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**Competing the Management and  
Operations Contracts  
for DOE's National Laboratories**

**Report of the Blue Ribbon Commission  
on the Use of Competitive Procedures  
for the Department of Energy  
Labs**

**U.S. Department of Energy  
November 24, 2003**

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**This draft report has been approved by the members of the Blue Ribbon Commission on the Use of Competitive Procedures for the Department of Energy ‘ Labs, and as with any consensus product, the views of any individual member may differ slightly from the specific detailed recommendations contained in the report. The draft report is not a Department of Energy or Administration document and will not be transmitted officially to the Secretary of Energy without the consideration of any public comments received and approval of the Secretary of Energy Advisory Board.**

November 24, 2003

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Secretary of Energy Advisory Board

## **Blue Ribbon Commission Use of Competitive Procedures at the Department of Energy Laboratories**

### **Members**

Francis S. Blake  
Executive Vice President, Business Development  
The Home Depot  
Former Deputy Secretary of Energy, 2000-01

William F. Brinkman  
External Chairman, Laboratory Operations Board (Secretary of Energy  
Advisory Board)

Jacques Gansler  
Interim Dean and Roger C. Lipitz Chair  
School of Public Affairs, University of Maryland

Dale Klein  
Assistant to the Secretary of Defense for Nuclear, Chemical, & Biological  
Defense Programs

F. Henry (Hank) Habicht  
CEO, Global Environment & Technology Foundation

John Tuck  
Former Under Secretary of Energy, 1989-1992

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## Executive Summary

The Blue Ribbon Commission was established to examine if the use of competition at the Department of Energy's (DOE) national laboratories could assist the Department in achieving and maintaining increasingly higher quality, state-of-the-art science and technology and efficient and effective operations. The Department was seeking advice in developing a decision model and decision criteria to use as the basis for making competition decisions concerning the management and operations contractors that manage its major research facilities. The focus for the effort was on the Department's major laboratories, which operate under Federal Acquisition Regulations described for the Federally Funded Research and Development Centers.

To address their task, the Commission obtained information from DOE officials regarding DOE's current contracting policies and processes and the Department's relationships with contractors. The members conducted interviews with representatives of current and past DOE management and operations (M&O) contractors and with officials from other agencies concerning their contracting policies and strategies, particularly for Federally Funded Research and Development Centers.

The Commission determined that the principles arguing for free and open competition and benefits to be gained through competition could address the management problems perceived in the current operation of the laboratories. They recommend that high-level Departmental performance evaluations of the laboratories should be the basis for the competition decision and suggest that scientific and technical output should have the greatest weight in evaluating contractor performance.

The Commission members also recommend a five-step process that they believe provides better linkage between performance and the compete or extend decision, allows flexibility in the process, encourages entry into the laboratory system of bidders with new and perhaps better management ideas and processes, and makes the review and competition processes tolerable for all stake holders. They believe that such a decision process will ensure that the focus on competition will lead to continuous improvement in contractor performance and allow truly outstanding contractors to be rewarded with significant contract extensions, in most cases up to a maximum of 20 years. They recommend that a two-step procurement process be developed that will provide assistance to highly qualified nonprofit bidders in responding to requests for proposals.

Additional recommendations address the need to have the Department's Acquisition Executive review requests for proposals and annual performance evaluations of the major laboratories. The Commission specifically recommended that it was not inherently necessary for the contracts for the Los Alamos and Lawrence Livermore National Laboratories to be managed by the same contractor. They suggested that the two contracts should not be competed simultaneously in order to allow all interested and qualified bidders to participate in the competition.

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## Secretary of Energy Advisory Board

### Competing the Management and Operations Contracts for DOE's National Laboratories

#### 1 SETTING THE CONTEXT

The Department of Energy's national laboratory system has deep and noble traditions reaching back to the 1940s and continues to represent one of the best collections of scientific talent in the world. The system reflects the nation's past and present need to assemble the best and brightest scientific minds in an approach designed to drive results that are in the national interest.

The laboratories, both the weapons laboratories and the science laboratories, were established to perform government functions that required long-term commitment; to conduct complex scientific and engineering projects; and to create, operate and maintain unique and expensive research facilities. Pursuit of the best possible basic science required a system which combined the strengths of government, private and non-profit institutions. The facilities created at the labs made these collaborations possible.

The contract concept for the management and operation of government-owned, contractor-operated laboratories was established by the Manhattan Engineer District of the War Department and continued by the Atomic Energy Commission (AEC) when the Atomic Energy Program was transferred to the AEC. Such entities as the AT&T, DuPont, University of Chicago and University of California contracted with the AEC under this partnership-type arrangement. The laboratories became recognized as great research institutions and critical defense production facilities. Early on, the missions and strategic objectives were set by the Atomic Energy Commission, the agency then in charge, and the management and operations (M&O) contractor determined how to achieve the objectives laid out for them.<sup>1</sup> The contractors took on the task in response to requests from President Truman, who in a letter to the president of AT&T suggested the task as an "opportunity to render exceptional service in the national interest."<sup>2</sup> The M&O contracting vehicle enabled the government to staff the labs from among the top scientific minds in the world.

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<sup>1</sup> See Heist and Florsheim, "The AEC Management Contract Concept," 29, *Federal Register*, J.67 (1969).

<sup>2</sup> Quoted from Paul Fleury, Dean of Engineering, Yale University, "Statement to the House Science Committee-Subcommittee on Energy on Competition for Department of Energy Laboratory Contracts: What is the Impact on Science?" July 10, 2003.

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The Department of Energy (DOE), which assumed management of the Atomic Energy Program, and thus the AEC laboratories<sup>3</sup> when it was established in 1977, has frequently been criticized for the management of its laboratories, by Congress, the public, and the laboratories it manages. In 1995, a Task Force assembled to recommend “Alternative Futures for the DOE National Laboratories,” described the existing system of management of the laboratories as costly, bureaucratic, and inefficient.<sup>4</sup> The government-owned contractor-operated (GOCO) concept for managing the laboratories was a focus for critical observations and recommendations to curtail the excessive oversight and micromanaging attributed to the Department.

Despite this attention and the resulting efforts to correct the problems noted in that report, the same criticisms persist. The laboratories complain that the fundamental relationship that existed at one time between the laboratory contractors and the Department has deteriorated even further than was described in the 1995 Task Force report. Coincident with these criticisms have been well publicized incidents of management and security lapses at the labs. As a result, the perception has grown that management of the labs is not meeting the highest standards expected from such important programs.

## **2 CHARGE TO THE COMMISSION**

### **2.1 Terms of Reference**

The Commission was asked to provide an independent, external assessment of how the use of competitive procedures for the Department’s laboratories can help to achieve the Department’s goal of having high quality, state-of-the-art research and efficient and effective operations at its government-owned research facilities. The Department expects these facilities to act in the interest of achieving the specific mission assigned them by the Department of Energy. The Secretary of Energy has asked the Commission to assist in determining the circumstances and/or criteria under which competition can best help to achieve the Department’s goals. The Secretary also seeks advice on an appropriate decision model based on these criteria that can be used to improve the Department’s decision-making process for its competition decisions for its national laboratories. The Commission was specifically asked to review the contracting history and legal requirements, and policies that guide the Department’s contracting decisions and to consider the policies and practices of other Federal agencies with respect to competing their laboratories. The Terms of Reference for the Blue Ribbon Commission are provided in Appendix A.

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<sup>3</sup> *Department of Energy, 1977-1994. A Summary History* by Terrence R. Fehner and Jack M. Hall (Nov 1994), p.23. The DOE inherited a number of facilities from the Atomic Energy Commission, passed on through the Energy Research and Development Administration. Among these facilities were the Argonne, Berkeley, Brookhaven, Livermore, Los Alamos, Oak Ridge, Sandia, and Solar Energy Research Institute, in Golden, Colorado.

