

Final
Annual Evaluation Report
Of
Argonne National Laboratory (ANL)
For The Period
October 1, 2003 through September 30, 2004
(Fiscal Year 2004)

Evaluation performed by the Department of Energy, Office of Science, Argonne Site Office (ASO) with assistance from the Chicago Office

(4/5/05)

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1.0 Summary Evaluation:

In accordance with the performance-based contract with DOE, the University of Chicago is responsible for the management and operation of Argonne National Laboratory (ANL). This contract requires DOE to establish formal expectations and to perform an annual performance evaluation of the University of Chicago performance against the expectations for that contract work. The payment of fee to the University of Chicago is contingent on the results of the annual DOE performance evaluation. Since the inception of the ANL performance-based contract in 1995, the University of Chicago performance has been and continues to be rated very highly by the sponsoring DOE Program Offices and by the DOE Argonne Site Office (ASO).

For FY-04, the overarching performance expectations assigned to the ANL Contract were:

Science and Technology: ANL will deliver innovative, forefront science and technology consistent with the DOE strategic goals. ANL will conceive, design, construct, and operate world-class user facilities, all in a safe, environmentally sound and efficient manner.

Contractor Management: The University of Chicago will provide leadership, guidance, and oversight that add value to the overall management of ANL.

Operations: ANL will conduct all work and operate facilities cost effectively and with distinction, integrated with and supportive of its missions in science, technology, energy, and environment, while being fully protective of its workers, its users, the public, and the environment.

As required under the contract, individual performance measures and system assessment measures were established for these three overarching performance expectations. For FY-04, the University of Chicago was rated as "Outstanding" (the highest rating) for Science and Technology (both ANL-E and ANL-W). The Contractor Management Performance Measure was rated as "Excellent" by ASO (the second highest rating). The Operations expectation includes the Infrastructure and the Integrated Safety Management Performance Measures. Both were rated as "Outstanding." For the twelve General Operations System Assessment Measures (SAMs), the University of Chicago received an overall "Outstanding" rating.

Based on the FY-04 DOE ratings, the University of Chicago earned \$3,064,600, or 99.5% of total available fee for the management and operation of Argonne National Laboratory.

2.0 Background:

Beginning in June 1995, the DOE has maintained a performance-based contract with the University of Chicago for the management and operation of Argonne National Laboratory (ANL). Effective October 1, 1999, the performance-based Contract between the DOE and the University of Chicago was renewed for a second 5-year term. The success of the performance-based concept, implemented in the previous contract (October 1995 - September 1999), and the high level of performance by the University of Chicago led to the decision to continue the performance-based management approach for the ANL contract through September 30, 2006.

In accordance with the terms of the ANL contract, the ASO establishes formal performance expectations at the beginning of each fiscal year and evaluates the performance of the University of Chicago against those performance expectations at the end of each fiscal year. For FY-04, Appendix B of the ANL contract includes two performance categories. These two

categories are Mission Critical Performance Measures and General Operations System Assessment Measures. Both of these performance categories are evaluated annually using a pre-defined process. A formal evaluation by ASO is a key part of the rating process. This report is the documentation of that annual rating process. The first performance category, "Mission Critical Performance Measures," is tied directly to the annual fee earned by the University of Chicago. For FY-04, there are four Functional Areas within the suite of Mission Critical Performance Measures. The Functional Areas are the topical business and/or operating systems. The second performance category, "General Operations (Systems Assessment Measures)" or SAMs is not tied directly to fee. For FY-04, the SAMs include twelve Functional Areas.

The FY-04 Performance Measures that directly impact fee include four areas: 1) Science and Technology, 2) Contractor Management, 3) Integrated safety Management, and 4) Infrastructure. All of these Performance Measures are considered critical to successfully achieving the ANL Science and Technology Mission. Critical is defined as having a "direct and significant" impact on the ability of ANL to successfully achieve the science and technology mission. The twelve SAMs are considered "important" to ANL successfully achieving their science and technology mission, but have not been deemed to be critical in FY-04 to the successful accomplishment of the ANL mission. If the data demonstrate that a SAM is directly and significantly impacting ANL's ability to meet its science and technology mission, then it will be elevated to a fee-bearing performance measure.

Appendix B of the ANL contract requires the University of Chicago to perform an annual self-assessment that is considered and validated by the ASO in its overall evaluation of the University of Chicago performance. This self-assessment provides additional data including accomplishments and self-identified opportunities for improvement that assist in determining the complete picture of the University of Chicago performance. ASO reviewed the University of Chicago FY-04 Self-Assessment to determine the following:

- 1) significant activities/issues that the University of Chicago has not identified in their self-assessment that would support an increase or reduction in their final rating for the assigned functional area.
- 2) significant issues that ANL has identified in their self-assessment that were either under-assessed or over-assessed in determining a final rating for the assigned functional area.
- 3) overall self-assessment quality and completeness.

