



# **DOE Office of Science**

*FY 2008*

*Performance Evaluation of Iowa State University  
for the Management and Operations  
of the Ames Laboratory*

**January, 2009**

## **Table of Contents**

<b>I. OVERALL SUMMARY RATING/FEE.....</b>	<b>1</b>
<b>II. SCIENCE AND TECHNOLOGY PERFORMANCE (GOAL 1).....</b>	<b>5</b>
<b>III. MANAGEMENT AND LEADERSHIP (GOAL 4).....</b>	<b>14</b>
<b>IV. ENVIRONMENT, SAFETY, &amp; HEALTH (GOAL 5).....</b>	<b>19</b>
<b>V. BUSINESS SYSTEMS AND RESOURCES (GOAL 6) .....</b>	<b>28</b>
<b>VI. OPERATING AND MAINTAINING FACILITIES (GOAL 7).....</b>	<b>41</b>
<b>VI. SAFEGUARD AND SECURITY &amp; EMERGENCY MANAGEMENT (GOAL 8).....</b>	<b>49</b>

## **I. OVERALL SUMMARY RATING/FEE**

### Performance-Based Score and Adjectival Rating:

The basis for the evaluation of Iowa State University management and operations of the Ames Laboratory during FY 2008 centered on the Objectives found within the following Performance Goals:

- 1.0 Provide for Efficient and Effective Mission Accomplishment (Quality, Productivity, Leadership, & Timeliness of Research and Development)
- 2.0 Provide for Efficient and Effective Design, Fabrication, Construction and Operations of Research Facilities
- 3.0 Provide Effective and Efficient Science and Technology Research Project/Program Management
- 4.0 Provide Sound and Competent Leadership and Stewardship of the Laboratory
- 5.0 Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health, and Environmental Protection
- 6.0 Deliver Efficient, Effective, and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)
- 7.0 Sustain Excellence in Operating, Maintaining, and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs
- 8.0 Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems

Each Performance Goal was composed of two or more weighted Objectives and most Objectives had a set of performance measures, which assisted in determining the Contractor's overall performance in meeting that Objective. Each of the performance measures identified significant activities, requirements, and/or milestones important to the success of the corresponding Objective. The following describes the methodology utilized in determining the Contractor performance rating.

Each Objective within a Goal was assigned a numerical score by the evaluating office. Each evaluation measured the degree of effectiveness and performance of the Contractor in meeting the Objective and was based on the Contractor's success in meeting the set of Performance Measures/Targets identified for each Objective as well as other performance information available to the evaluating office from other sources to include, but not limited to, the Contractor's self-evaluation report, operational awareness (daily oversight) activities; "For Cause" reviews (if any); other outside agency reviews (OIG, GAO, DCAA, etc.), and the annual 2-week review (if needed). If no performance measures/targets were utilized the description of the general expectations for the success of the objective was utilized as the baseline of the effectiveness and performance of the Contractor in meeting the corresponding Objective and in determining the score assigned. The Goal score was then computed by multiplying the numerical score by the weight of each Objective within a Goal. These values were then added together to develop an overall score for each Goal. This score was then compared to Table A to determine the overall grade for each Goal. A set of tables is provided at the end of each Performance Goal section of this document to assist in the calculation of Objective scores to the Goal score. The raw score (rounded to the nearest hundredth) from each calculation was carried through to the next stage of the calculation process. The raw score for Science and Technology and Management and Operations was rounded to the nearest tenth of a point for utilization in determining fee as discussed below. A standard rounding convention of x.44 and less rounds down to the nearest tenth (here, x.4), while x.45 and greater rounds up to the nearest tenth (here, x.50).

Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Total Score	4.3-4.1	4.0-3.8	3.7-3.5	3.4-3.1	3.0-2.8	2.7-2.5	2.4-2.1	2.0-1.8	1.7-1.1	1.0-0.8	0.7-0

**Table A. FY 2008 Contractor Letter Grade Scale**

Based on the evaluation of Iowa State University performance against the Goals and Objectives contained within the FY 2008 Performance Evaluation and Measurement Plan (PEMP) the scores and corresponding grades awarded for each are provided within Table B below. Specific information regarding the Contractor's performance in meeting each of the Goals and their corresponding Objectives is provided within Section II of this report.

S&T Performance Goal	Numerical Score	Letter Grade	Weight	Weighted Score	Total Score
1.0 Mission Accomplishment	3.4	B+	67%	2.29	
2.0 Design, Fabrication, Construction and Operations of Facilities	N/A		N/A		
3.0 Science and Technology Research Project/Program Management	3.7	A-	33%	1.22	
<b>Total Score</b>					<b>3.5</b>
M&O Performance Goal	Numerical Score	Letter Grade	Weight	Weighted Score	Total Score
4.0 Leadership and Stewardship of the Laboratory	3.4	B+	20%	.68	
5.0 Integrated Safety, Health, and Environmental Protection	3.8	A	30%	1.14	
6.0 Business Systems	3.5	A-	20%	.70	
7.0 Operating, Maintaining, and Renewing Facility and Infrastructure Portfolio	3.4	B+	20%	.68	
8.0 Integrated Safeguards and Security Management and Emergency Management Systems	3.4	B+	10%	.34	
<b>Total Score</b>					<b>3.5</b>

**Table B. FY 2008 Contractor Evaluation Score Calculation**

Performance-Based Fee Earned:

Utilizing Table B, above, the scores for each of the Science and Technology (S&T) Goals and Management and Operations (M&O) Goals were multiplied by the weight assigned and these were summed to provide an overall score for each. The percentage of the available performance-based fee that was earned by the Contractor was determined based on the overall weighted score for the S&T Goals (see Table B.) and then compared to Table C. below. The overall numerical score of the M&O Goals from Table B. was then utilized to determine the final fee multiplier (see Table C.), which was utilized to determine the overall amount of performance-based fee earned for FY 2008 as calculated within Table D. Performance Fee available this period is \$335,000. Based on the overall performance within the S&T and M&O Goals the Contractor is awarded \$314,900 in performance based fee for FY 2008.

Overall Weighted Score from Table A.	Percent S&T Fee Earned	M&O Fee Multiplier
4.3	100%	100%
4.2		
4.1		
4.0	97%	100%
3.9		
3.8		
3.7	94%	100%
3.6		
3.5		
3.4	91%	100%
3.3		
3.2		
3.1		
3.0	88%	95%
2.9		
2.8		
2.7	85%	90%
2.6		
2.5		
2.4	75%	85%
2.3		
2.2		
2.1		
2.0	50%	75%
1.9		
1.8		
1.7	0%	60%
1.6		
1.5		
1.4		
1.3		
1.2		
1.1		
1.0 to 0.8	0%	0%
0.7 to 0.0	0%	0%

Table C. - Performance-Based Fee Earned Scale

<b>Overall Fee Determination</b>	
<b>Percent S&amp;T Fee Earned from Table C.</b>	<b>94%</b>
<b>M&amp;O Fee Multiplier from Table C.</b>	<b>100%</b>
<b>Overall Earned Performance-Based Fee</b>	<b>\$314,900</b>

**Table D. – Final Percentage of Performance-Based  
Fee Earned Determination**

## **II. PERFORMANCE GOALS, OBJECTIVES, AND MEASURES/TARGETS**

### **1.0 Provide for Efficient and Effective Mission Accomplishment (Quality, Productivity, Leadership, & Timeliness of Research and Development)**

This Goal measures the degree to which the Contractor produces high-quality, original, and creative results that advance science and technology; demonstrates sustained scientific progress and impact; receives appropriate external recognition of accomplishments; and contributes to overall research and development goals of the Department and its customers.

The weight of this Goal is 67.00%.

The "Provide for Efficient and Effective Mission Accomplishment" Goal measured the overall effectiveness and performance of the Contractor in delivering science and technology results which contributed to and enhanced the DOE's mission of protecting our national and economic security by providing world-class scientific research capacity and advancing scientific knowledge by supporting world-class, peer-reviewed scientific results, which were recognized by others.

The overall score assigned to Goal 1 is 3.4, which equates to a grade of B+. The two evaluating program offices sponsoring research at Ames Laboratory are: Office of Basic Energy Sciences (BES); and Office of Workforce Development for Teachers and Scientists (WDTS). BES is the largest sponsor, providing 98.8% of the total funding.

The following Goal 1 summary input was provided by each Program Office:

#### **BES – Weighted Score: 3.4 / B+**

Materials sciences research programs in materials discovery, metamaterials, and quasicrystals have demonstrated sustained leadership, while the activities in the mechanical behavior and synthesis and processing science program need to develop a program vision that is compelling in its scientific and programmatic scope. Chemical sciences research programs in computational chemistry, catalysis and chemical transformations, chemical physics, and separations and analysis continue to be productive and are well recognized nationally.

#### **WDTS – Weighted Score: 3.4 / B+**

The Ames science education office has managed the undergraduate intern program and the educator professional development for four years. They have been successful each year and demonstrated significant improvement in FY 2008. The key component to these efforts is the mentor intern collaboration. In addition to the WDTS Journal of Undergraduate Research, WDTS funded interns have co-authored papers with their mentor researcher and have published in The Journal of Chemical Physics, Nature Physics, Inorganic Chemistry, and others. Intern and educator research experience are well validated through participant surveys and laboratory self-assessment. The DOE ACTS program is managed in a cohesive three year plan covering physics, chemistry, and earth sciences. Educators are required to develop lesson plans and validate that they have improved methods and content to be improved science educators. The collaboration was successful in all cases as validated by the quality of co-authored research papers, abstracts, poster presentation, and mentor and intern surveys. Intern surveys, along with weekly review by laboratory education staff, confirmed that the overall program was educational and rewarding. Interns and educators gain a full appreciation for the DOE science infrastructure and career opportunities available

1.1 Science and Technology Results Provide Meaningful Impact on the Field

The following input for Objective 1.1 was provided by each Program Office:

**BES – Score/Grade: 3.3/ B+**

The BES Materials Sciences and Engineering (MSE) Division Condensed Matter Physics and Materials Chemistry programs were reviewed in FY 2007, and action items as a result of that review continued in FY 2008. The review generally found the research performed to be very good, with close interactions among experimental, synthesis, and theory efforts in the programs. However, the review showed that the Ames Laboratory program could be improved by organizing the activities along major scientific themes. At the conclusion of the review, the laboratory was directed to develop a long term plan to re-organize the program into several scientifically coherent Field Work Proposals (FWPs) with dedicated leaders. Ames laboratory completed the reorganization, and laboratory funding was redirected into the new FWPs.

The Mechanical and Physical Behavior and Synthesis and Processing programs were reviewed in FY 2007. The principal finding was that while the reorganized programs encompassed several grand challenges in topics that Ames Laboratory is particularly qualified to investigate, the laboratory had not fully realized the successful implementation of a world-class DOE laboratory program, as there were substantive negative comments concerning the scientific quality, approach, and leadership in a number of projects. The projects are scheduled to be reviewed again in FY 2009. Continuation of the program will be determined based on demonstrated excellence in scientific accomplishment, a compelling vision, and effective program leadership

The Materials Preparation Center (MPC) supported by the MSE Division continued to be the premier facility in the world for the preparation of high-purity rare-earth based materials. Peer review in FY 2007 highlighted a major shortcoming of the facility--it lacked a research agenda to develop and expand its capabilities and extend the state of the art in materials synthesis. There was also concern as to the vision, opportunities, and progress on this front. The FY 2007 review recommended the integration of the MPC FWP with the Rational Growth, Control and Modification of Novel Materials FWP. The scientific research effort in the latter FWP and the infrastructure of the MPC are clearly complementary to each other, and their integration is expected to strengthen both. This project will be included in the FY 2009 review.

Two programs supported by the BES Chemical Sciences, Geosciences, and Biosciences (CSGB) Division were reviewed in FY 2008. The Separations and Analysis program was reviewed on site in May 2008. The review was postponed for two months due to an initially unacceptable Review Document and the need to significantly alter the future research and staffing plans. These issues arose due to a sudden change in status of the distinguished senior investigator, who retired from Iowa State University. The reviewers rated the previous and current work in this program to be excellent, with praise for its productivity and field-leading scientific approaches and results. The future evolution of the program was endorsed, but cautiously. The newly proposed scientific thrusts were judged to be exciting, but the new investigators will require significant mentoring from laboratory management and from the senior investigator as he transitions to retirement at the end of the next three-year funding cycle.

A relatively new program, "Mass Spectrometric Imaging of Plant Metabolites," which is jointly supported by the Separations and Analysis and Physical Biosciences programs, was reviewed for the first time during the same site visit. It was assessed favorably based on strong leadership, reasonable progress, and a refocusing of the goals toward selected energy-relevant plant metabolites. This program was affected by the staffing change noted above, though in this case there are personnel on the project who are ready to assume strong leadership. Ongoing CSGB Division programs in Catalysis Science and Chemical Physics were not reviewed in FY 2008; they continued to be productive and well recognized nationally.



**WDTS – Score/Grade: 3.4/ B+**

Educators and undergraduates are teamed with excellent mentors and are involved in mission oriented research. Ames research interns are recognized for their accomplishments by having papers accepted by scientific journals, presenting at AAAS, and having posters presented at The Science & Energy Research Challenge (SERCh) which features 100 top science students from colleges and universities around the country, including historically black colleges and universities and minority education institutions.

1.2 Provide Quality Leadership in Science and Technology

The following input for Objective 1.2 was provided by each Program Office:

**BES – Score/Grade: 3.3/ B+**

Several research areas supported at Ames by the MSE Division were deemed to be world-leading as determined by the most recent program review and include: computational materials science, magnetism, photonic band gap materials, polymers, and quasi-crystals. New projects in soft materials and bioinspired materials were becoming world-leading efforts because they effectively couple the Ames Laboratory's long-standing strength in hard materials with the high-level biology expertise at Iowa State University. In FY 2008, Ames was a major source of new materials and, more importantly, a source of scientific expertise in materials synthesis and discovery. This makes the laboratory a major force in producing exciting new crystals needed for neutron scattering and in the characterization of such materials using the new and upgraded BES neutron and synchrotron sources. However, based on the FY 2007 review, the Scattering Sciences effort should more fully engage with U.S. scattering facilities in order to enhance their scientific and instrumental competencies.