<sup>4</sup> “Alternative Futures for the Department of Energy National Laboratories,” prepared by the Task Force on Alternative Futures for the DOE National Laboratories, Secretary of Energy Advisory Board (February 1995), pp. 7-8 and Appendix A.

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## **2.2 Scope**

This study focused on the DOE laboratories that are identified by the National Science Foundation as Federally Funded Research and Development Centers managed by major M&O contracts. The Commission members, as a part of their investigation, did look at other agencies, specifically, the National Aeronautics and Space Administration, National Institutes of Health (National Cancer Institute), National Science Foundation, and Department of Defense. However, the members believe that the circumstances for each agency are unique, and it is well beyond the scope of the current task to address with specificity the differences in the arrangements that have worked and how they could be tailored for DOE.

## **2.3 Process Used to Address the Charge**

Because of the nature of the charge to the Commission, the members determined early on to seek input from internal, Departmental stakeholders concerning the legal and policy considerations that guide the Department's contracting processes. To this end, they met with senior Departmental officials, representatives in the Office of the General Counsel and the Office of Procurement and Assistance Management, and representatives from site offices who negotiated contracts with the laboratories. Following these initial information briefings and review of the Federal Acquisition Regulation (FAR), the Commission examined sample laboratory contracts and other related documents.

Following the initial information gathering session with members of the Department, the Commission met with representatives of the DOE M&O contractors in closed meetings to encourage a free and frank discussion of their perspectives on the current competition processes at DOE. They also held a meeting at which the public was invited to provide comments, and they conducted a significant number of telephone interviews with people from other agencies about their policies regarding M&O contracting of Federally Funded Research and Development Centers and with people knowledgeable about the Department of Energy's management of the labs (see Appendix B for lists of individuals who met or spoke with the Commission). Following these efforts to obtain a wide range of input, the Commission sought additional information related to the number and type of reviews of the laboratories and M&O contractors that are conducted. They also sought information on the review processes used, who uses them, and how the reviews support decisions made relevant to the laboratory contracts.

Following these interviews with various stakeholders, the Commission worked to clarify their general understanding about the nature of the DOE laboratories and the responsibilities of the Department and the contractors as parties to the contract. The Commission agreed on a set of competition principles, which are defined below, as fundamental to their findings and conclusions.

## **3 BACKGROUND**

### **3.1 DOE's Laboratory Competition Policy**

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Prior to 1997, the Department's competition policy for its M&O contracts, specifically contracts for its research and development and weapons laboratories, presumed that a contract would be extended unless the Department would realize a meaningful improvement from competing it. This policy was consistent with FAR guidance on M&O contracts,<sup>5</sup> which also required periodic review (at least once every five years) of the need for such arrangements. In making decisions to compete or not to compete a laboratory M&O contract, the Department evaluated the incumbent's overall performance, the potential impact of a change in contractors, and the likelihood that other qualified offerors would compete for the contract. As a result of that policy, the Department and its predecessor agencies rarely conducted a competition for the management and operation of their sites, facilities and laboratories. The previous practice received much criticism over the years, particularly when performance issues were identified at certain sites, in part due to the fact that the evaluation of the M&O contractors' performance relied on subjective measures and self-evaluations.

In 1995, the Department announced its intention to change its competition policy and practice for management and operating contracts. It formally changed its internal procurement regulations in 1997 to effect this change and to require that competition be the norm consistent with the Competition in Contracting Act of 1984 (CICA). As a result of this change, the Department now routinely addresses the issue of using competitive procedures to acquire the services of a contractor to manage and operate its major facilities and sites, unless a specific justification for non-competition exists in accordance with statutorily provided exceptions and the use of noncompetitive procedures is approved as necessary by the Secretary of Energy. CICA contains specific statutory authority that would allow the Department of Energy to non-competitively extend its laboratory contracts, but the application of this authority is permissive, not mandatory. Accordingly, at the expiration of the contract term, the Department routinely considers for competition the contracts for the management and operation of laboratories.

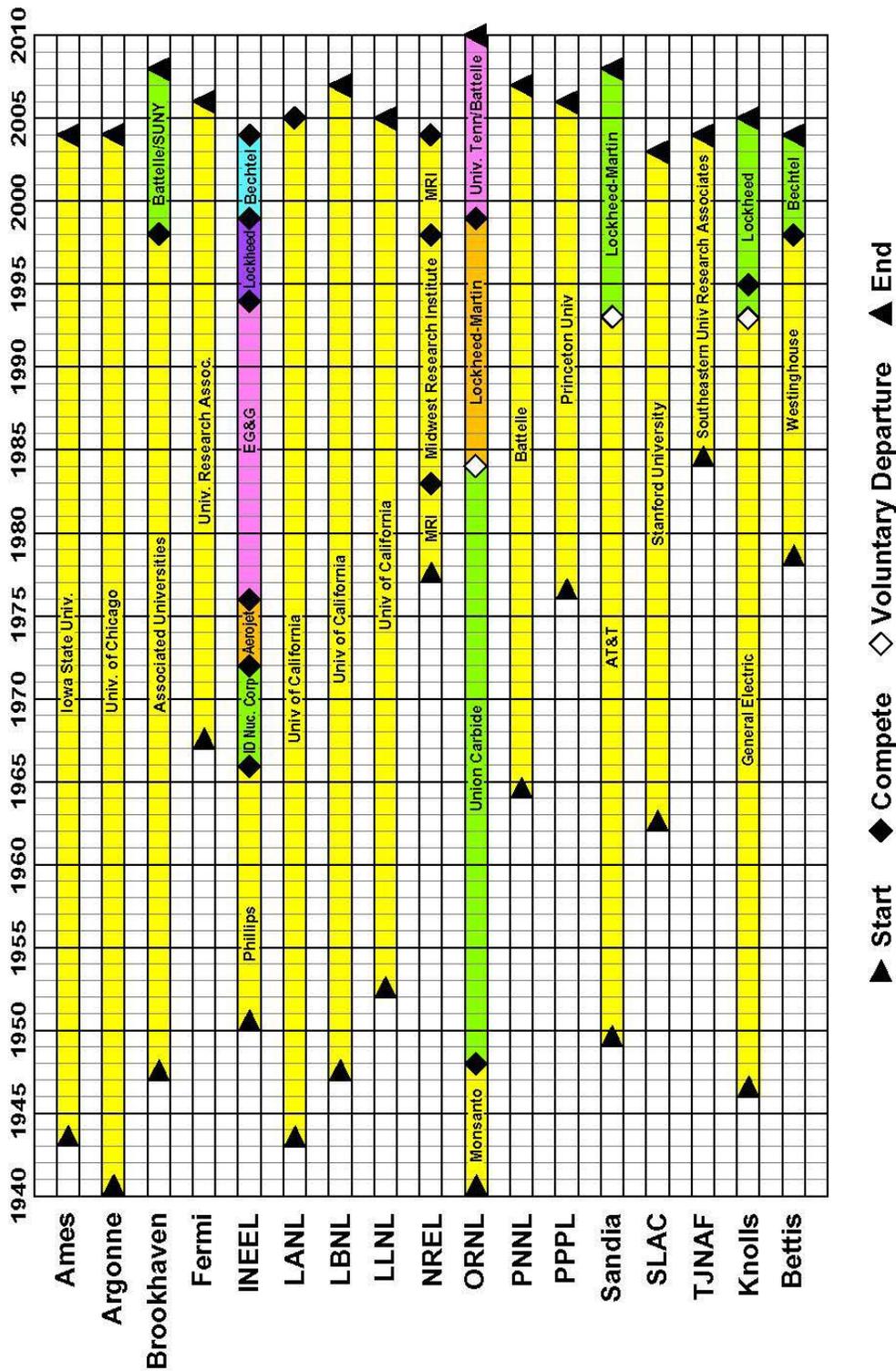
During the past 57 years, contracts for 8 of the Department's 18 major government-owned, contractor-operated (GOCO) laboratory facilities have been competed, several on more than one occasion. These include Idaho National Engineering and Environmental Laboratory, Brookhaven National Laboratory, National Renewable Energy Laboratory, Oak Ridge National Laboratory, Sandia National Laboratories, Bettis Atomic Power Laboratory, and Knolls Atomic Power Laboratory<sup>6</sup> (see Figure 1). The contract for the eighth laboratory, the Savannah River Technology Center, was competed as part of the overall M&O contract for the Savannah River Site. Competition has been applied for various reasons: when mission changes warranted a review of the capabilities of other offerors, when the incumbent's performance was unsatisfactory, or when the incumbent