For the Science and Technology Performance Measure, the University of Chicago conducts a highly regarded peer review process as part of its self-assessment. Copies of the documented peer reviews are provided to ASO and appropriate DOE-HQ Program Sponsors when they are performed during the fiscal year. A critical component of the annual performance evaluation is a separate evaluation of the ANL science and technology work by the sponsoring DOE Headquarters (HQ) Program Offices. The DOE-HQ Program sponsors evaluation includes, as input, the results of the University of Chicago Science and Technology self-assessment. The University of Chicago Self-Assessment is included as a Reference to this report.

The ASO evaluation includes both the "objective" Contract performance expectations for each area, as well as the "subjective" aspects such as significant accomplishments, opportunities for improvement, results of other appraisals, and any other data that is relevant to the Laboratory's performance. The overall process for evaluating ANL performance and determining the annual fee is described in Attachment A to this report.

For FY-04, the University of Chicago was rated as "Outstanding" for the Science and Technology Performance Measure, Integrated Safety Management Performance Measure and the ANL-E Infrastructure Performance Measure. An "Excellent" rating was given for "Contractor Management". For the twelve General Operations System Assessment Measures (SAMs), the University of Chicago received an overall "Outstanding" rating. An "Outstanding" rating means that ANL significantly exceeds the standard of performance; that noteworthy results have been achieved. An "Excellent" rating means that ANL exceeds the standard of performance, although there may be room for improvement in some elements; better performance in all other elements more than offset this. A fee table in the contract, negotiated each year along with the individual performance measures, is used to determine the annual performance fee earned based on the assigned adjectival ratings.

A detailed ASO evaluation of the SAMs confirmed that an overall "Outstanding" rating was appropriate. This means that the University of Chicago performance in General Operations exceeds the standard of performance established for management and operating contractors for multi-purpose laboratories. For some SAMs, specific opportunities for improvement have been identified.

3.0 Evaluation of Performance Measures

Table 1 below is a summary of the four FY-04 Performance Measure ratings for ANL. The ratings assigned to each of these four Performance Measures (three in Critical Operations and one in Science and Technology) have a direct impact on the fee calculations.

**TABLE 1
SUMMARY OF FY-2004
PERFORMANCE MEASURE RATINGS**

Section I - Science and Technology

	Performance/ Functional Area	ANL Self-Assessment Ratings Based on Appendix B Performance Expectations	ASO Rating Based on Appendix B Performance Expectations
I.1	Science and Technology (ANL-E)	Outstanding	Outstanding
I.1	Science and Technology (ANL-West)	Outstanding	Outstanding

Section II - Mission Critical Operations

	Performance/ Functional Area	ANL Self-Assessment Ratings Based on Appendix B Performance Expectations	ASO Rating Based on Appendix B Performance Expectations
I.2	Contractor Management	Outstanding	*Excellent
I.3a	Integrated Safety Management	Outstanding	Outstanding
I.3b	Infrastructure	Outstanding	Outstanding

** Identifies performance ratings where ASO has taken exception to the UofC/ANL self-assessed rating.*

3.1 Science and Technology

An overall rating of “Outstanding” was assigned to the University of Chicago for their performance in the area of Science and Technology. This critical area represents 65% of the total fee for FY-04. Fifty-five percent is assigned to Part I - Argonne East Science and Technology Program while ten percent is assigned to Part II - Argonne West Science and Technology Program. The Science and Technology Performance Measure is based on the following DOE-HQ evaluations:

- Office of Science and Technology evaluation, dated January 25, 2005.
- Office of Nuclear Energy, Science and Technology evaluation, dated February 28, 2005.

The DOE-HQ Program evaluations are included as Attachment B to this report. The highly regarded peer review process, conducted by the University of Chicago during FY-04, supports this overall rating of “Outstanding” in Science and Technology. A list of the Peer Review Reports is included as Attachment C to this report. ASO has accepted the evaluations of the DOE-HQ Program Sponsors.

3.1.1 Part I – Argonne East

The Office of Science (SC) provides the majority of the DOE-HQ funding to ANL and has consistently recognized the high quality of Science and Technology work at ANL. Some specific ANL-E accomplishments during FY-04 include:

- 1) ANL scientists captured four R&D 100 Awards in 2004, the highest number for an SC Laboratory
- 2) The operation of the Advanced Photon Source (APS) continues to achieve X-ray availability of greater than 98% for user beam in FY-2004. The APS served more than 2000 users during FY-04 and exceeded expectations for beam current, flexibility, and beam stability. The science program at the APS made a number of significant discoveries including a treatment that blocks the action of an anthrax toxin and the synthesis of ultrathin films with controllable ferromagnetic polarization for use in nanotechnology devices.
- 3) The Intense Pulsed Neutron Source (IPNS) operation continues to provide extraordinarily reliable neutron beams and user support for approximately 400 experiments.
- 4) ANL continues to enhance the capability of the ATLAS facility, which enables over 100 scientists annually to conduct research in nuclear, atomic and applied physics.
- 5) Construction of the Center for Nanoscale Materials and the associated major item of equipment continue to show considerable progress in FY-2004. The CNM Project is on schedule to start producing research results in FY-06. The CNM Building has received a State of Illinois grant for \$36M.
- 6) ANL, as a member of the Midwestern Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Research participates in the research program to be conducted at the NIH funded Regional Biocontainment Laboratory (RBL). The RBL will be constructed at ANL.
- 7) ANL continues to work closely with the FBI and the Illinois Emergency Management Agency to provide a Joint Operations Center at ANL in support of the U.S. Homeland Security initiative.
- 8) The University of Chicago continues to aggressively pursue Joint Appointments with ANL and other Mid-west Universities to enhance the scientific credibility of the work at ANL.