The Mechanical and Physical Behavior and Synthesis and Processing programs identified several grand challenges in topics that Ames Laboratory is particularly qualified to investigate, such as disordered materials and rare earth metallurgy. As reflected in the FY 2007 peer review, more efforts are needed to ensure the successful implementation of a visionary, world-class research program. These projects are scheduled to be reviewed again in January 2009.

The senior principal investigators supported by in the CSGB Division programs had national and international recognition that resulted in strong productivity and significant publications in FY 2008.

**WDTS – Score/Grade: 3.4/ B+**

Research abstracts and papers are judged as excellent by science educators and headquarters program manager review of laboratory process and procedures via. annual laboratory self-assessment.

The education staff is committed to process improvement and providing a quality experiential learning experience for all participants.

1.3 Provide and sustain Science and Technology Outputs that Advance Program Objectives and Goals

The following input for Objective 1.3 was provided by each Program Office:

**BES – Score/Grade: 3.7/ A-**

The activities supported by the MSE Division continued to produce a large number of excellent quality, peer reviewed journal articles. The program frequently reported research accomplishments.

The quantity and quality of CSGB Division research outputs in peer-reviewed journals was deemed fully acceptable by peer review. The initial failure to produce a Review Document along BES guidelines in the FY 2008 Separations and Analysis review was notable as an unsatisfactory scientific output, i.e., a proposal not suitable for review that required revision based upon CSGB Division guidance.

**WDTS – Score/Grade: 3.4/ B+**

Students and educators are positioned to assist one other collaboratively in producing research abstracts and full papers. They work as teams to develop skills in poster presentations, power points, and others tools required to effectively communicate science accomplishments.

Ames is a champion of Science Bowl and uses that opportunity to present the laboratory as a trusted partner to its local community in addition to showing laboratory careers as an achievable, rewarding goal.

Met Expectations - Please see overall summary description above (1.0).

#### **1.4 Provide for Effective Delivery of Science and Technology**

The following input for Objective 1.4 was provided by each Program Office:

**BES – Score/Grade: 3.7/A-**

The activities supported by the BES Materials Sciences and Engineering Division have been effective in transmitting the results to the community.

BES chemistry research programs have been effective and efficient in meeting scientific objectives and milestones, as measured by peer review; the programs have been responsive to requests from BES for information and research highlights.

**WDTS - Score/Grade: 3.4/ B+**

Selection of research mentors is a priority consideration and pairing interns with a strong knowledge base appropriate for select research is a carefully managed process at Ames and is a key component of success.

Science Program Office	Letter Grade	Numerical Score	Weight	Weighted Score	Overall Score
<b>Office of Basic Energy Sciences</b>					
1.1 Impact	B+	3.3	50%	1.65	
1.2 Leadership	B+	3.3	20%	.66	
1.3 Output	A-	3.7	15%	.56	
1.4 Delivery	A-	3.7	15%	.56	
<b>Overall BES Total</b>					<b>3.42</b>
<b>Office of Workforce Development for Teachers and Scientists</b>					
1.1 Impact	B+	3.4	25%	.85	
1.2 Leadership	B+	3.4	30%	1.02	
1.3 Output	A	3.4	30%	1.02	
1.4 Delivery	A	3.4	15%	.51	
<b>Overall WDTS Total</b>					<b>3.40</b>

Table 1.1 – SC Program Office Performance Goal 1.0 Score Development

Science Program Office	Letter Grade	Numerical Score	Funding Weight (BA)	Weighted Score	Overall Weighted Score
Office of Basic Energy Sciences	B+	3.42	98.8%	3.38	
Office of Workforce Development for Teachers and Scientists	B+	3.40	1.2%	.041	
<b>Performance Goal 1.0 Total</b>					<b>3.4</b>

Table 1.2 – SC Program Office Overall Performance Goal 1.0 Score Development

**2.0 Provide for Efficient and Effective Design, Fabrication, Construction and Operations of Facilities**

**Note: GOAL 2.0 AND CORRESPONDING OBJECTIVES WERE NOT BE WEIGHTED OR ASSESSED FOR THE FY 2008 RATING PERIOD.**

2.1 Provide Effective Facility Design(s) as required to Support Laboratory Programs

2.2 Provide for the Effective and Efficient Construction of Facilities and/or Fabrication of Components

2.3 Provide Efficient and Effective Operation of Facilities

2.4 Utilization of Facility to Grow and Support Lab's Research Base

Science Program Office	Letter Grade	Numerical Score	Weight	Weighted Score	Overall Score
Office of Basic Energy Science					
2.1 Provide Effective Facility Design(s)	N/A		0%		
2.2 Provide for the Effective and Efficient Construction of Facilities and/or Fabrication of Components	N/A		0%		
2.3 Provide Efficient and Effective Operation of Facilities	N/A		0%		
2.4 Utilization of Facility to Grow and Support Lab's Research Base	N/A		0%		
<b>Overall BES Total</b>					

Table 2.1 – SC Program Office Performance Goal 2.0 Score Development

Science Program Office	Letter Grade	Numerical Score	Funding Weight (BA)	Weighted Score	Overall Weighted Score
Office of Basic Energy Science	N/A		0%		
<b>Overall Program Office Total</b>					

Table 2.2 – SC Program Office Overall Performance Goal 2.0 Score Development

### **3.0 Provide Effective and Efficient Science and Technology Research Project/Program Management**

This goal measures the degree to which the Contractor provides effective program vision and leadership; strategic planning and development of initiatives; recruits and retains a quality scientific workforce; and provides outstanding research processes, which improve research productivity.

The weight of this Goal is 33%.

The "Provide Effective and Efficient Science and Technology Research Project/Program Management" Goal measured the Contractor's overall leadership in executing S&T programs. Dimensions of program management covered included: 1) providing key competencies to support research programs to include key staffing requirements; 2) providing quality research plans that take into account technical risks and identify actions to mitigate risks; and 3) maintaining effective communications with customers to include providing quality responses to customer needs.

The overall score assigned to Goal 3 is 3.7, which equates to a grade of A-. The two evaluating program offices sponsoring research at Ames Laboratory are: Office of Basic Energy Sciences (BES); and Office of Workforce Development for Teachers and Scientists (WDTS). BES is the largest sponsor, providing over 98% of the total funding.

The following Goal 3 summary input was provided by each Program Office:

#### **BES – Weighted Score: 3.7/ A-**

The laboratory is at a transition stage with new senior leadership team. While there has been very encouraging progress in formulating a program with strong strategic vision and thematic efforts with clearly identified leaders, further improvements are needed for strategic planning at the institution level. Retention of key staff and recruitment of new staff in several research areas are positive signs; the laboratory was directed to make personnel recruitment a sustained strategic priority.

#### **WDTS – Weighted Score: 3.3 / B+**

Science knowledge transfer from mentor to mentee is validated by coauthored peer reviewed abstracts required of all interns. Interns are provided an excellent laboratory experience with technical support to accomplish their research, technical writing support to complete publishable research papers, and fully integrate into the laboratory culture. Ames has goal is to encourage and prepare students to pursue a career at a DOE laboratory.

#### **3.1 Provide Effective and Efficient Stewardship of Scientific Capabilities and Program Vision**

##### **BES – Score/Grade: 3.7/ B+**

The MSE Division supported program needs to improve on strategic planning at the institutional level. The laboratory started its transition to formulate multi-disciplinary programs which demonstrate a strong strategic vision, thematic efforts with clearly identified leaders, compelling scientific grand challenges, and synergy among research groups following BES guidance. The laboratory hired a new lab director in 2008 and restructured the MSE Division program. A new lab-coordinator was appointed. The new Director and the lab-coordinator have worked closely with BES to restructure the Condensed Matter Physics and Materials Chemistry programs, by organizing them around major scientific themes.

**Ames management presented a reasonably clear and well-defined vision for CSGB Division programs and the synergy among them in recent BES management reviews.**

**WDTS – Score/Grade: 3.3/ B+**

The staff at Ames' educational program is a highly motivated well managed team that works continually to integrate science education and workforce development into the research mission of the laboratory. It is a program office that is gaining prestige within the laboratory as a result of the effectiveness and commitment of the staff.

3.2 Provide Effective and Efficient Science and Technology Project/Program Planning and Management

**BES – Score/Grade: 3.7/ A-**

The new Ames Laboratory management team improved its responsiveness to BES requests, and was effective with frequent communications along properly defined management lines regarding programs supported by the MSE Division. Programs supported by the CSGB Division were generally responsive and communicated well, though occasionally not through the appropriate laboratory manager point of contact.

**WDTS – Score/Grade: 3.3 B+**

Ames does a complete self-assessment each year as required by WDTS. They are very credible in listing their strengths and weaknesses and then focusing resources to eliminate weak spots

3.3 Provide Efficient and Effective Communications and Responsiveness to Customer Needs

**BES – Score/Grade: 3.7 A-**

The new Ames Laboratory management team improved its responsiveness to BES requests, and was effective with frequent communications along properly defined management lines regarding programs supported by the MSE Division. Programs supported by the CSGB Division were generally responsive and communicated well, though occasionally not through the appropriate laboratory manager point of contact.

**WDTS – Score/Grade: 3.4/ B+**

The educational office and its staff are excellent advisors and collaborators with WDTS as we moves to improve program components, and help meet laboratory needs.

Science Program Office	Letter Grade	Numerical Score	Weight	Weighted Score	Overall Score
Office of Basic Energy Sciences					
3.1 Effective and Efficient Stewardship	A-	3.7	40%	1.48	
3.2 Project/Program Planning and Management	A-	3.7	30%	1.11	
3.3 Communications and Responsiveness	A-	3.7	30%	1.11	
<b>Overall BES Total</b>					<b>3.70</b>
Office of Workforce Development for Teachers and Scientists					
3.1 Effective and Efficient Stewardship	B+	3.3	20%	.66	
3.2 Project/Program Planning and Management	B+	3.3	40%	1.32	
3.3 Communications and Responsiveness	B+	3.4	40%	1.36	
<b>Overall WDTS Total</b>					<b>3.34</b>

Table 3.1 – 3.0 SC Program Office Performance Goal 3.0 Score Development

Science Program Office	Letter Grade	Numerical Score	Funding Weight (BA)	Weighted Score	Overall Weighted Score
Office of Basic Energy Sciences	A-	3.70	98.8	3.66	
Office of Workforce Development for Teachers and Scientists	B+	3.34	1.2%	.04	
<b>Performance Goal 1.0 Total</b>					<b>3.7</b>

Table 3.2 – SC Program Office Overall Performance Goal 3.0 Score Development

#### **4.0 Provide Sound and Competent Leadership and Stewardship of the Laboratory**

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

The weight of this Goal is 20%.

The overall score assigned to Goal 4 is 3.4, which equates to a grade of B+

As in the previous year, no specific and quantifiable targets were established for Goal 4.0 due to the subjective nature of this goal and the uniqueness and originality of leadership, strategic planning, and management activities. This Goal is shared and evaluated by both the program Offices and the Site Office. No specific written comments were received from the Program office, however some of the comments written above in Goals 1 & 3 reflect the views of the Program office that overflow to this Goal.

Overall, the Government is pleased with the progress made in Leadership and Stewardship since the addition of a new Laboratory Director in January 2008. Communications improved with Headquarters. The Ames re-organization better aligns with HQ programs and better integrates science work within Ames. Ames is on the upward trend for Leadership, strategic planning and Corporate Support. This was the first year with the new director and re-organization, and the positive results of these major changes are expected to come to fruition over the next couple of years.

##### **Highlights of Accomplishments**

- The new Laboratory Director has a background in Materials Science and Engineering & significant experience in leading educational and research organizations.
- The Director now reports to the ISU Executive VP/Provost which elevated the visibility of the Ames Laboratory at ISU. This will provide better focus to determine the needs of the Lab when hiring faculty.
- The Laboratory Director hired a new Assoc. Director for S&T, and created a new position, Assist. Director for Scientific Planning. Along with the Dep. Director, these two have increased and better integrated the level of planning and guidance for Laboratory science efforts which will further support the mission of DOE.
- The new Assist. Director for Scientific Planning established a strategic planning committee to develop a long term strategic plan for the science mission at the Laboratory. The committee is developing a 5-year strategic plan in consultation with the Executive Committee and the Ames Laboratory Oversight Board.
- In consultation with DOE, the Lab initiated a comprehensive reorganization of three existing programs (MEP, CMP, MCBMM) into one new program (DMSE). This new program provides enhanced ties to DOE program offices and more visibility to the research efforts at Ames.
- In FY2008, 14% of Ames publications involved collaborations with other National Laboratories. In total 27% of the publications involved U.S. collaborations outside of Ames Laboratory and ISU, and 38% of the papers involved international collaborations.



