn by LBNL resulted in a review of 100 IDPs for acceptability or consistency with Laboratory guidelines. The result of the Laboratory's review indicated that 85% of those reviewed were completed consistent with Laboratory guidance. HRMD reviewed 35 of the 100 IDPs in LBNL's 5% sample and concluded that 29 or 83% were completed consistent with guidance.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Measure: 2.1.b Currency of Performance Appraisals

A system that evaluates each employee on an annual basis, against pre-established, job-related performance criteria is in place. % of individual performance appraisals completed annually will be measured. Baseline is 95%. **(Weight = 7%)**

Performance Agreement:

Report latest viable data. Percent completed determined by dividing the number of completed performance appraisals by the eligible population. A performance appraisal will not be counted as completed unless it has the elements set forth in the laboratory guidelines. September data will be used for FY97.

Performance Gradient:

Meets Expectations: 95%

Exceeds Expectations: greater than 95%

Far Exceeds Expectations: greater than 97%

Performance Narrative:

The requirement for annual performance appraisals has been institutionalized as part of the annual merit increase process. For FY 1997, Laboratory Divisions validated that performance appraisals were completed for 98% of eligible Laboratory employees. Although this is slightly below the 99.3% completion rate for FY 1996, it does confirm that LBNL continues to perform very well with regard to completing performance appraisals for employees.

Under the Agreement for the FY 1997 performance measure, a performance appraisal will not be counted as completed unless it has been completed consistent with Laboratory guidelines. A 5% random sample review was conducted by the Laboratory's Human Resources Management Team to determine the extent to which performance appraisals were completed consistent with Laboratory guidelines. The results of the review indicated that of those performance appraisals completed, an estimated 15% needed improvement and would be discussed with applicable Divisions. It is expected that these discussions will lead to more consistent adherence to Laboratory guidelines.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Criteria: 2.2 Employee Relations

Effectiveness of employee relations programs. **(Weight = 5%)**

Performance Measure: 2.2.a Effectiveness of Employee Relations

Measure the effectiveness of complaint resolution, including but not limited to issues related to EEO, AA, employee discipline, whistleblowing and issues addressed by administrative review or grievance process, or the ombudsman. **(Weight = 5%)**

Performance Agreement:

Data for external complaints will be provided for the current and the last two years. External complaints are agency filings and lawsuits. Multiple filings on the same issue by the same individual will count as 1; actions filed by applicants and retirees will not count against this performance measure.

The laboratory will provide a narrative summary of management initiated actions that would impact the results of this measure.

Performance Gradient:

No gradient provided.

Performance Narrative:

Laboratory efforts to collect data to be used as the basis for measuring the effectiveness of its employee relations activities continued through FY 1997. HRMD agreed with LBNL's FY 1996 self-assessment that more data was needed before a determination could be made regarding the establishment of an Employee Relations effectiveness measure.

Data provided by LBNL which covers the three year period (actually 2 years/9 months), show an escalation of complaints between FY 1995 and FY 1996 of 75% (from 16 cases in FY 1995 to 28 cases in FY 1996). In late FY 1995, LBNL experienced a significant Reduction-in-Force that had an effect of increasing statistics for both FY 1995 and FY 1996. Additionally, 13 of the discrimination complaints in FY 1996 involved allegations of discrimination on the bases of LBNL's post-employment medical testing policy. On June 10, 1996, the District granted defendants motion for judgment on the pleadings or, in the alternative for summary judgment allowing the plaintiffs leave to amend its complaint. The plaintiffs chose not to file an amended Complaint. Judgment for the defendants was entered into on July 30, 1996, and plaintiffs filed their appeal to the Ninth Circuit Court of Appeals on August 2, 1996. Thus, withdraw this class complaint and the Laboratory's number of external complaints between FY 1995 and FY 1996 is significantly reduced. Although FY 1997 data was not reported for the last quarter of the year, the reduction of complaints between FY

1996 and FY 1997 is significant. The Laboratory reports 28 external complaints in FY 1996, and through June 30, 1997, there were only four. The Laboratory successfully resolved several formal union grievances through non-traditional means, including mediation and the use of a union contract joint conference board.

It is anticipated that the escalation in the number of represented employees at the Laboratory may result in an increase in the number of external complaint cases. Currently, LBNL's employee population includes over 40% represented by collective bargaining units. To address the increase in collective bargaining activity, including the anticipated increase in external complaints from represented employees, LBNL's Employee/Labor Relations (ER/LR) unit has undergone major staffing changes. To head the unit, the Laboratory successfully recruited a labor attorney who has begun a review of ER/LR procedures and systems to increase effectiveness. Timely, economical, and informal resolution of employee grievances is one important desired outcome.

HRMD concludes that LBNL's performance in this area for FY 1997, exceeds expectations.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Objective: #3 Equal Opportunity

Strengthen the commitment to and accountability for equal opportunity, affirmative action and work force diversity. **(Weight =24%)**

Performance Criteria: 3.1 Employment of Women and Minorities

Promote work force diversity and improve the representation of minorities and women in the work force through the development and implementation of strategies and other affirmative action “good faith efforts.” **(Weight = 24%)**

Performance Measure: 3.1.a Employment of Minorities

Planning and implementation of good faith efforts designed to improve recruitment, selection and retention of minorities in high priority underutilized job groups. **(Weight = 12%)**

Performance Agreement:

1. High priority underutilized groups will be selected at the beginning of the assessment period. The following factors may be utilized for the designation of high priority areas: underutilization levels, availability levels, placement opportunities and typical size and diversity of applicant pools.
2. The Laboratory will provide a results oriented plan with a purpose of improving organizational performance in the recruitment, selection, and retention of minorities in the selected high priority areas.
The plan will display the specific actions which will be targeted for achievement during the fiscal/calendar year and assigned responsibility for those actions. The plan shall incorporate, at a minimum, good faith efforts designed to enhance the following:

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Performance Gradient:

Meets Expectations: Plan Development and Execution

1. Plan Development -- The Laboratory developed a results-oriented plan which clearly communicates the Laboratory’s commitment and investment in carrying out its good faith efforts to develop strategies and actions to improve employment and retention of minorities in high priority underutilized job groups. The plan must incorporate, at a minimum, good faith efforts as outlined above.
2. Plan Execution -- Specific actions identified in plan were carried out substantially in the manner and time-frames identified in the plan.

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Performance Agreement: (3.1.a continued)

- coupling of outreach and recruitment efforts in high priority job groups
- systematic effort to measure and report outcomes and impact of the outreach and recruitment process
- diversity and viability of candidate pools
- efforts to educate and sensitize the work force to diversity awareness
- integration of diversity issues in Laboratory operations and the daily fabric of Laboratory life
- active top management support of diversity considerations, including affirmative action and educational outreach efforts
- representation of minorities as defined in the Laboratory's Affirmative Action Program

Performance Gradient: (3.1.a continued)

The Laboratory will summarize how the plan was executed relative to the specific actions taken to improve the recruitment, selection and retention of minorities. The summary should include a narrative describing the efforts taken, and any significant outcome or events resulting from the process. The summary should also include statistical analyses assessing the plan's effect on the representation of minorities in candidate pools, interviews, placements, and attrition in the specified job groups.

Exceeds Expectations: In the aggregate, high priority underutilized job groups show improvement toward full utilization. Job groups not designated as high priority also show improvement or remain at the same level of utilization.

Far Exceeds Expectations: In addition to the criteria for exceeds expectations, improvement toward full utilization is achieved for each designated high priority group or full utilization is achieved in any of the high priority job groups.

Performance Narrative:

Under this performance measure, high priority underutilized job groups were to be selected at the beginning of the assessment period. After selection of the high priority groups, LBNL was to provide a results oriented plan with a purpose of improving the recruitment, selection, and retention of minorities in the selected high priority areas .

HRMD concludes that LBNL did meet expectations for this performance measure. Accomplishments and concerns discussed below support the rating assigned.

High Priority Areas:

- Accomplishments (Included in LBNL's FY 1997 Self-Assessment report)
 - Identified high priority job groups at the beginning of FY 1997
 - In the aggregate, underutilization was reduced for three ethnic groups across six job groups

- of 112 placements 22 (19.64%) were filled with minorities. This minority placement percentage was considerably above the aggregate availability percentage of 10.98% as determined by the Laboratory
- Description of good faith efforts
- HRMD Concerns
 - HRMO initiated verbal inquiries about selection of high priority areas and developments of results oriented plan in May 1997. LBNL did not respond to HRMD's June 1997 letter, which conveyed concerns.
 - Although LBNL's self-assessment report documents the identification of high priority areas at the beginning of FY 1997, these areas were not made known to HRMD until the start of the FY 1997 Self-Assessment Evaluation Cycle.
 - The Laboratory's results oriented plan, for improving organizational performance in the recruitment, selection and retention of minorities in selected high priority areas, was not made available to HRMD at the beginning of the assessment period.
 - With regard to results of plan execution, LBNL did not provide summary data for each selected high priority area showing the plan's effect on representation of minorities in job groups, candidate pools, interviews, placements and attrition.
 - Good faith efforts/planned outreach and recruitment efforts were not linked with each high priority area to show how such efforts, when implemented, improved Laboratory performance in recruitment, selection and retention.

Representation of Minorities Laboratory-wide:

The Laboratory's assessment of overall progress, high priority and non-priority areas, is contained in the Fiscal Year 1997 Affirmative Action Program (AAP) plan. The FY 1997 AAP reports statistical results for the period October 1, 1995, through September 30, 1996.

In the aggregate, there was slight progress with regard to the representation of minorities for the second consecutive year. Laboratory-wide minority representation increased from 27.1% in FY 1995, to 27.4% by the end of FY 1996. The number of fully utilized job groups for minorities decreased from 20 of 33 in FY 1995 to 19 of 33 by the end of FY 1996.

For FY 1996, LBNL's AAP placement goal for minorities in job groups where this group is underutilized, was 12.1%, the aggregate availability rate for minorities in those job groups. LBNL's minority placement results were significantly greater than the goal established. Of the 217 placements in job groups in which minorities were underutilized, 54 (24.9%) were filled with minorities.

As stated in the FY 1996 Annual Performance Appraisal report, there is significant concern with regard to LBNL's placement performance for Hispanics and African Americans. There were 163 vacancies filled in job groups where Hispanic Americans were underutilized in FY 1996. The Laboratory's placement percentage for Hispanics in FY 1996 was 1.84%, significantly below the

5.89% availability rate for the group. Of the 163 vacancies filled, only 3 were filled with Hispanic Americans.

For African Americans, the Laboratory's placement performance for FY 1996 is also a significant concern. There were 148 vacancies in job groups where African American underutilization existed in FY 1996. Of the vacancies filled, only 2 were filled with African Americans. Thus, for FY 1995 and FY 1996 only 3 African Americans were placed as the Laboratory filled 237 vacancies, resulting in a 1.3% placement performance. LBNL reports an aggregate availability of 3.76% for this group in the job families where underutilization exists.

Good faith efforts are described in the Laboratory's FY 1997 AAP. The impact of the Laboratory's efforts on improving recruitment and selection results for Hispanic and African Americans in underutilized job groups, was not specifically addressed in the AAP.

Performance Rating (Adjectival):	Meets Expectations	72.00%
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Performance Measure: 3.1.b Employment of Women

Planning and implementation of good faith efforts designed to improve recruitment, selection and retention of women in high priority underutilized job groups. **(Weight = 12%)**

Performance Agreement:

1. High priority underutilized groups will be selected at the beginning of the assessment period. The following factors may be utilized for the designation of high priority areas: underutilization levels, availability levels, placement opportunities and typical size and diversity of applicant pools.
2. The Laboratory will provide a results oriented plan with a purpose of improving organizational performance in the recruitment, selection, and retention of women in the selected high priority areas. The plan will display the specific actions which will be targeted for achievement during the fiscal/calendar year and assigned responsibility for those actions. The plan shall incorporate, at a minimum, good faith efforts designed to enhance the following:
 - coupling of outreach and recruitment efforts in high priority job groups
 - systematic effort to measure and report outcomes and impact of the outreach and recruitment process
 - diversity and viability of candidate pools
 - efforts to educate and sensitize the work force to diversity awareness
 - integration of diversity issues in Laboratory operations and the daily fabric of Laboratory life
 - active top management support of diversity considerations, including affirmative action and educational outreach efforts representation of women as defined in the Laboratory's Affirmative Action Program

Performance Gradient:

Meets Expectations: Plan Development and Execution

1. Plan Development -- The Laboratory developed a results-oriented plan which clearly communicates the Laboratory's commitment and investment in carrying out its good faith efforts to develop strategies and actions to improve employment and retention of women in high priority underutilized job groups. The plan must incorporate, at a minimum, good faith efforts as outlined above.
2. Plan Execution -- Specific actions identified in plan were carried out substantially in the manner and time-frames identified in the plan.

The Laboratory will summarize how the plan was executed relative to the specific actions taken to improve the recruitment, selection and retention of women. The summary should include a narrative describing the efforts taken, and any significant outcome or events resulting from the process. The summary should also include statistical analyses assessing the plan's effect on the representation of women in candidate pools, interviews, placements, and attrition in the specified job groups.

Exceeds Expectations: In the aggregate, high priority underutilized job groups show improvement toward full utilization. Job groups not designated as high priority also show improvement or remain at the same level of utilization.

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Performance Gradient: (3.1.b continued)

Far Exceeds Expectations: In addition to the criteria for exceeds expectations, improvement toward full utilization is achieved for each designated high priority group or full utilization is achieved in any of the high priority job groups.

Performance Narrative:

Under this performance measure, high priority underutilized job groups were to be selected at the beginning of the assessment period. After selection of the high priority groups, LBNL was to provide a results oriented plan with a purpose of improving the recruitment selection, and retention of women in the selected high priority areas.

HRMD concludes that LBNL did meet expectations for this performance measure. Accomplishments and concerns discussed below support the rating assigned.

High Priority Areas:

- Accomplishments (Included in LBNL's FY 1997 Self-Assessment report)
 - Identified high priority job groups at the beginning of FY 1997
 - In the aggregate, underutilization was reduced in the four job groups selected
 - Description of good faith efforts
- HRMD Concerns
 - HRMD initiated verbal inquiries about selection of high priority areas and development of results oriented plan in May 1997. LBNL did not respond to HRMD's June 1997 letter, which conveyed concerns.
 - Although LBNL's self-assessment report documents the identification of high priority areas at the beginning of FY 1997, these areas were not made known to HRMD until the start of the FY 1997 Self-Assessment Evaluation Cycle.
 - The Laboratory's results oriented plan, for improving organizational performance in the recruitment, selection and retention of minorities in selected high priority areas, was not made available to HRMD at the beginning of the assessment period.
 - With regard to results of plan execution, LBNL did not provide summary data for each selected high priority area showing the plan's effect on representation of minorities in job groups, candidate pools, interviews, placements and attrition.

- Good faith efforts/planned outreach and recruitment efforts were not linked with each high priority area to show how such efforts, when implemented, improved Laboratory performance in recruitment, selection and retention.

Representation of Women Laboratory-wide:

In the aggregate LBNL continues progress in the utilization of women for FY 1996. Utilization improved Laboratory-wide from 31.4% in FY 1995 to 32.5% as of September 30, 1996. Women were fully utilized in 18 of the Laboratory's 33 job groups in FY 1996. There was no increase in the number of fully utilized job groups for women in FY 1996.

For FY 1996, LBNL reported placement of women at a rate above the aggregate availability rate for job groups where women were underutilized. Of 83 vacancies filled, women were selected to fill 20. This resulted in a 24.1% placement rate compared to 23.3 aggregate availability rate for the job groups where women are underutilized.

Performance Rating (Adjectival):	Meets Expectations	72.00%
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Performance Objective: #4 Customer Needs

Human Resources has a system for identifying and evaluating customer needs and for building and maintaining positive customer relationships.. **(Weight = 10%)**

Performance Criteria: 4.1

Requirements, expectations and preferences of internal and external customers are collected and addressed. Strategies to evaluate and anticipate needs are in place. **(Weight = 10%)**

Performance Measure: 4.1.a

Implementation and utilization of internal and external customer input mechanisms. **(Weight = 10%)**

Performance Agreement:

Mechanisms will be used to gather customer input regarding HR practices. Practices could be policies, services, programs, systems, processes and procedures. These mechanisms are varied and could include customer surveys, focus groups, customer feedback forms, etc. Measurement will include the extent of utilization of customer input in improving HR practices and will include closing the loop with the customers. Measurement deliverable will be a narrative description of how the laboratory addresses the performance criterion and objective.

Performance Gradient:

Meets Expectations: Internal and external customer input mechanisms exist and are utilized to evaluate and improve human resources practices. Input and any changes to practices, whether resulting from feedback or not, are communicated to the customers, as appropriate.

Exceeds Expectations: Internal and external customer requirements, expectations and preferences are collected and utilized in a methodical manner to evaluate and improve human resources practices. Methodical manner means the information sought from customer feedback mechanisms and the frequency of collection are clearly defined. New or changes to existing practices are clearly linked to feedback results as well as the laboratory's strategic direction and communicated to the customers, as appropriate.

Far Exceeds Expectations: In addition to the items identified under Exceeds Expectations, other data such as industry standards, utilization

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Performance Gradient: (4.1.a continued)

of services and operational effectiveness indicators are collected and taken into consideration. Furthermore, Human Resources evaluates and improves its processes for determining customer requirements, expectations and preferences.

Performance Narrative:

This performance measure evolved from an earlier objective, HR Quality Program. LBNL continually seeks to build and maintain positive customer relationships, both internal and external. The Laboratory's HR Department has undergone significant restructuring during the past fiscal year and continues a critical re-evaluation of its systems, procedures, and practices to increase efficiency and cost effectiveness. Improvement in the HR Department's performance in evaluating and anticipating customer's needs has resulted in timely identification of problem areas which are impediments to responsive customer service. The Laboratory's performance under this performance measure far exceeded expectations.

LBNL-HR utilizes numerous mechanisms to gather customer input regarding HR practices. These mechanisms, though varied, are all designed to improve responsiveness to requirements, expectations, and preferences of internal and external customers in a timely manner. The HR Department describes its interaction with stakeholders and customers as a "consultative partnership". Among the customer feedback mechanisms used by the LBNL-HR group are:

- The 360-degree performance input, relatively new to the Laboratory, was launched by the Deputy Director, Operations to gather feedback on how the Laboratory's main business units are providing customer service.
- Focus groups established for the implementation of the Human Resources Management Information System (HRIS). This effort involves multiple task groups (all customer-based) who are critically reviewing all HR transaction processes and procedures. These focus groups (Staffing, Hire, Termination, Contract Labor, etc.) are also being used to provide customer feedback for process improvement.
- Initiation of quarterly meetings with the Operations Directorate and key programmatic customers to determine how HR can best support customers' needs in the short and long term.
- Frequent meetings with OAK-HRMD, Director and staff to mutually share current information and to work toward resolution of transactions and issues. The meeting frequency between OAK-HRMD and LBNL-HR is, at a minimum, twice-monthly.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Objective: #5 HR Leadership in Deploying Mission/Business Strategy

The Laboratory aligns its HR plan with the Laboratory strategic or institutional plan and supports the principle of the DOE contractor HR strategic plan. **(Weight = 17%)**

Performance Criteria: 5.1

HR programs and policies in recruitment and staffing, compensation and benefits, employee relations, and training are aligned with Laboratory business strategies. **(Weight = 17%)**

Performance Measure: 5.1a

Measurement will include evaluation of the HR planning process that addresses alignment of HR programs and practices with business plans as well as the well being of the entire work force. Measurement will also include the strategy to communicate with employees, supervisors, and managers regarding HR programs and practices. **(Weight = 17%)**

Performance Agreement:

Measurement Deliverable: Narrative description of the above

Performance Gradient:

Meets Expectations: Documented plan to align HR programs and practices with the Laboratory business plans. Documented communication strategy.