For FY-04, SC rated ANL as “Outstanding” for Science and Technology work. Additional details regarding the FY-04 DOE-HQ-SC assessment appear in Attachment B to this report.

3.1.2 Part II – Argonne West

The Office of Nuclear Energy, Science, and Technology (NE) is the second largest DOE program sponsor of work at ANL. Most of this effort is conducted at ANL-W. For FY-04, based on the level of success in constructing and operating nuclear research and related facilities, ANL has been rated as “Outstanding” by NE. All DOE commitments were met or exceeded. Under the Advanced Fuel Cycle Initiative, ANL has lead the National program in developing separation technologies and better defining the use of various reactor systems to transmute elements extracted from spent fuel and to validate the physics of transmutation systems. ANL-W has been recognized nationally and internationally for their successful production scale treatment of sodium-bonded spent nuclear fuel, high quality pyroprocessing research and development, and for the continuing development and characterization of waste forms. In FY-04, an ANL engineer received a Global Energy International Prize from Russian President Vladimir Putin for his pioneering work in nuclear energy. ANL has consistently met cost and schedule milestones for assigned work. For example, ANL effectively and efficiently transferred the Radioisotope Power Supply Program from the Mound Laboratory to ANL. The ANL-W performance measures covered project cost and schedule compliance, infrastructure performance and other performance expectations. The cumulative rating for the ANL-W performance measures was an “Outstanding”. Specific details of the FY-04 assessment are included Attachment B to this report. On February 1, 2005, ANL-W became part of the Idaho National Laboratory which means that it is no longer part of the ANL contract.

3.2 Contractor Management

Under the Contractor Management Performance Measure, the University of Chicago is measured against the expectation that they provide leadership, guidance, and oversight that add value to the overall management of ANL. The Contractor Management Performance Measure accounts for 5% of the contract fee. To achieve an “Outstanding” rating, the University of Chicago needs to achieve an “acceptable” determination on all nine expectations, the highest rating category for these expectations. ASO rated the University of Chicago as “Excellent” in Contractor Management in FY-04. It is recognized that the rating for these nine expectations involve some subjectivity.

The leadership and level of involvement in the management and operation of ANL displayed by the University of Chicago President, Dr. Don Randel, and the Vice President for Research and Argonne National Laboratory, Dr. Thomas Rosenbaum is noteworthy. This level of involvement demonstrates the University of Chicago commitment to a well run Laboratory. The University of Chicago continued with its distinguished peer review process in addition to reviews of the ANL business systems such as the ANL Plant Facilities and Services system. Senior University of Chicago representatives meet regularly with the ASO to discuss initiatives and resolve issues. The relationship between DOE and the University of Chicago has been and continues to be commendable.

The University of Chicago maintains an engaged Board of Governors which includes distinguished scientists, senior executives from industry, former National Laboratory Directors, and former government executives. The Board of Governors continued their involvement in reviews of the ANL Science and Technology programs and the ANL business management systems and processes to assist in the analysis and guidance on the strategic direction of the Laboratory. The Board of Governors also meets regularly with the ASO Manager to obtain input and provide feedback.

The University of Chicago performs a detailed mid-year self-assessment and provides the documented results to ASO at the time of the DOE mid-year assessment. This mid-year self-assessment aids in identifying problems and issues so they can be resolved as early as possible. ANL and the University of Chicago recognize that while the Appendix B expectations are important for measuring performance, these formal expectations do not represent the complete performance picture. The self-assessment results are a clear indication that ANL and the University of Chicago are using the self-assessment process to realistically evaluate their performance and identify areas where they believe enhanced performance is needed for them to become a truly outstanding Laboratory.

The University of Chicago has sought out partnerships with other prestigious mid-western universities such as Northwestern University, University of Illinois, Northern Illinois University, and Notre Dame to ensure that scientific programs at ANL represent the best ideas from a wide variety of distinguished universities. This collaborative approach is commendable.