- **The new Division Director for Science and Technology worked to improve the consistency and timeliness of discussions with HQ.**
- **ISU management participated in scientific and operational reviews at the Laboratory during FY2008, showing corporate support.**
- **ISU and Laboratory management continued to identify positions that could be shared jointly and ISU management has made a financial commitment to leverage DOE's efforts to modernize the Laboratory. There were five new joint appointees.**
- **Access to ISU's ES&H training and facilities is ongoing and continues to be valuable through efficiencies and site-wide effectiveness that comes from access to the Contractor's level of resources. ISU has increased its oversight of the Laboratory's safety program by monthly participation in the Laboratory's Independent Walk-throughs.**

4.1 Provide a Distinctive Vision for the Laboratory and an Effective Plan for Accomplishment of the Vision to Include Strong Partnerships Required to Carry Out Those Plans **Score/Grade: 3.3/B+**

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

- Quality of the Vision developed for the Laboratory and effectiveness in identifying its distinctive characteristics;
- Quality of Strategic/Work Plan for achieving the approved Laboratory vision;
- Quality of required Laboratory Business Plan;
- Ability to establish and maintain long-term partnerships/relationships that advance/expand ongoing Laboratory missions and/or provide new opportunities/capabilities; and
- Effectiveness in developing and implementing commercial research and development opportunities that leverage accomplishment of DOE goals and projects with other federal agencies that advances the utilization of Laboratory technologies and capabilities

**The following sections include the specific measures for this Objective. Ames has met all of these objectives. There were no major concerns or issues and no further evaluation text is necessary. Some notable activities were included in the Goal summary section above. A few additional comments are noted by the particular measure.**

- 4.1.1 The Contractor provides effective strategic guidance and support for Ames Laboratory's science programs and operations, strengthening core competencies and strengthen the Laboratory into the future.
- 4.1.2 The Contractor and Laboratory Senior Leadership develop and promote scientific initiatives and seek opportunities to further support the DOE mission consistent with the Laboratory's stated vision. **The new Assistant Director for Scientific Planning established a strategic planning Committee to develop a long term strategic plan for the science mission.**
- 4.1.3 The Contractor and the Laboratory develop new, and strengthen existing, mutually beneficial partnerships with key government, industry, university and other Laboratory partners.
- 4.1.4 The Laboratory Business Plan provides all required data in a clear and concise manner and is completed within established guidelines and schedules. **Several suggestions for improvement were made at the meeting to make the Plan clearer.**

- 4.1.5 The Contractor and Laboratory seek opportunities for public outreach thru science education in concert with DOE and community outreach activities. **Ames did an excellent job in their student education outreach programs. This measure has been exceeded.**
- 4.1.6 Develop a baseline for understanding and trending the cost of doing business.
- 4.1.6.1 To meet the target (B+), identify and bin major laboratory costs identifying direct and indirect labor FTEs and costs as well as various operating costs, such as utilities, by December 31, 2007. The cost structure and associated baseline cost of doing business is sufficiently detailed (i.e., including all funding and costs, both direct and indirect with associated FTEs) so the laboratory and site office have a common understanding of how the money is spent and the various cost drivers that effect the laboratory's cost of doing business. **Ames Laboratory met this target. Opportunities for indirect cost reduction remain as a challenge for Ames as costs in other areas rise.**

4.2 Provide for Responsive & Accountable Leadership Throughout the Organization **Score/Grade: 3.3/B+**

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

- Leadership's ability to instill responsibility and accountability down and through the entire organization; and
- The effectiveness and efficiency of Leadership in identifying and/or responding to Laboratory issues or opportunities for continuous improvement.

The weight of this Objective is 30%.

**The following sections include the specific measures for this Objective. Ames has met all of these objectives. There were no major concerns or issues and no further evaluation text is necessary. Some notable activities were included in the Goal summary section above. A few additional comments are noted by the particular measure.**

- 4.2.1 The Contractor Senior Leadership is responsive to resolving strategic issues that impact the overall performance of the Laboratory, if any. **ISU and Lab Leadership have been working together to develop improvements for the Laboratory including new areas of investigation. Also ISU is supporting the placement of the Metals Development Building on ISU land near the other Laboratory Buildings.**
- 4.2.2 The Contractor and Laboratory's Senior Leadership's response to Laboratory issues is timely and immediate mitigating actions are identified and implemented as appropriate.
- 4.2.3 Leadership proactively implements opportunities for improvement and maintains cognizance of corrective action plans, ensuring timely and effective implementation of corrections. **ISU actively participates on the newly established Information Technology Advisory Committee which develops opportunities for improvement on a regular basis.**
- 4.2.4 The Senior Management will ensure that commitments made during the RFP process (if applicable) and significant contractor commitments made to DOE during the current performance period are successfully accomplished as planned. **ISU is meeting their commitments made during the RFP process as well as supporting additional activities.**

4.3 Provide Efficient and Effective Corporate Office Support as Appropriate **Score/Grade: 3.6/A-**

The weight of this Objective is 35%.

**The following sections include the specific measures for this Objective. Ames has met all of these or exceeded these objectives. There were no major concerns or issues and no further evaluation text is necessary. Some notable activities were included in the Goal summary section above. A few additional comments are noted by the particular measure.**

- 4.3.1 The contractor participates in peer reviews of Laboratory science programs and provides for review of Laboratory business management and ES&H systems to feed the development of strategic guidance refine performance measures and assist with enhancing and improving the Laboratory's core competencies.
- 4.3.2 The Contractor works with the Laboratory to identify openings that could be filled with joint-appointees that would help strengthen the Laboratory and enhance core competencies, while supporting the mission of both institutions.
- 4.3.3 The Contractor exhibits willingness to consider innovative options, such as third party financing, to enhance and/or maintain the Laboratory. **Ames was very supportive of the ESCO project which completed the Detailed Engineering Survey during this assessment period. These projects using third party financing would reduce energy consumption by ~18%.**
- 4.3.4 The Contractor maintains cognizance of significant commitments made and assures their timely completion, while providing corporate expertise and "reach back". **ISU has been doing an excellent job in this area.**

ELEMENT	Letter Grade	Numerical Score	Objective Weight	Total Points	Total Points
<b>4.0 Effectiveness and Efficiency of Contractor Leadership and Stewardship</b>					
4.1 Provide a Distinctive Vision for the Laboratory and an Effective Plan for Accomplishment of the Vision to Include Strong Partnerships Required to Carry Out those Plans	B+	3.3	35%	1.16	
4.2 Provide for Responsive and Accountable Leadership throughout the Organization	B+	3.3	30%	.99	
4.3 Provide Efficient and Effective Contractor Support	A-	3.6	35%	1.26	
<b>Performance Goal 4.0 Total</b>					<b>3.41</b>

Table 4.1: 4.0 Goal Performance Rating Development

Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Total Score	4.3 - 4.1	4.0 - 3.8	3.7 - 3.5	3.4 - 3.1	3.0 - 2.8	2.7 - 2.5	2.4 - 2.1	2.0 - 1.8	1.7 - 1.1	1.0 - 0.8	0.7 - 0.0

Table 4.2 - Goal 4.0 Final Letter Grade Scale

## **5.0 Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health, and Environmental Protection**

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

The weight of this Goal is 30%.

The overall score assigned to Goal 5 is 3.8 which equates to a grade of A.

### **Highlights of Accomplishments**

- Of fifteen ES&H Targets in this area, fourteen were exceeded and one was met.
- The Laboratory has demonstrated an excellent ISMS and Quality Assurance Program. Formal reviews of the ISMS and Contractor Assurance Program identified only extremely minor opportunities for improvement. Both were found to be mature well implemented programs.
- Ames received a safety award from the Iowa-Illinois Safety Council for low incident rate and received the National Safety Council Occupational Excellence Achievement Award.
- The ISMS program has continued to grow and improve in the areas of worker involvement and senior management participation. Senior management (ISU & Laboratory) has actively participated in walk-throughs (100%), event evaluations, and readiness review process.
- The Laboratory has emphasized nanotechnology safety. Although, not chosen for a HSS review, the Laboratory's Internal Auditor completed a thorough review of work with nanoscale materials that identified several opportunities for improvement which are currently being implemented.
- The Laboratory has a functional Environmental Management System (EMS) in place. A review of the program found it to be fully integrated into the Laboratory's ISMS.
- Ten topical appraisals were completed during FY2008. The quality of the appraisals and the uniformity and format of the reports has improved from previous years.
- 48 Readiness Reviews were completed – the strength of the RR process is that it fosters open communication among personnel. Activity Supervisors work closely with the safety staff on the development of SOPs, verification of training, and resolution of any concerns prior to receiving Operational Approval.
- Training Office offered 173 ES&H classes and facilitated 550 individual computer based training sessions.
- Challenge remains to keep the safety records at excellent – need to remain “alert”.

5.1 Provide a Work Environment that Protects Workers and the Environment

**Score/Grade: 3.9/A**

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

- The success in meeting ES&H goals.
- Laboratory Management participation and level of involvements in goals.

The weight of this Objective is 35%.

**Ames Lab continues to have a strong safety culture and good safety record.**

**Ames Laboratory has achieved excellent safety performance during FY2008 and continues to promote effective and efficient safety management.**

- The Ames Site Office (AMSO) conducted a review of the Laboratory's Integrated Safety Management System (ISMS) in August and concluded that ISMS implementation is mature, effective, and consistent across the Ames Laboratory.
- The Laboratory systematically integrates safety into management and work practices in a way that protects the worker, the environment and the public.
- The Laboratory director recognizes the importance of upper management involvement in a successful safety program and demonstrates strong leadership through active involvement in walk-throughs and safety oversight.
- The Laboratory's line management understands its safety responsibilities and supports a workplace where safety is an important component of continued mission success.
- The Laboratory is responsive to opportunities for improvement identified by AMSO oversight processes and utilizes comprehensive internal feedback and issue management elements of its management and assurance system to strengthen operational effectiveness.
- The Ames Laboratory Operations Review Committee met four times in FY2008. The oversight function is focused on laboratory operations, and includes safety and cyber security. ISU also continues to participate in Laboratory walk-throughs, inspections, reviews, and training.

5.1.1 The Contractor's success in reducing serious illnesses and injuries as measured by the days away, restricted or transferred (DART) case rate.

Days Away, Restricted, or Transferred (DART) Case Rate – the number of cases of an injury or illness case where the most serious outcome of the case, as identified on the OSHA Form 300 columns H or I, resulted in days away from work or days of job restriction or transfer x 200,000 (100 employees working 40 hours per week for 50 weeks per year) / the actual number of hours worked. The SC DART Goal for 2008 = 0.25.

5.1.1.1 Target B+                      0.25

**Due to small numbers, there is not much room for Ames to stay within this target, but they did. They slightly exceeded the percentage. The Ames DART Case Rate is 0.24 (1 case and ~820,000 hours). The one case resulted when a Facilities Services craftsperson experienced an injury to his back as he reached for a hand scoop while preparing to mix mortar.**

5.1.2 The Contractor's success in reducing accidents, illnesses and injuries as measured by the total reportable case rate (TRCR).

Total Recordable Case Rate - The number of all occupational illnesses and occupational injuries resulting in loss of consciousness, restriction of work or motion, transfer to another job, or require medical treatment beyond first aid x 200,000 (100 employees working 40 hours per week for 50 weeks per year) / the actual number of hours worked. The SC TRCR target for 2008= 0.65.

5.1.2.1 Target B+ 0.65

**Ames exceeded this target. The Ames TRCR Case Rate is 0.24 (1 case and ~820,000 hours). The one case resulted when a Facilities Services craftsperson experienced an injury to his back as he reached for a hand scoop while preparing to mix mortar.**

5.1.3 The number of reportable occurrences related to environmental compliance.

5.1.3.1 Target - No more than a single environmental compliance occurrence that meets the thresholds for ORPS reporting at a significance category level 1, 2, or 3 will be considered a B+.

- **The target has been exceeded. There have been no reportable releases or spills to the environment.**
- **No reportable instances were recorded as a result of monthly reviews for waste management and environmental issues according to the Laboratory's Event Reporting Plan.**
- **No environmental compliance issues that meet the ORPS thresholds were observed during routine waste pick-ups or Independent Walk-throughs.**

5.1.4 Completion of corrective actions related to ES&H reviews and reportable events, as designated and agreed to by the Laboratory and Ames Site Office within the scheduled due date. All changes in scheduled due dates must be agreed to by Ames Site Office.

5.1.4.1 Target - No more than 2 corrective actions not completed as scheduled

**All corrective actions related to reportable events and ES&H reviews for FY2008 have been completed as scheduled. The corrective actions pending in the coming months are anticipated to be completed on time.**

5.1.5 The strength of the Laboratory's Independent Walk-through Program, as measured by performance of walk-through of laboratory spaces by a team of safety specialists, with participation by Senior Management.

5.1.5.1 To meet target expectations (B+), Senior Laboratory Management (Laboratory Director, Deputy Director, Division Directors, and or Associate Director(s)) participates in 100% of Walkthroughs. Senior Laboratory Management participation and level of involvement with the identification and correction of deficiencies will be considered for meeting higher levels of performance.

**Senior Laboratory management representatives have not only participated on 100% of the Independent Walk-Throughs, but they continue to add value by identifying concerns, communicating the need to effectuate appropriate and timely corrective actions, and demonstrating support for a safe and healthful workplace. The walk-throughs have been an**

**effective mechanism for the new Director to become familiar with the Laboratory's spaces and interact with laboratory staff, while communicating new ideas for safety, such as thermal shielding for a cryogenic system.**

5.1.5.2 To meet target expectations (B+), inspections of 100% of the Laboratory space is completed during FY 2008.

- **Walk-throughs have been completed for all of the Ames Laboratory programs and departments, as well as spaces leased to non-Ames Laboratory research activities.**
- **Also the addition of safety specialist from ISU's EH&S office provide a new perspective to the walk-through team**
- **An annual walk-about (exterior of building and spaces) was performed in October 2007, including sidewalks, parking lots, and yards. This effort has been undertaken for the past three years, and corrective actions have been completed. No high or moderate ranked issues were identified by the current review.**

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

**Score/Grade: 3.8/A**

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

- The commitment of leadership to strong ES&H performance is appropriately demonstrated;
- The maintenance and appropriate utilization of hazard identification, prevention, and control processes/activities; and
- The degree to which scientists and workers are involved and engaged in the ES&H program at the bench level.

The weight of this Objective is 35%.

5.2.1 Commitment to hazard awareness is demonstrated by employee completion of required ESH training.

5.2.1.1 To meet the target expectation (B+), 90% of mandatory ES&H re-training is completed on time.

- **A review of 47 mandatory Environment, Safety and Health (ES&H) modules that required retrain indicated an average completion rate of 98%. Thirty-nine modules were above a 95% completion rate; six modules were between 90% to 94%; and two modules were below 90% completion. However, the two modules (AL-144 & AL-165) that were below 90% were brought to 100% compliance as of October 10, 2008.**
- **Training Needs Questionnaires (TNQs) continue to automatically generate for each employee, once the individual checks in with the Laboratory's Human Resources Department. Outstanding TNQs are followed up on a quarterly basis. An employee's TNQ may be modified due to a new working group, a readiness review or by a supervisor assigning an employee to a new work activity.**
- **General Employee Training (GET) is mandatory for all Laboratory employees; therefore, the Laboratory's Human Resources Office registers employees for a GET session upon check-in. To**



provide flexibility for employees, GET Classes are offered weekly and are scheduled six-months in advance.