Exceeds Expectations: Evidence of implementation of plan.

Far Exceeds Expectations: Evidence of implementation of the HR plan that addresses key aspects of the HR planning elements contained in the Baldrige criteria. In addition, the work force planning process addresses the alignment of the work force with business needs such as core mission requirements, cost cutting or budget requirements and streamlining efficiency initiatives, while balancing such requirements with the needs of employees. The organization demonstrates a balance between work force and organizational needs by effectively implementing strategies for targeted recruitment, skill mix requirements, internal placements, appropriate retraining programs, outplacement activities, etc.

Performance Narrative:

Institutionally, effective human resources activities are recognized as critical elements to the success of the Laboratory's programmatic initiatives. One of the Laboratory's Vision 2000 goals is the seamless integration of operational, administrative, and technical resources with research and engineering programs. Given this institutional approach, the Human Resources Department at LBNL has been involved in a major initiative throughout FY 1997 to define and establish critical functions of the department. One of the most important objectives was to determine how the Department can improve upon providing value-added support to the Laboratory's research missions. Thus, much of FY 1997, the Laboratory's HR Department has worked to improve alignment with internal customers in furtherance of mission requirements and business needs. Significant efforts were also made by the HR group to improve upon relationships with UC and DOE to ensure the Laboratory is fully responsive to each in a constructive and productive manner. Far FY 1997, the LBNL's performance under this measure exceeded expectations.

Evidence of the HR Department's efforts to align programs with internal customers to ensure HR programs are appropriately aligned with LBNL's business plans is cited throughout the FY 1997 Self-Assessment report. Finding ways to; (1) keep current with the changing research missions of the Laboratory; (2) improve short and long-term planning to meet present and future HR-related needs of the Laboratory; and (3) improve upon direct communication with customers to identify needs and improve HR processes, continued to evolve throughout FY 1997. Some of the accomplishments included:

- Transfer of the Payroll Unit from Finance to HR-Compensation resulted in more efficiency and economy in the work processes.
- Creation of multiple task groups under the direction of the new Human Resources Information System (HRIS) and Financial Information System (FMS) to bring about more efficiency and economy in the work processes through customer feedback.
- Addition of 5 HR professionals to Employee/Labor Relations, Compensation and Staffing units.
- Initiation of quarterly meetings with the Operations Directorate and Key programmatic customers to determine how HR can best support customers' needs in the short and long term.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Area: INFORMATION MANAGEMENT

Performance Objective: #1 Information Management Program

The Laboratory manages information as a corporate resource to improve the quality of its products, to add value to scientific programs and customer services, and as a tool to improve its work processes. In the area of Scientific & Technical Information, the IM focus will be on STI dissemination.

(Weight = 100%)

Performance Criteria: 1.1 Strategic and Tactical Planning

Information Management practices will be guided by programmatically coordinated strategic and tactical planning.

(Weight = 25%)

Performance Measure: 1.1.a Planning Implementation

Exhibit evidence the planning processes supports the Laboratory's mission.

(Weight = 25%)

Performance Assumptions:

Measurement deliverable – narrative description of the Laboratory's process/system(s) for implementing strategic and tactical plans in support of the mission objectives in the Laboratory's institutional and/or strategic plans. The narrative description may be accomplished through reference to accessible work products or other existing Laboratory documentation.

Information management planning should support both programmatic and operational/administrative needs.

Performance Gradient:

Meets Expectations:

Demonstrated approach, supported by planning documents, that effectively supports the Laboratory's missions and customer requirements. Planning documents demonstrate the effectiveness of the planning approach of

- (1) aligning with the Laboratory's missions
- (2) determination of customer requirements and expectations
- (3) integration of the various components of information resources.

Exceeds and Far Exceeds factors to be considered:

(continued on next page)

Performance Gradient: (1.1.a continued)

Results from one or more of the following:

- effectiveness of any cost saving/avoidance/efficiency strategies attempted attributable to past planning;
- successful implementation of quality improvement initiatives attributable to past planning; or
- substantial progress against milestones under challenging conditions.

Performance Narrative:

The Laboratory did an excellent job in its Information Management Planning. Planning was integrated with the Laboratory's institutional planning and supports the Scientific mission as well as the Business and Administrative mission. Information Management activities were defined and prioritized, with focus on the 'vital few' projects. The Planning included extensive customer involvement and resulted in substantial improvements and over \$2 million in cost avoidance. Accomplishments of the individual IM organizations are highlighted below.

Information Systems and Services (ISS) far exceeded expectations in the planning area. The MIS Steering Group helped to align ISS plans with the Laboratory mission and with customer requirements. The group also prioritized ISS's objectives and identified the vital few that would contribute most to the success of the Laboratory mission. All of the critical objectives were met as well as most of the other objectives.

Information & Computing Sciences Division (ICSD) exceeded expectation in making significant improvements in defining goals and meeting objectives for its unclassified computer security program. Building upon the results of an independent evaluation of the Laboratory's UNIX security, as well as prior recommendations of internal working groups, the Laboratory has demonstrated the effectiveness of their computer security planning efforts. Substantial progress was made on meeting many medium-term objectives in addition to meeting all short-term objectives.

The Telephone Services Center (TSC) exhibited excellent follow through on project plans, effective cost cutting strategies, and direct support of the LBNL Institutional Plan by optimizing, streamlining and allowing flexibility as demonstrated by creation of "one-stop shopping" for all TSC services. TSC efforts were enhanced through cross-training of its personnel which served to maximize the planning implementation process. Telephone Services Advisory Committee (TSAC) meetings also focused attention on those areas needing improvement while identifying future needs. Resulting from TSC Project Plans came innovating applications including a new voice mail system, and an interactive service order process available through Web access. Future plans call for billing data to be made available through Web access to TSC customers.

The Division Technical Resources Department (DTRD) has done a good job in developing Project Plans to replace LBNL's existing radio communications system with a new, technologically superior, trunked radio system are planned for implementation in 2005. DTRD's Project Plans, calling for implementation of a narrowband trunked radio systems, is commendable. DTRD has experienced minimal activity in this arena through the FY 97 assessment period. However, DTRD expects their planning efforts to intensify as the implementation date becomes more of a reality beyond FY 97.

The Technical and Electronic Information Department (TEID) provided excellent documented results in supporting the Laboratory's mission objectives in the Laboratory's institutional and strategic plans, and customer requirements linked to past planning efforts. TEID's planning documents include the LBNL Institutional Plan, the Three Year Printing and Reproduction Plan, Project Plans, TEID Overview and Objectives, and Peer Review. These Project Plans contain goals and strategies of the individual groups within TEID, and were developed after intensive discussion among the groups, customer feedback, and discussions with counterparts at other National Labs. The recommendations of TEID Peer Review Committee were also an integral part of the planning activities and the TEID Management Team meets daily to discuss planning and follow through with projects until successful completion.

In the area of Archives and Records, TEID exceeded expectations in showing substantial progress in meeting specific objectives through comprehensive planning, which is demonstrated in the critical objective of the formalization of the agreement between the Laboratory and Federal Records Center to allow the Laboratory to resume transfer of Research and Development records. TEID shipped 463 cubic feet of records to the Federal Records Center and all were accepted on the first shipment. The accessions of Laboratory records now meet the standards of the FRC. The TEID planning documents, customer meetings, and surveys have addressed customer concerns, and met TEID's FY97 "critical few" objectives, based on quality, difficulty, and impact on the Laboratory's mission.

In the area of STI, TEID exceeded expectations in planning. STI is included STI is addressed specifically in LBNL's institutional plan and incorporated in TEID's input to the Lab's overhead /recharge budget, and general purpose equipment/plant funds processes. Implementation of improvement initiatives has resulted from peer review and customer survey recommendations that were incorporated into TEID's planning process. TEID has also shown progress in meeting 'critical few' objectives defined in the TEID objectives.

In conclusion, LBNL's performance in the area of Planning exceeded expectations.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Criteria: 1.2 Self Assessment Program

Maintain a self assessment program that evaluates the effectiveness of management and operational practices. **(Weight = 25%)**

Performance Measure: 1.2.a Self Assessment Program

Demonstrate that self assessments are taking place and that corrective actions, where necessary, are accomplished in a timely and effective manner. **(Weight = 25%)**

Performance Assumption:

Measurement deliverable – narrative description of the Information Management self assessment program. The narrative description may be accomplished through reference to accessible work products or other existing Laboratory documentation. The Laboratory and its DOE Operations Office will agree to develop and document in writing guidelines for self assessment criteria to be used.

Performance Gradient:

Meets Expectations:

A demonstrated approach containing a schedule for self assessment activities and any subsequent corrective action plans. (Note: See UC Manual rating guidelines, for information about rating factors for corrective action plans.)

Exceeds and Far Exceeds factors to be considered:

- System for rescheduling missed milestones established
- System for timely communication of changes to appropriate management implemented
- Cost effective and/or innovative approaches to achieving the objectives of the self assessment program
- Aggressive corrective action approaches (where needed)
- Results of self assessments demonstrate that compliance issues are being effectively addressed

Performance Narrative:

The Laboratory has done an excellent job in the performance of its self assessment activities, and these self assessments have resulted in significant improvements. Self assessment activities are integrated into the management processes. In addition the Laboratory has made use of peer groups as an assessment tool. Customers feedback has been aggressively pursued. Self assessment accomplishments of individual IM organizations are highlighted below.

ISS has a comprehensive self assessment program that far exceeds expectations. The program resulted in increased productivity and significant cost avoidance. The results of the MIS Steering Group has been particularly evident. ISS has established monthly projects reports on the web for use by its user community. It has been able to take aggressive action in replacing legacy systems.

Information & Computing Sciences Division (ICSD) has a self assessment program that far exceeds expectations. ICSD has demonstrated substantial progress on achieving its 1997 Computer Security Action Plan objectives by successfully completing all short-term actions as well as making significant progress on several medium-term objectives. In addition to these actions, LBNL has demonstrated the highly effective capabilities of its network monitoring activities, resulting in significant improvements in the Laboratory's overall information protection capabilities.

Telephone Services Center (TSC) had an excellent program that demonstrated that self-assessment efforts were taking place and that corrective actions, where necessary, were accomplished in a timely and effective manner. One source that TSC has used to determine the effectiveness of its program has been the TSAC. Many positive actions have resulted from input gathered through the efforts of this organization. For example, TSC programs were enhanced to include on-line service order forms, voice mail user guides, and customer feedback surveys to determine the quality of service. TSC efforts enabled the Laboratory to track the status of its entire program. This is particularly evident where specific problem areas were identified and corrected with minimal cost and effort. For example, TSC was willing to act immediately when customers complained of service levels not being adequate to allow for smooth processing of services. By tracking telephone service reports, TSC broadens its capability to guard against waste, fraud, and abuse of critical telecommunications equipment and services.

DTRD, as a result of quarterly meetings with other LBNL organizational elements (i.e., Communications Engineering Unit and the Electronic Maintenance Unit) has no specific action required by DTRD to satisfy outstanding issues. DTRD is in the process of fully developing a scheme that identifies the repair rate and costs for radios. A preliminary report containing these data has been developed. A future report depicting total radio repair and cost data is anticipated by DTRD as well as OAK/IMD. Ongoing quarterly meetings with OAK/IMD and other LBNL organizations under the purview of DTRD are expected to yield a clear focus toward future radio frequency management program efforts.

TEID has done a good job in tracking job late deliveries outsourced to GPO. TEID has an excellent job in delivering printing jobs on time.

The Laboratory (TEID) and the Federal Records Center (FRC) developed a set of quality guidelines that apply to all LBNL accessions transferred to the FRC. The Records Transfer Standards were posted to the LBNL Archives and Records Office Home Page. This Performance Measure was based on the percentage of newly accessioned R&D records transferred to the FRC that were acceptable. A total of 463 cubic feet of R&D records were transferred to the FRC since the implementation of the guidelines, and 100% were accepted on the first shipment. Based on this percentage of acceptance by

FRC, Records Management far exceeds its expectations for Objective 1. In addition, the Archives and Records Office (ARO) has done an outstanding job working with the FRC to establish a crosswalk between the old DOE R&D Records Schedule, and the new R&D schedule, to establish mapping schedule guidelines for all new R&D accessions sent to the FRC. In order to revitalize LBNL's Records Liaison Officer program, TEID met with the management of the Administrative Services Department and reached an agreement that RLOs would be appointed by October, 1997. Based on the Success Criteria developed for Objective 2, TEID met the expectations due to the development of quarterly plans. However, 80% of RLOs have not appointed at this time, which is below our expectations. A Curriculum Outline was developed for the quarterly RLO meetings and Modules have been written for the proposed quarterly meetings of the RLOs. The RLO proposal, training modules, and guidelines for submitting records has been posted on the Archives and Records Web site. This links to various schedules, and other relevant records management links. The proposed LBNL RLO's Quarterly Training Modules comprehensively cover all aspects of the Records Management Program; Overview of Archives and Records Management, Records Scheduling, Files Management System, and Records Inventory Procedure, with a final Self-Assessment Checklist for Evaluating Record keeping Practices in each Office. The first RLO workshop is scheduled for February, 1998.

An agreement was reached between OAK Records Management and LBNL's Archives and Records staff to modify Objective 3 in July, 1997. The new objectives had three requirements to provide to the Records Management Section of IMD: scheduled accessions presently stored at the FRC that have potential epidemiological value, scheduled accessions presently stored at the Lawrence Berkeley Warehouse that have potential epidemiological value, and total cubic feet of inactive records stored at the FRC. All three requirements have been met by the LBNL Archives and Records Office and the statistics provided to OAK Records Management. LBNL Archives and Records Management meets the expectations for TEID's Objective 3.

In the area of STI, TEID far exceeded expectations in its self assessment. A procedure was developed by TEID that provides an electronic form for reports submitted to the Office of Scientific and Technical Information (OSTI). As of July, 1997, 100% of the reports sent to OSTI were accompanied by an electronic form. LBNL's performance for Objective 1 is Outstanding. In addition, a new web service was developed by TEID to help authors/administrators get papers through the Laboratory's document control process. The web site includes procedures, forms and guidelines and was officially announced to the Lab's population on July 21, 1997.

In conclusion, the Laboratory exceeded expectations in the area of Self Assessment.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Criteria: 1.3 Customer Focused Information Management

The information management program provides cost-effective quality products and services that meet customer requirements. **(Weight = 50%)**

Performance Measure: 1.3a Level of Customer Satisfaction

Conduct annual reviews of the results of customer satisfaction activities, compare results with previous reviews, trend customer satisfaction, and implement activities toward improvement. **(Weight = 20%)**

Performance Assumption:

Measurement deliverable - the results of the customer satisfaction activities conducted during the previous fiscal year will be used as the baselines.

Performance Gradient:

Meets Expectations:

A demonstrated plan in response to the measurement of customer satisfaction levels. The plan will include the rationale for process by which customer input is acquired. Evidence of customer involvement in all stages of information management, including conceptual, deployment, maintenance, and transition.

Exceeds and Far Exceeds:

Factors to be considered:

- cost effective and/or innovative approaches to measuring customer satisfaction
- aggressive responses to information derived in determining customer satisfaction levels
- customer involvement in all stages of information management activities, including conceptual, deployment, maintenance, and transition
- clear evidence of meeting commitments to customers requirements
- evidence of improvement in customer satisfaction levels relative to product and service innovation

Performance Narrative:

In the area of customer satisfaction, the Laboratory exceeded expectations. Customer input was pursued diligently through the use of customer satisfaction surveys, just-in-time evaluations, surveys through email, service level metrics, and periodic surveys on particular topics. The results of survey activities indicates general satisfaction with IM products and services. Inclusion of customers in the planning and self assessment activities also added to customer satisfaction. Individual organizational highlights are discussed below.

ISS has developed an excellent program in determining customer needs and their satisfaction with ISS services. Such activities include annual customer satisfaction surveys, feedback from the MIS Steering Group, service level metrics, evaluation of training classes, and periodic surveys on explicit applications. The results of the customer satisfaction survey shows strong agreement that ISS has improved its capability to meet customer needs. The survey showed significant improvement from last year. ISS has shown excellent progress in developing actions in response to user requirements.

TSC customer surveys have provided an excellent means for identifying desired services and have led to other improvements, such as reduced operating costs and added information management capabilities. By including its customers in the planning process to improve services, TSC enhanced the level of customer satisfaction. Customer surveys resulted in electronic service orders and billing functions being available through Web access. Additionally, Telephone Coordinators and TSAC members are active participants in TSC's ever dynamic program; thus, ensuring their feedback and recommendations become an integral part of Projects Plan.

DTRD's current approach in determining customer satisfaction is adequate for the immediate future. However a formal method is in the planning stage that will address specific levels of customer satisfaction. Standard practice by DTRD is to garner immediate feedback from its customers after project completion. However, once a more formal method is implemented to gather and evaluate levels of customer satisfaction, DTRD will enhance its opportunity to realize their customer's long-range requirements more precisely.

TEID's customer survey show that customer satisfaction with TEID printing services is excellent in all of the six categories measured (Service, Accuracy, Communication, Follow-through, Timeliness, and Creativity).

TEID customer surveys demonstrated that customer satisfaction with TEID Records Management services is excellent. The Records Management Group sent out group-specific questionnaires which provided a baseline to determine if customer satisfaction is increasing. In addition, the questionnaire also asked for comments on services. Approximately 65% of the Archives and Records Management services were rated excellent. Based on the Success Criteria established for this Performance Measure, The Laboratory earns an Exceeds rating based on the Success Criteria developed by IMD and TEID. TEID will evaluate the results of the questionnaires and determine the best methods for improvement. This demonstrates that TEID has an ongoing program to measure customer satisfaction.

LBL's performance for STI Customer Satisfaction is Outstanding. STI customers who submit documents through Reports Coordination were e-mailed a questionnaire. The results from customer satisfaction ratings reflected 56% excellent, 31% good, 12% adequate, 1% poor. An innovative approach of TEID is that results from customer discussions/surveys and recommendations of the

TEID peer review (Overview and Objectives document) are incorporated into their daily meetings and become part of their planning process.

Based on the above, the Laboratory earned an exceeds rating for customer satisfaction of Information Management products and services.

Performance Rating (Adjectival):	Exceeds Expectations	87.00%
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Performance Measure: 1.3b	Results from Improvements
Provide evidence of measurable improvements, such as reduced operating costs or added information management capabilities. (Weight = 30%)	

Performance Assumptions:

Measurement deliverable - narrative description of the information management program's accomplishments which have resulted in measurable improvements in the provision of cost-effective, quality products that have met customer requirements. The narrative description may be accomplished through reference to accessible work products or other existing Laboratory documentation.