The oversight associated with the management of a large research and development laboratory involves considerable judgment. During FY-04, the University of Chicago has been involved in a number of activities that demonstrate the dynamic nature of managing such a large laboratory. For example, the ANL-W facility was being re-assigned from the ANL contract to a new contract called the "Idaho National Laboratory" (INL). This required that ANL begin to separate out the organizations and business systems associated with the operation of ANL-W and prepare for a transition. This needed the attention of both the ANL and University of Chicago management and involved some internal ANL re-organizations. The University of Chicago also opted to bid on the INL procurement which further encumbered management resources. In addition, DOE decided that the siting for the Rare Isotope Accelerator (RIA) Project be competed. This meant that the University of Chicago would need to compete for the RIA facility, separate from the ANL contract, if they wanted RIA to be sited at ANL. The preparation for a siting decision also required the attention of the University of Chicago and ANL management. Finally, in FY-04, the University of Chicago was notified, as well as all the other Office of Science (SC) Laboratory contractors, that independent of their performance, the SC Laboratories would all be competed. The ANL contract was extended for two years through September 30, 2006, followed by a competitive award. The net effect is that the existing ANL Director believed that he could not fully commit to the associated five year contract period in addition to the contract extension (i.e. seven years). This resulted in a search for a new ANL Director, complicated by strategic issues associated with a major transition at ANL, as well as by the political issues associated with selecting any new Laboratory Director. The political issues were not handled as deftly as ASO wanted, as the University of Chicago is an educational and scientific organization and not a political organization.

As discussed above, over the past year there have been some significant changes in the management structure at ANL. Several recent key organizational and personnel staffing changes have occurred in a manner that raises some concern over the University of Chicago's ability to handle a variety of simultaneous issues concerning the management of ANL while ensuring the necessary leadership and oversight of operations at ANL, regardless of the circumstances. As a result of the University of Chicago response to the dynamic situation in FY-04, the University of Chicago received a "not fully achieved" rating in one of the nine expectations regarding the level of management oversight as evaluated by ASO. This results in an overall numeric rating of "Excellent".

The nine expectations for the University of Chicago and their respective ASO rating are as follows:

- 1) Provide for and review Laboratory leadership – Acceptable
- 2) Effective succession planning – Acceptable
- 3) Limited acting/interim assignments - Acceptable
- 4) Timely strategic guidance - Acceptable
- 5) Timely identification and resolution of overall performance issues - Acceptable
- 6) Periodic reviews of major programs and operations - Acceptable
- 7) Periodic reviews of management systems and processes - Acceptable
- 8) Assure for the quality of the annual self-assessment process – Acceptable
- 9) Oversee ANL resolution of important issues – Not Fully Achieved

ASO has considered the University's overall performance in "Contractor Management" and determined that an overall rating of "Excellent" for "Contractor Management" is appropriate. It is ASO's judgment that the University of Chicago provides the requisite leadership, guidance, and oversight that add value to the overall management of the ANL contract. It is also ASO's opinion that FY-04 presented an unusual set of circumstances. Based on the University of Chicago's overall responsiveness to other issues, ASO fully expects that these issues will be resolved in FY-05.

3.3 Integrated Safety Management (ISM)

The objective of the ANL Integrated Safety Management System (ISMS) is to prevent or minimize potential adverse effects on workers, the public, property, and the environment as a consequence of Laboratory activities. The ISM Program also ensures that the ANL Environment, Safety, and Health (ES&H) Program is applied effectively by line management as an integral part of the R&D mission of the Laboratory. Integrated Safety Management is one of the four FY-04 Mission Critical Performance Measures that focus on the operation of the Laboratory. ISM performance accounts for 20% of the fee.

The ASO evaluation of the ANL ISM Program is based on a combination of objective data that are directly related to the ISM Performance Measure, as well as a combination of objective and subjective input that comes from a variety of sources, such as ASO ES&H Functional Area Reviews, Facility Representatives' observations, audits, inspections, appraisals, and various operational awareness activities. An important source of information is the ANL FY-04 Self-Assessment and the ASO Manager's overall evaluation of ANL Management responsiveness to ISM issues.

The Integrated Safety Management Performance Measure has been rated "Outstanding" by both ANL and ASO. ASO agrees that the performance measure rating is "Outstanding" although we are not in agreement with the numerical score for Objective 4, for which ASO questions the methodology ANL used to calculate the reduction in waste generation and will work with ANL on devising a methodology that accurately reflects waste generation as opposed to equating waste shipped to waste generation. ASO believes that ANL continues to maintain and improve its ISM system. We agree with the overall ANL ISM self-assessment rating of "Outstanding" although we continue to have some specific concerns associated with industrial and radiological safety incidents that have occurred in 2004. It is our continued expectation that prompt and effective root cause analysis and effective corrective actions will help to ensure that any systemic safety management problems are identified and corrected. In addition, ANL is encouraged to increase the pace of integrating habitat management practices into the grounds program.

For FY-04, there have been significant ES&H-related achievements, including development of environmental objectives and targets under the Environmental Management System that is part of the ISMS. We are encouraged that ANL has recognized the need - and taken actions - to improve the quality and timeliness of incident reports and has recognized “continued improvement in our land management and habitat restoration goals” as an opportunity for improvement.

In summary, ASO agrees with the ANL Self-Assessment and final rating of “Outstanding”. ASO recognizes the continuing progress being made by ANL, and the excellent level of cooperation with DOE. We also recognize ANL’s commitment to ISM excellence, but we believe that increased attention to identifying and correcting the root causes of safety incidents is needed to maintain an outstanding ISM program.

3.4 ANL Infrastructure

ANL Infrastructure includes both Project Management and Facility Management. The ANL Infrastructure Performance Measure represents a total of 10% of the fee. Specific activities associated with the ANL infrastructure management include construction, upgrades, maintenance of facilities and infrastructure, and environmental projects.