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<sup>5</sup> Consistent with the FAR, the agency issued a supplement, the Department of Energy Acquisition Regulation (DEAR), which contains additional policies related to the use of M&O contractors.

<sup>6</sup> Two of the eight laboratories that have been competed are currently not designated as DOE Federally Funded Research and Development Centers. They are the Bettis Atomic Power Laboratory and Knolls Atomic Power Laboratory, both of which are under the auspices of the National Nuclear Security Administration.

**Figure 1. M&O Contracting History  
for the Department of Energy Laboratories**



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contractor chose not to continue. The contracts that have been noncompetitively extended, for the most part, have been with non-profit and educational institutions, and, in some cases, reflect one or more impediments to competition (e.g., contractor ownership of land on which the Department's facilities are sited.)

The issue of whether competition should be routinely used for research and development laboratories is subject to wide and varied opinions. The Department's current policy favoring competition has been both applauded and criticized. On one hand, both GAO and certain members of Congress have questioned the continued use of noncompetitive procedures for laboratories. On the other hand, the Department's practice of actively considering competition and its willingness to use competitive procedures has also been criticized as destabilizing to the mission of the laboratories and antithetical to the concept of a Federally Funded Research and Development Center (FFRDC).

Federal statutes and regulations provide some guidance for determining whether or not to compete a laboratory contract. Most notably, the Competition in Contracting Act of 1984 and the Federal Acquisition Regulation establish a government-wide framework under which "full and open competition" for the acquisition of property and services by executive agencies is the norm. However, CICA contains seven specific statutory exceptions to competition that authorize the use of "other than" full and open competition in certain situations, including when an agency has the need to "establish and maintain an essential engineering, research, or developmental capability to be provided by an educational or other nonprofit institution or a federally funded research and development center." Notwithstanding these authorized CICA exceptions, annual provisions in the Energy and Water Development Appropriation Acts since Fiscal Year 1998 have required DOE (but not other Federal agencies) to compete the award and extension of M&O contracts unless the Secretary of Energy determines to waive that requirement and so notifies the Energy and Water subcommittees sixty days prior to contract award. Given this background and the continuing controversy over the use (or non-use) of competition procedures, the Department desires an independent assessment of its current competition policy with respect to its laboratories.

The Commission's focus in approaching its charge has been to look at how to encourage the best possible performance and discipline in the Department of Energy's laboratory system without impairing its ability to produce world-class scientific results. To understand the full ramifications of the problem, the Commission sought data describing the budgets and scope of operations for the national laboratories.

## **3.2 Characterizing the Laboratory System**

Of the Department of Energy's 19 major laboratories, 16 are designated as Federally Funded Research and Development Centers (FFRDC), which are operated under M&O contract arrangements. One of the 19 laboratories, the Office of Fossil Energy's National Energy Technology Laboratory, is a government-owned, government-operated laboratory. Two other of the 19 laboratories, Bettis and Knolls, are not designated as FFRDCs.

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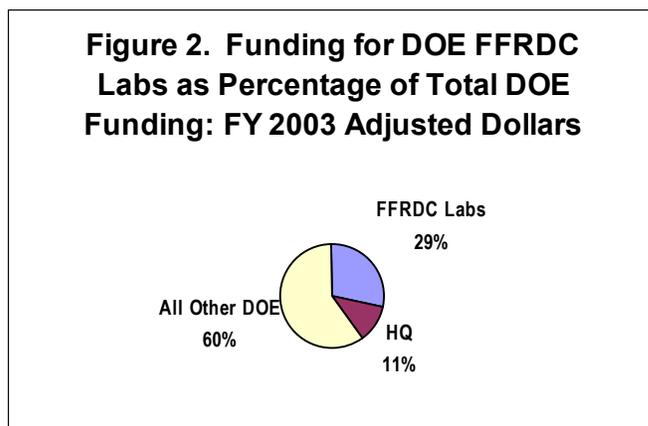
The rules for FFRDCs grew out of recommendations made by the Commission on Government Procurement in 1972 to address public concerns about the growth of these entities and diversification of their capabilities to perform research and development work that could be performed by the private sector. Federal Acquisition Regulation policy requires that an FFRDC meet some special long-term research and development need that cannot be met as effectively by existing in-house or contractor resources.

The FAR FFRDC policy enables agencies to use private sector resources to accomplish tasks that are integral to the mission and operation of the sponsoring agency. Following are the rules guiding FFRDCs:

- FFRDCs establish a special relationship to perform research and development tasks that are integral to the mission and operation of an agency, but are not inherently governmental functions.
- The relationships are long term in order to provide the continuity that will attract high quality personnel that have specialized skills not available within the civil service.
- The relationships permit access beyond that which is normal to Government and industry information.
- FFRDC contractors may not use privileged information to compete with the private sector.
- FFRDC contractors are required to operate in the public interest and do not face the competing requirements of commercial or shareholder interests.

### 3.3 Laboratory Statistics

The M&O contracts that are addressed in this study support the Department's ability to fulfill its missions. The work at the National Nuclear Security Administration (NNSA) laboratories primarily addresses the nation's nuclear security. The nation's scientific and

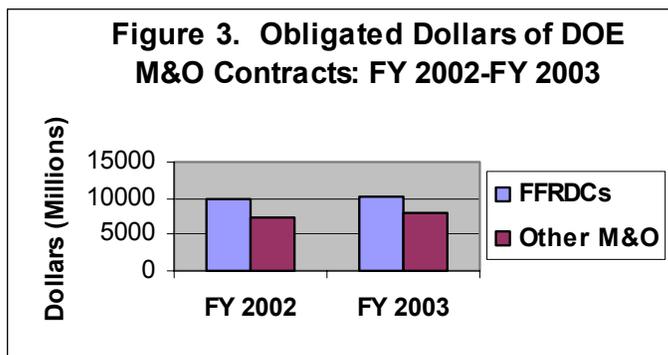


technological leadership is facilitated by the basic scientific research and development undertaken at the Office of Science national laboratories and their user facilities, and the security of the nation's energy supply is the mission focus for the laboratories maintained by the offices of Fossil Energy and Energy Efficiency.