- **Emergency Awareness Training (EAT) Forms are automatically generated once the employee checks-in with the Human Resources Office. EATs are then sent directly to Safety Coordinators so that they or a designee can administer this important safety training. Outstanding EATs are followed up on a quarterly basis.**
- **The mechanisms described above help ensure that these key modules are reviewed and tracked; however, several other processes are utilized to ensure that all training modules are completed to allow employees to conduct their work activities safely and effectively. First, the results of the Training Needs Questionnaire produce an Employee Training Profile (ETP). The ETPs are sent to both the employee and the employee's supervisor to allow them to register for all identified training. Moreover, the Training Office maintains a web site with the Laboratory's Training Schedule, a Training Catalog and a summary listing of trainings that have an associated retrain period. Training is also revisited at the time of annual performance evaluations. ETPs and Training Action Plans are mailed to all evaluating supervisors for all the individuals that they supervise. This practice allows supervisors to make any updates to an individual's ETP.**

5.2.2 Completion rate of concerns identified during the Annual Independent Walk-through are corrected within scheduled time period.

5.2.2.1 To meet the target expectation (B+), 90% of the concerns identified during the Annual Independent Walk-through are corrected within the scheduled time period.

**All of the programs and departments have corrected 100% of the identified findings of the walk-throughs performed within the scheduled times.**

5.2.3 The strength of the Laboratory's program to improve safety systems as measured by the quality and number of Topical Appraisals of ES&H.

5.2.3.1 To meet the target expectation (B+), internal topical appraisals are completed annually to address issues identified and agreed to by the Laboratory and Ames Site Office.

- **After consideration of the trends observed in Laboratory events and audit findings, and lessons learned from other facilities, the Ames Site Office Facility Representative and the Ames Laboratory ESH&A Manager agreed to a list of subjects for FY2008's Topical Appraisals. The table below represents this list and summarizes the status of the appraisals as Completed, Pending, or In Process.**
- **Ten appraisals were completed during FY2008. Four Topical Appraisals for Safeguards and Security, Cyber Security and Emergency Management are described in Section 8.0.**
- **The quality of the appraisals and the uniformity of the reports have improved from previous years. Also a standard report format has been established and conclusions about finding are more clearly presented.**

5.2.4 Repeat findings are minimized by effective causal analysis and corrective action development and implementation.

5.2.4.1 To meet the target expectation (B+) repeat findings do not account for more than 7% of all internal and external appraisal findings.

- **Ames conducts a thorough annual trend analysis, as detailed in the Trend Analysis section of this self-assessment write-up. No repeat findings from the internal and external appraisals have been identified.**
  - 5.2.5 The strength of the Laboratory's processes to plan work safely as measured by completion and/or updating of Readiness Reviews.
    - 5.2.5.1 To meet target expectation (B+), 100% of 5-year Readiness Reviews are completed by the scheduled review date and in all cases prior to work resumption of inactive activities.
- **Thirty-nine (39) 5-year reviews and nine (9) new reviews were conducted for a total of forty-eight (48). All were completed by the scheduled review date and prior to work resumption of inactive activities. NOTE: Several Readiness Reviews will be re-opened in FY2009 as a result of an internal audit of the Laboratory's use of nanoscale materials.**
- **The strength of the Readiness Review process is that it fosters open communication amongst laboratory personnel. Activity Supervisors work closely with safety professionals on the development of standard operating procedures, verification of completion of training and resolution of any concerns prior to the activity receiving Operational Approval.**
- **As research continues, Activity Supervisors are more likely to discuss new hazards associated with the work with the designated ESH&A Lead Specialist, or other safety professionals.**
- **Readiness Review also facilitates effective communication between the safety office and other entities such Facilities Services, Engineering Services, Occupational Medicine and Iowa State University's Environmental Health & Safety department, as specialists discuss control strategies.**
  - 5.2.5.2 Target -Work processes identified via the Annual Independent Walk-through and observations are cross-referenced with existing Research activities approved by the Laboratory's Safety Review Committee through the Readiness Review and activity reviews, and documentation is updated accordingly.
- **No work processes have been identified via walk-throughs or observations that have not been reviewed via Readiness Review.**
- **The Independent Walk-through is mechanism by which Laboratory safety specialists increase their awareness of on-going approved activities through operational experience. Likewise, researchers have an opportunity to ask for additional advice on identification and control of potential hazards.**
  - 5.2.6 The Laboratory implements effective systems of reporting ESH concerns and conducting causal analyses.
    - 5.2.6.1 To meet target (B+), all ORPS and Price Anderson Amendment Act (PAAA) concerns and events are reported consistent with requirements and within the specified time periods.
- **Sixty-seven events have been categorized.**
- **One event was a CAIRS Reportable injury, as an injury resulted in lost and restricted workdays.**
- **One (1) event in the first quarter of FY2008 was categorized as ORPS Reportable in which the fire alarm annunciators did not activate from the Plant Protection Station override switch during an annual fire drill. Two (2) ORPS Reportable Events occurred in the third quarter of FY2008. On April 23<sup>rd</sup>, suspect/counterfeit bolts were discovered on a powered lift. The lift was**

taken out of service, the bolts were replaced, and all other powered lifts were inspected, as well. On May 16<sup>th</sup>, a deviation to a Safety Analysis Document procedure was reported. Too large a cylinder of hydrofluoric acid was installed on a research apparatus. The system was taken off-line, the large cylinder was removed and replaced with a suitably sized cylinder. One (1) ORPS Reportable Event occurred in the 4<sup>th</sup> quarter of FY2008. On July 7<sup>th</sup>, a HVAC air diffuser fell from an air duct onto an unoccupied desk causing no injury.

- Thirty-nine events were categorized as Ames Local (ORPS, NTS, ISC or CAIRS).
- Twenty-three were categorized as Not Reportable (below the local tracking threshold).
- The Event Reporting Procedure was reviewed and enhanced 8-1-08 to include Worker Safety and Health under the categorization of Ames Local Events to ensure proper trending is performed. Retraining of screening and categorization team was preformed.
- Additional source of data, such as topical appraisals and audit results provide addition opportunities to examine the Laboratory's operations for identification of system weaknesses.
- All ORPS and PAAA events were reported consistent with the requirements and within the specified time periods. In addition, the corrective actions resulting from these events were tracked in the ALCATS System, and all were completed on time.
- The Laboratory's Event Reporting Program exceeds DOE requirements and the target of this measure.

5.2.7 The Laboratory will conduct quarterly forums with safety specialists from Iowa State University's Environment Health and Safety Department and Laboratory staff representatives (such as principal investigators, graduate students, merit employees, and hourly workers) to discuss safety program improvements and share lessons learned from DOE and the Contractor and other academic institutions.

5.2.7.1 To meet target (B+), the Laboratory will conduct quarterly forums as described above. The implementation of program improvements and the sharing of lessons learned from the forums will be considered for attaining higher levels of performance.

- Forums were held in December, March and July (another scheduled for October). Topics discussed included the effectiveness of safety training, the status of housekeeping in the laboratories, the effectiveness of the waste management program, methods for ensuring compliance with PPE requirements, and a review of notification mechanisms when chemical hoods need to be fully operational overnight.
- The forums are mechanisms by which immediate employee feedback can be received in a non-adversarial fashion.
- Employees are encouraged to share both positive and negative interactions with safety processes. This interaction allows the safety professional an opportunity to explain how a particular program works and /or hear suggestions as to how improvements can be made.

### **5.3 Provide Efficient & Effective Waste Management, Minimization, & Pollution Prevention**

**Score/Grade: 3.8/A**

In measuring the performance of this Objective, the DOE evaluator(s) shall consider the Efficiency and Effectiveness of efforts to minimize the generation of waste. The weight of this Objective is 30%.

5.3.1 Success in ongoing efforts to reduce hazardous waste.

5.3.1.1 To meet the target (B+), all new activities will be specifically reviewed for waste minimization efforts. These reviews will be documented in the individual Readiness Reviews.

- **New activities reviewed for this reporting period had little potential for hazardous waste reduction as projected waste volumes are in milliliter quantities.**
- **Established activities are reviewed for potential waste minimization activities during 5-year review and waste generation activities are continuously review through examination of waste pick-up and overall quantities..**
- **Chemical reuse within the Laboratory and through identification of other company's ability to reuse chemical has made it possible to avoid waste declaration.**
- **The Laboratory's hazardous waste generation is 346 kg below last year's total for this reporting period, therefore indicating continued success of waste minimization.**
- **Based on the review of new activities and 5-year reviews, the on-going efforts to reduce waste, and the overall reduction of hazardous waste generated, Ames has exceeded expectations.**

ELEMENT	Letter Grade	Numerical Score	Objective Weight	Total Points	Total Points
5.0 Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health, and Environmental Protection					
5.1 Provide a Work Environment that Protects Workers and the Environment	A	3.9	35%	1.37	
5.2 Provide Efficient and Effective Implementation of Integrated Safety, Health and Environment Management	A	3.8	35%	1.33	
5.3 Provide Efficient and Effective Waste Management, Minimization, and Pollution Prevention	A	3.8	30%	1.14	
<b>Performance Goal 5.0 Total</b>					<b>3.84</b>

**Table 5.1 – Goal 5.0 Performance Rating Development**

Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Total Score	4.3 - 4.1	4.0 - 3.8	3.7 - 3.5	3.4 - 3.1	3.0 - 2.8	2.7 - 2.5	2.4 - 2.1	2.0 - 1.8	1.7 - 1.1	1.0 - 0.8	0.7 - 0.0

**Table 5.2 - Goal 5.0 Final Letter Grade Scale**

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

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

Deliver Efficient, Effective, and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s) Goal shall provide business systems that efficiently and effectively support the overall mission of the Laboratory Goal; shall measure the Contractor's overall success in deploying, implementing, and improving integrated business system that efficiently and effectively support the mission(s) of the Laboratory.

The weight of this Goal is 20%.

The overall score assigned to Goal 6 is 3.5, which equates to a grade of A-

**Highlights of Accomplishments**

- Budget Validation by ISC-CH had no findings and completed in one day.
- STARS reports submitted early all year. Zero billing errors.
- Recognition from ISC-CH on helping the Department obtain an unqualified opinion for the FY07 DOE Audit.
- Gross Licensing income from funded inventions was \$6.8 M
- The total WFO level of non DOE funding for FY2008 was over \$3M. The timely submission and accurate supporting documentation submitted to AMSO and Intellectual Property Law (IPL) resulted in unprecedented completion rates for Technology Transfer approvals from DOE.
- Tech Transfer Office uses their approved standard CRADA and WFO agreements and works with CH-IPL to resolve IP issues early in the process when non-standard terms are contemplated. TTO continues to exceed IPL's expectations in this area.
- Exceeded both Procurement and Property Balance Score card targets.
- Overall average score for the Human Resources Customer Service Survey was 4.7 on 5.0 scale.
- Pilot mentoring program was developed to target critical positions and early career employees.
- Twelve science press releases in 2008 exceeded target of five by 140 percent.
- Meetings between Director and members of Iowa's congressional delegation and other key officials.
- Public Affairs/Management developed an Ames Laboratory Brand, "Creating Materials and Energy Solutions", a set of core values and a positioning statement.
- Ames Laboratory's logo has been changed to reflect closer association with the Department of Energy. -- Logo now carries the words "United States Department of Energy" under Ames Laboratory on the logo.
- The Laboratory continues to focus IM efforts on the HP3000 conversion, which has been identified as a critical issue due to the discontinuation of HP support. Significant progress was

been made on the next steps identified in the FY 2008 IM Plan. One of two planned specific network infrastructure improvements was completed and several other network infrastructure enhancements were made. Two of the three planned Server Enhancements were completed while work is underway on the third.

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

Score/Grade: 3.5/A-

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

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

The weight of this Objective is 30%.

6.1.1 Budget formulation documents are submitted in a high quality and timely manner.

6.1.1.1 To meet the target (B+), the Laboratory submits their FY2010 budget in accordance with format, content, and schedule prescribed by DOE. The DOE annual budget validation reports no significant findings.

- **The FY2010 Annual Budget Submission was submitted in a high quality and on time.**
- **The DOE Annual Budget Validation was performed by DOE CH finance with no findings reported**
- **Due to the excellent advanced preparation of documentation by the Ames Laboratory Budget Office staff, the budget validation team was able to complete the validation process in approximately one day.**
- **The Budget Officer is involved in meetings to discuss the DOE-SC budget formulation software – Searchable FWP. Implementation should start approximately November 1.**
- **The Budget Office has been instrumental in the development of new FWP budgets associated with the reorganization of MEP, CMP and MCBMM into on group - DMSE.**
- **Budget and Accounting have helped DOE Finance with the effort to move all WFO funding into new funds. This has involved setting up new projects, confirming old balances, moving monies between funds in the contract, reassigning staff and materials to the new projects and many more tasks involving a great deal of time and effort.**

6.1.2 Demonstrate an effective financial management system through external/internal reviews, surveys, and inspections as well as routine communication with AMSO and CH.

6.1.2.1 To meet the target (B+), there are no significant findings. Any minor findings are corrected in an effective and timely manner.

**The laboratory has submitted their monthly summary reports early and successfully on the first workday. STARS submissions have been submitted by noon on the second workday. These activities are notable in that there have been significant changes in reporting requirement during FY 2008 which were successfully implemented by Ames Lab with little intervention by the CFO**

There have been no material or significant audit findings at Ames Lab even in light of more robust and sustained audits by OIG and KPMG.