The ASO evaluation of the ANL Infrastructure Program is based on objective data directly related to the Infrastructure Performance Measure as well as information from various operational awareness activities and the ANL FY-04 Self-Assessment. ANL and ASO have both rated the Infrastructure Program as “Outstanding”. ASO agrees that objective performance measure rating is “Outstanding” and we have not identified additional factors that would change that rating.

Maintaining the ANL infrastructure has consistently been a Laboratory priority for the last 10 years and will continue to be a major challenge for the upcoming years. ANL performance in maintaining the Laboratory infrastructure is considered “above average” when compared to the suite of Office of Science Laboratories and “well above average” when compared to the suite of SC Multi-Program Laboratories. Although ANL continues to be aggressive in the identification and execution of construction and maintenance activities and projects to ensure that the ANL physical plant and facilities are ready to serve the needs of the ANL research community, there must be more emphasis placed on implementing opportunities for more cost effective use of maintenance funds as out year projections for direct funded infrastructure continue to decline. We are encouraged that ANL recognized this in the ANL FY-04 Self-Assessment and look forward to seeing successes in this important area in FY-05. The Maintenance Management Assessment that ASO conducted in the third quarter of FY-04 identified several opportunities for improving maintenance management; it is our expectation that these will be addressed in FY-05.

ANL successfully completed one multi-year major project (Fire Safety Improvements, Phase IV) in FY-04 when measured against the ASO approved project baseline. It is noted that ANL has made significant strides in implementing a number of project management improvements on a site-wide level and within the Plant and Facilities Services Division. Most notable were the laboratory initiatives related to improving Project Management competency; implementing more formality and discipline in the planning and execution of infrastructure related activities and projects and the development of a site-wide Project Management Information System (PMIS). In FY-05 we look forward to continued improvement in this area as ANL completes the remaining actions identified; fully deploy the PMIS and prepare for site-wide Earned Value Management System certification in FY-06.

Waste management operations performance met our expectations for FY-04, however we still would like to see increased emphasis on reducing waste inventories (especially the legacy radioactive waste inventory) in FY-05 and expect the FY-05 Midyear and Annual Self-Assessment to clearly reflect changes to waste inventories. ASO has some reservations related to the methodology ANL used to calculate the reduction in waste generation and will work w/ ANL on devising a methodology that accurately reflects waste generation as opposed to equating waste shipped to waste generation.

4.0 Evaluation of System Assessment Measures

The System Assessment Measures (SAMs) provide information to support an evaluation of the overarching performance expectation for ANL "General Operations". This section is organized by using the DOE-HQ Office of Science (SC) Expectations as topical headings. These SC expectations are in place for the SC Management and Operating Contractors. The individual SAMs were grouped according to the appropriate SC expectation. For FY-04, the ASO evaluation of the University of Chicago performance resulted in an overall rating of "Outstanding" for the SAMs.

Table 2
Summary of FY-2004
System Assessment Measure Ratings

Section III - General Operations

	Functional Area	ANL Self Assessment Rating Based on Appendix B Performance Expectations	ASO Rating Based on Appendix B Performance Expectations
II.1 Business Management			
II.1.a	Counterintelligence	Outstanding	Outstanding
II.1.b	Cyber Security	Outstanding	Outstanding
II.1.c	Diversity	Excellent	Excellent
II.1.d	Financial Management	Outstanding	Outstanding
II.1.e	Human Resources	Outstanding	Outstanding
II.1.f	Information Management	Outstanding	Outstanding
II.1.g	Integrated Safeguards and Security	Outstanding	*Good
II.1.h	Legal Management	Outstanding	Outstanding
II.1.i	Personnel Property	Outstanding	Outstanding
II.1.j	Procurement	Outstanding	Outstanding
II.2 Stakeholder Relations			
II.2.a	Communications and Trust	Outstanding	*Excellent
II.2.b	Technology Transfer	Outstanding	Outstanding
Summary for Operations		Outstanding	Outstanding

** Identifies performance ratings where ASO has taken exception to the ANL self-assessed rating.*

4.1 Business Management

For the ANL business management systems, compliance and internal controls continue to meet DOE requirements. ASO took exception to two of the ten ANL business management system proposed ratings. Two of the business systems were rated as "Excellent". One business system was rated as "Good". The Business Management SAMs include:

- 1) Counterintelligence
- 2) Cyber Security
- 3) Diversity
- 4) Financial Management
- 5) Human Resources
- 6) Information Management
- 7) Integrated Safeguards and Security
- 8) Legal Management
- 9) Personal Property
- 10) Procurement

Comments regarding specific performance issues or ratings during the FY-04 performance period are provided for those performance areas where ASO has either taken exception to the ANL proposed rating, or where ASO felt that additional comments were necessary.