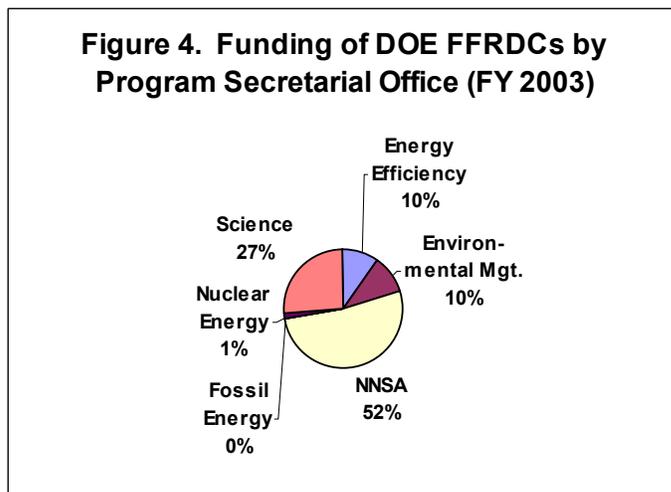
As shown in Figure 2, of the Department's over \$27 billion total

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adjusted budget authority for FY 2003, \$7.8 billion, or 29 percent,<sup>7</sup> was appropriated from the Federal budget for the Department's FFRDCs (see Figure 2). However, this represents only a portion of the actual dollar value of the work performed at the labs. The total laboratory obligations represented by the FFRDC M&O contracts, which includes the work for others, i.e., work performed for other Federal agencies and supporting industries, amounts to over \$10 billion per year.<sup>8</sup>



To provide a further perspective, Figure 3 compares the proportion of all M&O contract obligations that are negotiated to perform work at the FFRDC labs to the other M&O contracts, which consist primarily of environmental clean up work at such sites as Hanford, Rocky Flats, Savannah River, and so on.<sup>9</sup> Appendix C lists all DOE contracts currently held by M&O contractors, broken out for the laboratories vs. other contracts.



The laboratories are sponsored by the DOE's program secretarial offices (PSO) to support work in their mission areas. Figure 4 depicts the funding provided by the PSOs to the laboratories, as a percentage of the budget dollars for FY 2003.<sup>10</sup>

The significance of the laboratories to local economies cannot be overlooked. In FY 2003, there were 51,552 full-time equivalent M&O contractor employees working at the DOE laboratories. This number does not include DOE employees or M&O subcontract employees. A tabulation of the number of M&O full-time equivalent employees by laboratory is provided in Appendix D.

<sup>7</sup> Data from U.S. DOE FY 2004 Budget Request. These numbers depict the *gross* level of DOE *budget authority* for the year cited. The figures include both the discretionary and mandatory funding in the budget. They *do not* consider revenues/receipts, uses of prior year balances, deferrals, rescissions, or other adjustments appropriated as offsets to the DOE appropriations by the Congress.

<sup>8</sup> Data provided by DOE Office of Contract Management.

<sup>9</sup> Data provided by DOE Office of Contract Management.

<sup>10</sup> Data from U.S. DOE FY 2004 Budget Request. See also fn. 7, above.

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## 3.4 Laboratory Categorizations

The DOE laboratories can be categorized in several ways. One approach is to describe the laboratories by their primary mission:

- The weapons laboratories have distinct areas of expertise with respect to nuclear weapons research and related nuclear security issues (Lawrence Livermore National Laboratory, Los Alamos National Laboratory, and Sandia National Laboratories).
- Multi-purpose science laboratories (mission areas in basic science and evolving priorities), including Argonne, Brookhaven, Lawrence Berkeley, Oak Ridge, and Pacific Northwest National Laboratories. When referred to as the multi-program laboratories the reference includes the three weapons laboratories, the five multi-purpose science laboratories, and the Idaho National Engineering and Environmental Laboratory.
- Special purpose or single program laboratories include the single-program Office of Science laboratories, including Ames Laboratory, Fermi National Accelerator Laboratory, Princeton Plasma Physics Laboratory, Stanford Linear Accelerator Center, and the Thomas Jefferson National Accelerator Facility. Also in this category are the National Renewable Energy Laboratory (Energy Efficiency), the National Energy Technology Laboratory (Fossil Energy),<sup>11</sup> and the Savannah River Technology Center, maintained by the Environmental Management Program Office.

## 3.5 Special Considerations

The Stanford Linear Accelerator Center and the Lawrence Berkeley National Laboratory are situated on university-owned land on or near the university campuses. In addition, some laboratories, particularly the Pacific Northwest National Laboratory and the Oak Ridge National Laboratory, have leased or third-party financed buildings on government-owned property. Other extenuating circumstances identified by DOE were concerns related to national security. However, while the Commission recognizes that these are special circumstances, they believe that the principles for competition defined in Section 3.6, below, argue strongly for maintaining the option of competition. It is a responsibility of the Department to develop contingency plans, such as negotiating a lease agreement or purchase option so that competition remains a credible alternative.

## 3.6 Principles

The Commission members agreed that no one specific action plan or set of decision rules can apply to all of the laboratories. Nonetheless, the Commission members endeavored to set forth common principles to guide the decision-making process. They believe that any principles put forward must be implemented based on the realities, mission and location of the specific laboratory under review.

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<sup>11</sup> The National Energy Technology Laboratory is a government-owned, government-operated laboratory (GOGO) that supports the Fossil Energy Program Office.

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## 3.6.1 Definition and General Views Regarding “Competition”

The Commission has discussed and generally agrees on some basic tenets regarding competition for the DOE M&O FFRDC laboratories:

- As a general proposition, competition is highly desirable; the possibility of competition imposes discipline and can elicit quality performance and efficient operation in ways simply not inspired by oversight alone. Furthermore, as a principle, competition is desirable even if the fee is small or a small percentage of budget, thus reducing the cost to government of continuing with the incumbent contractor.
- In the context of leading-edge science operations, the lack of standardized outputs and the very limited talent pool certainly change the nature of competition, but not the basic principles favoring competition.
- The process of opening a national laboratory contract to a competitive bidding process imposes significant costs and therefore should not be undertaken frequently or simply for its own sake.
- At the same time, without the credible potential for competitive entry, even top research laboratories can become complacent and slip from the best possible performance. Thus, the ability to assess performance fairly and inject competition needs to be enhanced with regard to DOE’s FFRDCs.
- In looking at roles the contractor must perform, there appears to be no basis to distinguish between for-profit, not-for-profit, and nonprofit contractors with regard to the competition of contracts. The disadvantage introduced by the cost of competition to non-profit institutions may require compensation for proposal costs, and this will be addressed in the recommendations.

## 3.6.2 Roles of Parties to the M&O Contract

The Commission understands the roles and responsibilities of the two parties to the M&O contract to be basically as follows:

- DOE Headquarters sets expectations in terms of defined contract performance, expectations, and contract deliverables:
  - Clear and concise guidance to laboratories regarding performance expectations (the “what”);
  - Identification of a limited number of consistent, clear, and simple metrics which will be used to measure results; and
  - Effective, predictable and transparent oversight to guide the laboratories and reassure the public.
- The M&O contractors of the national laboratories determine how to provide and deliver the following:
  - Management and operation of world-class facilities; careful and efficient stewardship of public resources; management of security in the national

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- interest; management of the environment, safety and health at the laboratories;
- Recruitment and retention of world-class scientific and technical human resources; and
- Recognized world-class, cutting-edge scientific research and output.

### **3.6.3 Management Process**

The Department needs a transparent, understandable process that makes clear the performance expectations of the laboratory and the process of assessing, evaluating, and correcting performance issues.

- Desired performance must be identified and defined in measurable terms.
- Performance should be evaluated through clearly identified processes, providing ample notice and opportunity for corrective action.
- Areas of improvement should be identified during the performance evaluation.
- Subsequent evaluations must include follow through on previously identified areas of improvement as well as reviewing current progress on defined performance objectives.

## **4 FINDINGS—MANAGEMENT PROBLEMS**

Based on information gleaned from meetings with the M&O contractors, telephone interviews, and follow-up information obtained from the laboratories, the Commission discussed and identified some management problems related to the current competitive processes. While the Blue Ribbon Commission did not have time to review extensively each contract and its history, the Commission reviewed many historical and contractual materials.