We have received erroneous payment reports. The erroneous payment report is an OMB Circular A-123 requirement in which field offices have to monitor the labs number of payments, dollar amount of payments, number of erroneous payments and dollar amount of erroneous payments made for payroll, travel, and vendor/contractors. When the number of erroneous payments exceed 1 ½% of total payments, a corrective action plan has to be submitted. For FY 2008, Ames has made \$30,940,318 of payments with only \$13,984 being classified as erroneous. This equates to .045% which is well within the threshold of 1 ½%.

As in past years, the Ames financial representatives have been very cooperative in responding to various financial requests.

6.1.3 Contractor billings should conform to signed Work For Others agreements in that total billing should not exceed agreement amounts, funding expiration dates should be observed, and closeouts should be initiated promptly upon completion of work.

6.1.3.1 To meet the target :

1. Zero billing errors on non-corporate/interoffice invoices.
2. 100% of the Laboratory WFO agreements must initiate closeout procedures within 45 days after work is completed, unless being negotiated for extension.
3. Un-liquidated advances will be returned to the sponsor no later than 60 days after receipt of the final contract modification that has de-obligated these funds.

The Accounting and Budget Offices work together to set up new WFO projects, monitor WFO balances, invoice correctly and closeout projects in a timely manner. Where possible, the Laboratory obtains advance funding from the sponsor. If not available, funding is obtained from the Contractor or the work is not done.

There were 229 billing invoices prepared and sent in FY-2008 to non-federal sponsors. Of the 229 billings, 195 invoices were related to one-time sales of services performed by the Materials Preparation Center (MPC). The remainder is associated with for Work for Others (WFO) projects that typically involve multiple billings per project. The total cost of the MPC work was \$660,513.

Twenty-four WFO projects required 34 invoices, with \$892,962 total amount invoiced. In addition to these invoices, Ames Accounting prepared monthly analysis statements on each project to track prepayments, ensure costs did not exceed funding available, and report the final analysis of funds expended.

Closeout procedures have been initiated in less than 45 days on the WFO all projects closed during the fiscal year. To date, all of the un-liquidated advances have been returned to the sponsors of the all closed projects in under 60 days after the receipt of the final contract modification de-obligating the funds on completed projects.

- For non-corporate/interoffice invoices, there were zero billing errors.
- There were 229 billing invoices prepared and sent in FY-2008 to non-federal sponsors. Of the 229 billings, 195 invoices were related to one-time sales of services performed by the Materials Preparation Center (MPC). The remainder is associated with for Work for Others (WFO) projects that typically involve multiple billings per project.
- Twenty-four WFO projects required 34 invoices, with \$892,962 total amount invoiced. In addition to these invoices, Ames Accounting prepared monthly analysis statements on each



project to track prepayments, ensure costs did not exceed funding available, and report the final analysis of funds expended.

- Closeout procedures have been initiated in less than 45 days on the WFO all projects closed during the fiscal year.
- All of the un-liquidated advances have been returned to the sponsors of the all closed projects in under 60 days after the receipt of the final contract modification de-obligating the funds on completed projects.

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

**Score/Grade: 3.4/B+**

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

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

The weight of this Objective is 10%.

- **The review conducted of the Laboratory's Personal Property Management Program found that it provided effective control over government owned property in accordance with DOE requirements. It also identified ongoing efforts to upgrade the system to cost effectively meet the Laboratory's operational goals.**
- **The Procurement Office has shown a high degree of cooperation with DOE. The Procurement staff has consistently presented timely and accurate documentation. The Procurement Office has shown great proficiency in supplying large amounts of data request to the DOE HQ office and/or the Ames Site Office.**

6.2.1 Demonstrate effective acquisition and property management systems through mechanisms such as external/internal reviews, surveys, inspections and ongoing communication with the AMSO and the Chicago Office.

6.2.1.1 To meet the target (B+), there are no significant findings. Any minor findings are corrected in an effective and timely manner.

**The Purchasing Department regularly meets with customers, interacts with local business, and management to assure that products purchased meet the necessary levels of quality. The surveys verified a 100% customer satisfaction in the services and products ordered.**

Ames Lab's Purchasing Department has partnered with Iowa State University's Center for Industrial Research and Services (CIRAS). Within CIRAS is the Procurement Technical Assistance Program (PTAP) that helps promote interaction between Iowa based Small Businesses and Local, State and Federal Purchasing Offices. One of the CIRAS events was conducted in Des Moines this spring that focused on Small Disadvantaged Businesses (SDB). DOD, GSA, State of Iowa and City of Des Moines buyers met with SDB vendors to assist them with the correct processes and informing them on the types of materials and services that are needed. The Purchasing Department has accepted an invitation from CIRAS to participate in a Fall event to focus on Service Disabled Veteran Owned Small Businesses.

The review conducted of the Laboratory's Personal Property Management Program found that it provided effective control over government owned property in accordance with DOE requirements. It also identified ongoing efforts to upgrade the system to cost effectively meet the Laboratory's research mission. However the assessment identified a few areas where compliance with DOE requirements needed to be enhanced. As a result the assessment report identified several recommendations, which the Laboratory addressed in a timely manner.

**Issues/Opportunities for Improvement**

An external review was conducted by the Procurement Executive Review Team (PERT). The review did not identify any major deficiencies but did recognize needed areas of improvement such as but not limited to:

**Establish a Consistent File Documentation Procedure.**

**Memorandums to File need to address basic information about the purchase process.**

**Establish a formalized clause review system for the Laboratory's Subcontracting Terms and Conditions.**

6.2.2 Perform Procurement Balanced Scorecard evaluation in accordance with the FY 2008 Balanced Scorecard Plan.

6.2.2.1 To meet the target, the Laboratory successfully meets at least 11 of the BSC targets.

**Ames Lab exceeded FY 2008 Procurement Balance Scorecard (PBS) target levels. The Laboratory successfully met 13 of the 14 core measures within the PBS. Below is an example of a PBS target that was exceeded:**

**For Effective Internal Controls, the Laboratory continues to maintain a high rate of compliance. The Laboratory's Procurement Department followed a self-imposed 16 item checklist on purchases above \$20K. The checklist intertwined DOE and the Contractors procurement processes, policies and procedures. The checklist ensured an effective compliance process throughout the Purchasing Department procurement process. The contractor has consistently exceeded the established target for this goal.**

6.2.3 Perform Property Balanced Scorecard evaluation in accordance with the FY 2008 Balanced Scorecard Plan.

6.2.3.1 To meet the target (B+), the Laboratory successfully meets at least 90% of the BSC targets.

**The Laboratory met 12 of 13 Property BSC target goals applicable to the Laboratory's property program for a score of 92%, which met our expectations. Notable accomplishments are a 100% find rate on sensitive item inventory and very high rate on the equipment inventory BSC elements.**

6.3 Provide an Efficient, Effective, and Responsive Human Resources Management System and Diversity Program

**Score/Grade: B+/3.4**

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

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

The weight of this Objective is 10%.

6.3.1 Effectiveness of HR systems processes and services as validated through the use of a customer service survey.

6.3.1.1 Target - Feedback on the effectiveness and efficiency of the new-hire and termination processes is between 4 and 4.5 on a 5-point scale.

**The overall average score for the customer service survey was 4.7. In summer of 2008, Ames Laboratory Human Resources conducted two surveys to assess the effectiveness of the Check-in (new hire) and Check-out (termination) Processes utilized by the Ames Laboratory Human Resources.**

**As indicated in the self-assessment, survey information received exceeded the 4.5 level of customer satisfaction. There were comments received on the Check-out process that are outside of HR that appeared to be in line with suggestions for expediting the process. These comments were being shared with the departments that would be responsible for further action.**

6.3.2 Demonstrate effective compensation management through alignment with DOE compensation standards.

6.3.2.1 To meet the target (B+), provide a description and self assessment of the Ames compensation program relative to the compensation standards below:

- Method for planning and monitoring the expenditure of funds;
- Method for ensuring compliance with applicable laws and regulations;
- System for communicating the program to employees;

**Information in both the self-assessment and supplemental information from the Lab's HR Director provides adequate information to support that these three DOE compensation standards are adequately met given the situation where the HR program is closely integrated with that of Iowa State University (ISU). The Lab HR Director is an active participant in new employee orientation so as to reinforce to staff that there is a separate HR office for the Laboratory. However, Lab-specific information is not developed/published to supplement ISU policy with the exception of the Ames Laboratory Pension Plan that went into effect concurrent with contract award in 2007. The two HR staffs on campus work jointly serving on standing and ad hoc committees as well as assuring consistent interpretation and application of policies and procedures. For example, the Ames Lab recently assisted in the training of a new ISU HR staff member relative to scientific qualification and promotion criteria interpretation since the Ames Lab and IPRT populations represent approximately one third of the scientist on campus.**

**Concurrent with the arrival of the Director (1/08) emphasis has been placed on linking performance to compensation. The compensation standard in the FY07 PEMP review is highlighted for further validation. A team has been appointed to review protocols in place to formally evaluate scientific performance goals/objectives by individual that will result in pay increases being linked to performance evaluation. The outcome will be evaluated during FY09. In addition, the final**

**compensation standard; i.e. System for internal controls and self-assessment will be evaluated. During FY09 final validation of the last four compensation standards and linking pay to performance will take place, a final report of the compensation system will be issued that will include a determination on certification.**

6.3.3 Maintains a systematic approach to the recruiting and retention of new talent from diverse populations.

6.3.3.1 To meet the target (B+), the level of diversity obtained within recruitment pools for advertised positions will be reviewed by race and gender and will show an increase of at least 25% over the last performance period.

**The lab provided a table which analyzes the applicants for each job category by race and gender for FY 2008 and FY 2007. The analysis indicates that the applicant pool did increase slightly by 2% for Females (+2) and 2% for Blacks (+1), while the percentage of Asian applicants increased by 6% (-1). While the applicant pool indicates a slight increase in diversity, the target of a 25% has not been met. However, the number of applicants significantly decreased which definitely impacted achieving the target. As they have indicated, this decrease in applicants combined with more applicants who self-reported their minority status, has skewed the numbers. The small number of applicants and the fact that they continue outreach efforts via advertisements is taken into consideration when determining the target grade.**

6.3.3.2 To meet the target (B+), at least 85% of hiring managers/supervisors will complete the University's "Invite Diversity" online training module prior to initiating the hiring process at least once every two years.

**The contractor assessment provided indicates that there were 15 positions filled in 2008. Three of those positions were outside of the regular process. The hiring supervisors of the remaining 12 positions completed or had previously completed the online training module. It is noted that the lab will continue to require this training as it appears to have had positive results in increasing the diversity pools. The Laboratory met the target requirements.**

6.3.4 A mentoring program will be developed and implemented for critical positions within the lab with an emphasis on the professional development and mentoring of women and minorities.

6.3.4.1 To meet the target (B+), the mentoring program will be implemented and 30% of critical positions will be identified to participate.

**The lab has developed a pilot mentoring program, which has strong support from the lab director. They have clearly identified the purpose and the process to be followed for the mentoring program. They are well on the way to implementation of this program and the success can be evaluated during FY 2009. The target has been met.**

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

**Score/Grade: 3.6/A-**

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

- Demonstration of efficient and effective management systems support;
- The effectiveness of the management systems as validated by internal and external audits and reviews;
- The continual improvement of management systems through the use of results of audits, review, and other information; and

- The degree of knowledge and appropriate utilization of established system processes/procedures by Contractor management and staff.

The weight of this Objective is 30%.

6.4.1 Demonstrate effective Internal Audit and Oversight; Quality; Information Management (IM); and Other Administrative Support Services management systems through reviews, surveys and inspections.

6.4.1.1 To meet the target (B+) 90% of reviews, inspections, will have no notable areas of diminished performance. Areas examined will have little to no potential to adversely impact the performance being reviewed.

- **Internal Audit continues to maintain activities that encompass not only financial and managerial reviews, but also areas pertaining to Environmental, Safety and Health concern, issues pertaining to safeguarding of asset and compliance issues under the contract. Audit is also responsible for tracking issues discerned during the audit process to appropriate resolution. Albeit management has the responsibility for action on closing audit findings, Audit must verify that the action taken is timely, responsive to the nature of the audit concern and that appropriate and sufficient evidential matter has been retained to document the action taken.**
- **In the period since the prior report, fifteen actions have been tracked to resolution. These include areas of financial management, including property management and overall risk management for the laboratory, as well as a Human Resource related issue, Radiological Protection Program issues and follow up from a peer review in Internal Audit. Closed actions represent areas of enhancement for the Laboratory as a whole in terms of quality or compliance areas and thus are appropriate to recognize in this performance report, as relating to Laboratory performance.**
- **Closure of comments pertaining to adequate Risk Management by the Laboratory management. Responsive to these comments, Laboratory management assessed the residual risks in the various managerial areas and pronounced a Business Assurance Plan for the Laboratory.**
- **Several areas of remediation in the Radiological Protection Program (RPP), including appropriate document controls on Policies, Procedures and Plans, appropriate completion of forms for radiological material received by the Laboratory and enhanced procedures to ensure timely clean-up of contaminated areas, as found within the RSO's area of purview.**

6.4.2 Completion of corrective actions from reviews surveys and inspections in accordance with approved Corrective Action Plans.

6.4.2.1 To meet the target (B+), All areas requiring corrective action must be completed by the specified due date(s) and offer resolutions that are responsive to any cited incidence.

**The Internal Audit office continues to focus on providing effective and objective assurance and consulting services to the Ames Laboratory. Corrective Action Plans are monitored and tracked via two tracking systems, one for Internal Audit actions and the other for ES&H and Safeguards & Security corrective actions. Quarterly updates are produced from both systems to aid Management in monitoring actions to successful completion. Actions are not closed unless verified by Laboratory**

**Management and the Internal Auditor. The submission and completion of corrective actions have met the expectation of performance.**

In financial areas, a total of \$38,914,781.84 in assets, \$7,098,236.31 in liabilities and \$31,816,545.53 in equities were verified, in reviewing the accuracy of closing asset, liability and equity balances in the former contract with the DOE, # W-7405-ENG-82 and movement of these balances to the new DOE contract, #DE-AC02-A07CH11358, as included within Fiscal 2008 audit work.