4.1.1 Counterintelligence

The Counterintelligence (CI) SAM includes an evaluation of the effectiveness of the following eleven sub-programs:

- 1) Investigations
- 2) Analysis
- 3) Cyber-security
- 4) Liaison
- 5) Foreign Visits and Assignments
- 6) Executive Management
- 7) Program Management
- 8) High Risk Programs
- 9) Information Management
- 10) Financial Management
- 11) Training and Awareness

The Counter-intelligence Program was inspected over a two week period at the end of FY-03 by the DOE HQ Office of Counterintelligence. The experienced inspection team awarded the ANL CI Program the highest rating which had only been awarded twice in over fifty inspections. The DOE Director of the Office of Counterintelligence also recommended an "Outstanding" rating for the ANL CIP for FY-04 in a letter to the ASO Manager.

The ASO FY-04 Mid-Year Assessment stated that a review of CI activities would be conducted to evaluate "completeness and quality of documentation for: sensitive WFO/CRADA's, quality of the CI checks, conduct of briefings/debriefings, whether any issues were identified from the CI checks and what actions were taken to resolve the issues". The results of this ASO review were factored into the final FY-04 performance assessment. ASO rated the ANL FY-04

Counterintelligence Program as “Outstanding,” based in large measure on the results of a 2003 CI inspection of ANL-E and the ANL CI WFO/CRADA review in FY-04.

4.1.2 Diversity

For the Diversity SAM, ANL obtained an overall rating of “Excellent”. ANL achieved a final numeric score of “Good” based on the Appendix B performance expectations. This rating, combined with the ANL’s continued top level of commitment to diversity; the strategic focus on diversity; the ability to make progress in diversity given the budget constraints; limited hiring; continued downsizing; along with efforts made to achieve the stretch goal in the performance measure resulted in the overall rating being up graded to “Excellent”. It is to be noted that the numerical rating scale was established based on last year’s results, which was “Outstanding”. The stretch goal to achieve an “Outstanding” was raised from last year’s results in order to maintain the focus on continuous improvement. Since the performance expectation is defined as maintaining and/or increasing representation, the numbers and trend demonstrate that ANL has maintained diversity in the workforce during difficult budgetary times.

ANL continued to make significant achievements during FY-04. ANL management has established commendable standards for their diversity-related programs which affect every part of the Laboratory. The recently established ANL Diversity Council is of notable mention. This high-level management group has the potential to act as a catalyst in positioning ANL as a leader in diversity within the SC community.

4.1.3 Integrated Safeguards and Security

The objective of the Integrated Safeguards and Security Management (ISSM) Program at ANL is to provide the necessary and appropriate protection, at both ANL sites for special nuclear material, information, personnel, and property. As required by DOE Order 470.1, the ANL Safeguards and Security area was evaluated for its effectiveness in the following sub-programs:

- 1) program management
- 2) information security
- 3) materials control and accountability
- 4) personnel security

ANL provided a self-assessment rating of “Outstanding” for ISSM FY-04 performance. DOE-ASO has taken exception to this rating, and rates the FY-04 ISSM performance as “Good”. This ASO assigned rating is based on issues identified in the ANL Materials Control and Accountability (MC&A) area. Although the MC&A area constitutes only one of the four evaluated ISSM sub-programs, the deficiencies noted are considered significant enough to affect the overall ISSM performance evaluation. Due to the sensitivity of the subject matter, specific details will not appear in this report.

4.2 Stakeholder Relations Expectation

Stakeholder Relations includes the following two SAMs:

- 1) Communications and Trust
- 2) Technology Transfer

4.2.1 Communications and Trust

Communications and Trust performance is critical to the success of all DOE National Laboratories. "Trust" is a measurement of the effectiveness of the relationship between the Laboratory and the local community, including key stakeholders. "Communications" is the foundation for the trust relationship and also measures the interactions between DOE and ANL, as well as, the University of Chicago. Communications and Trust are areas where the University of Chicago/ANL has consistently demonstrated a high level of performance. While ASO established some objective metrics for Communications and Trust within Appendix B of the contract, subjective performance evaluations are unavoidable and viewed as a significant and important element of the rating.

ANL continues to work cooperatively with ASO in support of the Community Leaders Round Table and other outreach programs. A very cooperative relationship is clearly evidenced in the interactions between ANL Management and DOE (both the ASO Office and DOE-HQ). In addition, communications between the University of Chicago and DOE continue to be commendable.

ANL Management continues to place a priority on the establishment and maintenance of a positive relationship with the local communities, including key stakeholders. In addition, the relationship between the University of Chicago/ANL and the State of Illinois continues to be very positive. The State of Illinois has been a significant participant in construction programs and supporting research at ANL.

However, leadership has not fully met expectations. ASO believes that a stronger and more aggressive position should be taken in identifying and expanding upon opportunities for communicating the laboratory's scientific and technological accomplishments to a variety of key audiences and stakeholders.

Communications and Trust was rated as "Excellent" by ASO for FY-04, based on the overall ANL performance, as measured by both, objective and subjective information.

5.0 Other Issues/Relevant Factors/Opportunities for Improvement

In summary, ASO took exception to one of the Mission Critical performance measure ratings, and two of the FY-04 General Operations performance ratings as proposed by the University of Chicago. These exceptions reflect issues which ASO believes are impediments to receiving the highest rating in each area.