Performance Gradient:

Meets Expectations:

Demonstrated approach to achieve cost-effective, quality information management services and products. The demonstrated approach will include:

- establishment of cost-efficiencies and cost-savings goals
- a system for measuring progress
- an on-going system for prioritization of the various costs of managing information resources, during all stages from concept to transition

Exceeds and Far Exceeds factors to be considered:

- results from cost effective and/or innovative approaches to improving information management
- successful implementation of new technologies in support of programmatic requirements
- evidence of successful results from prioritization efforts

Performance Narrative:

The Laboratory far exceeded expectations in demonstrating measurable improvements in the form of new systems and products with added capabilities. In addition the Laboratory demonstrated cost avoidance of over \$2 million. Most of these cost avoidances are recurring and thus will accrue in future years as well. These accomplishments are detailed below.

ISS did an outstanding job in introducing new systems. As a results of its efforts, ISS was able to demonstrate 2 million dollars in cost avoidance in FY97. This represents a substantial number of

improvements in its operations. All but one of these cost avoidances will reflect savings in future years as well.

Oracle Purchasing System	\$97K/yr
Procurement Card System	\$434K/yr
Software Licensing	\$350K/yr
IRIS Data Warehousing	\$90K
Outsourcing Accounts Payable	\$600K/yr
PC Standards - reduced installation costs	\$246K/yr
Outsource Training	\$120K/yr
In-house installation of Oracle Channel education program	\$135K/yr
Total	\$2,072K

In the area of Unclassified Computer Security, ICSD has successfully implemented several new technologies which show potential for significant cost-avoidance. One of these is their multi-tiered anti-virus software implementation which has significantly reduced the number of virus infections of Laboratory systems. In particular, by checking for viruses on all E-mail enclosures, the Laboratory is now able to prevent most system infections. Statistics provided by this process can potentially be used to demonstrate significant cost-avoidance by a reduction in resources expended on recovering from virus infections. These efforts far exceed expectations.

TSC has made outstanding use of new technology, applying it to cut costs. For example, TSC now utilizes an electronic nationwide telephone directory, and has initiated plans for the near-term replacement of an obsolete voice mail system as examples. TSC's aggressive approach to implement cost cutting measure where possible paid major dividends during FY 97. To that end, TSC realized cost savings in excess of \$350K and cost avoidance of at least \$60K. Finally, utilization of new technologies, reengineering of others, and improved skill sets provide increased value to TSC program functions that support the Laboratory's overall mission.

TEID has done an excellent job in implementing cost effective and innovative approaches to improving the products and services offered. New technology has been instrumental in creating measurable improvements that reduce cost and/or add information management capability. A notable activity is the creation of price standards by which TEID can compare its cost effectiveness to both DOE and commercial facilities that provide comparable services. It also acquired a Job Tracking and Billing System which will track clients, jobs, tasks, hours, costs, and billing. In the area of Printing and Reproduction, TEID installed a spot-color copier that is available to any computer on the network. A major accomplishment in the Archives and Records Office was the implementation of a new Access 7 database that provides significantly better access to important administrative and research records. All administrative work is also done through this system. In addition, TEID achieved savings of \$25K for the year by formalizing an agreement with the Federal Records Center to improve the quality of LBNL record accessions transferred to FRC. For STI, a system is in place to track STI coming into TEID and when it is sent to OSTI.

The Laboratory has shown significant measurable improvements and reduced operating costs from its various activities and has earned a Far Exceeds rating.

Performance Rating (Adjectival):	Far Exceeds Expectations	91.00%
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Performance Area: PROCUREMENT

Performance Objective: #1 Management of Procurement Business Requirements

The Laboratory shall have systems in place that ensure Procurement programs are consistent with policies and procedures approved by DOE. **(Weight = 30%)**

Performance Criteria: 1.1 System Evaluation

The Procurement organization conducts, documents, and reports annually, the results of a successful evaluation of its purchasing system against established evaluation criteria. **(Weight = 30%)**

Performance Measure: 1.1.a Assessing System Operations

The Procurement organization shall develop and submit a risk-based system evaluation plan to DOE and UC no later than October 1, 1996, for review and concurrence. The procurement system shall be assessed against system evaluation criteria as identified in the plan. In addition, an aggressive, cost effective management plan for resolution of system deficiencies and opportunities for process improvement shall be developed. Management of the results of the system evaluation shall be measured. System deficiencies will include those identified by the Procurement organization, internal Laboratory organizations and external organizations. **(Weight = 30%)**

Performance Assumptions:

None provided.

Basis for Rating:

Meets: There is a sound, systematic approach, responsive to the primary purpose of the system evaluation. Cost benefit analyses and risk assessments are good when addressing deficiencies and /or opportunities for improvement. Implementation of remedial actions is appropriate and demonstrates responsible leadership in many to most cases.

Exceeds: There is a sound, systematic approach, responsive to the overall purpose of the system evaluation. Cost benefit analyses and risk assessments are good to excellent when addressing deficiencies and /or opportunities for improvement. Implementation of remedial actions is appropriate and demonstrates responsible



leadership in most cases.

Far Exceeds: There is a sound, systematic approach, fully responsive to all the requirements of the system evaluation. Cost benefit analyses and risk assessments are excellent when addressing deficiencies and /or opportunities for improvement. Implementation of remedial actions is appropriate and demonstrates strong leadership in most cases.

Performance Narrative:

Approach: LBNL has a sound, systematic, and well planned approach to assess all the purchasing system elements. The plan is well documented and specifies the review schedule, approach, sampling techniques, corrective action strategy, and criteria. The plan is agreed to annually in advance of the assessments. The quarterly assessments are followed meticulously throughout the year. The assessment team is lead by someone external to Procurement. The purchasing department conducts a thorough review of all the major system elements over the required 3-year cycle with high risk elements assessed annually.

Cost benefit/risk assessments: Each individual system evaluation thoroughly documents the cost benefit and risk assessments in system compliance, cost and efficiency, and effectiveness. The self-assessment reports address the deficiencies, corrective actions, and the Procurement Manager’s response. The Procurement Manager’s leadership and management of the corrective actions is excellent. The Procurement Manager prioritizes the corrective actions; and defines and implements the activities to improve the system in the short term. A shortfall in the self-assessment document is that under the section entitled “Additional Opportunities for Improvement”, the report does not define what is an acceptable infraction rate in those areas where an infraction rate is in excess of 0%.

Implementation of remedial actions: Implementation of remedial action is appropriate and leadership is demonstrated. For example, in the Procard system evaluation, the deficiencies were handled by management efficiently and in a timely manner with maximum influence to preclude fraud, waste and abuse; and reducing the potential Laboratory liability by revoking credit cards as necessary.

A shortfall in the self-assessment document is in the area of internal and external user groups. The self-assessment report merely states that their deficiencies were appropriately addressed but the report did not identify and explain the details of approach, analysis, and implementation suggested by the internal and external user groups.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Objective: #2 Procurement System Cost Effectiveness

The Procurement organization shall ensure that business is being conducted at an optimum operational efficiency level. **(Weight = 40%)**

Performance Criteria: 2.1 Pursuing Best Practices

The Procurement organization successfully uses benchmarking data and industry standards to identify targets of opportunity for improving operational efficiency related to service, cycle times and/ or cost and pursues opportunities aggressively. **(Weight = 40%)**

Performance Measure: 2.1.a Measuring Efficiency Gains

The Procurement organization will measure trends toward benchmarks or industry standards/practices in areas prescribed in the Value-Based Self-Assessment (VBSA) Model. The Procurement organization will establish baselines, goals and gradients by December 31, 1996. **(Weight = 40%)**

Performance Assumptions:

The current core areas identified for pursuing cost effectiveness under the Value-Based Self-Assessment Model are cycle time, process cost, effective competition, and product/service cost savings/avoidance.

Basis for Rating:

In partnership with DOE and UC, the Laboratory shall establish and justify goals and gradients in pursuit of benchmarks/industry standards in each procurement area identified as a core requirement in the Procurement Value-Based Self-Assessment (VBSA) Model. The weight of the measure will be distributed evenly among the applicable categories unless otherwise agreed to in coordination with DOE and UC. The Laboratory may propose gradients based on data other than benchmarks or industry standards if the Laboratory provides adequate support of other optimum operating levels.

Performance Narrative:

The Laboratory, UC, and DOE established goals and gradients based on benchmark/industry standards in the categories of cycle time, process cost, effective competition, and product/service cost savings/avoidance. The following six categories which aligned with the DOE Headquarters Value-Based Self-Assessment Model were selected and agreed to:

- Cycle-time: Commodity Orders >\$5K - \$25K
- Cycle-time: Commodity Orders >\$25K - \$100K

- Process Cost: Administrative Cost
- Process Cost: Cost as % of Revenue
- Effective Competition: Competition
- Cost Savings/Avoidance: Credit Card Usage

The following is the baseline, the agreed gradients, and the result by category:

Cycle-time: Commodity Orders >\$5K - \$25K (Weight: 5%):

Baseline: 6 days*
 Gradient: Meets Expectations - 7.1 days - 8.0 days
 Exceeds Expectations - 6.1 days - 7.0 days
 Far Exceeds Expectations - 6 days or better

Result : Reduced cycle time to 4 days

Cycle-time: Commodity Orders >\$25K - \$100K (Weight: 5%):

Baseline: 10 days*
 Gradient: Meets Expectations - 13.1 days - 16 days
 Exceeds Expectations - 10.1 days - 13 days
 Far Exceeds Expectations - 10 days or better

Result : Reduced cycle time to 9 days

Process Cost: Administrative Cost (Weight: 5%):

Baseline: 1.82%
 Gradient: Meets Expectations - 1.75% - 1.88%
 Exceeds Expectations - 1.61% - 1.74%
 Far Exceeds Expectations - 1.60% or better

Result : Reduced administrative cost to 1.65%

Process Cost: Cost as % of Revenue (Weight: 5%):

Baseline: 0.94%*
 Gradient: Meets Expectations - 0.961% - 0.98%
 Exceeds Expectations - 0.941% - 0.96%
 Far Exceeds Expectations - 0.94% or better
 (Revenue = Lab Operating Budget)

Result : Reduced cost of revenue to .85%

Effective Competition (Weight: 10%):

Baseline: 70.2%
 Gradient: Meets Expectations - 70.0% - 70.5%
 Exceeds Expectations - 70.6% - 71.0%
 Far Exceeds Expectations - Greater than 71%

Result : Achieved competition of 72%

Cost Savings/Avoidance: Credit Card Usage (Weight: 10%):

Baseline: 19%
 Gradient: Meets Expectations - 21%
 Exceeds Expectations - 23%
 Far Exceeds Expectations - 25%

Result : Increased credit card usage to 33.5%

*Best in Class in FY 96

LBNL Procurement Far Exceeded Expectations in five categories and Exceeded Expectations in one category. Of particular note is the continued reduction in the two categories of cycle time; increased usage of the credit cards from 19% in FY 96 to 33.5% in only their second full year of use for an aggregated savings of \$467,000; and improvement in the cost to percentage ratio to 0.85% exceeding best in class. LBNL Procurement has made significant achievements to become best in class among Energy Research Laboratories.

Performance Rating (Adjectival):	Far Exceeds Expectations	92.00%
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Performance Objective: #3 Customer Satisfaction

The Procurement organization shall maintain a focus on satisfying customer needs.

(Weight = 15%)

Performance Criteria: 3.1 Customer Feedback

The Procurement organization listens and responds to its internal and external customers and stakeholders in a fair and open process that encourages dialogue and participation.

(Weight = 10%)

Performance Measure: 3.1.a Working Customer Needs

Based on the results of the prior year's customer survey, the Procurement organization shall select areas to work in partnership with its customers in order to effect customer-driven improvements in the procurement area. Measurement of improved customer satisfaction will be from an established baseline. The Procurement organization will submit its selection by November 1, 1996, and its plan of action by December 1, 1996.

(Weight = 10%)

Performance Assumptions:

None provided.

Basis for Rating:

Meets: Identify customers (end users) and methods for customer interaction. Establish methods for measurement of customer satisfaction. Implementation plan with scheduled milestones is documented and plan is initiated.

Exceeds: Identify customers (end users) and methods for customer interaction. Establish methods for measurement of customer satisfaction. Implementation plan with scheduled milestones is documented and milestones met. Documentation of results verifies that customer satisfaction improvement goals for an Exceeds Expectations rating, as selected by the Laboratory in partnership with DOE and UC, have been achieved.

Far exceeds: Identify customers (end users) and methods for customer interaction. Establish methods for measurement of customer satisfaction. Implementation plan with scheduled milestones is documented and milestones met. Documentation



of results verifies that customer satisfaction improvement goals for a Far Exceeds Expectations rating, as selected by the Laboratory in partnership with DOE and UC, have been achieved.

Performance Narrative:

Identifying Customers: The 1996 survey results was used to identify the customers and what focus areas to baseline. The three customers selected with baseline, goal and gradient are as follows:

	<u>Procurement</u>	<u>Vendors</u>	<u>Requesters</u>
Baseline:	62.2	79.8	67.6
Target Goal:	65.2	82.8	70.6

Gradient:

- Meets Expectations: Meeting or exceeding one of the above targeted goals.
- Exceeds: Meeting or exceeding two of the above targeted goals.
- Far Exceeds: Meeting or exceeding all three targeted goals.

FY 97 survey scores obtained on responses to questions directly related to the selected improvement areas noted above will serve as the basis for measurement against their respective FY 96 baselines.

Methods: Procurement implemented a 5-step process for each customer group. The 5-step process consisted of involvement by Procurement to confirm the issue, jointly work the recommended improvements, jointly validate and review the improvement methods, implement the improvement, and measure customer satisfaction. A schedule and implementation plan was established and followed throughout the year. The self-assessment describes in detail the interaction with each customer group in each of the 5 steps.

Results verifying customer satisfaction: A year-end survey was selected by Procurement to verify customer satisfaction. Excellent results are as follows with 2 goals out of 3 met or exceeded.

	<u>Procurement</u>	<u>Vendors</u>	<u>Requesters</u>
Baseline:	62.2	79.8	67.6
Target Goal:	65.2	82.8	70.6
Results:	78.6	80.4	71.0

Significant progress and improvement was achieved in working Procurement Personnel concerns with recognition and rewards. The results for vendors is slightly improved from the baseline but the target goal was not achieved. This is an indication that the implementation methods of access to a web site and an information flyer is not responding to the vendors issue of better understanding the LBNL procurement process. The requesters improved from the FY 96 baseline but the target goal was made by 0.4% point indicating that the implementation method of the annual procurement session is not totally resolving their concerns of understanding the procurement process. A more personable approach to jointly work the recommendation and review of the improvement methods for both vendors and requesters to fully understand their concerns appears necessary.

Performance Rating (Adjectival):	Exceeds Expectations	88.00%
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Performance Criteria: 3.2 Customer Feedback

As a continuous indicator of overall customer satisfaction, the Procurement organization shall survey in the last half of the rating period the needs and satisfaction of its internal and external customers relative to its purchasing systems and methods. At a minimum the following customer groups will be surveyed and weighted as indicated:

- Laboratory customers (60%)
- DOE (20%)
- Suppliers (10%)
- Procurement personnel (10%)

(Weight = 5%)

Performance Measure: 3.2.a Customer Satisfaction Index

A customer satisfaction index for the Procurement organization shall be created from the results of the individual surveys of customer groups using the weighting in 3.2 and a 100 point scale. The satisfaction index is to be tracked and trended with an upward trend expected. **(Weight = 5%)**

Performance Assumptions:

Additional consideration may be given for actions implemented by the Laboratory to address satisfaction concerns identified by the survey.

Basis for Rating:

Meets Expectation: The Laboratory achieves an index score of 60.

Exceeds: The Laboratory achieves an index score of 70.

Far Exceeds: The Laboratory achieves an index score of 80.

Performance Narrative:

The annual survey was agreed to by all parties as to the baseline, approach, and scoring methodologies. In addition, this survey was used to measure customer satisfaction in POCM 3.1 above.

The survey results show an overall score of 80.4. This is an improvement of 2.5% in the overall score from the FY 96 score of 77.9. The following chart indicates the FY 96 score and achievements for FY 97:

	<u>FY 96</u>	<u>FY 97</u>
DOE	78.3	88.2
Procurement Personnel	74.2	82.7

Vendors	85.7	85.5
Requesters	77.1	76.5

Notable increases were awarded by DOE and Procurement Personnel. Vendors and Requesters did not change significantly from FY 96 but these customers remain generally satisfied.

Performance Rating (Adjectival):	Far Exceeds Expectations	90.00%
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Performance Objective: #4 Professional & Social Responsibility

The Laboratory shall ensure that the procurement process is conducted in a professional and socially responsible manner. **(Weight = 15%)**

Performance Criteria: 4.1 Supplier Performance

The Procurement organization shall manage its suppliers in such a manner as to ensure commodities and services meet the Laboratory's requirements in terms of timely delivery of acceptable goods and services. **(Weight = 10%)**

Performance Measure: 4.1.a Measuring Supplier Performance

The Procurement organization shall use its Supplier Rating System to measure the percentage of on-time deliveries of acceptable goods and services. Improvement will be measured from a first quarter FY97 baseline. **(Weight = 10%)**

Performance Assumptions:

None provided.

Basis for Rating:

In partnership with DOE and UC, each Laboratory shall establish goals and gradients for the percentage of on-time deliveries of acceptable goods and services provided by suppliers. On-time delivery shall be defined as the delivery of acceptable goods and services to the Laboratory by the time specified by the contractual arrangement.

Performance Narrative:

Procurement uncovered extremely low on-time deliveries in key categories. Procurement selected the areas of laboratory equipment, computer hardware, and fabrications as a pilot for this first time measure. The universe consists of vendors with over \$25K worth of business, and the fourth quarter results will be the basis for measurement. The following is the baseline, target and stretched goals, gradients, and results:

	<u>Lab Equip.</u>	<u>Comp. Hardware</u>	<u>Fabrications</u>
1st Qtr Baseline:	39%	59%	18%*
Target Goal:	60%	70%	50%
Stretch Goal:	70%	80%	60%
FY 97 Results:	83%	88%	85%

*Most orders arriving within 1 week of promised date

Gradient:

Meets Expectations: Meeting all three target goals.
 Exceeds: Meeting two target goals and one stretch goal.
 Far Exceeds: Meeting one target goal and two stretch goals.

Procurement responded to this challenge to improve deliveries and implement a Supplier Management Program to improve this situation. The self-assessment detailed the process used to achieve this improvement. There was progression from the first quarter baseline to the fourth quarter achievements which resulted in significant improvement and resulted in all 3 stretch goals being exceeded. This success of this pilot for Supplier Management Program sets the foundation for the laboratory-wide challenge in FY 98 for all on-time goods and services delivery rates to be 90% or better.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Criteria: 4.2 Socioeconomic Subcontracting

The Procurement organization shall support and promote socioeconomic subcontracting programs. The obligated subcontracted dollars awarded will meet yearly DOE/UC/Laboratory negotiated goals in the following areas:

- Small Business
- Small Business Set-Asides
- Small Disadvantaged
- Small Women-Owned Business

The procurement organization will propose and provide supporting rationale for socioeconomic goals. The schedule for submitting and negotiating goals will be followed per Appendix D.