In Fiscal 2008, Audit samples totaling over \$1,600,000 that covered various complex business systems (e.g., payroll, travel, credit cards and accounts payable) were reviewed in covering costs incurred under the former contract. Also, cost samples covering over \$1,400,000 have been reviewed to date on the current contract.

6.4.3 Percentage of unlimited-distribution technical reports, which are issued during the fiscal year, and are available to DOE-OSTI in full-text electronic form within 15 business days of Ames Laboratory receipt of publication notification.

6.4.3.1 To meet the target (B+), achieve 95% submission rate of published STI products.

**This target was reviewed during the mid-term and considered not applicable for the remaining period.**

6.4.4 The Laboratory provides effective tactical Information Technology (IT) planning in support of the Laboratory's mission and goals.

6.4.4.1 To meet the target (B+), FY 2008 IM plans are in alignment with the Laboratory's Operations and Infrastructure Strategic Plan; 2009 IM plan in place by September 30, 2008.

**The FY 2009 IM Plan was received on September 29, 2008, and identifies the planned major IM projects: HP3000 conversion, Deltek/Maximo Software Upgrades, Network Infrastructure Improvements and Server Enhancements. These projects are aligned with the Laboratory's Operations and Infrastructure Strategic Plan and support the mission of DOE. The target has been met.**

6.4.5 The IM Program provides cost effective products and improved services.

6.4.5.1 To meet the target (B+), IM accomplishments completed based on FY 2008 IM plans and demonstrate measurable improvement and cost effective IM services and products.

**The FY 2008 IM Plan included the HP 3000 Conversion, Network Infrastructure, and Server Enhancements projects. The Laboratory continues to focus IM efforts on the HP3000 conversion, which has been identified as a critical issue due to the discontinuation of HP support. Significant progress was been made on the next steps identified in the FY 2008 IM Plan. One of two planned specific network infrastructure improvements was completed and several other network infrastructure enhancements were made. Two of the three planned Server Enhancements were completed while work is underway on the third. These efforts results in improved IM services and products. The target has been met.**

6.4.6 IM products and services meet customer requirements as demonstrated by customer feedback.

6.4.6.1 To meet the target (B+), customer surveys indicate 85% of customers feel that the IM service provided is acceptable.

**Surveys were sent to 249 customers and of the 107 returned, 94% indicated the IM service provided is acceptable. Also, the IS staff received customer service training on February 21, 2008.**

6.4.7 The Laboratory addresses any science communication issues raised in the FY2007 appraisal.

6.4.7.1 To meet the target :

- Increase the number of science press releases (more than 5) it prepares and distributes
- Select 2 science spokespersons and implement a strategy to promote them outside of Iowa.
- Laboratory surveys employees on its “web” page for its effectiveness and implements any appropriate changes.

6.4.8 Laboratory Public Affairs develops/executes integrated communications plans

6.4.8.1 To meet the target:

The Laboratory develops a management communications plan to inform taxpayers nationwide of its accomplishments.

- **Ames develops a management communications plan to inform taxpayers nationwide of its accomplishments:**
- **Developed the Ames Laboratory brand, “Creating Materials and Energy Solutions.” Brand includes the tagline, a set of seven core values and a positioning statement.**
- **Unveiled Ames Laboratory “brand” to Lab employees at a roll-out ceremony in FY2008. Ames Laboratory’s logo has been changed to reflect closer association with the Department of Energy. -- Logo now carries the words “United States Department of Energy” under Ames Laboratory on the logo.**
- **Placed 51 news releases on their Web site in FY2008, which is a 19 percent increase over the 43 releases placed in FY2007.**
- **Produced 12 science news releases in FY2008, which is a 140 increase over FY2008 target of 5 science releases.**
- **Science press releases have been carried in 56 national and international publications and Web-based magazines. Some placements of note include Popular Mechanics, R&D Magazine, Automotive World, --Photonics Online, Magazine, Eureka Magazine, Materials Today and United Press International.**
- **Developed a new closing statement for news releases that includes the Lab’s new “positioning” statement.**
- **Inquiry magazine, the Laboratory’s science magazine, was expanded from 12 pages to 16 pages in FY2008 to accommodate more science stories. Publication is distributed nationally.**
- **Have contributed “green” stories from Ames Laboratory for a DOE-HQ initiative to promote green stories to national media in conjunction with Earth Day.**

The Laboratory prepares and executes a plan for internal and external communications related to transitioning from the current director to the new director. Also, Ames develops a management communications plan to inform taxpayers nationwide of its accomplishments.

**Internal:**

- **News release announcing new director appeared in conjunction with his arrival at Ames Laboratory in Jan. 2008. Release was distributed nationally.**

- Q&A with new director on his goals and vision was prepared for Insider, the Lab's monthly newsletter. Newsletter was routed to all Ames Laboratory employees.
- Ames Laboratory's factsheet and Web page were updated with information about the new director.
- The Director held his first State of the Laboratory address on May 19, 2008. The address coincided with the anniversary of the Ames Lab. The address is slated to become an annual event.
- Director began a bi-monthly e-mail to employees. E-mail covers a variety of pertinent topics. Also lists recent publications, congratulations, upcoming seminars, a "Did you Know?" Section and a Message archive.

**External:**

- Organized meetings between new director and key leaders from Congress. He also met with a representative from the Office of Management and Budget and a senior legislative assistant.
- New director met with a representative from the Ames Chamber of Commerce for an introductory meeting.
- Director has joined the Science Debate 2008, a grassroots initiative spearheaded by a growing number of scientists and other concerned citizens that calls for a Presidential debate on science and technology. Other supporters include the American Association for the Advancement of Science, the Council on Competitiveness, the National Academy of Sciences, the National Academy of Engineering, over 150 leading universities, including Iowa State University, and others.
- Director letter welcoming people to the Ames Laboratory Web site was prepared and put in place.
- Ames develops a management communications plan to inform taxpayers nationwide of its accomplishments

6.5 Demonstrate Effective Transfer of Technology and Commercialization of Intellectual Assets

**Score/Grade: 3.5/A-**

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

- The proper stewardship of intellectual assets and Laboratory owned or originated technology;
- The market impacts created/generated as a result of technology transfer and deployment activities; and
- Communication products contributing to the transfer of Laboratory originated knowledge and technology.

The weight of this Objective is 20%.

6.5.1 The Technical Transfer Program meets customer's expectations

- 6.5.1.1 To meet the target (B+), Technical Transfer performs customer surveys and takes appropriate action to analyze issues and implement improvements where needed.

The Technology Transfer Office (TTO) designed its customer service survey in accordance with DOE's customer survey under DOE G 481.1-1. TTO sent out two surveys and did not receive a completed survey from any of its customers. TTO also sent out follow-up e-mails, but still received no response.

Continual improvement of services by reviewing customer surveys is an effective approach to maintaining existing customers and winning new ones, especially if your goal is to create a strong word-of-mouth following. According to the self-assessment TTO distributed the surveys as they



**did last year by e-mail. They also followed-up to non-responsive survey request by mail and did not receive a response.**

6.5.2 Work For Others (WFO) projects received by the site office is consistent with DOE policies and strategic goals.

6.5.2.1 To meet the target (B+), internal systems and documentation provide adequate information to ensure that the nature of Technical Transfer activities is consistent with DOE goals, policies, and procedures. (System Validation)

**The total WFO level of non DOE funding for FY2008 was over \$3.M. The timely submission and accurate supporting documentation submitted by TTO to the Ames site office and Intellectual Property Law (IPL) resulted in unprecedented completion rates for Technology Transfer approvals from DOE.**

**TTO continues to utilize their approved standard CRADA and WFO agreements and works with CH-IPL to resolve IP issues early in the process when non-standard terms are contemplated. TTO continues to exceed IPL's expectations in this area.**

**The new work and continuing work at TTO is relevant to DOE's mission in the areas of energy (specifically in Ames' forte –materials discovery, synthesis and characterization), national security and homeland defense, human health and safety research and will complement and/or build upon ongoing basic and applied research at Ames.**

**Agreement information is input into the Laboratory's R&D database; the database is used to track our funded R&D and provide DOE information that is submitted to OSTI once a year (normally called for in early December for the previous year) for DOE's R&D database. This database tracks all research projects submitted through Ames Laboratory.**

6.5.3 Royalty income is used accordance with the DOE approved Royalty Use Plan and funds are accounted for and audited in accordance with requirements.

6.5.3.1 To meet the target (B+), identify how the total royalty income balance will be distributed among Science Research, Development, Technology Transfer, and Education, whether estimated or actual.

**The Lab continues to ensure that royalty income is used in accordance with the requirements set forth in the IG Audit on Royalty Income's Corrective Action Plan. The Lab continues to implement recommendations contained within the September '06 report including transferring many of the review functions previously performed by the Institute for Physical Research and Technology (IPRT) to various Ames Lab offices.**

ELEMENT	Letter Grade	Numerical Score	Objective Weight	Total Points	Total Points
<b>6.0 Deliver Efficient, Effective, and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)</b>					
6.1 Provide an Efficient, Effective, and Responsive Financial Management System(s)	A-	3.5	30%	1.05	
6.2 Provide an Efficient, Effective, and Responsive Acquisition and Property Management System(s)	B+	3.4	10%	.34	
6.3 Provide an Efficient, Effective, and Responsive Human Resources Management System	B+	3.4	10%	.34	
6.4 Provide Efficient, Effective, and Responsive Management Systems for Internal Audit and Oversight; Quality; Information Management; and Other Administrative Support Services as Appropriate	A-	3.6	30%	1.08	
6.5 Demonstrate Effective Transfer of Technology and Commercialization of Intellectual Assets	A-	3.5	20%	.70	
<b>Performance Goal 6.0 Total</b>					<b>3.51</b>

Table 6.1 – 6.0 Goal Performance Rating Development

Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Total Score	4.3 - 4.1	4.0 - 3.8	3.7 - 3.5	3.4 - 3.1	3.0 - 2.8	2.7 - 2.5	2.4 - 2.1	2.0 - 1.8	1.7 - 1.1	1.0 - 0.8	0.7 - 0.0

Table 6.2 - Goal 6.0 Final Letter Grade Scale

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

The Contractor provides appropriate planning for, construction and management of Laboratory facilities and infrastructures required to efficiently and effectively carry out current and future S&T programs.

The Sustain Excellence in Operating, Maintaining, and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs Goal shall measure the overall effectiveness and performance of the Contractor in planning for, delivering, and operations of Laboratory facilities and equipment needed to ensure required capabilities are present to meet today's and tomorrow's complex challenges.

The weight of this Goal is 20%.

The overall score assigned to Goal 7 is 3.4, which equates to a grade of B+, which is the high end of "meets expectations"

### **Highlights of Accomplishments**

- In Goal 7, about half of the targets, were exceeded or slightly exceeded, with the remaining being met. Difficulty of the targets were considered in how much weight it contributed to scoring.
  - 100% of scheduled energy requirements were accomplished per CEMP (Target 80%).
  - Energy use per gross square foot was 5.8% less than 2007 (Target 2%).
  - 11 Energy Efficient Products were purchased (Target 9).
  - 4.8% of electricity is purchased from a renewable source (Target 3%).
  - Maintenance Investment Index (MII) was 1.9% (Target 1.8%).
- The Laboratory corrected nearly \$64K of deferred maintenance deficiencies while only adding \$16K of newly identified deficiencies. (Escalation of existing deficiencies did add \$55K).
- Ames met their Facility Condition Index target at 2.4.
- Utilized a team approach to incorporate input from the research community to develop a draft Mission Needs Document for the Metals Development Building Replacement, which will provide the basis for the Critical Decision 0 request.
- Have worked with the Energy Services Company (ESCO) and Ames Site Office to define an Energy Savings Performance Contract to reduce energy use as much as 18%. They have already started to perform smaller energy savings projects that were recommended but too small for the ESCO to include in their scope of work.
- Effectively supported AMSO and the ESCO during the Initial Proposal & Detailed Engineering Survey phases.
- Incorporated the facility and infrastructure planning into the annual Laboratory Plan in a way that ties the facility needs to the mission of the Laboratory and its business lines.
- Completed an Executable Plan in accordance with guidance on schedule that describes the strategy and commitments that will enable Ames Laboratory to meet or exceed the TEAM goals.

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

**Score/Grade: 3.4/B+**

In measuring the performance of this Objective the DOE evaluator(s) considered the following:

- The management of real property assets to maintain effective operational safety, worker health, environmental protection and compliance, property preservation, and cost effectiveness while meeting program missions, through effective facility utilization, maintenance and budget execution;
- The day-to-day management and utilization of space in the active portfolio;
- The maintenance and renewal of building systems, structures and components associated with the Laboratory's facility and land assets; and
- The management of energy use and conservation practices.

The weight of this Objective is 80%.

7.1.1 The Maintenance Investment Index (MII) for the fiscal year associated with the performance period.

The MII, expressed as a percentage, is defined as the Actual operating expense funded Maintenance and Repair (M&R) Expenditures (at the end of the fiscal year associated with the performance period) divided by the Replacement Plant Value (RPV).

$$\text{MII} = \frac{\text{Actual Maintenance Expenditures}}{\text{RPV (\$)}}$$

7.1.1.1 MII Target for FY 2007 is 1.8

**End of Year Results: The measure has been met.**

<b>Actual Maintenance Expenditures</b>	<b>=</b>	<b>\$1,045,021</b>
<b>Replacement Plant Value (FY04)</b>	<b>=</b>	<b>\$54,693,346</b>
<b>Maintenance Investment Index</b>	<b>=</b>	<b>1.91%</b>

**Ames tracks maintenance expenditures and reports quarterly to the Ames Site Office and HQ in the Quarterly IFI Report on maintenance, deferred maintenance, excess, GPP and IGPP. Ames's maintenance program has been effective in keeping up on actual maintenance and reducing deferred maintenance. Ames was slightly over the Maintenance Investment Index target of 1.8 with a 1.91.**

7.1.2 The Facility Condition Index (FCI).

The FCI, expressed as a percentage, is defined as the Total Needed OE funded Maintenance and Repair (M&R) Deficiencies (at the end of the fiscal year associated with the performance period) divided by the Replacement Plant Value (RPV).

$$\text{FCI} = \frac{\text{Total Needed M \& R Deficiencies (\$)}}{\text{RPV (\$)}}$$

7.1.2.1 FCI Target for FY 2007 : 1.9 – 2.5

**The FCI target was met with a 2.4. Ames continues to do a good job in maintaining their facilities. Their maintenance program has been effective in reducing deferred maintenance levels and has kept the FCI on a downward trend.**

7.1.3 Effective execution of the goals within the Energy Performance Management Agreement.

7.1.3.1 To meet the target (B+), the Laboratory will complete 80% of the Energy requirements scheduled to be accomplished during the Fiscal Year in accordance with the Comprehensive Energy Management Plan (CEMP).