### **4.1 Ratings Inflation**

Although five performance ratings are available, in reality only two (outstanding and excellent) are used. It appears that the normal state of affairs is for the laboratories to receive these laudatory ratings (see Table 1). Understandably, based on these ratings, contracts are routinely renewed, with certain notable exceptions, with a sole-source justification. With the high ratings all laboratories routinely receive, if the Department announces that a contract is to be competed, it is perceived as punitive in nature, the result of an unwelcome incident of either major or minor importance that has occurred at a laboratory and that has resulted in extensive negative press coverage and Congressional investigations.

The performance ratings tabulated for FY 2001 and 2002 in Table 1 have, on occasion, served as an embarrassment for the Secretary when major problems have been uncovered at laboratories that received high marks for both business management and the conduct of scientific research on their annual performance evaluation. These inconsistencies have added to the distrust of the labs and the Department and have

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<b>Table 1. Laboratory Performance Ratings for FY 2001 and FY 2002<sup>12</sup>.</b>						
<b>Laboratory</b>	<b>FY 2001</b>			<b>FY 2002</b>		
	<b>S&amp;T</b>	<b>Gen. Mgt.</b>	<b>Operations</b>	<b>S&amp;T</b>	<b>Gen. Mgt.</b>	<b>Operations</b>
<i>Office of Science</i>						
<i>Multi-Program Labs</i>						
Argonne	Outstanding	Outstanding	Excellent	Outstanding	Outstanding	Excellent
Brookhaven	Outstanding	Excellent	Excellent	Excellent	Excellent	Outstanding
Lawrence Berkeley	Outstanding	Outstanding	Outstanding	Outstanding	Outstanding	Outstanding
Oak Ridge	Outstanding	Excellent	Outstanding	Outstanding	Excellent	Excellent
Pacific Northwest	Outstanding	Outstanding	Outstanding	Outstanding	Excellent	Outstanding
<i>Single-Purpose Labs</i>						
Ames	Excellent	Excellent	Outstanding	Excellent	Outstanding	Outstanding
Fermilab	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Princeton Particle Physics	Outstanding	Outstanding	Excellent	Outstanding	Outstanding	Outstanding
Stanford Linear Accelerator	Outstanding	Excellent	Outstanding	Outstanding	Outstanding	Outstanding
Thomas Jefferson Lab	Outstanding	Outstanding	Outstanding	Outstanding	Outstanding	Outstanding
<i>National Nuclear Safety Administration (Multi-Program Labs)</i>						
Los Alamos	Outstanding	Excellent	Excellent	Excellent	Excellent	Excellent
Lawrence Livermore	Outstanding	Outstanding	Outstanding	Outstanding	Outstanding	Excellent
Sandia	Outstanding	Outstanding	Outstanding	Outstanding	Outstanding	Excellent
<i>Other Lab<sup>13</sup></i>						
NREL (Single-Purpose Lab) <sup>14</sup>	Low Outstanding			Low/Outstanding-Outstanding		

resulted in the excessive micromanagement that now characterizes the Congress-DOE-laboratory relationship.

## 4.2 Questionable Objectivity of Site Office Ratings

It is possible that there is greater motivation for the individual in an operations office who conducts the initial review process to recommend a contract extension than to make a complete recommendation. Employees at the Operations and Site Offices develop close associations with laboratory personnel and the laboratory. Frequently, they remain at a laboratory site for a long period of time. As noted below, a rating by one of these employees can be viewed as a self-rating and thus puts that person in a challenging circumstance. Such personnel may not have the broader perspective necessary to assign objective ratings to a laboratory relative to work performed across the system.

<sup>12</sup> The five ratings are Outstanding, Excellent, Good, Marginal, and Unsatisfactory.

<sup>13</sup> The Idaho National Energy Lab, an Environmental Management Program Office's Lab, does not follow the above rating scheme. Generally, the Contractor provided a self-assessment and the DOE Field office provided an award fee determination based on their overall score. Savannah River Technology Center, an Environmental Management Lab, was not rated in 2001 due to events of 9/11. Their ratings are assigned by specific technologies and then collapsed into three categories. Their ratings were, for FY 2002, Quality of Science and Engineering—Excellent; Quality of Applied Research and Development Support—Excellent/Outstanding; Relevance to National Needs and Agency Missions—Excellent.

<sup>14</sup> The National Renewable Energy Lab, the Energy Efficiency and Renewable Energy Program Office's Lab, is rated by six-month periods, which then are collapsed into an overall score.

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## 4.3 Excessive Number of Reviews

Evaluations of project and laboratory performance appear numerous, and the time required to obtain these assessments seems excessive. As part of its enquiry, the Commission reviewed the number of reviews performed at a number of the laboratories. The responses indicated that the major multi-purpose laboratories expended considerable time and overhead in preparing for various reviews in response to a multiplicity of requirements.

As an example, a LLNL official listed 116 separate reviews in which he had participated in one year. This list, summarized in Table 2, is for the LLNL's Defense and Nuclear Technologies (DNT) Directorate, the core nuclear weapons program at Livermore and the largest program at the laboratory. DNT is one of the three major LLNL program directorates and 1 of its 12 laboratory directorates. DOE's LLNL site office provided a table listing 158 reviews in which that office participated, and this list is provided in Appendix E. When asked to review the LLNL list for overlap, the LLNL Site Office eliminated two reviews from their table as being already listed on the DNT list of reviews. Furthermore, the time consumed in obtaining the numerous assessments that support ratings appears excessive, if the reviews are used for that purpose.

The review requirements for single purpose labs may be less extensive, but one small single-program laboratory reported annual management reviews of six to eight areas, e.g., property management; financial management; Integrated Safety Management; counterintelligence, cyber security, nuclear energy and other individual disciplines; and operation of the user facilities. These reviews are in addition to IG and GAO reviews, annual internal and DOE program office reviews of science projects, and reviews of the laboratory-directed research and development projects.

<b>Review Type</b>	<b>Number</b>	<b># Requiring Reports</b>
External Program Peer Review	17	14
Univ. of California (UC) Peer Review of S&T Supporting DNT Program	5	Not indicated
UC-Based Review Panels and Councils	17	17
Joint Lab, UC, NNSA Reviews of Contract Performance	4	Reports and Briefings
NNSA HQ-Based Program Reviews	38	Not Indicated
DNT External Safety Inspections, Assignments & Reviews	35	# Reports Not Indicated. Included 11 Audits, 6 Assessments, 3 Analyses of Fire Hazards, 5 Inspections, 6 Reviews, 1 Survey, & 3 Miscellaneous

<sup>15</sup> Information provided by Lawrence Livermore National Laboratory.

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The Department has attempted to respond to the problem of excessive reviews by revising the review processes. However, the Blue Ribbon Commission members remain concerned about the large number of reviews.

## **4.4 Weak Linkage of Reviews to Compete/Extend Decisions**

The members see a lack of clear linkage between the annual review processes and the compete decision. Furthermore, Commission members are concerned that there is insufficient objectivity or independence of DOE headquarters in the review process. The reviews are negotiated between the field offices and the contractor and laboratory management team, prepared by the field/site offices, and sent to DOE Headquarters. The Commission members are concerned that the current review process is one in which the DOE field/site offices rate themselves. The Commission did not see a consistent path from field reviews to the ultimate compete-no compete decision. It often appears that the rating decisions are made at the field level, and the available contracting history does not reveal a consistent role of senior leadership in the rating and competition decisions.