(Weight = 5%)

Performance Measure: 4.2.a Meeting Socioeconomic Commitments

Actual subcontract dollar obligations (not subcontract face value) in the 4 categories are compared against the negotiated goals. The number of goals met will be measured. Dollars obligated will be plotted as percentages of the specific areas against the purchasing base. **(Weight = 5%)**

Performance Assumptions:

Obligations qualifying in more than 1 category may be counted in more than 1 category, e.g., Small Business and Small Business Set-Asides.

The purchasing base for purposes of this measure is all obligations incurred during the fiscal year period, excluding:

- (1) Subcontracts with foreign corporations which will be performed entirely outside of the United States;
- (2) Utilities (gas, sewer, water, steam, electricity and regulated telecommunications services);
- (3) Federal Supply Schedule Orders when all terms of the GSA contract apply;
- (4) GSA Orders when all terms of the GSA contract apply;
- (5) Agreements with DOE management and

Basis for Rating:

It is recognized that pursuit of Performance Objective #2, Purchasing System Cost Effectiveness, may impact on the establishment of socioeconomic goals and/or on the final achievement of such goals. Consideration will be given to this impact during forecasting of goals and during evaluation of self assessments.

Meets: Meeting all goals with consideration given to changes in funding profiles, changes in forecast, deletion of requirements, etc., should goals not be met.

Exceeds: Exceeds three of the four goals and meets the fourth goal. Consideration will be given to such factors as awards/recognition, pilot program participation, and other support for DOE socioeconomic programs when the Laboratory is borderline to meeting a goal that leads to a rating of Exceeds.

Far Exceeds: Exceeds all goals. Consideration will

operating contractors and University campuses;

(6) Federal government and DOE mandatory sources of supply; Federal prison industries, industries of the blind and handicapped; and

(7) Procurement card purchases.

be given to such factors as awards/ recognition, pilot program participation, and other support for DOE socioeconomic programs when the Laboratory is borderline to meeting a goal that leads to a rating of Far Exceeds.

Performance Narrative:

The following are the small business established goals and achievements:

<u>Category</u>	<u>Goal</u>	<u>Results</u>
Total Small Business	43%	51.7%
Sm Business Set-Asides	10%	31.6%
Sm Disadvantaged Bus.	12%	18.4%
Woman-Owned Sm Bus.	7%	11.1%

Procurement has once again exceeded the small business goals in all four categories. Procurement continues to support diverse subcontractor programs and outreach activities. The use of lower-tier socioeconomic opportunities is commendable, which account for 0.2% of the laboratory’s small business awards. With the FY 97 purchasing base relatively constant and no major procurements during FY 97, the results indicate a conservative, no-risk approach to goaling and improved forecasting is required. This is the second year that an improvement in forecasting has been recommended.

Performance Rating (Adjectival):	Far Exceeds Expectations	95.00%
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Performance Area: PROPERTY MANAGEMENT

Performance Objective: #1 Accountability of Property

The laboratory will achieve accountability for government property. **(Weight = 60%)**

Performance Criteria: 1.1 Laboratory Responsibility

The accountable individual is identified for capital and attractive (sensitive) property, and the timeliness of such identification is measured. **(Weight = 10%)**

Performance Measure: 1.1.a Timeliness of Assignment

Percentage of property records with the accountable individual assigned within 60 days of the property being recorded in the property information database will be measured. **(Weight = 25%)**

Performance Assumptions:

None provided..

Basis for Rating:

Percentage of property records with the accountable individual assigned within 60 days:

Meets Expectations: 95 to 97.4%

Exceeds Expectations: 97.5 to 99.4%

Far Exceeds Expectations: 99.5 & Up

Performance Narrative:

During 1997, LBNL began to address the issue of assigning actual property custodians for the first time. In prior years, the Laboratory had been assigning the names of individuals who had ordered the equipment, as opposed to the actual end-users. However, this approach did not address the critical issue of individual employee accountability which is the intent of the measure.

During the first half of the 1997 performance rating period, due to a property system shortfall, LBNL had been inaccurately reporting successful results for this measure. Certain system modifications were

made during the year which enabled the LBNL Property Manager to more accurately assess their actual progress in assigning custodians within 60 days. Based on that assessment it was learned that for the period January through May, only about 61% of the custodians were assigned within 60 days. For the remaining months of the year, LBNL reported a percentage of assignments within 60 days above the 95% level. In fact, during the last two months of the rating period, LBNL reported 100% custodial assignment within 60 days.

During the initial performance validation, the Organizational Property Management Officer (OPMO) encountered significant difficulties in interpreting the back-up data provided to support the performance for this measure. This was primarily due to the approach taken by LBNL to track custodial assignments, which was necessitated by the LBNL property management database's inability to readily provide the needed data. During the subsequent on-site performance validation, the OPMO conducted a sample of 10% of the items received and assigned for the period June through September, in order to assess the accuracy of custodians assigned. Although, all items were located, there appears to be certain LBNL organizations that continue to assign property to those individuals ordering the property, as opposed to the end-users.

Ultimately, during 1997, LBNL was able to achieve approximately 75% of custodial assignment within 60 days. This falls well below the established acceptable level of 95%. Therefore, this measure is rated as Needs Improvement, based on a consideration of LBNL Property Management's attempts to assign actual custodians for the first time.

Performance Rating (Adjectival):	Needs Improvement	65.00%
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Performance Criteria: 1.2 Attractive Property Inventory

The Laboratory shall conduct successful attractive (sensitive) property inventories as established in its inventory plan. Property accountability records shall be reconciled within 180 days after conclusion of the inventory. **(Weight = 20%)**

Performance Measure: 1.2.a Attractive Inventory Results

Percentage of attractive (sensitive) property accounted for, by acquisition value, in the most recent attractive (sensitive) property inventory conducted will be measured. **(Weight = 20%)**

Performance Assumptions:

None provided.

Basis for Rating:

Percentage of property, by acquisition value, accounted for:

Meets Expectations: 99.5 to 97.4%

Exceeds Expectations: 99.6 to 99.7%

Far Exceeds Expectations: 99.8% & Up

Performance Narrative:

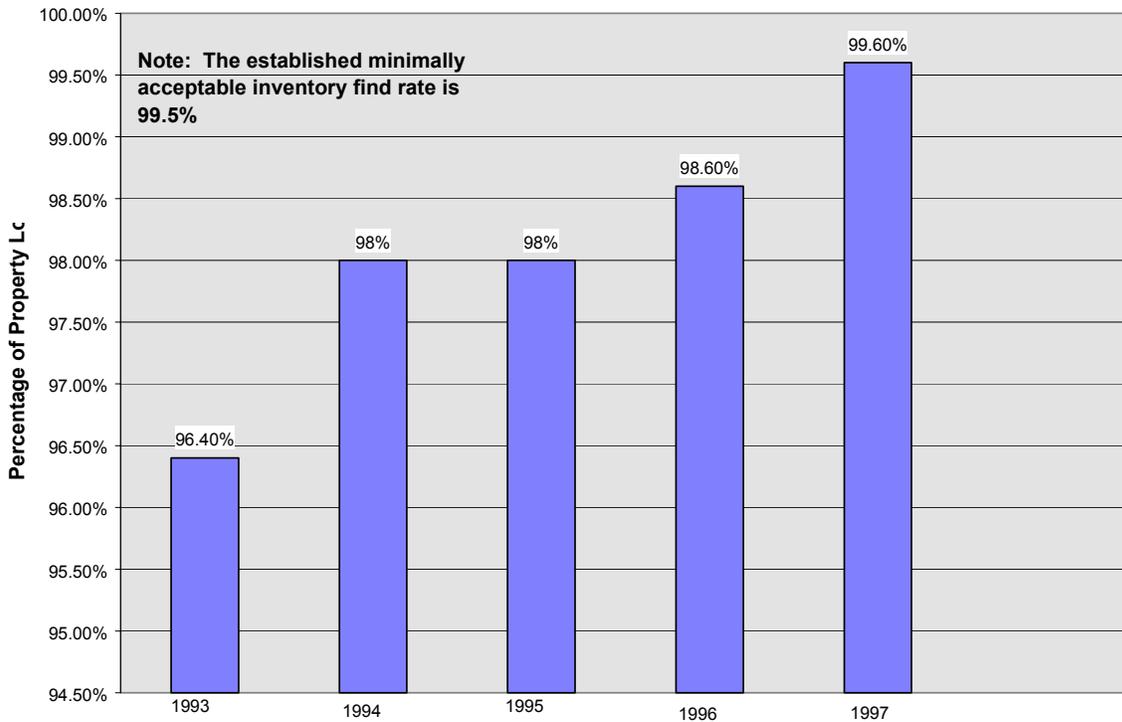
During 1997, LBNL conducted their first year of statistical sample inventory, based on a DOE-OAK approved inventory plan for both controlled and sensitive property. The 1997 LBNL inventory base for sensitive property consisted of 2,248 items with an acquisition value of \$38,827,684, a sample size chosen to provide a confidence level of 99.9%, and included 100% of items at private residences. LBNL's approach was for individual Divisions to conduct the inventory of assets in their control, with the intent of promoting organizational stewardship. Although, originally intended to begin in January 1997, the inventory was not actually initiated by the LBNL Divisions until March. However, by April, it was apparent that the LBNL organizations were procrastinating in initiating an aggressive inventory campaign. This prompted the OAK-OPMO to issue a letter requesting the LBNL Property Manager to provide monthly status reports by Division, in order to monitor the situation. Subsequently, the LBNL Property Manager began posting individual Division inventory status on the LBNL Home Page, as a means of increasing visibility. It remained apparent that an appropriate level of importance was not being placed on the inventory by the a majority of the Division representatives. In fact, in some cases the LBNL Divisions were reported to have brought in contractor assistance to conduct their inventories, another indication that the Divisions had not accepted "ownership" and responsibility for the process.

The inventory and reconciliation was completed in September 1997, and resulted in a find rate of 99.6%, a vast improvement over previous inventory results. However, it must be noted that given the length of time (8 months) taken to complete a sample inventory population, substantially improved results are to be expected. In addition, by taking the entire 8 months to complete the sample inventory, cost reduction opportunities usually associated with statistical sample inventories were negated.

The OAK-OPMO conducted a validation of 60 items taken from the entire 1997 sample population of both controlled and sensitive property. All items were located.

Based on the actual find rate associated with the inventory, this measure is rated as Exceeds Expectations.

LBNL Sensitive Property Inventory Results



Note: For the 1997 LBNL Statistical Sample Inventory, find rates were calculated based on acquisition value.

Performance Rating (Adjectival):	Exceeds Expectations	85.00%
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Performance Criteria: 1.3 Controlled *Property Inventory

The Laboratory shall conduct successful controlled property inventories as established in its inventory plan. Property accountability records shall be reconciled within 180 days after conclusion of inventory. **(Weight = 20%)**

*Controlled property is property with acquisition value of \$5,000 or greater (includes capital property with acquisition value greater than \$25,000 as outlined in the August 1, 1996, memorandum to Field Chief Financial Officers from E.E. Smedley, Controller).

Performance Measure: 1.3.a Controlled Inventory Results

Percentage of controlled property accounted for, by acquisition value, in the most recent controlled property inventory conducted will be measured. **(Weight = 20%)**

Performance Assumptions:

None provided.

Basis for Rating:

Percentage of property, by depreciated value, accounted for;

Meets Expectations: 99.5%

Exceeds Expectations: 99.6 to 99.7%

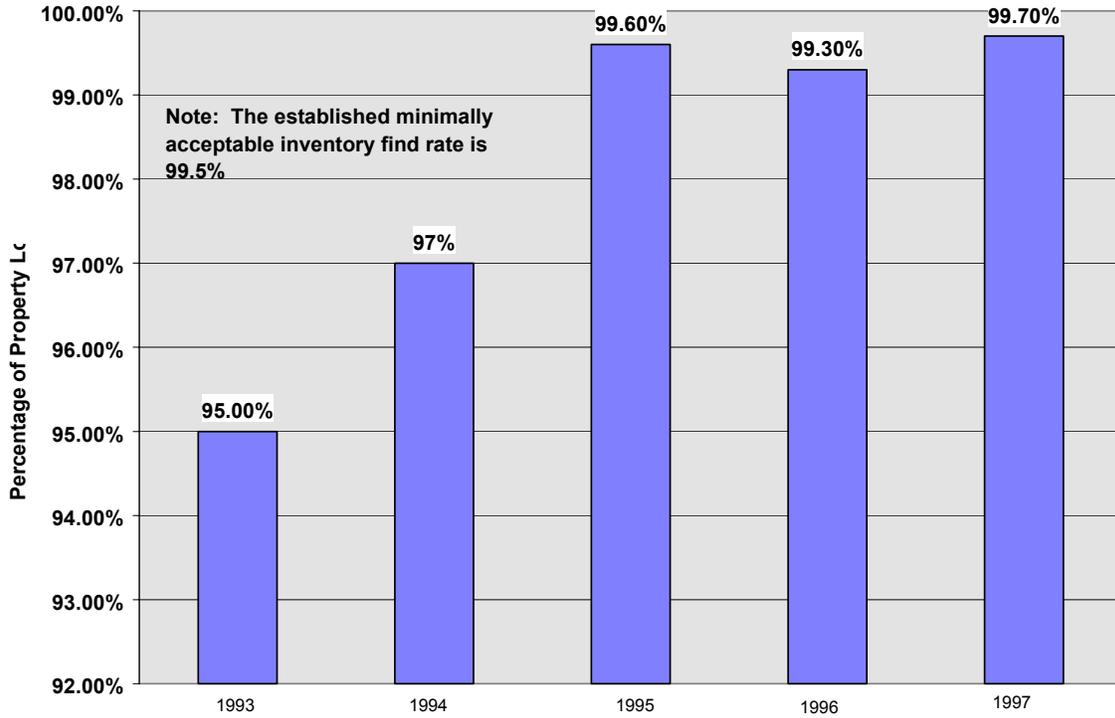
Far Exceeds Expectations: 99.8% & Up

Performance Narrative:

During 1997, LBNL's statistical sample inventory of controlled property included 1,512 items with an acquisition value of \$36,236,689, a sample size chosen to provide a confidence level of 99.9%. The controlled property inventory was conducted simultaneously with the sensitive inventory, using the same methodology. Therefore, the same shortfalls encountered with the sensitive inventory process, described in performance measure 1.2.a, are true for the controlled inventory process. Nevertheless the inventory find rate was improved over the 1996 rate of 99.3%

Based on an inventory find rate of 99.7%, this measure is given a rating of Exceeds Expectations.

LBNL Controlled Property Inventory Results



Note: For the 1997 LBNL Statistical Sample Inventory, find rates were calculated based on acquisition value.

Performance Rating (Adjectival):	Exceeds Expectations	85.00%
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Performance Criteria: 1.4 Property Close-Outs

The Laboratory will have an effective and timely process for processing property close-outs of those subcontracts with government-furnished and/or subcontractor acquired property. **(Weight = 10%)**

Performance Measure: 1.4.a Timeliness of Property Close-Outs

Percentage of expired subcontracts with GFP/SAP in which property close-out is completed within 6 months of receipt of the final inventory close-out report will be measured. Property close-out means that GFP/SAP has been accounted for and a property disposition determination has been made utilizing one of the following options: returned, sold, transferred, donated, abandoned-in-place, placed under a bailment agreement or transferred to another subcontract. The property disposition determination process includes appropriate screening. **(Weight = 10%)**

Performance Assumptions:

None provided.

Basis for Rating:

Percentage of expired subcontracts with GFP/SAP in which property close-out is completed within 6 months:

Meets Expectations: 90 to 94.9%

Exceeds Expectations: 95 to 97.9%

Far Exceed Expectations: 98% & Up

Performance Narrative:

LBNL had seven subcontracts which expired during 1997 with property issues. For those subcontracts, LBNL closed out all property issues within the six month timeframe allowed. This measure is rated as Far Exceeds Expectations.

Performance Rating (Adjectival): Far Exceeds Expectations 98.00%

Performance Objective: #2 Utilization of Property
 The Laboratory will ensure proper utilization of government property. **(Weight = 15%)**

Performance Criteria: 2.1 Property Utilization Program
 The Laboratory will ensure that property is reviewed for appropriate utilization and underutilized property is made available to others in a timely manner. **(Weight = 5%)**

Performance Measure: 2.1.a Measure Property Utilization
 Property utilization reviews shall be conducted according to the approved Walk-Through program and the timeliness of resolution of underutilized property findings will be measured. **(Weight = 5%)**

Performance Assumptions:
 Resolution of underutilized property findings is defined as finding resolved or corrective action plan in place.

Basis for Rating:
 Timeliness of resolution of underutilized property:
Meets Expectations: 90% of underutilized property findings are resolved within 90 days.
Exceed Expectations: 95% of underutilized property findings are resolved within 90 days.
Far Exceed Expectations: 100% of underutilized property findings are resolved within 90 days.

Performance Narrative:

LBNL’s walkthrough program continued to be quite effective during 1997. In fact, this function is one of LBNL property management’s strong points. All 170 findings resulting from walkthroughs were addressed within the 90 day time frame. A large percentage of these issues were addressed within 60 days, which actually resulted in a cost savings opportunity during 1997. As part of the operational awareness program, the Organizational Property Management Officer participated on several LBNL walkthroughs during 1997.

Performance Rating (Adjectival): Far Exceeds Expectations 100.00%

Performance Criteria: 2.2 Vehicle Utilization Program
 The Laboratory will ensure proper utilization of Government motor vehicles. **(Weight = 10%)**

Performance Measure: 2.2a Measure Vehicle Utilization
 Percentage of total eligible motor vehicles meeting local utilization criteria will be measured using the average utilization percentage for each class of vehicles. Reviews will be completed for each class of motor vehicles with established utilization criteria. The weight of the measure will be distributed equally across the number of classes of motor vehicles at each site unless otherwise agreed to by DOE and UC Laboratory actions on underutilized vehicles, as defined by the Laboratory's Fleet Management Plan, will be described in the annual assessment report. **(Weight = 10%)**

Performance Assumptions:

- For this measure, Government motor vehicle is defined as those vehicles designed to be operated principally on the highways in the transportation of property or passengers, unless otherwise agreed to by the Laboratory, DOE and UC.
- The average utilization percentage will be calculated for each class of vehicles by dividing the overall utilization measured into the overall utilization standard. As an example, 10 vehicles with a utilization standard of 1,000 miles per year would equate to an overall utilization standard of 10,000 miles per year. If the overall utilization measured 9600 miles, then the average utilization percentage would be 9,500/10,000 or 95%.

Basis for Rating:

The average utilization percentage for motor vehicles will be measured:

Meets Expectations: 90 to 94.9%

Exceed Expectations: 95% to 97.9%

Far Exceed Expectations: 98% & Up

Performance Narrative:

For 1997, LBNL managed its motor vehicle utilization program using DOE-OAK approved vehicle utilization criterion, which were developed based on specific LBNL site characteristics, historical vehicle usage, and intended vehicle mission. The three established categories and criterion are: Discretionary vehicles-200 miles per month, Essential vehicles - 50 miles per month, and Material handling - 5 hours per month. Based on these criterion, LBNL achieved the following utilization during 1997: 666% for Essential vehicles, 385% for material handling, and 102% for discretionary vehicles.