**Ames Laboratory exceeded this target and completed 100% (7 of 7) of the energy requirements scheduled to be accomplished during the Fiscal Year in accordance with the Comprehensive Energy Management Plan (CEMP).**

7.1.3.2 To meet the target (B+), energy use per gross square foot is 2% less than the previous year.

**Target was exceeded. For FY 2008, energy use per gross square foot was 5.8% less than FY 2007 more than the target reduction. Energy use decreased from 245,245 BTU/sq.ft. to 230,929 BTU/sq.ft. In addition, the FY 2008 energy use does not include a deduction for the Renewable Energy Credits (REC's) that were purchased. Guidance on the proportion of REC that can be deducted has not been received from the Office of Science. When reported in the EMS4 database, the deduction will be applied and the energy use reduction will be even greater. FY 2003 is the baseline for the energy reduction goals in EO13423. The FY 2008 energy use is 6.1% below the FY 2003 baseline.**

7.1.3.3 To meet the target (B+), The Laboratory demonstrates commitment to purchases of energy efficient products, including products with low standby power devices. Target to buy 7 – 9 products.

**Target was exceeded. Ames Laboratory purchased 11 energy efficient, low standby power devices in FY 2008. This was more than the goal of 7 – 9 products. The products included computers, scanners, printers, and all-in-one printers. It is likely that many more products were purchased that meet the low standby power requirements, but were not identified because of difficulty matching model numbers with the list and the limited number of models on the list.**

7.1.4 Establish a Site Metering Plan that identifies meters to be installed in accordance with the guidelines of the DOE Metering Plan.

7.1.4.1 To meet the target (B+), the Site Metering Plan is submitted by Aug 31, 2008.

**Target was met. Ames will have all the planned meters in place and completed by the 2012 target date Ames' plan calls for the installation of advanced electrical metering four buildings that meet the criteria for advanced meters. This includes three research buildings and the administrative services building. The smaller support and service buildings do not meet the criteria for advanced metering. The installation of the advanced electrical metering is expected to begin in FY 2009 and will be completed in FY 2010 under a capital improvement project.**

**Ames Laboratory presently meters natural gas and steam in all buildings while chilled water is metered at the site level. Once protocols are established for the advanced metering for these other utilities, a capital improvement project will be developed for procurement and installation of the new metering by FY 2012. The Lab met the target.**

7.1.5 Three percent (3%) of electricity purchased by the laboratory must be from renewable energy sources. (This can include Renewable Energy Certificates).

7.1.5.1 To meet the target (B+), 3% of electricity must be purchased from a renewable source.

**Target was exceeded. Ames Laboratory has purchased 4.96% of its electrical energy from a renewable energy source in the form of REC's, which exceeded its target. It should also be noted that the City of Ames Municipal Power Plant generates approximately 10% of its electricity from Refuse Derived Fuel, also a renewable source. However, since it is a part of the normally supplied energy portfolio and has been in place since before 1999, DOE guidance does not allow it to be included in the renewable energy goals.**

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

Measure

An update to the Ten Year Site Plan is developed and approved by DOE that adequately addresses the site's contribution to meeting the Agency wide goals of the Secretarial Transformational Energy Action Management (TEAM) initiative and the goals set forth in Executive Order 13423.

7.1.6.1 Target

To meet the target (B+), the plan is developed, submitted and acceptable to DOE by September 30, 2008.

**Target was met. Ames Laboratory completed and submitted their annual Laboratory Plan to DOE on April 20, 2008. This new document incorporates the old business plan and the Ten-Year-Site Plan as requested by DOE and was submitted on time.**

- The Plan presented the Laboratory's lines of business and proposed a doubling of the Laboratory's budget over the next ten years.
- The Plan provided support for DOE's Laboratory Modernization Initiative with proposals to replace Metals Development with a new research facility and for DOE's plan to reduce energy consumption with a plan to participate in an ESPC (18% projected energy savings) and replace a research building (12% or more energy savings).
- Ames Site Office and HQ are very supportive of the plan in regards to the business lines, the new initiatives, budget growth, the plan to improve research facilities and the plan to reduce energy consumption.

In addition to the Laboratory Plan, an Executable Plan was submitted to the Ames Site Office on time. The plan describes how the Laboratory will meet the TEAM Goals and, in the case of Energy Efficiency and Water Conservation, exceed the goals. The plan was reviewed and approved by the Ames Site Office with minor comments to be incorporated in next year's submission.

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

**Score/Grade: 3.6/A-**

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

- Integration and alignment of the Ten Year Site Plan to the Laboratory's comprehensive strategic plan;
- The facility planning, forecasting, and acquisition for effective translation of business needs into comprehensive and integrated facility site plans;
- The effectiveness in producing quality site and facility planning documents as required;
- The involvement of relevant stakeholders in all appropriate aspects of facility planning and preparation of required documentation;
- Overall responsiveness to customer mission needs; and
- Efficiency in meeting Cost and Schedule Performance Indices for construction projects (when appropriate).

The weight of this Objective is 20%.

7.2.1 Establish and maintain a program that provides for planning and acquiring the facilities and infrastructure required to support future laboratory programs.

Targets: 7.2.1.1 Implement Facility planning, forecasting, and acquisition activities accurately, translate needs and facility condition information into useful strategic plans;

Incorporated into 7.2.1.2 write-up

7.2.1.2 The Ten Year Site Plan and the Integrated Facilities Infrastructure (IFI) Budget are submitted according to the required schedule and demonstrate effective and realistic facility planning; and,

**Ames submitted the first annual Laboratory Plan which provides a closer tie between facility planning and laboratory mission plans. The plan, including the Integrated Facilities and Infrastructure Budget Crosscut, was submitted in April.**

- The Plan presented the Laboratory's lines of business and proposed a doubling of the Laboratory's budget over the next ten years.
- The Plan provided support for DOE's Laboratory Modernization Initiative with proposals which are supported by the Office of Science to replace The Metals Development Building planned for FY11 with a new research facility. The Plan also describes the Laboratory's contribution to DOE's TEAM goals through participating in an ESPC (18% projected energy savings) and replacing the Metals Development Building (12%).
- The plan incorporated input from the program directors as well as direction from the Executive Council. Each of the program directors was contacted to provide input regarding current or future deficiencies in the facilities that limit research and what facility improvements would enhance research capability.
- DOE was very receptive to the plan in regards to the business lines, the new initiatives, budget growth, the plan to improve research facilities and the plan to reduce energy consumption.

**Ames strong emphasis on planning has included broad stakeholder input which is being incorporated into the planning process for the SLI Modernization Initiative project to replace the Metals Development Building. Key researchers have provided valuable input into the facility**

limitations of existing facilities and the characteristics of a new facility that would enhance their effectiveness. A study committee with key researchers, the Budget Officer and the Facilities Services department manager was created by the Director to perform a needs analysis on scientific facilities. The study committee prepared a gap analysis for the research buildings and created an initial draft for the CD-0 submission to replace the MD building. The Laboratory will submit the final document this winter. The planning process is also incorporating the extensive expertise of Iowa State University planners and construction management personnel and consultants. Replacement of the Metals Development Building is crucial to meeting the infrastructure goals. The \$46M project will build a new 66,500 square foot building with funding slated to begin in FY 2011. The project will eliminate one third of the total deferred maintenance at the site. The building will be designed to achieve LEED Gold Certification.

- 7.2.1.3 The management information systems development projects are executed in accordance with acceptable project management practices.

The Laboratory continues to focus IM efforts on the HP3000 conversion, which has been identified as a critical issue due to the discontinuation of HP support. The Laboratory implemented the project management organizational structures required to ensure successful management of the project. This includes the Steering Committee (program management team), comprised of key management individuals. Periodic meetings are held with Steering Committee and the project teams to discuss progress and problems. Strengths, Weaknesses, Opportunities and Threats (SWOT) documents were completed during FY 2008 and were instrumental in the decision to delay implementation of the Human Resources, Timekeeping and Payroll/Payroll Projections modules. These significant modules are now scheduled for completion by July 1, 2009, to allow for parallel processing for 3 months before complete go-live on October 1, 2009.

- 7.2.2 Develop a strategy for increasing investment in infrastructure which minimizes increases to the cost of doing business.

- 7.2.2.1 To meet the target (B+), develop strategy by September 30, 2008.

Ames Laboratory has a multi-faceted strategy for increasing investment in infrastructure while minimizing the cost of doing business. The two core elements are tapping third party financing through an ESPC and pursuing line item funding for replacing the Metals Development Building. Their planning has lead to initiatives that will generate savings in the cost of doing business through energy savings, reduction of corrective maintenance, and cost avoidance for deferred maintenance and needed improvements in the Metals Development Building.

Ames is supporting the Government in pursuing an Energy Savings Performance Contract (ESPC) is that will invest significantly in infrastructure improvements. The Initial Proposal (IP) has been completed and approved. It outlined an ESPC project that would invest approximately \$1.4M in capital improvements with a contract term of 11 years and first year savings of \$200,000. The IP estimates energy savings will reduce the Laboratory's energy use per square foot by 18%. The Detailed Engineering Survey (DES) has been submitted and is under review. The DES indicates that the final ESPC will likely increase the investment and contract term; however, all indications are that a viable ESPC project will result.

Through the support of the Office of Science and SLI Infrastructure Modernization Initiative, the Laboratory has developed a modernization strategy that will enable the facilities to be substantially modernized within 10 years. The cornerstone of this strategy is the replacement of the Metals Development Building. The Critical Decision 0 documents have been drafted and are being reviewed. Funding for the new building is requested to begin in FY 2011. Completion of the new building will enable further reduction of energy use allowing the Laboratory to meet the 30% reduction goal of the TEAM initiatives. It will also reduce the deferred maintenance of the site by one third and reduce corrective maintenance.



**These strategic plans are incorporated in the Infrastructure/Ten Year Site Plan section of the annual Laboratory Plan submitted in April 2008 and in the Ames Laboratory Executable Plan submitted in September 2008.**

ELEMENT	Letter Grade	Numerical Score	Objective Weight	Total Points	Total Points
<b>7.0 Sustain Excellence in Operating, Maintaining, and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs</b>					
7.1 Manage Facilities and Infrastructure in an Efficient and Effective Manner that Optimizes Usage and Minimizes Life Cycle Costs	B+	3.4	80%	2.72	
7.2 Provide Planning for and Acquire the Facilities and Infrastructure Required to support Future Laboratory Programs	A-	3.6	20%	.72	
<b>Performance Goal 7.0 Total</b>					<b>3.44</b>

Table 7.1 – 7.0 Goal Performance Rating Development

Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Total Score	4.3 - 4.1	4.0 - 3.8	3.7 - 3.5	3.4 - 3.1	3.0 - 2.8	2.7 - 2.5	2.4 - 2.1	2.0 - 1.8	1.7 - 1.1	1.0 - 0.8	0.7 - 0.0

Table 7.2 - Goal 7.0 Final Letter Grade Scale

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

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

The Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems Goal shall measure the Contractor's overall success in safeguarding and securing Laboratory assets that supports the mission(s) of the Laboratory in an efficient and effective manner and provides an effective emergency management program.

The weight of this Goal is 10%.

The overall score assigned to Goal 8 is 3.4, which equates to a grade of B+, which is the upper end of "meets expectations."

### **Highlights of Accomplishments**

- The Laboratory's performance toward excellence and effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems meets or exceeds expectations.
- Ames Site Office, with assistance from Safeguards and Security and the Safety and Technical Services of the ISC-CH, conducted a review of the Lab's Emergency Management program in 2008. The review concluded that the Lab has a mature and effective Emergency Management Program that efficiently and effectively fulfills the goals and requirements of DOE O 151.1C. Ames Laboratory leadership and staff members are committed to implementation of the program.
- The Laboratory's emergency management system fulfills the goals and requirements of DOE Order 151.1C and is supported by documented processes, training, employee awareness, and event analysis
- The Cyber Security program continues to meet or exceed the requirements outlined in DOE Order 205.1A, The Department of Energy Cyber Security Management Program.
- The Cyber Security team meets the Milestone Completion Dates on schedule for the goals listed in the Plan of Action and Milestone (POA&M), and continuously monitors for additional opportunities for improvement in the program. All POA&M items identified during the ST&E review are complete.
- Ames goes beyond the requirements of DOE Order 142.3 by reporting all visits and assignments for sensitive and non-sensitive country foreign nationals, as requested by DOE-CI.
- 100% of trip reports for foreign travel were submitted on time during FY2008.

**NOTE: SOME EVALUATION TEXT WAS BELOW WAS REDACTED FOR THIS VERSION DUE TO SECURITY SENSITIVITIES.**

8.1 Provide an Efficient and Effective Emergency Management System

**Score/Grade: 3.4/B+**

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

- The Contractor's success in meeting Emergency Management goals and expectations;
- The commitment of leadership to a strong Emergency Management performance is appropriately demonstrated; and
- The maintenance and appropriate utilization of Emergency Management procedures and processes are effectively demonstrated.

The weight of this Objective is 35%.

#### 8.1.1 Maintenance of an effective emergency management program

To Meet the B+ Target:

- 8.1.1.1 100% of Emergency Management events are effectively mitigated and notification reporting is done in accordance with DOE Order 151.1C.