## **4.5 Adverse Impact of Compete Decisions on Laboratory Productivity**

Retired laboratory directors who had experienced the competition process or the transition to a new management team suggested that the turbulence of changing the M&O contractor can impact productivity if not handled properly. Those interviewed suggested that announcements and fear of contract competitions can lead to morale problems or defections among talented laboratory scientists. As reported, in those cases when a new M&O contractor took over a contract, work was disrupted both during the competition and following the installation of a new management team. First, the resources and attention of the existing M&O contractor's laboratory management team are directed to supporting the development of the proposal. Then, should the contract be awarded to a new contractor, work is further disrupted during the transition. All of the respondents, asked about the impact on the laboratories of a change in contract, indicated that while the human resource policies and benefits for the science and technical staff, such as retirement, health care, and salary, may be protected by the specifications in the Request for Proposals, change inevitably generates uncertainties and concerns that will have an impact on the lab's productivity for some period of time.

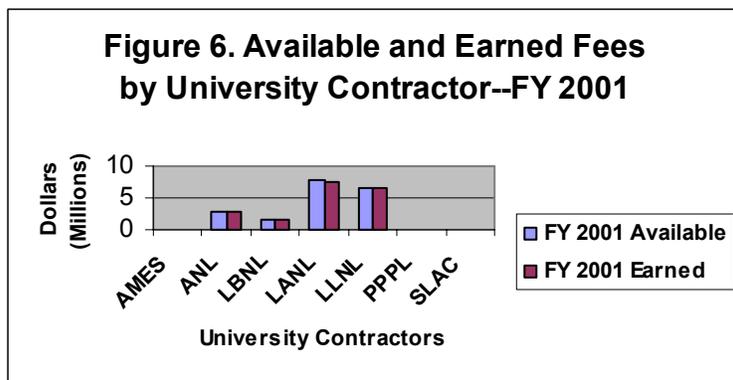
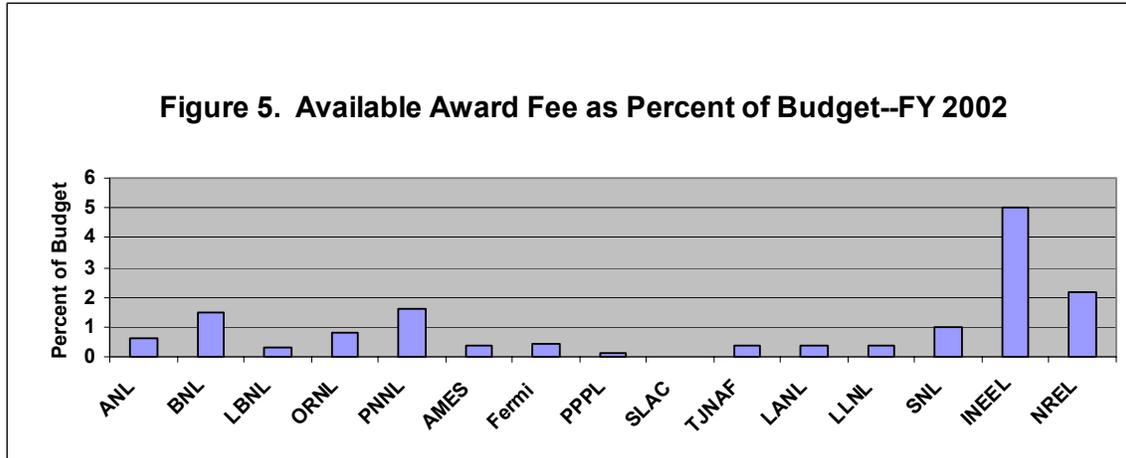
## **4.6 High Cost of Competitions**

Competitions are expensive, resulting in claimed expenditures to the competing contracting organizations of \$3 million to \$5 million, along with other costs that are more difficult to identify and quantify. Expenditures of this magnitude can be difficult for a non-profit institution, such as a university, to put at risk.

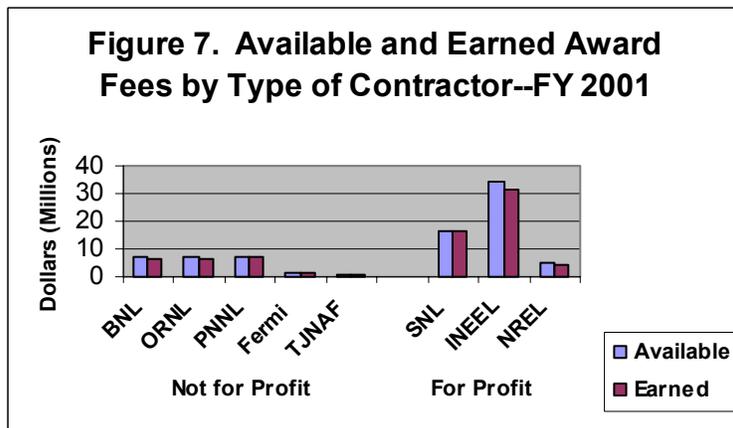
## **4.7 Ineffectiveness of Incentives**

Award fees, a major incentive available to reward good performance, represent a very small percentage of a laboratory's budget, as is shown in Figure 5. As is shown in

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Figures 6 and 7, using FY 2001 data, actual awards can range from no fee (Stanford Linear Accelerator Center) or as little as \$79 thousand for a university-operated laboratory, such as Ames, to \$31.7 million for a for-profit contractor.



However, the fee as a percentage of budget is at or below one percent for all but four of the laboratories. No fee is set at above five percent of budget. Furthermore, all of the fees of the university laboratories are below one percent, although in the case of not-for-profit M&O contractors other than universities the fees have been negotiated at higher percentages.

Such small award fees provide little motivation to the contractor, particularly the universities that hold M&O contracts. Furthermore, the university M&O contractors stated that the fees are taken out of the budget that would otherwise support their science and technology work. They generally view award fees as a disincentive.

When considering incentives for competing for an M&O contract for a DOE laboratory, fees are only one possible incentive. In addition, universities may view the value of holding an M&O contract to operate a DOE laboratory facility as elevating the prestige of

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the university and its scientific studies programs. Certainly, if a university can offer access to the type of facilities found at the DOE laboratories it should be viewed as an incentive in attracting scientific researchers and students to participate in the university's science programs. Managing a lab may also be viewed as providing a national service; however, universities must consider the financial and public relations benefits in accepting this responsibility. Another incentive that should be considered to attract nonprofit bidders to compete for the laboratory contracts is a no-compete extension for superior performance. Extensions allow the contractor to avoid the cost of proposal preparation and the employee turbulence that may accompany competitions.

## **4.8 Weak Delineation of Performance Expectations**

In its discussions with both the DOE managers and the M&O contractors, the Commission members discerned a lack of a clear delineation of performance expectations and responsibilities with respect to both the roles of DOE and the M&O contractors and the laboratory management team.

As a result of the above problems, the perception of the DOE laboratory system is sometimes one of wasted resources, inadequate discipline, and self-serving and/or less meaningful evaluation processes.

## **5 RECOMMENDATIONS**

The Commission members conclude that competition is an essential element in the management of the DOE laboratory system. The members believe that the Department must provide clear statements of expectations, ensure fair and comprehensive reviews, and provide advance warning of shortcomings in performance such that re-competition need not be a frequent occurrence, viewed as punitive, or come as a surprise to any of the parties. In addition, when a competition is held, both the RFP and the source selection must be perceived as being fair and open.