6.0 Fee Determination:

For the Mission Critical Performance Measures, ANL achieved an “Outstanding” rating for the Science and Technology Performance Measure (both ANL-E and ANL-W), the Integrated Safety Management System Performance Measure and the Infrastructure Performance Measure. Contractor Management was rated as “Excellent”. Therefore, the summary level Mission Critical Operations Performance Measures were rated as “Outstanding.” Attachment E uses the performance ratings to calculate a total earned FY-04 fee of \$3,064,600. ASO has determined that the final rating for General Operations SAMs is “Outstanding”.

7.0 References:

Appendix B “Performance Criteria and measures” of the Contract between the University of Chicago and DOE for the Management and Operation of Argonne National Laboratory (W-31-109-ENG-38)

The University of Chicago “Argonne National Laboratory Self-Assessment of Operations Performance” dated November 30, 2004.

The University of Chicago “Mid-Year Self-Assessment of Operations Performance” dated August 5, 2004.

Attachment A
Evaluation Process

Attachment A Evaluation Process

1.0 Background:

On May 24, 1995, the University of Chicago and the U.S. Department of Energy (DOE) established a new performance based contract for the management and operation of Argonne National Laboratory (ANL). Effective October 1, 1999, the performance-based Contract between the United States DOE and the University of Chicago was renewed for a second 5-year term. The contract includes the use of performance expectations agreed to each year in advance by DOE and the University of Chicago, as standards against which ANL's scientific/technical, managerial, and operational performance are evaluated. The University of Chicago's performance is evaluated and rated each year, at the end of the year, against the agreed-to performance expectations. While the selected performance expectations are considered critical for measuring ANL's success, they are not viewed as a comprehensive basis for evaluating ANL performance. Peer reviews, audits, appraisals, and other reviews conducted during the evaluation period are also considered.

An important part of the performance-based contract is the use of a contractor self-assessment. Each year, the University of Chicago is required to perform a formal, comprehensive self-assessment of their overall performance. This self-assessment examines the University of Chicago performance against each of the performance expectations and includes other factors that the University of Chicago believes are important to the success of the ANL mission. Finally, DOE conducts an evaluation of the University of Chicago's performance. This evaluation is based on the ASO review of the University of Chicago Self-Assessment, the University of Chicago's success in meeting the contractual performance expectations, as well as peer reviews, audits, appraisals, and other reviews conducted by DOE and others during the evaluation period. The ASO evaluation determines the fee to be awarded by DOE to the University of Chicago under the contract.

2.0 Process:

Each year, prior to the beginning of the fiscal year, ANL performance expectations are negotiated between the University of Chicago and ASO. The ANL contract is then modified each year to include the negotiated performance expectations. For FY-04, a total of sixteen functional areas were selected for measuring ANL performance. ANL performance is divided into two distinct categories. The first category, Performance Measures is fee-bearing. The second category, System Assessment Measures is not fee-bearing. The Performance Measures are sub-divided into Science and Technology and Mission Critical Operations. The second category, System Assessment Measures is also known as General Operations and is subdivided into Business Management and Stakeholder Relations. Weighting factors are also agreed to for each of the functional areas prior to the beginning of the fiscal year.

For the ASO evaluation of the ANL "Operations" performance, a three-step process is performed annually at the end of the evaluation period. These steps are:

- 1) The University of Chicago evaluates their own performance against agreed to expectations for the Performance Measures and System Assessment Measures.

- 2) The University of Chicago performs a self-assessment of their overall performance. This self-assessment is based on their performance against the Performance Measures and System Assessment Measures evaluated under step #1 above and other relevant factors that they believe directly affect performance.
- 3) ASO conducts an evaluation of the University of Chicago performance including an evaluation of the University of Chicago Self-Assessment. ASO validates the University of Chicago performance against the contractual expectations (Performance Measures and System Assessment Measures and identifies and considers other relevant factors that directly influence the evaluation of University of Chicago performance.

If there are disagreements between ASO and University of Chicago on individual ratings, then ASO meets with the University of Chicago/ANL staff to determine if additional information is available that should be considered in the final evaluation and rating. Several sessions were conducted at mid-year based on the ASO mid-year evaluation and the end of the FY-04 evaluation period.

For the DOE-HQ evaluation of the ANL "Science and Technology" performance, a four-step process is performed annually. The ANL-E and ANL-W Science and Technology Programs are evaluated separately. These steps are conducted at the end of each evaluation period:

- 1) ASO requests and receives appraisals from the DOE-HQ Program Organizations that fund significant Science and Technology work at ANL.
- 2) ASO develops a single rating for the ANL-E Science and Technology Program based on the evaluations that were received from the DOE-HQ Program Offices. A final rating for the ANL-E Science and Technology Program is developed by weighting each DOE-HQ Program rating by the level of funding provided by that Program Office.
- 3) A separate rating is developed for ANL-W based on the sponsor's evaluation of the Science and Technology work performed at ANL-W. A final rating for the ANL-W Science and Technology Program is developed by weighting each DOE-HQ Program rating by the level of funding provided by that Program Office.
- 4) ASO prepares an attachment to this Report that summarizes the ANL-E and ANL-W Science and Technology performance rating.