**The Event Reporting Program provides screening and evaluation tools for all types and severity of events, not just emergency management events. These identification and analysis processes are effective for the more common, less severe events, and thereby make it less likely that an emergency will occur, as latent institutional problems are being identified and corrected. In FY2008, sixty-seven (67) events were evaluated as part of the Laboratory's Event Reporting Program. Nineteen (19) events were identified as having an emergency management component, and none of these met the criteria of an Operational Emergency. Ames Laboratory continues to demonstrate outstanding performance in mitigating and reporting Emergency Management events as indicated by thorough treatment of less severe events. As a result, 100% of events have been handled in accordance with requirements. All corrective actions associated with the events have been completed or will be completed as scheduled.**

**A strong indication of the effectiveness of planning and hazard reduction at Ames Laboratory is the fact that there were no events at the Laboratory that met the criteria of Operational Emergency. The best way to mitigate an emergency is to prevent it from ever happening.**

**The Laboratory utilizes hazard identification as associated with employee Hazard Inventory process, Hazard Surveys, and its Readiness Review process to identify hazards that could cause or contribute to the occurrence of an Operational Emergency. The identification of hazards helps the Laboratory plan for and reduces the impact of events associated with its activities.**

- 8.1.1.2 Results of reviews, surveys, and inspections demonstrate that Emergency Management systems are effective.

**Ames Site Office, with assistance from Safeguards and Security Services and the Safety and Technical Services of the DOE Office of Science Chicago Office (SC-CH), conducted a review of the Laboratory's Emergency Management program, April 16-18, 2008. The conclusion of the review was that Ames Laboratory has a mature and effective Emergency Management Program that efficiently and effectively fulfills the goals and requirements of DOE O 151.1C, and the Laboratory management and the Emergency Response Organization provide effective leadership for the program. Ames Laboratory staff members are committed to implementation of the program.**

**Staff members demonstrate ownership of the roles and responsibilities pertaining to Emergency Management. The Laboratory is proactive in management of the program. During the review six Opportunities for Improvement and three Noteworthy Practices were identified. The Opportunities for Improvement were all completed as scheduled.**

**A Topical Appraisal, entitled Notification of Injuries and Fatalities, was performed, and it concluded that, in general, there is high understanding of the requirement to be protective of privileged information.**

**Emergency planning activities are coupled with the annual self assessment of the Emergency Management Program. Hazard assessments and annual hazard survey updates confirm the Laboratory's low hazard levels, and thereby the Laboratory's Base Level Program, although the Laboratory continues to pursue ways to further reduce its hazard level.**

- 8.1.1.3 100% Employees and Management are trained in their Emergency Management responsibilities.

**Training requirements are defined in the Ames Laboratory Emergency Plan and the Emergency Plan Implementation Procedure and 100% of the training has been completed. This includes the annual Tornado/Severe Weather Relocation Drill, Fire Drill, the Annual Communication test, and the table top exercise. In-house personnel are trained and well prepared to respond to emergency situations and provide assistance to off-site professionals during emergency situations.**

**The Emergency Response Organization personnel respond to events throughout the year in accordance with their emergency responsibilities even when those events do not rise to the level of operational emergency, thus providing additional experience and training for staff. The training, drills/exercises and annual self assessment all serve to maintain the outstanding emergency preparedness of the Laboratory so that any emergency condition will be dealt with effectively.**

**The Laboratory's emergency response continues to make maximum use of professional off-site responders for fire, hazardous material response, emergency medical services and security assistance, and ensures the effectiveness of this off-site response through strong interactions and information sharing.**

- 8.1.1.4 90% of the corrective actions associated with Emergency Management reviews are completed in accordance with scheduled due dates.

**100% of corrective actions associated with Emergency Management reviews have been completed on schedule.**

## 8.2 Provide an Efficient and Effective System for Cyber Security

### **Score/Grade: 3.4/B+**

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

- The Contractor's success in meeting Cyber-Security goals and expectations;
- The commitment of leadership to a strong Cyber-Security performance is appropriately demonstrated;
- Integration of Cyber-Security into the culture of the organization for effective deployment of the system is demonstrated; and
- The maintenance and appropriate utilization of Cyber-Security risk identification, prevention, and control processes/activities.
- The weight of this Objective is 50%.

- 8.2.1 The status of the Cyber Security Program is reported in accordance with FISMA and NIST Guidance and Cyber-Security Events are reported and mitigated as necessary.

- 8.2.1.1 To meet the target (B+), Plan of Action and Milestones (POAMs) are reported on a quarterly and are accompanied by a security status update for each cyber enclave. Certification and re-accreditations for each cyber enclave is accomplished in required timeframes. Incident reporting includes all classes of incidents from DOE Manual 205.1-1. System root compromises are reported to CIAC. In the event that there are no incidents, a negative report is submitted.

**Ames Laboratory has reported and resolved POAM items in a timely manner. Quarterly reports align with the enclave structure and include all issues from external reviews and appropriate self-assessment issues. Incident reports are sent to CIAC (transferred to DOE-CIRC) for each incident type according to the Ames Cyber Security Program Plan (CSPP) following guidelines set by CS-9, Incident Management Guidance. (CS-9 replaced DOE Manual 205.1-1.) Incident reports include summaries outlining causal factors, overall impact, and a statement of the remediation steps taken. Status reports are sent monthly, including negative reports if no incidents occurred. There were seven months with no reportable incidents.**

- 8.2.2 Maintain a program of system and network configuration management for each defined system enclave.

- 8.2.2.1 To meet the target (B+), General Configuration guidelines are adopted and distributed to system administrators. Specific configuration guidelines address prevalent system environments. Configuration guidelines are reviewed quarterly and updated as needed to address security advisories.

**Ames Laboratory developed baseline guides for all major operating systems (Windows, Mac, and Linux). These guides are distributed to system administrators and are deployed on all systems. The baseline guides were reviewed in December 2007, and March, June, and September 2008.**

- 8.2.3 Conduct a robust program of vulnerability scanning.

- 8.2.3.1 Target

To meet the target of (B+), semi-annual network vulnerability scans on network systems that provide communications services visible to the public Internet community and conduct network vulnerability scans on the Ames Laboratory internal network systems so that all systems are scanned each year

**Continuous vulnerability scanning and remediation is conducted using the Scavenger web interface provided by Argonne National Laboratory.**

- 8.2.4 Demonstrate promptness in correcting identified vulnerabilities and addressing corrective actions associated with reviews according to schedule. Ensure that the identified high-risk vulnerabilities on high risk systems, as defined by the Ames Laboratory Risk Management Plan, are addressed through corrective action or document the reasons for accepting the risk. Justified exceptions are to be approved by the Ames Site Office. High risk vulnerabilities on high risk systems will be addressed within 10 business days of discovery and moderate vulnerabilities on high risk systems within 45 business days.

Ensure that high and moderate vulnerabilities on identified critical and/or sensitive systems are addressed within 10 business days of discovery. Document the reasons for accepting the risk

and identify the corrective measures taken that reduce the risk these systems have on the internal and external networks.

8.2.4.1 Target

To meet the target (B+), 90% of vulnerabilities are addressed within schedule.

**There are no high risk systems and no critical systems at the Ames Laboratory.**

8.2.5 Employee and Management awareness of their Cyber-Security responsibilities.

8.2.5.1 Target

To meet the target (B+), 90% of training is completed within schedule.

**Ames Laboratory has two cyber security training modules.**

8.3 Provide an Efficient and Effective System for the Protection of Special Nuclear Materials, Classified Matter, and Property

**Score/Grade: 3.4/B+**

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

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

The weight of this Objective is 10%.

8.3.1 Maintenance of an effective and efficient Safeguards and Security Program in accordance with DOE O 470.4 and DOE M 470.4-1.

8.3.1.1 Incidents of Safeguards and Security concerns are detected, reported, investigated and resolved promptly.

**Incidents of Security Concern are identified and processed according to the Laboratory's revised Event Reporting Program. Also, revisions to the Ames Laboratory Oversight and Assurance Program strengthen efforts to provide effective and efficient issue management.**

8.3.1.2 Demonstrate an effective Integrated Safeguards and Security Management System through a thorough annual self-assessment and by positive results from any external reviews surveys and inspections

**No incidents were categorized as a reportable incident of security concern.**

8.3.1.3 Corrective actions or compensatory measures for deficiencies are promptly implemented and monitored until resolution

Several Safeguards and Security related documents were updated during FY2008, including the Laboratory's Integrated Safeguards and Security Management System (ISSMS), and no S&S documents are pending revision. All corrective actions associated with potential incidents of

security concern are tracked on the Ames Laboratory Corrective Action Tracking System (ALCATS) and have been completed in a timely fashion.

- 8.3.1.4 90% of employees have participated in training that demonstrated an awareness of their Safeguards responsibilities

Employees initially are made aware of S&S requirements during General Employee Training (GET). Other learning mechanisms include brochures, websites, and one-on-one discussions with specialists. Recent badging updates were communicated to staff via email.

- 8.3.1.5 Vulnerability Assessments accurately address current Laboratory operations.

As part of a graded open-site protection strategy, administrative controls adequately address the DOE's applicable requirements and support the Laboratory's mission. These controls include the Laboratory's successful Materials Control and Accountability (MC&A) processes and its property management procedures. The Laboratory's Material Control and Accountability (MC&A) program was internally audited, via a Topical Appraisal, in July 2007, and additional discussion of the appraisal results are discussed in the self-assessment comments for section 8. The MC&A program was also reviewed as part of DOE Safeguards and Security Inspection in August 2007, with no findings or suggestions. A Topical Appraisal of Property Protection was performed and based on the Safeguards and Security review and the inventory results listed below, the Laboratory has very good equipment controls in place to safeguard Government assets and no further enhancements are needed at this time.

#### 8.4 Provide an Efficient and Effective System for the Protection of Classified and Sensitive Information

**Score/Grade: 3.5/A-**

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

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

The weight of this Objective is 5%.

**Notable Actions:**

- The CI program is mature and the interactions with the CH-CI Officer ensure continuous process improvements.
  - A sensitive technologies list is updated when new projects are funded.
- 8.4.1 Maintenance of an effective and efficient Counter Intelligence (CI) and sensitive unclassified information Program.



8.4.1.1 The sensitive subjects list is maintained current.

- **Reporting requirements related to counterintelligence are extensive, and in accord with an agreement with the CH Office of Counterintelligence Ames provides documents and reports of interest to its Counterintelligence Officer, including FV&A documents, Foreign Travel documents, approved Work-for-Others and CRADA proposals, and notification of illegal elicitations and relationships with foreign nationals.**
- **Ames Laboratory provides more data than required by directives in order to support the CI effort of DOE. Ames enters 100% of its FV&A requests into FACTS, because CI interests are not always limited to terrorist sponsoring or sensitive countries.**
- **The Ames CI Officer uses questionnaires to debrief hosts and travelers on their activities, which helps screen events associated with their activities to see if any need further investigation. The staff at Ames assists in collection of these questionnaires.**

8.4.1.2 Reporting requirements related to Counterintelligence (CI), including trip reports are met on time.

- **Annual CI training and information provided to new employees during the General Employee Training (GET) ensures that staff members are aware of their CI reporting responsibilities.**

8.4.1.3 Laboratory reports are made promptly, within 24 to 48 hours, to the CH CI Office or the local FBI of any contacts or elicitation attempts with people of any nationality who seek sensitive unclassified information (e.g., proprietary or CRADA information) without proper authorization by any means. This includes any compromising situation or other inconsistencies associated with foreign travel or a visit or assignment.

- **Annual CI training was provided to Laboratory staff December 14, 2007. At that time 688 staff members received the training. Throughout the year new employees receive CI information during General Employee Training (GET).**
- **The annual awareness training memo is prepared cooperatively by the Ames CI-POC and the CI-Officer. The annual training has proven effective based on the questions and comments received by staff. Improvements in the timeliness of foreign trip reporting and closing visits records in FACTS have been maintained in FY2008.**

8.4.1.4 Counterintelligence awareness training materials are provided effectively to staff in accordance with the requirements of DOE O 475.1.

- **Annual CI training was provided to Laboratory staff December 14, 2007. At that time 688 staff members received the training. Throughout the year new employees receive CI information during General Employee Training (GET).**
- **The annual awareness training memo is prepared cooperatively by the Ames CI-POC and the CI-Officer.**
- **Improvements in the timeliness of foreign trip reporting and closing visits records in FACTS have been maintained in FY2008.**

*FY 2008 Performance Evaluation Report  
Of Iowa State University*

<b>ELEMENT</b>	<b>Letter Grade</b>	<b>Numerical Score</b>	<b>Objective Weight</b>	<b>Total Points</b>	<b>Total Points</b>
<b>8.0 Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM)</b>					
8.1 Provide an Efficient and Effective Emergency Management System	B+	3.4	35%	1.19	
8.2 Provide an Efficient and Effective System for Cyber-Security	B+	3.4	50%	1.70	
8.3 Provide an Efficient and Effective System for the Protection of Special Nuclear Materials, Classified Matter, and Property	B+	3.4	10%	.34	
8.4 Provide an Efficient and Effective CI System for the Protection of Classified and Sensitive Information	A-	3.5	5%	.18	
<b>Performance Goal 8.0 Total</b>					<b>3.41</b>

**Table 8.1 – 8.0 Goal Performance Rating Development**

<b>Final Grade</b>	<b>A+</b>	<b>A</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>C-</b>	<b>D</b>	<b>F</b>
<b>Total Score</b>	<b>4.3 - 4.1</b>	<b>4.0 - 3.8</b>	<b>3.7 - 3.5</b>	<b>3.4 - 3.1</b>	<b>3.0 - 2.8</b>	<b>2.7 - 2.5</b>	<b>2.4 - 2.1</b>	<b>2.0 - 1.8</b>	<b>1.7 - 1.1</b>	<b>1.0 - 0.8</b>	<b>0.7 - 0.0</b>

**Table 8.2 - Goal 8.0 Final Letter Grade Scale**