In the proposed solution that follows, the Commission sets out what the members consider to be a transparent framework for the decision process, including evaluation criteria and the linkage between the evaluation of performance and the determination of the renew or compete process. The recommendations identify elements that must be taken into consideration in evaluating a laboratory M&O contractor's performance, a timeline for when decisions should be made, suggestions regarding linkage of the evaluation process to the compete decision, and the reward structure for different levels of successful performance.<sup>16</sup>

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<sup>16</sup> The Conference Report to H.R. 2754.Sec 301 includes specific language that may supercede the recommendations made here. However, as an external, independent advisory subcommittee, the members of the Blue Ribbon Commission decided to forward their report and recommendations on competition for the Department's national laboratories to the Secretary of Energy as originally requested.

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**Recommendation 1. Performance evaluations used as the basis for making a compete or extend decision must consider both the quality of the scientific output and the business management of the laboratory.**

Discussion: The quality of the science performed at a laboratory is clearly a function of the M&O contractor's management capabilities. The contractor, through the selection of the on-site management team, accepts accountability for lab performance and will have a great impact, over time, on the quality of the scientific output at the laboratory. The management team is responsible, through its imprint on the work environment and culture, its ability to provide and maintain world-class facilities, its ability to attract and retain top scientists, and its management of financial and facilities operations, for the output of the laboratory.

The following general suggestions are put forth as the Commission's perception of the key elements in evaluating the M&O contractor's performance. These elements must be tailored by Departmental leadership to fit the specific laboratory being evaluated. However, the Commission members believe that the quality of the science and technology output should be accorded a greater weight than the effectiveness of the business management in the overall evaluation of the contractor.

- Scientific Output. Evaluations of the excellence of the basic scientific research and/or weapons production/maintenance programs must depend on
  - Laboratory culture focused on results and focused on forward-looking, mission-related scientific breakthroughs;
  - Metrics such as articles published in world-class publications and recognition by professional organizations, when relevant;
  - Quality, depth, and reputation of the scientific workforce that the contractor has recruited and retained at the laboratory;
  - Peer review by outside experts.
  
- Management Practices. The overall evaluation of the M&O contractor's performance must also incorporate consideration of the
  - Efficiency of laboratory management;
  - Streamlining of business practices and world-class fiscal management and accountability;
  - Success of the environmental, safety and health programs to prevent incidents;
  - Development, management, and maintenance of world-class laboratory facilities and support infrastructure;
  - Excellence in community relations;
  - Human resource practices that attract and retain a highly qualified scientific staff and that provides incentives to motivate laboratory personnel to high standards of excellence;
  - Maintenance of laboratory security;

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- Avoidance of high-profile incidents through day-to-day active management of laboratory activities;
- Professionalism of management and support staff;
- Ability of the laboratory to transfer technology and scientific knowledge to government and commercial ventures for the public's benefit.

The DOE evaluations should be integrated transparently and consistently into ratings of the laboratory management. It is essential that the evaluation process involve high-level people in DOE. In the evaluations, strong emphasis must be put on how well management has taken actions and established processes to minimize undesirable performance and then how well they address problems that do occur at the laboratories. When situations occur that could potentially hurt the reputation of the Department, it is essential they be properly managed. An M&O contractor's ability to discover and resolve problems before they become major issues must be accorded weight in the overall programmatic execution of the lab.

The management performance must be integrated into an overall annual rating of the contractor. This rating will include other contributions that the contractor makes to the enhancement of the performance of the lab, via culture, facilities, exchange of people, and so on.

## **Recommendation 2: The Commission recommends adoption of a five-step decision process.**

Discussion: The five-step process suggested below provides better linkage between performance and the compete or extend decision, allows flexibility in the process, encourages entry into the laboratory system of bidders with new and perhaps better management ideas and processes, and makes the review and competition processes tolerable for all stake holders.

The decision process ensures that the focus on competition leads to continuous improvement in M&O performance and allows truly outstanding M&O contractors to be rewarded with a contract extension or other incentives. The process is intended to be transparent to all stakeholders, with a staged timeline and with intermediate steps when performance is judged. The process links performance to the compete decision and maintains the potential for competition for all laboratories.

- **Step1 (Year 1).** Near the end of the first year of the contract, the first annual high-level review will be conducted with the results reported directly to the Secretary of Energy. The Deputy Secretary and the Under Secretaries should conduct this review. It should integrate the results of all the programmatic reviews performed at a lower level and take into account the broader issues associated with proper high-level management of the laboratories. The Under Secretary, or Under Secretaries when the review is delegated to this level, may use outside consultants to assist in this process, but the Secretary of Energy should take final responsibility for the results. The evaluations should compare

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“best practices” across the laboratories and with non-DOE institutions and assign a score for each laboratory’s performance. These reviews would “score” each laboratory on a numerical basis with a greater weight awarded for the laboratory’s quality of technical/science performance than for management. The evaluation would consider, as a major input, “customer satisfaction” with regard to overall DOE and national objectives of the lab. Finally, the evaluation would highlight areas for improvement—toward the overall objective of “continuous performance improvement.”

The Commission believes that it is definitely possible to get an objective evaluation of the scientific and management performance of the laboratories and that the many peer reviews of the laboratory programs can be used as important inputs for these assessments.

- **Step 2 (Year 2) and subsequently.** At subsequent annual reviews, the evaluation would revisit all aspects of the technical and management performance. The review would also directly address the areas previously identified in which improvements were needed and score the progress toward improvement. It would also explicitly address new areas for further improvement. This process would continue annually.
- **Step 3 (Year 3).** Step 3 (Year 3) is a decision point in the process.
  - If improvements are not seen in evaluations after 3 years, or if there is deterioration in a lab’s score over a 3-year period, the lab will be put on “warning” (essentially a “probation” period). The warning serves notice that if there is not significant improvement in the next 2 years, there will be a competition. However, there should be an exception if a laboratory has made an exceptionally egregious error, in which case the Secretary should be able to terminate the M&O contractor at will.
  - If a lab’s scores are consistently high, and/or rise significantly, the lab will be rewarded in two ways—in addition to or perhaps in lieu of added fees:
    - First, an annual extension of the lab’s 5-year contract, and
    - Second, reduced DOE oversight, in terms of a reduction in the number of reviews conducted by DOE and delegated to the laboratory contractor. The contractor would be expected to conduct internal reviews to monitor the continued high quality performance. The annual high-level review could also be reduced as the lab provided verifiable, objective measures benchmarked against other world-class research institutions.

The annual contract extensions for “outstanding” performers could accumulate to 20 years (from the basic 5 years) before an evaluation of “contract renewal vs. compete” takes place.