During 1997, no additions were made to the LBNL fleet. LBNL has agreed to review the existing criterion with the OAK OPMO for continued appropriateness, as the inordinately high level of utilization would appear to indicate the need for more realistic criterion. During the OPMO's validation, it was noted that there were conflicting numbers of vehicles reported. At the time of this writing no additional clarification has been provided as to an accurate total of vehicles in the LBNL fleet. This type of inaccuracy leads to questions regarding the accuracy of other information maintained on the LBNL fleet. Also requested was information regarding actions taken to address the individual underutilized vehicles, such as on-site rotation, etc., which has not been provided. Without this information it is impossible to fully assess the effectiveness of the program.

While LBNL far exceeded the established percentages for average vehicle utilization by classification, there remains questions as to the accuracy of the data maintained in the LBNL fleet management data base, and as to the actions taken to address individual underutilized vehicles.

However, because LBNL far exceeded the established gradients for this measure, a rating of Far Exceeds Expectations is assigned.

Performance Rating (Adjectival):	Far Exceeds Expectations	92.00%
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Performance Objective: #3 Efficiency of Operations

The Laboratory shall ensure that property is managed at an optimum efficiency level while maintaining high levels of performance. **(Weight = 15%)**

Performance Criteria: 3.1 Pursuing Cost Efficiency

The Laboratory shall ensure that property processes/products are provided in the most efficient manner while maintaining high levels of performance. **(Weight = 15%)**

Performance Measure: 3.1.a Balancing Performance and Cost

The Laboratory shall select a minimum of two areas in which to pursue cost efficiency while maintaining high performance. Selections will be provided to DOE and UC by October 1, 1996, for review and concurrence.

Performance levels will be determined and measured against established performance gradients. In those areas where established performance gradients do not exist, performance levels will be measured from an established baseline. Baselines for cost and baselines for performance (if not already in a gradient) will be established and provided to DOE and UC by January 15, 1997, for review and concurrence. Baselines will be established using FY96 and/or 1st Quarter FY97 data.

The weight of the measure will be distributed equally across the number of selected areas unless otherwise coordinated with DOE and UC. **(Weight = 15%)**

Performance Assumptions:

Consideration will be given to the impact caused by changes in business requirements. Renegotiation of gradients or baselines may be required as a result of such business requirement changes.

Basis for Rating:

The correlation of performance achieved and cost accrued will be measured for each area per the following table:

	PERFORMANCE LEVEL		
	Far Exceeds Rating or Improved Performance from Baseline	Exceeds Rating or Maintains Performance at Baseline	Meets Rating or Operates within Acceptable Range of Performance
Lower Cost	Far Exceeds	Exceeds	Meets
Same Cost	Exceeds	Meets	Needs Improvement
More Cost	Meets	Needs Improvement	Needs Improvement

Performance Narrative:

LBNL chose to address the precious metals inventory process and the disposal of idle assets identified during walkthroughs, for increased cost efficiency. For this measure, equal or improved performance from an established baseline is also considered, as per the above scoring matrix. The methodologies used to establish gradients and baselines were agreed to by the OAK OPMO and UC.

For the conduct of the precious metals inventory, the LBNL property manager, obtained a waiver from the annual inventory requirement from the OPMO for certain holders, and involved precious metals holders in planning the inventory to streamline the process, which resulted in minimizing the level of effort and time expended. This resulted in a cost savings of \$8,255. In addition, the 1997 precious metals inventory resulted in no unexplained losses, which was equal to the performance baseline.

Based on the continued level of performance in addition to the cost savings achieved, a rating of Exceeds Expectations is assigned.

In assessing the disposal of idle assets identified during walkthroughs, the LBNL Property Manager was able to reduce the time taken to act on identified idle assets resulting in a cost savings realized by reducing the costs associated with continued control and handling of the idle assets. The realized cost savings for this effort was \$20,075. In addition, all idle assets were addressed within the 90 day timeframe, which equaled the baseline performance. Based on the continued level of performance, in addition to the cost saving achieved, a rating a Exceeds Expectations is assigned.

Based on the overall cost savings, as well as the maintained level of performance for these two functions, this measure is given a rating of Exceeds Expectations.

Performance Rating (Adjectival):	Exceeds Expectations	85.00%
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Performance Objective: #4 Management of Business Requirements to Meet Customer Needs

The Laboratory shall ensure that Property Management programs are customer-focused, consistent with approved policies and procedures and applied consistently throughout the laboratory.

(Weight = 10%)

Performance Criteria: 4.1 System Evaluation

The Laboratory shall conduct, document, and report annually, the results of a successful property management system evaluation. The Laboratory shall develop and submit a risk-based system evaluation plan to DOE and UC no later than October 1, 1996, for review and concurrence.

(Weight = 10%)

Performance Measure: 4.1.a Assessing System Operations

The Property Management System Evaluation Plan shall include criteria to establish that

- 1) procedures and implementation of procedures are customer-focused,
- 2) property programs are consistent with approved policies and procedures, and
- 3) programs are applied consistently throughout the Laboratory. The property processes shall be measured against identified system evaluation criteria established in the plan. If deficiencies/opportunities for improvements are identified, management's response to such shall be measured in terms of cost/risk analyses applied.

(Weight = 10%)

Performance Assumptions:

The System Evaluation Plan shall describe the criteria and acceptable thresholds for each criterion. In addition, the plan shall describe the evaluation methods to be used if deficiencies/opportunities for improvement are identified.

Basis for Rating:

Meets Expectations: Good performance levels reported for many to most system criteria. If deficiencies and/or opportunities for improvement are identified, management's cost benefit analyses and risk assessments are good. Implementation of remedial actions is appropriate in many to most cases.

Exceed Expectations: Good to excellent performance levels reported for most system

(continued on next page)

Performance Gradient: (4.1.a continued)

criteria. If deficiencies and/or opportunities for improvement are identified, management's cost benefit analyses and risk assessments are good to excellent. Implementation or remedial actions is appropriate in most cases.

Far Exceeds Expectations: Excellent performance levels reported for most system criteria. If deficiencies and/or opportunities for improvement are identified, management's cost benefit analyses and risk assessments are excellent. Implementation of remedial actions is appropriate in most cases.

Performance Narrative:

During 1997, LBNL conducted a self-assessment utilizing a format devised by slightly revising the old Contractor Personal Property System Review checklist (CPPSR) format. The assessment questionnaire was divided into ten separate functional areas: Directives and Guidance, Organizational Structure, Career Development Plans and Training, Quality Attainment and Checks and Balances, Controls Over Subcontractor -Held Property, Management and Control of Equipment, Management of Supplies and Materials, Storage and Warehousing, Reutilization and Disposal, and Motor Vehicle Management.

For the most part, LBNL used personnel outside the Property Management group to perform the assessments. The OAK OPMO participated on those assessment areas addressing Subcontractor-held property, and Storage and Warehousing.

Although based on the final LBNL report, there were a large percentage of positive responses to checklist questions, it does not appear as though a thorough risk-based assessment/cost analysis or prioritization was considered in any aspect of the self-assessment process. There are certain minor opportunities for improvement referenced in the LBNL report. However, operational awareness has made this office aware of other relatively significant systematic shortfalls of higher priority, such as the custodial assignment, and the tracking of custodial related information changes such as equipment location. There are known shortfalls within LBNL's automated database for tracking this information. In fact, there has been on-going internal complaints within the LBNL property community regarding informational inaccuracies. Although, this area is addressed in System Standard Six- "Management and Control of Equipment," of the assessment criterion, there is no mention of the issue in the LBNL assessment report. This is a systemic issue of critical importance in tracking and controlling property information and is certainly appropriate for mention in a self-assessment. These issues lead to questions regarding credibility of the self-assessment. It is important to note that it is critical to the continued success of the Department's performance-based, self-assessment philosophy that self-assessment reports reflect complete objectivity to third party observers.

In summary, LBNL did conduct the assessment in accordance with the agreed to format, and there was a large percentage of resulting positive findings. However, due to the apparent lack of risk

assessment and failure to recognize priority shortfall areas in the report, this measure is rated as a Meets Expectations at midpoint level.

Performance Rating (Adjectival):	Meets Expectations	75.00%
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Science & Technology

Institutional Level Assessment

The LBNL Institutional Level Assessment addresses the Laboratory's mission and vision, its core competencies, its organizational structure and the range of divisional activities, the research climate at LBNL, and planning for and investing in the future.

The Laboratory continues to excel in the area of strategic planning and demonstrates a strong commitment to the process to ensure LBNL's viability in the future. The lab's clearly articulated mission statement supports the DOE mission and is in line with the DOE strategic plan.

LBNL's management of the institutional programs Laboratory Directed Research and Development (LDRD) and Work For Others (WFO) programs continues to demonstrate the Lab's commitment to investing in research to keep the laboratory on the cutting edge in science and technology. The lab makes positive use of its close proximity to the UC Berkeley campus through interactions and collaborations with the intellectual resources of the campus.

As agreed to with UC and LBNL, the institutional-level assessment is not used as part of the formal Appendix F rating, nor is it used in the overall calculations for determining the Laboratory's point score. DOE rates the LBNL institutional performance as **EXCELLENT**.

Programmatic Assessment

The programmatic assessment of the Laboratory is based upon the LBNL self-assessment and peer review of science and technology and the UC overlay, and is validated by DOE HQ program managers and their OAK counterparts. The assessment of performance for research programs is comprised of a combined evaluation of the following programs: Biomedical and Environmental Research, Basic Energy Sciences, Scientific Computing, Nuclear Physics, High Energy Physics, Fusion Energy Sciences, and Energy Efficiency & Renewable Energy.

The overall rating of these programs is **EXCELLENT** for FY 1997.

LBNL, UC and DOE evaluated the programs against the following four criteria:

Criteria 1: Quality of science

Review committees will consider recognized indicators of excellence, including impact of scientific contributions, leadership in the scientific community, innovativeness, and sustained achievement. As appropriate, they may also evaluate other performance measures such as publications, citations and awards.

Criteria 2: Relevance to national needs and agency missions

Committees will consider the impact of Laboratory research and development on the mission needs of the Department of Energy and other agencies funding the programs. Such considerations include national security, energy policy, economic competitiveness, national environment goals, as well as the goals of DOE and other Laboratory funding agencies in advancing fundamental science and strengthening science education. Committees will assess the impact of Laboratory programs on industrial competitiveness and national technology needs. In this assessment, committees will assess characteristics that are not easily measured, including relevance of research programs to national technology needs and effectiveness of outreach efforts to industry. As appropriate, they may consider such performance measures as licenses and patents, collaborative agreements with industry, and the value of commercial spin-offs.

Criteria 3: Performance in the construction and operation of major research facilities

Quantifiable performance measures include success in meeting construction schedules and cost objectives, facility performance specifications, and user availability goals. Other considerations may include the quality of the science performed, extent of user participation and user satisfaction, operational reliability and efficiency, and effectiveness of planning for future improvements.

Criteria 4: Programmatic performance and planning

The review should focus on the achievement of broad programmatic goals, including meeting established technical milestones, carrying out work within budget and on schedule, satisfying the sponsors, providing cost-effective performance, and planning for the orderly completion or continuation of the programs. In assessing the effectiveness of programmatic and strategic planning, the reviewers may consider the ability to execute projects in concert with overall mission objectives, programmatic responsiveness to changes in scope or technical perspective, and strategic responsiveness to new research missions and emerging national needs. In the evaluation of the effectiveness of programmatic management, consideration may include morale, quality of leadership, effectiveness in managing scientific resources (including effectiveness in mobilizing interdisciplinary teams), effectiveness of organization, and efficiency of facility operations.

Biomedical and Environmental Research

Overall Performance Rating: Excellent

**Criteria 1: Quality of science:
Rating: Excellent**

The LBNL Life Sciences Division has an outstanding group of investigators. The research programs continue to demonstrate significant achievements and leadership in several areas of science. Of particular note are the studies on mechanisms of cellular responses to cell/tissue regulatory mechanisms, and the studies that are part of the Molecular Cytogenetic Resource.

In an independent review conducted in November 1996, the reviewing committee identified three areas where important progress is being made by well-established, talented investigators. These included the Center for Functional Imaging, the Molecular Cytogenetics Group, and the Lipoprotein Study Group. The laboratory's genome research continues to be world class. Recognition was also given to the environmental research being conducted at LBNL.

**Criteria 2: Relevance to national needs and agency mission
Rating: Excellent**

LBNL continues to improve in this area. In these times of tight budgets, it is critical that the laboratory continues to evaluate their research to ensure that it maintains a focus on DOE and national needs. In the genome area, LBNL has been very responsive to the needs of the DOE Human Genome Center Program. LBNL's overall effort on behalf of the Joint Genome Institute (JGI) will likely have a considerable impact on the mission needs of the DOE and National Institutes of Health genome programs. In the earth science research, the laboratory has provided very valuable programmatic service in responding to some very high priority, very short turn around requests from the Department. With some improvement in the communication between LBNL and HQs', it can be anticipated that LBNL will be a true partner and leader in the Natural and Accelerated Bioremediation Research (NABIR). Overall, the laboratory has responded rapidly and appropriately to recommendations from peer reviews.

**Criteria 3: Performance in the construction and operation of major research facilities
Rating: Outstanding**

LBNL has had an outstanding year in the construction and operations of several projects during 1997. Among these are the completion of the Biomedical Isotope Facility, the Structural Biology Laboratory at the ALS, and the soon to be occupied Human Genome Laboratory. In addition, the laboratory has coordination responsibilities for the establishment of the Joint Genome Institute and the project is proceeding on schedule.

Criteria 4: Programmatic performance and planning
Rating: Outstanding

Performance and planning has been outstanding. Management of the divisions is successfully orienting the major projects to reach DOE programmatic goals and is receptive to refocusing projects where necessary.

In a recent review conducted at the laboratory, the committee was unanimous in recognizing that the, “program director had done a superb job in establishing a high quality program bridging investigators from different disciplines and backgrounds.”

Basic Energy Sciences

Overall Performance Rating: Good

**Criteria 1: Quality of science:
Rating: Outstanding**

Scientific quality of the LBNL research programs is customarily outstanding and is generally related to important missions of DOE. Principal investigators at LBNL funded by BES win major prizes and awards sponsored by professional societies and by others.

Under Materials Sciences, the Metal and Ceramic Sciences program was peer reviewed at LBNL. These reviewers and BES program managers feel that the quality of the science is outstanding for all aspects of this program. In FY97, LBNL received there were three DMS Awards (BES Division of Material Sciences) and one shared prize (with Argonne National Laboratory). LBNL also succeeded in competing for a major new program on sp-2 bonded materials.

The quality of the scientific programs sponsored by the Chemical Sciences Division remain of very high quality as measured through regularly scheduled peer reviews. The quality of the research is marked by innovative new ideas and important contributions to the literature. The programs are directed at very basic research issues underlying heavy element chemistry, catalysis, and combustion, all of which are priority science issues for DOE. The chemical dynamics beamline at the ALS is relevant to the broad science objectives of the chemical physics program in the Division of Chemical Sciences. The scientific program in atomic, molecular, and optical (AMO) physics is excellent. The atomic physics beamline at the ALS which is led by a visiting non-LBNL University researcher appears to be working well and technical results are beginning to appear.

LBNL researchers in geomechanics, geochemistry and geophysics continue their tradition of excellence, with significant contributions. Recent research proposals in geomechanics, geophysics, geochemistry, and hydrology have received outstanding ratings from the community.

**Criteria 2: Relevance to national needs and agency mission
Rating: Excellent**

BES-supported LBNL research programs are making a major contribution to energy missions and potential futuristic markets. For example, improvements in wide band gap semiconductors could lead to energy efficient lighting applications; achievements of the three times the fracture toughness previously achieved for silicon carbide could lead to accelerated usage of this material in commercial

applications; and innovative progress in applying superconducting quantum interference device technology to nondestructive evaluation could have a major effect on the safety and cost effectiveness of energy power plant operation.

LBNL basic research is also relevant to environmental goals. LBNL has been extremely clever in inventing ways to do things smarter through SQUIDS (Superconducting Quantum Interference Devices), NMR techniques, techniques to measure contamination in soils, contamination on semiconductor wafers at ALS, and the development of techniques to measure extremely small quantities of radioactive samples.

An initial effort has been made to establish a dialogue between the outstanding quality science at LBNL with technology program needs in the Office of Fossil Energy and the Office of Energy Efficiency and Renewable Energy. There is presently a large unfulfilled need to better integrate the outstanding basic Chemical Sciences capabilities at LBNL with the applied programs of DOE.

LBNL research in Geosciences, however, has been recognized for its impact on DOE technology programs, especially in Fossil Energy and Environmental Management. Leadership in combining fundamental geochemical, geomechanical, and hydrologic investigations of fluid-flow processes in the shallow crust serves as an outstanding foundation for collaboration and integration of basic and applied research.

Criteria 3: Performance in the construction and operation of major research facilities
Rating: Good

Under Material Sciences, the National Center for Electron Microscopy (NCEM) continues to provide an outstanding national user facility resource for outside researchers from academia, other national laboratories, and the private industrial sector. For example, scientists from the NCEM played a major role in the DOE 2000 CoLaboratory winning proposal “Materials Microcharacterization CoLaboratory 2000”.

LBNL’s performance for operating the ALS is only judged as good in comparison to the outstanding performance of the three other synchrotron radiation light sources supported by BES. The basis for this rating is the recent findings of a major review panel, which was chaired by Robert Birgeneau of MIT and which reported to the Basic Energy Sciences Advisory Committee (BESAC). The BESAC chartered the panel to assess the nature and scientific importance of synchrotron radiation research including the facilities themselves, the science and technology carried out at each facility, the size and nature of the user community, and finally, the costs associated with such research. After an in depth review of the four facilities, the panel found that all four DOE synchrotrons are essential to the national scientific and technological enterprise. However, the panel found that in comparison to the performance of similar facilities, the quantity and quality of the research emanating from the ALS was significantly less than envisioned at this point of its life given the ALS’ equitable funding history. The panel also found that the ALS user community is relatively small (7% of U.S. total, and more than one-third of the users come from LBNL itself). The panel also found that important scientific issues which require UV radiation have decreased in number; subsequently, the UV community has

correspondingly decreased. The ALS must therefore be very aggressive in seeking out new scientific opportunities and it must cooperate more effectively with its existing user community in this endeavor. In summary, the panel expressed concerns about the scientific impact of the work performed at the facility, the user base and user demographics, sensitivity to user issues, and management of the facility. Addressing these concerns of the panel should be the highest priority of LBNL and ALS management. Steps taken by LBNL to address these concerns included a recent reorganization which elevated the ALS from program to division status designed to reinvigorate science activity at this facility. Also, LBNL plans to hold a workshop to help develop the scientific vision for the ALS of the future. These steps and others in the future should help to eliminate the identified shortfalls.

Criteria 4: Programmatic performance and planning
Rating: Good

The management of the basic research programs in the various divisions of LBNL has been timely, responsive, and forward looking as evidenced above by the outstanding rating for Criteria 1: “Quality of science” that is produced. However, since synchrotron radiation research accounts for more than 25% of the BES budget; it is fair to say that a great investment of BES funds goes toward the operations of the ALS; and, as indicated above by the rating for Criteria 3: “Performance in the construction and operation of major research facilities”, this national resource needs to be managed on par with the other BES-supported synchrotron light sources.

Scientific Computing

Overall Performance Rating: Outstanding

Criteria 1: Quality of science:

Rating: Outstanding

The LBNL areas/activities evaluated are: Applied Mathematics Program, Advanced Energy Projects & Technology Research, DOE2000 National Collaboratories, National Energy Research Scientific Computing Center (NERSC), Energy Sciences Network (ESnet), and Database, Computer Science and Networks.