3.0 Data Sources for ASO Evaluation:

The University of Chicago Self-Assessment and the individual ratings of ANL performance against the Performance Measures and System Assessment Measures are key data to the ASO evaluation. Validation of the performance measures data is also performed by ASO. For the performance evaluations in the areas of operations, input comes from the ASO staff, CH functional divisions and offices that support ASO in oversight of particular laboratory functions, as well as from HQ functional units.

ASO has primary responsibility for evaluating the University of Chicago performance under the Mission Critical Operations and General Operations categories, with the exception of Science and Technology. The DOE-HQ Program Offices have primary responsibility for evaluating the University of Chicago performance under the Science and Technology category. Table 1 and

Table 2 of the ASO Annual Evaluation Report list all of the functional areas and the adjectival ratings assigned by both ASO and University of Chicago for FY-04. ASO has responsibility for preparing the Annual Evaluation Report and determining the total fee to be awarded based on the individual ratings.

Input to the Science and Technology summary appraisal was solicited from sources having a significant interface with the University of Chicago and ANL. Input from DOE-HQ Program Offices has been solicited by ASO for providing feedback and rating ANL programs. Where possible, consolidated input for a single program was requested at the DOE Assistant Secretarial level. The University of Chicago also conducts peer reviews for Science and Technology and this information is made available to DOE-HQ.

4.0 Rating System

For FY-04, adjectival ratings were:

Outstanding	Significantly exceeds the standard of performance; achieves noteworthy results.
Excellent	Exceeds the standard of performance. Although there may be room for improvement in some elements, better performance in all other elements more than offset this.
Good	Meets the standard of performance. Deficiencies do not substantively affect performance.
Marginal	Below the standard of performance; deficiencies are serious and may affect overall results: management attention and corrective action are required.
Unsatisfactory	Significantly below the standard of performance; deficiencies are serious, may affect overall results, and urgently require senior management attention.

The Standard of Performance is that which is reasonably expected of Management and Operating Contractors on the basis of applicable orders and regulations and on observations of the performance of comparable R&D organizations. It includes, for example, making effective use of sound management judgment, administrative, and business practices within existing funding constraints.

Attachment B

DOE-HQ Program Office Evaluations

Attachment C

List of University of Chicago Peer Review Reports

List of University of Chicago Peer Review Reports

University of Chicago Reviews for ANL Conducted in FY-2004

<u>Programmatic Reviews</u>
Energy Technology
Physics
High Energy Physics
Chemistry
<u>Business Systems</u>
Plant Facilities and Services

Attachment D

Selected Performance Reports and Comments

Note: For FY-04, there are no additional performance reports or comments beyond those included in the report above.

Attachment E
Fee Calculations

(FY-04 CALCULATIONS)

**Attachment E
Fee Calculation**

A. Science and Technology Part I – Argonne East (55% of the fee)

The Office of Science provided a consolidated rating of “Outstanding” for the Science and Technology work that they sponsored at ANL-E. ASO agrees with this rating.

B. Science and Technology Part II - Argonne West (10% of fee)

The Science and Technology Program at ANL-W is evaluated separately. The Office of Nuclear Energy, Science, and Technology (NE) is the primary sponsor for ANL-W. The NE rating for ANL is an “Outstanding”. ASO agrees with this rating.

C. Fee Calculation (Using the performance ratings)

Outstanding for Science and Technology (ANL-E and ANL-W) (65%)	\$ 2,002,000
Excellent for Contractor Management (5%)	\$ 138,600
Outstanding for Integrated Safety Management (20%)	\$ 616,000
Outstanding for Infrastructure (10%)	\$ 308,000

Total earned fee for FY-04 is: \$ 3,064,600

Attachment E
System Assessment Measure Rating

Attachment E Fee Calculation - System Assessment Measures

<u>Number</u>	<u>Functional Area</u>	<u>Rating</u>	<u>Weight</u>	<u>Score</u>
Business Management				
3.a	Counterintelligence	4	0.06	0.24
3.b	Cyber Security	4	0.08	0.32
3.c	Diversity	3	0.1	0.3
3.d	Financial Management	4	0.1	0.4
3.e	Human Resources	4	0.1	0.4
3.f	Information Management	4	0.04	0.16
3.g	Integrated Safeguards and Security	2	0.1	0.2
3.h	Legal Management	4	0.06	0.24
3.j	Personal Property	4	0.1	0.4
3.k	Procurement	4	0.1	0.4
Stakeholder Relations				
4.a	Communications and Trust	3	0.08	0.24
4.b	Technology Transfer	4	0.08	0.32
Total		44 out of 48	1.0	3.62

Final Score is: 3.62)

The final rating for the System Assessment Measures (General Operations) is: 3.62 for an "Outstanding" rating.

where:

- Outstanding = 4
- Excellent = 3
- Good = 2
- Marginal = 1
- Unsatisfactory = 0