The LBNL applied mathematics research program supported by the MICS Division is one of the premier applied and computational mathematics research efforts in the country. Laboratory applied and computational mathematicians conduct research in the areas of turbulence modeling, numerical analysis, parallel algorithm development, and large-scale scientific computing and visualization that is directed at solving DOE grand challenge class problems of importance to LBNL, DOE, and the nation. The expertise of the group is both broad and deep, enabling it to make lasting contributions to basic research in applied and computational mathematics and to applied problems in fluid dynamics, materials science and combustion of relevance to LBNL and DOE disciplinary programs.

The Office of Planning and Analysis Review of LTR projects demonstrated that the overall quality of LBNL's multi-year projects was excellent. Considering the short time LBNL had to submit proposals to the LTR FY 1997 call, the quality of proposals funded in response to this call was excellent. The overall quality of the proposals submitted was the best of the five ER multi-program laboratories.

Over the past year LBNL has been an active and important participant in the organization and management of DOE2000. They have participated in five DOE2000 Collaboratory Technology Research and Development projects--Scalable Security Architecture, Floor Control, ESnet Quality of Service, Electronic Notebook, and Collaboratory Interoperability Framework--and in both of the pilot collaboratories. Integrating these activities across multiple labs is a key element to assuring the success of the initiative and LBNL has shown very good leadership in this area. LBNL has done an excellent job of building on their experience with the Distributed Collaborative Experimental Environments, using insights from that effort to help shape these projects, both from a technical viewpoint and from a management viewpoint. Their work is excellent and their contribution to the DOE2000 Initiative is very valuable. For example, their work in developing a scalable security architecture relies on commercial products wherever possible, building on these to meet the specific requirements associated with scientific research. It is well coordinated with other related efforts in the department as well as outside and the leadership shown in developing this keystone for enabling successful collaboratories is highly respected.

In its transformation from the National Energy Supercomputer Center at LLNL into the National Energy Research Scientific Computing Center at LBNL NERSC has added significant research leadership in computational science. The collaboration with SGI/Cray on the T3E software as well as the joint participation with UC Berkeley in the Intel Millennium project demonstrate the scientific leadership at the center.

The areas of Database, Computer Science & Network Research include world leaders in scientific database research, research in data management for high energy physics, and a world leading effort in network research and network performance measurement.

Criteria 2: Relevance to national needs and agency mission

Rating: Outstanding

The LBNL applied and computational mathematics effort plays a unique role in the scientific life of the laboratory and the nation. MICS-supported applied and computational mathematicians are making important contributions by developing enabling numerical algorithms and software for parallel and distributed computing platforms that are used by the national scientific and engineering communities, as well as by providing modeling and computing expertise to agency and national programs involving national security (ASCI), global climate modeling and simulation (CHAMMP), and materials science. The MICS-supported applied and computational mathematicians also interact regularly with industrial partners in the areas of semiconductor modeling and combustion. As an illustration, etching and deposition software for simulating chip design developed by and LBNL researcher and his postdocs is used by chip designers at Intel and National Semiconductor. This software is based on ideas from the LBNL researcher's fundamental research on level-set and front-tracking numerical schemes supported by MICS over the years.

LBNL does an excellent job of meeting established technical milestones for LTR projects. LBNL's LTR office has (1) played a leadership role in several important initiatives for the LTR program at the five ER multi-program laboratories, and (2) shown great enthusiasm for the program.

The LBNL work in DOE2000 is critical to the success of the Department-wide initiative as well as to efforts to transform DOE into a virtual laboratory.

NERSC is the primary high end scientific production computing center for ER researchers who rely on it for the success of much of the work ER funds. As computational science grows in importance NERSC will continue to fill this important role.

ESnet is a crucial facility for much of the research of ER and DOE. The management model is being considered by other agencies to manage their networks.

The work in Database, Computer Science & Network Research is extremely important for DOE both because of our reliance on high performance networks and because of the number of extremely data intensive research areas supported by ER such as Global Climate change, High Energy Physics, Nuclear Fusion Science, and the Human Genome program.

Criteria 3: Performance in the construction and operation of major research facilities
Rating: Outstanding

NERSC operates an extremely effective facility which provides a very high level of service to its users while maintaining good budget control. In the past year NERSC has expanded the scope of its consulting with ER users and its leadership in advocating computational science.

ESnet delivers consistently high service, far above the rest of the internet. The management responds effectively to budget restrictions and continues to strive for ways to increase service and reduce costs. One area of minor concern is ensuring that ESnet's vision for the future is sufficiently aggressive that it can anticipate and help users define the requirements for networks in the next century.

Criteria 4: Programmatic performance and planning
Rating: Outstanding

Under the overall leadership of Computing Sciences Associate Laboratory Director the LBNL applied and computational mathematics research effort has been consistently successful in meeting and exceeding long-term goals of developing analytical and numerical methods of fundamental value and wide applicability and shorter-term goals that involve collaborations with LBNL, UC Berkeley, and DOE disciplinary scientists on programs such as HPCC and ASCI. During the past year the applied mathematics group and the large-scale computing group have forged strong ties that will further strengthen their ongoing modeling, analysis, and large-scale simulation projects. As an illustration of the growing synergy between the two groups, the large-scale computing group is working on turbulence simulation with the applied mathematics group and using these results to improve critical turbulence submodels in the diesel combustion collaboration with the large-scale computing group and researchers from LANL and New York University. The overall LBNL applied mathematics program is poised for even greater successes in the years ahead.

LBNL's LTR research continues to make significant contributions to the advancement of fundamental science, while also responding effectively to DOE missions and national needs.

From a management perspective, LBNL's performance in the area of DOE2000 National Collaboratories is excellent. Strong leadership from their participation has been invaluable in helping shape DOE2000 into a cohesive collaborative effort. This applies generally as well as in the particular instance of the R&D and pilot projects involved. The efforts are completed in a timely fashion. Their collaborative activities within DOE are a positive contribution and they also interface well with others in the research community outside of DOE who are pursuing R&D in the same or similar areas.

The programmatic performance of NERSC at LBNL has been exceptional in the transition from LLNL and the procurement and integration of the T3E supercomputer.

ESnet management is responsive to program office requirements as well as to the input it receives from the ESnet steering committee.

In general the programmatic performance in Database, Computer Science & Network Research is excellent; however, stronger interaction with other elements in the program at LBNL would be desirable. A current reorganization will hopefully facilitate this.

Nuclear Physics

Overall Performance Rating: Excellent

**Criteria 1: Quality of science:
Rating: Excellent**

The quality of science of Nuclear Science Research Program ranges from excellent to outstanding among the various scientific projects. The work at the 88-inch Cyclotron in the Nuclear Structure group using the Gammasphere; the work of the Relativistic Heavy Ion Group in their efforts at CERN in NA4; at BNL in AGS experiments E895 and E896 and in the leadership of the STAR detector for RHIC are considered outstanding.

The work on accelerator R&D (AFRD) is addressing relevant topics for the Nuclear Physics program and is considered good to excellent.

The work of the SNO Group is considered to be excellent. The Theory program is considered to be doing excellent work in relativistic heavy; ions and nuclear astrophysics.

**Criteria 2: Relevance to national needs and agency mission
Rating: Excellent**

The LBNL Nuclear Physics program has been positioned over the years to play significant roles in addressing high-priority areas of research in the nation's program (e.g., gammashpere, SNO and RHIC). The Laboratory's role in and impact on addressing Nuclear Physics program R&D needs and mission are considered to range from excellent to outstanding among the various scientific projects leaders.

**Criteria 3: Performance in the construction and operation of major research facilities
Rating: Outstanding**

The Laboratory's role in the construction of STAR at RHIC and SNO are considered outstanding. The work at the 88-inch Cyclotron on advanced ECR ion sources remains world-class.

Criteria 4: Programmatic performance and planning

Rating: Outstanding

The leadership and management skills at 88-inch Cyclotron in FY 1997 were outstanding. It was a record year of beam time for research. The 88-inch has become an excellent to outstanding Nuclear User Facility.

High Energy Physics

Overall Performance Rating: Excellent

**Criteria 1: Quality of science:
Rating: Outstanding**

The high energy research program is outstanding. The Accelerator and Fusion Research Division's (AFRD) principal activities are collaboration in the construction of PEP-II B-factory at SLAC, participation in the U.S. effort in the LHC project at CERN, general accelerator R&D in the Center for Beam Physics (CPB), and the advanced superconducting magnet program. They also are involved in studies of possible future facilities such as the Next Linear Collider (NLC), TeV 33 at Fermilab, and muon/ gamma colliders.

The Physics Division's (PD) experimental groups are involved in on-going CDF and D-Zero experiments at Fermilab where they made important contributions to the discovery of the top quark. They also provided the leadership of Fermilab fixed target experiment E-871 to search for CP violation in hyperon decay.

Work on BaBar's particle identification subsystems, vertex detector, electronics, and data analysis and computing systems are progressing well. LBNL's scientists have key roles in CERN's LHC ATLAS detector's pixel and silicon strip detector subsystems. They are amongst the leaders in the development of silicon detector technology. The Microsystems Laboratory is a unique facility for the manufacture of innovative silicon detector systems. The Detector Instrumentation Division has made many significant achievements in IC design and fabrication that have benefited CDF, D-Zero, BaBar, and ATLAS.

The particle astrophysics effort has been extremely productive with its programs of supernovae studies, cosmic microwave background observations, and plans for a large scale neutrino detector.

The high quality work of the theory and particle data groups continues. The theory group published significant papers on topics ranging from formal theory to phenomenology. The group has been significantly strengthened by the recent appointment of two promising younger theorists. The PD performs a crucial service for the high energy physics community. Their educational efforts are commendable as they help improve the general public's knowledge and awareness of our field.

All of these are forefront efforts of the highest scientific and technical merit and have made significant impacts on national and international programs. The staff's publications, reports, presentations, and conference attendance have widely disseminated their findings. Research facilities and instruments are generally state of the art.

The LBNL staff is at a par with the best in the world. They have pioneered important new techniques in detectors as well as accelerators. They share with SLAC and LLNL the lead roles in the PEP-based B-factory project. LBNL physicists also make important contributions to the on-going collider experiments at both SLAC and Fermilab. They also are significant and visible collaborators in the U.S. LHC efforts.

The theoretical physicists at LBNL are internationally recognized and the department attracts visitors from around the world. LBNL accelerator physicists are at the cutting edge of the technological developments in accelerators.

Criteria 2: Relevance to national needs and agency mission

Rating: Outstanding

LBNL's relevance to national needs and agency missions are evaluated as outstanding. LBNL's AFRD and PD have made and continue to make outstanding contributions to DOE's missions of advancing fundamental science and strengthening science education. Their recent significant accomplishments and major activities are described in the previous section.

Criteria 3: Performance in the construction and operation of major research facilities

Rating: Good

LBNL is a collaborator with SLAC and LLNL on construction of the B-factory research facility at SLAC. SLAC serves as the lead laboratory and LBNL, AFRD, has assumed responsibility for design and fabrication of the Low Energy Ring (LER), one of the two storage rings that are the core of the PEP-II construction part of the B-factory project. LBNL pioneered the "energy-asymmetric" concept as a means to study charge-parity violation as measurable through rare B-meson decays. This is a central feature in the design of the PEP-II collider. As noted in prior evaluations, work on the design and fabrication of LER at LBNL has gone very well. However, in FY 1997 extreme difficulties were encountered in establishing and holding necessary production schedules for the project. Ultimately, a major shift in management responsibility was required, and significant amounts of work were moved from LBNL to SLAC. The LER work appears to be back on track, and most of the production of LER components now in progress at LBNL will be complete by the end of December 1997. It is because of the difficulties experienced in LER manufacturing that the LBNL rating is set at "Good" and not higher.

Criteria 4: Programmatic performance and planning

Rating: Excellent

High Energy Physics supports two groups at LBNL. One is engaged in research in high energy particle physics in the Physics Division and the other in advanced technology R&D for high energy physics within AFRD. For this performance indicator the evaluations are given separately rather than together as has been done in the foregoing sections.

A. High Energy Particle Physics

Rating is Outstanding

The LBNL team is carrying out research in high energy physics under the Director of the Physics Division and has key roles in the BaBar detector for the B-factory, CDF at Fermilab and as a significant participant in other major experiments nationally and internationally (e.g. LHC detectors). The organization and management of these activities, their focus on subjects of central interest to the national program in high energy physics, and their productivity are all exceptional. The research programs in support of and with large experimental facilities and the supporting theoretical studies are all carried out in a highly professional manner within expected costs and established schedules. The technical reporting and budget preparations are excellent.

B. Advanced Technology R&D in Support of High Energy Physics

Rating is Excellent

The LBNL activities in technology R&D for applications in high energy physics are led by the Director of the Accelerator and Fusion Research Division (AFRD). The activities supported by DOE fall into two categories, charged particle beam physics and technology and advanced superconducting magnet R&D.

The LBNL Center for Beam Physics is the focus of the HEP beam physics activities in support of the HEP program. The work covers a very broad range of the most advanced accelerator and storage ring concepts and an equally broad program in supporting technology R&D. The topics managed are of great importance to the long range future of charged particle physics. The management of these activities is cogent, focused, and effective in the planning, execution and reporting of activities. Activities are carried out in a highly professional manner within established costs and schedules.

The magnet R&D is not as broad in breadth as the R&D in the Center for Beam Physics, but its nature is also very different. The principal focus is on superconducting magnet structures and materials as needed for the very high field, energy efficient magnets which form one of the central enabling technologies for high energy physics. Generally, the programmatic performance and planning of these activities are of the same caliber as in the rest of AFRD activities managed for high energy physics. This is particularly true in the applied superconducting materials research which constitutes roughly half of the activity. The magnet R&D, which is a heavily engineering oriented, model testing activity, has been a concern at recent annual reviews because of productivity issues; that is, the scientific and technical quality is outstanding but the pace of work is unacceptably slow. Strong measures have been initiated to deal with this, and a significant improvement in management and productivity is anticipated in the next evaluation period.

Fusion Energy Sciences

Overall Performance Rating: Outstanding

**Criteria 1: Quality of science:
Rating: Outstanding**

The group has continued its consistent record of innovation and has an excellent record of successful beam research experiments. A good example is the soon-to-be-completed scaled beam merging experiment reutilizing existing MBE-4 hardware and with the aid of 2D and 3D computer simulations. They have initiated end-to-end numerical simulations of heavy-ion fusion (HIF) drivers, and are working methodically to advance each component within a driver system to the extent allowed by their constrained budget and small staff. For the past two years, the program has been progressing toward developing the science and technology basis to propose a logical next step facility previously dubbed an HIF "integrated research experiment." In addition to testing beam manipulations at driver-relevant scales, such a facility could experimentally explore for the first time direct-drive ion-driven inertial fusion. The group's publications efforts have been very active, including contributions to several conference proceeding and technical reports, as well as refereed papers. The FER group will also host the next International HIF Symposium in the Fall of 1999.

**Criteria 2: Relevance to national needs and agency mission
Rating: Outstanding**

The restructured U.S. Fusion Energy Science program has reinvigorated interest in and R&D on "alternative concepts" to the MFE-Tokimec approach to fusion energy production. IFE/HIF is properly considered a principal alternative approach, and one that potentially offers a more rapid and less costly development path to fusion energy. The group is very dedicated to developing, at minimum cost, heavy-ion driven inertial fusion as a safe, economical energy source. As such, it is supporting industrial sources of improved accelerator materials and developing higher performance, more cost-effective accelerator components. With the move of the NERSC facility to LBNL, the group has also bolstered its computational modeling and analysis work on both ion beam transport in drivers and HIF targets.

Criteria 3: Performance in the construction and operation of major research facilities
Rating:

N/A

Criteria 4: Programmatic performance and planning
Rating: Outstanding

The group remains very forward-thinking in helping to shape the national IFE mission, and leveraging where appropriate the much larger DP/ICF program that sponsors the National Ignition Facility (NIF) project and the PBFA II light-ion program at SNLA. An LBNL-LLNL-SNL "Tri-Lab Working Group" has been studying common issues such as target physics, beam-target interaction, and beam transport and focusing. Collaborations with LLNL on the recirculator experiment and in other areas have been cost-effective and institutionally seamless. Despite modest and sometimes fluctuating budgets and program redirection, the group has been responsive to changes and remained focused on long-term goals. The LBNL Director has expressed strong support for a major increase in effort in the near future, leading to the design and construction of a new heavy-ion driver research facility. With an aging and largely static staff, the group leader has worked to maintain a high level of performance in the group, to retain high-caliber staff with the optimum skill mix, and to recruit and train qualified younger staff as funding allows.

Energy Efficiency & Renewable Energy

Overall Performance Rating: Excellent

**Criteria 1: Quality of science:
Rating: Outstanding**

The specific assessments below are delineated by the three HQ/EERE programs providing S&T input for FY97: Office of Utility Technologies (OUT), EE-10; Office Transportation Technologies (OTT), EE-30; and Building Technology, State and Community Programs (OBTS), EE-40.

OUT

The Berkeley Lab program of "Utility Systems Analysis" conducts analyses and research on the impacts of electric utility restructuring on energy efficiency and renewable energy technologies. Specific topics are: impact of electricity restructuring on renewable energy technologies, analysis of transmission access charges for renewable-generated electricity, design of public purpose programs, future of the private sector energy efficiency services industry, impact of advanced communications technologies on customer energy services, and impact of the organization of electricity markets on selected renewable technologies. FY97 was a watershed year for LBNL performance on utility analysis. While they have always performed exceptionally well for the OUT, it was doing long-term, uninterrupted research. This year was completely different, and the Utility Group responded exceptionally well, with enthusiasm and expertise, to the unexpected demands due to the development of the Administration's utility restructuring legislation. The issues were extremely complex, blending both technical and policy issues, the LBNL results were excellent. They deserve an outstanding evaluation in this area.

Overall, the research and analyses are of exceptionally high quality and have been praised by peer groups and national organizations for excellence and accuracy. Selected examples are:

- results from performance of the National Energy Modeling System (NEMS), a national model developed by the Energy Information Administration, performed by the LBNL utility analysis group, was used extensively by the Office of the General Counsel and Policy in determining the RPS provisions of the Department's electricity restructuring legislative proposals.
- economic analyses of transmission pricing and existing practices which hinder the development of intermittent renewable generation. A new approach to transmission pricing was developed by the utility analysis group, which was widely praised by utility analysts and is being favorably considered at the Federal Energy Regulatory Commission.
- development of measurement strategies for market transformation programs for use by state regulators as competitive markets are developed, currently being adopted as state regulations in New England and the Pacific Northwest.

- analyses of the key policy issues and implementation options for using rate-payer funds to continue support for energy-efficiency technologies and programs in restructured electricity markets, which were well received by the National Association of Regulatory Utility Commissions, and published in national journals.

In the research program on Biological Effects of Electric and Magnetic Fields, the principal investigator is conducting innovation pioneering work in the field of biological effects of electric and magnetic field (EMF). As one of the leading scientists in the EMF community he is a frequent participant in technical panels, an invited speaker at conferences, or an organizer of workshops.

OTT

The Office of Transportation Technologies provides support for an Electrochemical Energy Storage Program that includes R&D on advanced rechargeable batteries and fuel cells. A major goal of this program is to develop electrochemical power sources suitable for application in electric vehicles (EVs) and hybrid systems. The program centers on advanced electrochemical systems that offer the potential for high performance and lower life-cycle costs, both of which are necessary to permit significant penetration into commercial markets. The general research addressed by the program includes the identification of new electrochemical couples for advanced batteries and superior catalysts for fuel cells, determination of the technical feasibility of the new couples and catalysis, improvements in components and materials, and the establishment of engineering principles applicable to electrochemical storage and conversion.

LBNL is a leader in the in-situ characterization of electrochemical processes that occur in fuel cells. Innovative methods in the characterization of interfacial structure and surface reactions at electrodes in batteries and fuel cells were developed. The field of electrochemical engineering was established at LBNL.

OBTS

Building Systems:

LBNL's Indoor Environment program has made considerable contributions in the basic science of defining the emerging issues of Indoor Environmental Quality.

Productivity Intervention studies are expected to make considerable scientific contributions on the relationship of environmental factor and office workplace productivity.

In the Windows & Glazing area, highlights of scientific work this year included the R-100 award for the ion gun for window coatings.

For Energy Tools, LBNL continues to develop the high quality software.

Lighting Research:

LBNL does careful, conscientious research. Their work in field testing electronic lighting controls and in compact fluorescent fixture design is noteworthy and has received good reviews by the lighting industry.

Codes and Standards:

In concert with the Department's objectives in considering uncertainty and variability in its appliance standards analytical inputs and outputs, LBNL developed and implemented analytical methodologies to treat these issues. This was most clearly demonstrated in the analyses of fluorescent lamp ballast's life-cycle cost and water heater energy consumption estimates.

In addition, in the analyses of revised energy-efficiency standards for refrigerators, LBNL developed a user-friendly life-cycle cost spreadsheet that allows users to make alternative assumptions, e.g.,

regarding future energy prices, and immediately to see the impacts on the important life-cycle cost analytical results. This spreadsheet was also applied to subsequent rule-makings.

In an effort to demystify the heavily-criticized “black box” of forecasting models, LBNL developed the first draft of a National Energy Savings Spreadsheet, which was distributed to stakeholders at a workshop on revised energy-efficiency standards for clothes washers. This work has the potential for significantly improving the way energy use is forecasted in the Appliance Standards Program, and LBNL is encouraged to pursue input from other organizations, e.g., the Energy Information Administration, in this effort.

Criteria 2: Relevance to national needs and agency mission

Rating: Excellent

OUT

LBNL has performed in an outstanding fashion during FY97 in its ability to respond to the unexpected needs for analyses to support the development of the Department's legislative proposals for the Administration on utility restructuring. The requests for analyses, often in response to the Secretary, the White House and the National Economic Council, are for quick turn-around, highly substantive, and well developed policy options. LBNL has consistently provided very high quality responses. LBNL staff were asked to attend interagency meetings on renewable energy and energy efficiency issues, and provided excellent briefings for other Departments on these issues. In addition, LBNL staff consistently developed longer term research and analyses on the restructuring issues, which are being used to develop testimony and implementation for the Secretary on the Administration's proposed restructuring legislation.

Because the staff of the LBNL Utility Analysis Group is known nationwide for its expertise on utility restructuring issues, they are requested to participated in state related activities. Examples are:

- selection of the Group Leader to be one of six public members selected by the State of California to participate on the State Energy Efficiency Board, the organization responsible for developing criteria and mechanisms to distribute energy efficiency funding resulting from the California restructuring legislation.
- selection of a staff member to participate in California's State Demand-Side Technology Review Board, to assist in reviewing technologies to qualify for efficiency funding.
- selection of another staff member to participate in public organization's design of green energy marketing strategies for the State of California.

Uncertainty over the question of possible health effects from the distribution and use of electricity is costing the U.S. over a billion dollars a year. LBNL's work attempting to elucidate possible biological interaction mechanisms is a crucial component in understanding the EMF issue.

OTT

LBNL has been successful in transferring the most promising electrochemical technologies to the private sector, the United States Advanced Battery Consortium (USABC), and the Partnership for a New Generation of Vehicles (PNGV) Program. For example, mathematical models describing the performance of batteries has been transferred to 3M, Valence Technology, Inc., and Bellcore for use in their development efforts. Through a collaborative effort with Superior Graphite Corp. and LLNL, the company is commercially supplying improved graphite and coke materials for use in lithium-ion batteries. This corporation is the first U.S. manufacturer of carbon materials for lithium-ion batteries.

OBTS

Building Systems:

Good relationship with facilities at U. of California, but little evidence of industry participation. LBNL's IEEE has focused on the Energy relative topics in IAQ, i.e., ventilation energy liabilities and building leakage.

For Energy Tools, LBNL provides world class capabilities. Tools like Building Design Advisor meets needs of building designers for a tool that provides information in the form and at the time needed. In support of the International Alliance for Interoperability (IAI), sharing information among building industry software is critical to successful market penetration of energy software.

Good relationship with the University of California, but little evidence of industry participation.

Lighting Research:

Generally good, but HQ is seeking greater LBNL support of the DOE national lighting research program rather than just self-directed initiatives.

Supplement: Of particular note this past year was the compact fluorescent light (CFL) torchiere project which received national visibility, including recognition by the DOE Secretary and a "Best of What's New" Award from Popular Science magazine. LBNL developed cool, efficient CFL fixtures for the now ubiquitous halogen torchiere lamps, successfully transferred the technology to a U.S. lighting manufacturer (Emess), and coordinated an initial large-scale installation/ demonstration with a local university (Stanford) concerned about the fire safety issue of halogens. Also noteworthy were the partnerships between LBNL and Cooper Lighting on the sulfur lamp and fixture demonstration announced at SMUD in Dec. 1996, and the successful tech transfer and joint patent of a more efficient CFL fixture geometry to Lumatech, a local company that makes lighting retrofit products.

Codes and Standards:

There is a National environmental goal of reducing carbon emissions, and LBNL's appliance standards analyses have consistently provided information about the carbon-reducing effects from reduced energy consumption associated with alternative appliance energy-efficiency standard levels. In addition, LBNL's appliance standards analyses have been a critical part of the Department of Energy's mission to administer laws requiring the considerations of new or revised energy- efficiency standards for numerous appliance types. The determinations of the new or revised efficiency standards are largely determined by the results of LBNL's analyses.

Criteria 3: Performance in the construction and operation of major research facilities

Rating:

N/A

Criteria 4: Programmatic performance and planning
Rating: Excellent

OUT

Performance and planning in the utility analysis area has been outstanding. Based on the initial FWP for FY97, LBNL has met every deadline while also being exceptionally responsive to the unexpected requests due to the uneven nature of the development of national utility restructuring legislation. Frequently, the staff worked overtime and on weekends without complaining in order to be responsive to unexpected but crucial requests from the Secretary, the General Counsel, and others. The Group is extremely well regarded within the Department because of their excellent quality work and because of their ability to adeptly respond to highly unusual and unexpected requests.

The EMF PI has maintained an excellent research program in a complex field of science and under trying circumstances. His project has been extremely cost effective, attracting external grants for both research and equipment supporting the DOE effort. The work is timely and has resulted in numerous publications.

OTT

The technical milestones have been met and work is carried out within budget and on schedule. The leadership, planning, reporting and management of this interdisciplinary program is outstanding.

OBTS

Building Systems:

Particularly responsive to the need for change in scope, i.e., reduced DOE/BTS funding support. FY 98 work statement for IEP has been reworked to reflect new OBTS visions and directions.

The LBNL performance has improved from marginal to good for Windows & Glazing Research. LBNL is less late with proposed statements of work, but should take steps to submit a draft statement of work for FY 99 in July 98 with the final statement of work to be completed in August. During the coming year, there are a few areas which deserve LBNL vigilance. These include the electrochromics industry consortia and technical support for the Efficient Window Collaborative in the Sunbelt, both projects having Congressional interest.

For Energy Tools (Spark, Energy Plus, DOE-2, and BDA), it is important that DOE be kept apprised of changes in product schedules. (Help avoid an external "vaporware" reputation.) For the IAI, the budget was not met; exceeded twice in FY 1997. Budgeting must meet funding in FY 1998; limit work and expectations to available funding.

LBNL is the lead technical lab for the electrochromics industry consortia project. This project requires constant vigilance. Over the last two years, the project has been plagued with test equipment problems at NREL, though significant steps have been taken to reduce the risk of future delays. The

technical partnership with industry is now benefiting from more proactive technical assistance by the laboratories. This should continue.

A critical area of industry interest and priority is the Sunbelt portion of the Efficient Window Collaborative. The design and implementation of programs for Central Florida and Austin are expected to make significant progress this year.

For urban heat island research, LBNL leadership of the ASTM Subcommittee could have been more effective. The ASTM Subcommittee is charged with gaining consensus on standard measurement procedures for measuring reflectivity and emissivity of horizontal surfaces. DOE work plans specifically task LBNL with participation in the ASTM subcommittee. It has been reported that LBNL leadership has not been receptive to constructive comments and views of the subcommittee members.

LBL IEP does an excellent job in defining and offering its role in the IAQ topics. Capricious funding source makes it difficult.

The overall evaluation of LBNL is excellent for IAQ, Windows, and Design Tools. This performance is benefited by their excellent scientific performance and capabilities.

Recommendations:

Industry buy-in should be increased.

Though improved, future performance could benefit from continued improvements and management vigilance in the programmatic performance category.

Lighting Research:

Good; shows improvement. The LBNL lighting group needs to assure that it pre-establishes and completes annual milestones and deliverables. This year two projects went uncompleted while funding went to other projects.

Codes and Standards:

In Fiscal Year 1997, LBNL generally met the appliance standards milestones and always accomplished the work within budget. While there were some analytical deliverables that needed to be reworked, and a few delays in delivering materials in advance of workshops, the vast preponderance of analytical submittals was timely and of excellent quality. In addition to its usual energy-efficiency standards analyses, moreover, LBNL showed great originality and capability in developing and implementing procedures to incorporate uncertainties and variability into the appliance standards analyses. These features were presented in various appliance standards workshops, and they were consistently well-received by stakeholders. Furthermore, in presenting a spreadsheet approach to estimating energy savings from different standards levels, LBNL has shown great ingenuity in making their forecasting models more transparent.

Appendices

APPENDICES

A. Appraisal Report Methodology

FY 1997 Annual Performance Appraisal for LBNL
Report Methodology

APPENDIX F - OBJECTIVE STANDARDS OF PERFORMANCE

This report provides DOE's Fiscal Year 1997 rating and validation of the University's self-assessment of performance in its management and operation of LBNL for the U.S. Department of Energy under the contract. In this contract, the University and DOE have agreed to use a performance-based management system for Laboratory oversight. Also, the parties agreed to use clear and reasonable, objective performance measures as standards against which the University's overall performance of administrative and/or managerial obligations under the contract will be assessed. DOE and the University also agreed that the University would conduct an ongoing self-assessment process. Including, self-assessments done by the Laboratory, as the principal means by which the University would evaluate compliance with the performance measures contained in Appendix F. DOE/OAK, for its part, does a validation effort against the University's self-assessment; evaluates and rates the University's performance. The validation effort is conducted by teams responsible for the various functional areas represented in Appendix F. These teams, with guidance from DOE/OAK management, are responsible for developing an adequate, independent basis for assessing the quality, credibility, and accuracy of the University's self-assessment; and a basis for DOE/OAK's rating of the University's performance.

This report meets the following contract requirements:

- Provide a summary of the results from the conduct of the DOE/OAK validation program and evaluation of performance of work under this contract as required by Article VI, Clause 6.
- Provide a written assessment of the University's performance under the contract based upon the DOE-OAK appraisal program and the Contracting Officer's evaluation of the University's self-assessment as required by Article VI, Clause 6.
 - Provide the basis for and a determination of the Executive Program Salary Increase Authorization (SIA) Multiplier as required by paragraph III, F, 6 of Appendix A and Section B, part II of Appendix F.

a. Appendix F Components of Laboratory Evaluation Process

The first component of the performance evaluation process of the University is the annual Laboratory self-assessment of the administrative systems included in Section A of Appendix F. The results of this self-assessment and proposed corrective action plans are then presented to the University of California, Laboratory Administration Office (UCLAO).

The University of California President's Council on the National Laboratories evaluates the

quality of science and technology at the Laboratory. The Council prepares a report that the University's Laboratory Affairs Office uses to develop an adjectival and numeric rating for the evaluation of Science and Technology at the Laboratory. DOE Headquarters (DOE HQ) program managers and their OAK counterparts validate the Science and Technology self-assessment.

UCLAO management also evaluates the administrative systems for the Laboratory using the self-assessments and corrective action plans provided by the Laboratory and the established Appendix F performance measures. UCLAO establishes an aggregate "rating" for the Laboratory based on the evaluation of each functional area and combines this result with the ratings for Science and Technology for a total adjectival and numeric rating.

DOE-OAK reviews and validates University performance using the established Appendix F performance measures, the UCLAO review of the Laboratory self-assessment and the Laboratory's self-assessment and corrective action plans. This effort was accomplished by teams reflecting expertise in the various Functional disciplines required by the Appendix F administrative and operational systems. This year all teams had the opportunity to observe the Laboratory's independent evaluation of its self-assessment. This report is the product of their review and validation of the University's performance. The primary objective of this report is to provide the University a written assessment of its performance under the contract. This report also documents and conveys to the University the DOE determination of the Executive Program Salary Increase Authorization (SIA) Multiplier for the Laboratory.

b. Self-Assessment Period

Designed to capture performance for Fiscal Year 1997, the self-assessment period for the Laboratory was October 1, 1996 through June 30, 1997. Significant performance between the later date and the end of the Fiscal Year was to be assessed by the Laboratory and provided as a supplement to the self-assessment. The Laboratory provided its self-assessment to the University and DOE/OAK on September 30, 1997. The University overlaid its review and provided both products to DOE/OAK on October 31, 1997.

The Salary Increase Authorization Multiplier was computed using only areas in Appendix F.

The period of performance covered by the Fiscal Year 1996 Annual Performance Appraisal, is October 1, 1995 through September 30, 1996. Consistent with previous years, DOE-OAK chose to use the performance descriptors from DOE Order 5000.2B. The crosswalk to Appendix F performance descriptors, the standards of performance and the appropriate numeric percentage for the ratings are shown in Table 1.

ADJECTIVE GRADE	PERFORMANCE DESCRIPTION	RANGE OF PERFORMANCE PERCENTAGE
FAR EXCEEDS EXPECTATIONS (OUTSTANDING)	Significantly exceeds the standard of performance; achieves noteworthy results; accomplishes very difficult tasks in a timely manner.	90 - 100%
EXCEEDS EXPECTATIONS (EXCELLENT)	Exceeds the standard of performance; although there may be room for improvement in some elements, better performance in all other elements more than offsets this.	80 - 89%
MEETS EXPECTATIONS (GOOD)	Meets the standard of performance; assigned tasks are carried out in an acceptable manner, i.e., timely, efficiently, and economically. Deficiencies do not substantively affect performance.	70 - 79%
NEEDS IMPROVEMENT (MARGINAL)	Below the standard of performance; deficiencies are such that management attention and corrective action is required.	60 - 69%
(UNSATISFACTORY)	Significantly below the standard of performance; deficiencies are serious, may affect overall results, and urgently require senior management attention. Prompt corrective action is required.	0 - 60%

Table 1. Crosswalk/Grading Table (performance descriptors in parentheses)

Methodology for Validation of Numerical Scoring for UC Self-Assessment - Science & Technology FY 1997

a. Introduction

The programmatic assessment of the Laboratory is based upon the LBNL self-assessment of science and technology and the UC overlay, and validated by DOE HQ program managers and their OAK counterparts. Using the programmatic information from DOE HQ program managers, the ratings were linked to the science and technology portion of Appendix F using the crosswalk rating table contained in the methodology procedures "Management Appraisal/Appendix F Linkages". To convert the adjectival rating to a equivalent numerical (percentage) score, DOE/OAK used the methodology outlined below.

b. Methodology

For each programmatic appraisal area in the LBNL Summary Management Appraisal for FY 1997, a specific number was applied, as follows:

5000.2B Adjectival Rating	Number Conversion	Appendix F Adjectival
Outstanding	4	Far Exceeds Expectations
Excellent	3	Exceeds Expectations
Good	2	Meets Expectations
Marginal	1	Needs Improvement
Unsatisfactory	0	(No equivalent adjective)

Table 2. Adjectival to Numeric Conversion for Appendix F Science & Technology

For the LBNL report DOE weighted each programmatic area using budget figures. Thus, appraisal results for programs with a greater amount of funding were more heavily weighted than programs with smaller resources.

The weighted scores in the programmatic appraisal areas were totaled and divided by the total number of points possible (i.e. 4). The resulting figure (3.35 in the case of LBNL) was then converted to both an adjectival rating, and a percentage score. Thus, for FY 1997, LBNL's weighted score was 3.35 which equates to an **Excellent** adjectival rating. Additionally, 3.35 divided by 4 equals .838 or 83.8%. Eighty three point three percent of 500 when rounded equals 419 points for FY 1997.

c. **Appendix F Appraisal Component Methodology**

The DOE-OAK Functional Teams used the Laboratory self-assessment and the University's review of this self-assessment as a baseline of University performance. Self-assessment quality, accuracy, and credibility, were then validated by DOE/OAK with other sources of information, review, or testing. From this process the teams recommended a numeric and adjectival rating of the University's performance. For Science & Technology the methodology was the same with a heavy reliance on information from DOE -HQ program offices.

(i) **Administrative Systems**

DOE and the University agreed that the administrative system "Environment, Safety and Health," should be worth approximately twice (110 points) the weighting of other administrative systems. All other administrative systems were equal to each other (50 points) except for Environmental Restoration and Waste Management which was weighted at only 40 points. The appraisal methodology therefore was designed to incorporate the rating of Environment, Safety and Health accordingly.

(ii) **Performance Objectives**

Obviously some performance objectives are significantly more important than others. The University and the DOE established the weights to be assigned at the performance objective and criteria level.

(iii) **Performance Objectives Not Accomplishable During the Rating Period**

The methodology used by DOE/OAK was to assess these performance objectives where there was enough information available to render an assessment of University performance. In cases where a performance assessment could not be made, it was decided to not rate the performance objective. In such cases the performance objective's weight was maintained, if feasible, by reassigning the performance criteria weights within that performance objective. If that was not possible the weight of the objective was added proportionately to other performance objectives in the functional area. Those performance objectives and measures not rated for the Fiscal Year 1997 performance period are shown in Appendix B, of this report.

(iv) Sources of Information

The initial source of information about performance was obtained from the Laboratory self-assessment and the University review of that self-assessment. Sources of information used by DOE to validate the credibility and conclusions of the self-assessment and the review of the self-assessment included, but were not limited to:

- Functional appraisals conducted by line and functional managers with input from Headquarters as appropriate.
- Oversight plans for the Laboratory that includes in their scope Appendix F performance measures.
- Daily interactions, including walk-throughs, management meetings or other modes of formal and informal contact with the Laboratory and the University.
- External and internal audits and evaluations, such as GAO/OIG reviews, Tiger Team Progress Assessments, Inspections and Evaluations, etc.
- Review and validation efforts of Appendix F measures during the two week performance assessment review of the Laboratory.

d. **Factual Accuracy Check**

A draft of the performance narrative of this report was provided to the University of California on December 15, 1997, to check the factual accuracy of its contents. The University returned its comments on December 18, 1997.

c. **Methodology for Appendix A - Administrative and Operational (System) Scores**

Column 1: **POINTS** - represents the total points allocated for the entire functional area.

For example, the functional area of Laboratory Management is allocated 50 points of the 500 point total for all of the administrative/operational section . This is the first tier for the weightings of each functional area; all other weightings within a functional area are subordinate to this overall weight [or points available.]

All functional areas are not equal to each other; they are weighted using a hierarchical method. For example, in FY 1997, the functional area of Environmental Restoration and Waste Management is allocated a total of 40 points; all other areas are allocated 50 points, with the exception of Environment, Safety and Health, which is allocated 110 points.

While column 1 (points) represents the total points available for that functional area, the total points available are further broken down [or allocated] by performance objective(s), and within each objective, by criteria and the actual performance measure(s). For example, Laboratory management is worth 50 points. Within laboratory management there are two objectives [P.O. #1 - Leadership, Communication and Planning (points = 25.0) and P.O. #2 - Oversight and Cost Management) (points = 25.0)]. Both objectives are equally weighted at 50 percent of the total score. Within each objective are two measures, however, these measures are not equally weighted. While one measure equates to 30% of the objective total (15.0 points) the other equates to 20% or 10 points.

Column 2: **SCORE** - represents the total points received, through the DOE validation process, for each functional area for the fiscal year. For example, if a functional area has 50 points available the DOE validation would result in a numeric score of 50 or less. Thus it represents the final scoring for the functional area. The summation of column 2 results in the overall score for Administrative/Operational functional areas.

Column 3: **PERCENT** - represents the numeric score, expressed as a percentage of total points available. In the above example of a functional area with 50 points, if the functional area received 43.5 points, this would equate to 87 percent.

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
LABORATORY MANAGEMENT		50.0	
PERFORMANCE OBJECTIVE #1 Leadership Communication and Planning (Weight = 50%)		25.0	
1.1 Leadership Communication (Weight = 30%)		15.0	
1.1.a Leadership Direction		15.0	
1.2 Quality Planning (Weight = 20%)		10.0	
1.2.a Integration of Planning Efforts		10.0	
PERFORMANCE OBJECTIVE #2 Oversight and Cost Management (Weight = 50%)		25.0	
2.1 Management Oversight (Weight = 20%)		10.0	
2.1.a Accountability and Commitments		10.0	
2.2 Cost Management (Weight = 30%)		15.0	
2.2.a Maximize Cost Effectiveness		15.0	

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
ENVIRONMENT RESTORATION AND WASTE MANAGEMENT		40.0	
PERFORMANCE OBJECTIVE #1 Environmental Restoration and Waste Management (Weight = 100%)			
1.1 Waste Management	(Weight = 25%)	10.0	
1.1.a Waste Management		10.0	
1.2 EM Program Innovation	(Weight = 25%)	10.0	
1.2.a Advancement of the EM Program		10.0	
1.3 Environmental Restoration	(Weight = 25%)	10.0	
1.3.a Environmental Restoration		10.0	
1.4 Cost and Schedule Variances	(Weight = 25%)	10.0	
1.4.a		10.0	

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		WEIGHT	SC
ENVIRONMENT, SAFETY & HEALTH		110.0	
PERFORMANCE OBJECTIVE #1 Protection and Prevention		(Weight = 53%)	58.3
1.1 Effective Protection and Prevention		(Weight = 39%)	42.9
1.1.a	Radiation Protection of Workers		7.7
1.1.b	Radiation Protection of the Public		6.6
1.1.c	Radiological Exposure Prevention		7.7
1.1.d	Chemical Exposure Prevention		7.7
1.1.e	Accident Prevention		7.7
1.1.f	Medical and Safety/Health Integration		5.5
1.2 Waste Minimization		(Weight = 14%)	15.4
1.2.a	Waste Reduction and Recycling		7.7
1.2.b	Pollution Prevention		7.7
PERFORMANCE OBJECTIVE #2 Compliance		(Weight = 12%)	13.2
2.1 Effective Compliance Programs		(Weight = 12%)	13.2
2.1.a	Tracking and Trending of Environmental Findings and Violations		4.4
2.1.b	Tracking and Trending of Environmental Releases		4.4
2.1.c	Occupational Safety and Health		4.4

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		WEIGHT	SC
PERFORMANCE OBJECTIVE #3 Integration and Accountability		(Weight = 19%)	20.9
3.1 Planning, Integration and Execution		(Weight = 19%)	20.9
3.1.a	Integrated Self-Assessment Program		4.4
3.1.b	Institutional ES&H Training		6.6
3.1.c	Corrective Actions		5.5
3.1.d	Control of Radioactive Material		4.4
PERFORMANCE OBJECTIVE #4 Risk Management		(Weight = 11%)	12.1
4.1 Emergency Readiness		(Weight = 4%)	4.4
4.1.a	Emergency Preparedness		4.4
4.2 Facility Safety		(Weight = 7%)	7.7
4.2.a	Hazard Analysis		7.7
PERFORMANCE OBJECTIVE #5 Customer Focus		(Weight = 5%)	5.5
5.1 Customer Expectations		(Weight = 5%)	5.5
5.1.a	External Customers		2.2
5.1.b	Internal Customer Focus		3.3

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
FACILITIES MANAGEMENT		50.0	
PERFORMANCE OBJECTIVE #1 Real Property Management (Weight = 15%)		7.5	
1.1 FIMS	(Weight = 5%)	2.5	
1.1.a	Complete Data Elements	2.5	
1.2 Office Space Utilization (Weight = 5%)		2.5	
1.2.a	Office Space Standard	2.5	
1.3 Substandard Building Space (Weight = 5%)		2.5	
1.3.a	Building Space Conversion	2.5	
PERFORMANCE OBJECTIVE #2 Physical Assets Planning (Weight = 10%)		5.0	
2.1 Comprehensive Integrated Planning Process (Weight = 10%)		5.0	
2.1.a	Effectiveness of Planning Process	5.0	
PERFORMANCE OBJECTIVE #3 Project Management (Weight = 35%)		17.5	
3.1 Construction Projects Under \$200K (Weight = 6%)		3.0	
3.1.a	Project Schedule	3.0	

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
3.2	Construction Projects Over \$2000K	(Weight = 29%)	14.5
3.2.a	Total Estimated Cost (TEC)		5.0
3.2.b	Project Schedule		3.5
3.2.c	Work Performed		6.0
PERFORMANCE OBJECTIVE #4 Maintenance		(Weight = 25%)	12.50
4.1	Maintenance Management	(Weight = 7%)	3.50
4.1.a	Appendix E Milestones		3.50
4.2	Maintenance Backlog Control	(Weight = 3%)	1.50
4.2.a	Maintenance Backlog Amounts		1.50
4.3	Preventative Maintenance	(Weight = 4%)	2.0
4.3.a	Scheduled Maintenance Activities		2.0
4.4	RPIE/PPPE ORs	(Weight = 5%)	2.50
4.4.a	RPIE/PPPE Failure		2.50
4.5	Condition Assessment	(Weight = 6%)	3.0
4.5.a	Condition Surveys		3.0

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
PERFORMANCE OBJECTIVE #5	Utilities/Energy Conservation	7.50	(Weight = 15%)
5.1	Reliable Utility Service	2.50	(Weight = 5%)
5.1.a	Electric Service	2.50	
5.2	Energy Consumption	2.50	(Weight = 5%)
5.2.a	Building Energy	2.50	
5.3	IHEM Retrofits and Studies	1.50	(Weight = 3%)
5.3.a	IHEM Retrofit Schedules	1.00	
5.3.b	IHEM Study Schedules	0.50	
5.4	Energy Management	1.0	(Weight = 2%)
5.4.a	Energy Goals	1.0	

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
FINANCIAL MANAGEMENT		50.0	
PERFORMANCE OBJECTIVE #1 Customer Focus and Satisfaction (Weight = 20%)		10.0	
1.1	(Weight = 12%)	6.0	
1.2	(Weight = 8%)	4.0	
PERFORMANCE OBJECTIVE #2 Operational Effectiveness (Weight = 50%)		25.0	
2.1	Leadership in Improving Financial Management Efficiency and Effectiveness (Weight = 20%)	10.0	
2.1.a	Quality Performance in Reporting Process	5.0	
2.1.b	Leadership in Systems Improvements	5.0	
2.2	Transaction Processing Improvements (Weight = 20%)	10.0	
2.2.a	Quantification of Improvement	10.0	
2.3	Work Force Management (Weight = 10%)	5.0	
2.3.a	Effective Work Force Management	5.0	

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
PERFORMANCE OBJECTIVE #3	Financial Stewardship and Integrity	(Weight = 30%)	15.0
3.1	Cost and Commitments are Managed Properly	(Weight = 6%)	3.00
3.1.a	Cost and Commitments are Controlled to Appropriate Funding Levels		1.25
3.1.b	Control of Funds		1.75
3.2	Asset and Debt Management	(Weight = 6%)	3.0
3.2.a	Document Improvements		3.0
3.3	Effective Internal Controls and Compliance	(Weight = 12%)	6.0
3.3.a	Internal Controls/Compliance Management		6.0
3.4	Quality of Data Reports	(Weight = 6%)	3.00
3.4.a	Policies, Data and Reports Consistent with CAS		1.50
3.4.b	Audited Financial Statements		1.50

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
HUMAN RESOURCES		50.0	
PERFORMANCE OBJECTIVE #1 Cost Effectiveness		(Weight = 32%)	16.0
1.1 Compensation	(Weight = 25%)	12.5	
1.1.a	Currency of Job Classification	3.0	
1.1.b	Effectiveness of Implementation of Market-Based Pay Policy	5.0	
1.1.c	Adherence to Salary Administration Guidelines	4.5	
1.2 Review and Evaluation of HR Systems and Processes		(Weight = 7%)	3.5
1.2.a	Review of HR Systems and Processes	3.5	
PERFORMANCE OBJECTIVE #2 Work Force Excellence		(Weight = 17%)	8.5
2.1 Performance Management		(Weight = 12%)	6.0
2.1.a	Individual Development Plan	2.5	
2.1.b	Currency of Performance Appraisals	3.5	
2.2 Employee Relations		(Weight = 5%)	2.5
2.2.a	Effectiveness of Employee Relations	2.5	

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
PERFORMANCE OBJECTIVE #3	Equal Opportunity	(Weight = 24%)	12.0
3.1	Employment of Women and Minorities	(Weight = 24%)	12.0
3.1.a	Employment of Minorities		6.0
3.1.b	Employment of Women		6.0
PERFORMANCE OBJECTIVE #4	Customer Needs	(Weight = 10%)	5.0
4.1		(Weight = 10%)	5.0
4.1.a			5.0
PERFORMANCE OBJECTIVE #5	HR Leadership in Deploying Mission/Business Strategy	(Weight = 17%)	8.5
5.1		(Weight = 17%)	8.50
5.1.a			8.50

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
INFORMATION MANAGEMENT		50.0	
PERFORMANCE OBJECTIVE #1 Information Management Program (Weight = 100%)		50.0	
1.1 Strategic and Tactical Planning (Weight = 25%)		12.5	
1.1.a Planning Implementation		12.5	
1.2 Self Assessment Program (Weight = 25%)		12.5	
1.2.a Self Assessment Program		12.5	
1.3 Customer Focused Information Management (Weight = 50%)		25.0	
1.3.a Level of Customer Satisfaction		10.0	
1.3.b Results from Improvements		15.0	

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
PROCUREMENT		50.0	
PERFORMANCE OBJECTIVE #1	Management of Procurement Business Requirements (Weight = 30%)	15.0	
1.1	System Evaluation 1.1.a Assessing System Operations (Weight = 30%)	15.0 15.0	
PERFORMANCE OBJECTIVE #2	Procurement System Cost Effectiveness (Weight = 40%)	20.0	
2.1	Pursuing Best Practices 2.1.a Measuring Efficiency Gains (Weight = 40%)	20.0 20.0	
PERFORMANCE OBJECTIVE #3	Customer Satisfaction (Weight = 15%)	7.5	
3.1	Customer Feedback 3.1.a Working Customer Needs (Weight = 10%)	5.0 5.0	
3.2	Customer Feedback 3.2.a Customer Satisfaction Index (Weight = 5%)	2.5 2.5	

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SC
PERFORMANCE OBJECTIVE #4 Professional & Social Responsibility		7.5	
(Weight = 15%)			
4.1 Supplier Performance		5.0	
4.1.a Measuring Supplier Performance	(Weight = 10%)	5.0	
4.2 Socioeconomic Subcontracting		2.5	
4.2.a Meeting Socioeconomic Commitments	(Weight = 5%)	2.5	

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SCORE	PERCENT
PROPERTY MANAGEMENT		50.00	42.4	84.8%
PERFORMANCE OBJECTIVE #1 Accountability of Property (Weight = 60%)		30.00	25.2	83.8%
1.1 Laboratory Responsibility (Weight = 10%)		5.00	3.3	65.0%
1.1.a Timeliness of Assigning		5.00	3.3	65.0%
1.2 Attractive Property Inventory (Weight = 20%)		10.00	8.5	85.0%
1.2.a Attractive Inventory Results		10.00	8.5	85.0%
1.3 Controlled Property Inventory (Weight = 20%)		10.00	8.5	85.0%
1.3.a Controlled Inventory Results		10.00	8.5	85.0%
1.4 Property Close-Outs (Weight = 10%)		5.00	4.9	98.0%
1.4.a Timeliness of Property Close-Outs		5.00	4.9	98.0%
PERFORMANCE OBJECTIVE #2 Utilization of Property (Weight = 15%)		7.50	7.1	94.7%
2.1 Property Utilization Program (Weight = 5%)		2.50	2.5	100.0%
2.1.a Measure Property Utilization		2.50	2.5	100.0%

Appendix B - Administrative and Operational System Scores

PERFORMANCE OBJECTIVE		POINTS	SCORE	PERCENT
2.2	Vehicle Utilization Program	5.00	4.6	92.0%
	2.2.a Measure Vehicle Utilization	5.00	4.6	92.0%
PERFORMANCE OBJECTIVE #3		7.50	6.4	85.0%
3.1	Pursuing Cost Efficiency	7.50	6.4	85.0%
	3.1.a Balancing Performance and Cost	7.50	6.4	85.0%
PERFORMANCE OBJECTIVE #4		5.00	3.8	75.0%
4.1	System Evaluation	5.00	3.8	75.0%
	4.1.a Assessing System Operations	5.00	3.8	75.0%

**Appendix C - Science and Technology Scores
Lawrence Berkeley National Laboratory**

SCIENCE AND TECHNOLOGY		ADJECTIVAL RATING	NUMERIC SCORE	FUNDING	WEIGHT	WEIGHTED SCORE
BIOMEDICAL AND ENVIRONMENTAL RESEARCH		EXCELLENT	3.5	37.0	0.16	0.55
Criteria 1	Quality of Science	Excellent				
Criteria 2	Relevance to National Needs and Agency Missions	Excellent				
Criteria 3	Performance in the Construction and Operation of Major Research Facilities	Outstanding				
Criteria 4	Programmatic Performance and Planning	Outstanding				
BASIC ENERGY SCIENCES		GOOD	2.8	66.1	0.28	0.78
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions	Excellent				
Criteria 3	Performance in the Construction and Operation of Major Research Facilities	Good				
Criteria 4	Programmatic Performance and Planning	Good				

**Appendix C - Science and Technology Scores
Lawrence Berkeley National Laboratory**

SCIENCE AND TECHNOLOGY		ADJECTIVAL RATING	NUMERIC SCORE	FUNDING	WEIGHT	WEIGHTED SCORE
SCIENTIFIC COMPUTING		OUTSTANDING	4.0	48.1	0.21	0.82
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions Performance in the Construction and Operation of Major Research Facilities	Outstanding				
Criteria 3	Major Research Facilities	Outstanding				
Criteria 4	Programmatic Performance and Planning	Outstanding				
NUCLEAR PHYSICS		EXCELLENT	3.5	24.6	0.10	0.37
Criteria 1	Quality of Science	Excellent				
Criteria 2	Relevance to National Needs and Agency Missions Performance in the Construction and Operation of Major Research Facilities	Excellent				
Criteria 3	Major Research Facilities	Outstanding				
Criteria 4	Programmatic Performance and Planning	Outstanding				

**Appendix C - Science and Technology Scores
Lawrence Berkeley National Laboratory**

SCIENCE AND TECHNOLOGY		ADJECTIVAL RATING	NUMERIC SCORE	FUNDING	WEIGHT	WEIGHTED SCORE
HIGH ENERGY PHYSICS		EXCELLENT	3.3	33.5	0.14	0.46
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions Performance in the Construction and Operation of Major Research Facilities	Outstanding				
Criteria 3	Programmatic Performance and Planning	Good				
Criteria 4	Programmatic Performance and Planning	Excellent				
FUSION ENERGY SCIENCES		OUTSTANDING	4.0	5.2	0.02	0.09
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions Performance in the Construction and Operation of Major Research Facilities	Outstanding				
Criteria 3	Programmatic Performance and Planning	N/A				
Criteria 4	Programmatic Performance and Planning	Outstanding				

**Appendix C - Science and Technology Scores
Lawrence Berkeley National Laboratory**

SCIENCE AND TECHNOLOGY		ADJECTIVAL RATING	NUMERIC SCORE	FUNDING	WEIGHT	WEIGHTED SCORE
ENERGY EFFICIENCY & RENEWABLES		Excellent	3.3	20.0	0.09	0.28
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions	Excellent				
Criteria 3	Performance in the Construction and Operation of Major Research Facilities	N/A				
Criteria 4	Programmatic Performance and Planning	Excellent				
				234.5	1.0	3.35

ADJECTIVAL RATING	EXCELLENT
PERCENTAGE SCORE	83.8%
APPENDIX F POINT SCORE	419.00

**Computation of
Salary Increase Authorization
Multiplier**

Appendix F Element of Laboratory Performance

Performance Area	Rating	% x Pts =	Score
Science & Technology	Excellent	83.8% x 500 =	419.0
Administrative Systems			
Laboratory Management	Far Exceeds Expectations	93.6% x 50 =	46.8
Environment Restoration and Waste Management	Far Exceeds Expectations	92.0% x 40 =	36.8
Environment Safety and Health	Exceeds Expectations	85.6% x 110 =	94.1
Facilities Management	Far Exceeds Expectations	90.8% x 50 =	45.4
Financial Management	Exceeds Expectations	84.3% x 50 =	42.1
Human Resources	Exceeds Expectations	87.7% x 50 =	43.8
Information Management	Exceeds Expectations	88.7% x 50 =	44.4
Procurement	Far Exceeds Expectations	92.9% x 50 =	46.4
Property Management	Exceeds Expectations	84.8% x 50 =	42.4
Total Administrative Systems			442.2
Total of Science and Technology and Administrative Systems			861.2

Salary Increase Authorization Multiplier (from Appendix F)

FY 98 Salary Increase Fund for UC Laboratories

Executive Merit Pool (Based on S&E)	3.85%		
Executive Merit Pool (Appendix A & F)		3.85% x 1.25 =	4.81%