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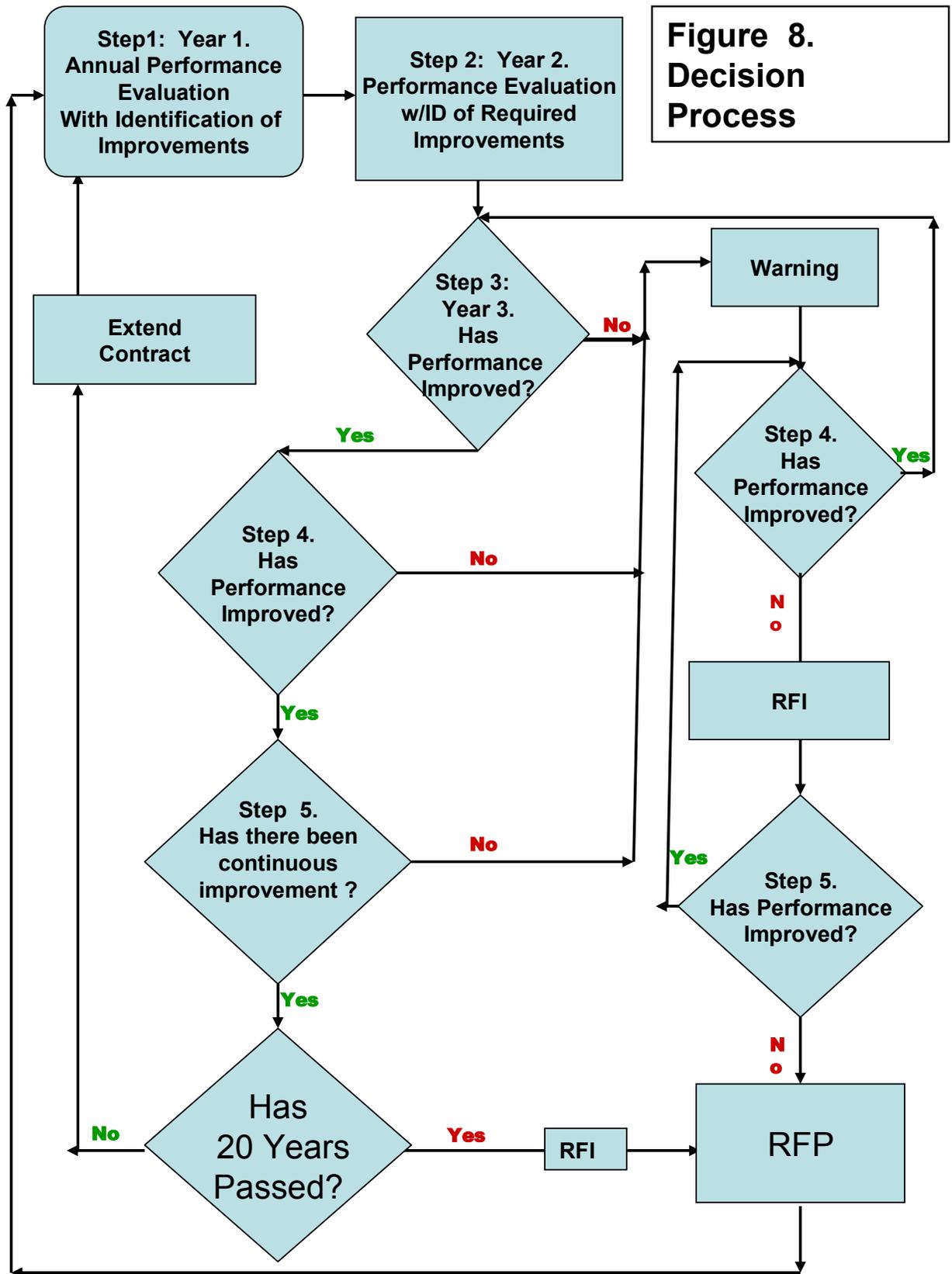
- **Step 4.** Prior to the completion of the initial and subsequent 5-year (nominally) contract, or prior to completion of the up to 20 years for the outstanding lab performers, the DOE should put out a “Request for Information (RFI).” This RFI asks if there are any contractors (or teams of contractors) who believe that they have the required scientific and management skills, and can explain how they could achieve the lab’s objectives more effectively and/or efficiently. [The RFI should be published sufficiently in advance of the need to re-compete to allow for time to prepare the Request for Proposal (RFP) and conduct the competition and the annual contractor evaluation.] With the “supply side” information and the annual inputs on each lab from the annual evaluations, the Secretary of Energy can make a decision on contract “renewal or compete.” In general, if a lab’s performance has been good and competition would appear to offer no advantage, the contract renewal would be for 5 years (with again the possibility of extensions for up to another 5 years based on performance). However, if performance has been questionable, or if the contractor is under “warning,” or if the decision is to compete due to a mission change for the lab, the contract renewal can be for a shorter period, e.g., 2 years to allow time for the competition.
- **Step 5.** Based on the above, a high-performing lab can expect competition no more frequently than every 20 years (if performance is high and there is no interest evidenced from alternative performers, and if the (1) business management performance of the M&O contractor and (2) science and technological performance and output by the laboratory are truly outstanding). However, the concept of never holding a competition would remove the potential benefits of an ultimate “market test”. The possibility that the contract will be competed must always be there, but the potential for extensions should be available as well.

The process is depicted graphically in Figure 8, below.

### **Recommendation 3. Competitions should test the market through a two-step procurement process.**

Discussion: When the decision is made to compete, after a “warning period” (for inadequate performance) or after a nominal 5- to 10-year period, or after a 20-year period of continuous, excellent performance, then a “two-step” procurement process should be put into action.

- First, a request for information should be announced. This market test gives potential bidders an opportunity to ascertain what the Department’s requirements are and enables the Department to identify the existence of qualified and interested potential bidders. The RFI should be an instrument that will aid in the down-select to bidders who have the organizational and management capabilities to provide the needed service.



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- In the next step, identified qualified bidders would compete for the contract described in the Request for Proposals. It is suggested that to enhance the quality of the finalists' proposals, the DOE should provide the top qualified non-profit and not-for-profit bidders with some added resources to assist them in preparing their proposals (for example, up to no more than \$2 million each).
- In this competitive bidding two-step procurement process, there should be clear recognition of the wide differences among the labs' missions. Therefore, the request for information and request for proposal requirements have to be well-defined by the DOE (including the DOE lines of authority and responsibilities). Also, the bidders need to be given maximum flexibility in deciding on the "hows," in order to respond to the DOE's "whats."
- Finally, in the source selection (as with the performance "scoring" resulting from the annual reviews) the principal focus for the award must be on the bidder who has the best expectation of achieving the lab's mission objectives.

**Recommendation 4. All requests for proposals for competitions above \$1 billion must be reviewed by the DOE Acquisition Executive.**

Discussion: The Commission members recognize that how the RFP is issued may preclude competition, either due to the cost of preparation or through the nature of the requirements defined for the bidders. In order to ensure fair and open competition, the RFP should be written in a manner conducive to competition. The RFP should be developed as a Department-wide effort, and the source selection committee should have Department-wide participation. The Acquisition Executive should have the responsibility to ensure that the proposal requirements are clearly defined and focused on the critical performance elements. In addition, the Acquisition Executive has the final responsibility of ensuring that proposal formats are defined to reduce the costs of proposal preparation so that there is a level playing field for non-profit organizations that are interested in entering the competition.

**Recommendation 5. The DOE Acquisition Executive should play a major role in the annual evaluations of major FFRDCs (e.g., over \$1 billion) and in all FFRDC compete/non-compete decisions.**

Discussion: The annual evaluations should be viewed from a broad perspective with involvement in the evaluations at a high DOE management level. The Acquisition Executive is in an excellent position to maintain a perspective regarding the relative management performance and scientific and technical output and achievements of the various laboratories and to ensure fairness across the board.

**Recommendation 6. Non-profit and not-for-profit finalists who qualify to enter the competition for a specific laboratory M&O contract should be assured of support through a grant of no more than \$2 million to support their efforts in preparing the contract proposal.**

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Discussion: The cost of preparing a proposal may range from \$3 to \$5 million for the largest labs. When fees to the M&O contractors may be less than \$1 million per year, the risk involved in bidding for the proposal should be minimized, particularly for the non-profit and not-for-profit institutions. In order to attract a wide field of qualified bidders, including non-profit and not-for-profit institutions, the cost to these organizations of preparing the proposal should be partially defrayed by a government grant or other means. The Department should work to minimize proposal preparation costs by setting limits on the required size of the proposal, clearly specifying the critical elements that must be addressed in the proposal and explaining how the responses will be evaluated.

**Recommendation 7. The contracts for the Los Alamos National Laboratory and the Lawrence Livermore National Laboratory could be but do not need to be managed by the same M&O contractor. However, the contracts for the two laboratories should not be simultaneously competed.**

Discussion: The Commission members explored the implications of separating the contracts for these defense labs in their discussions with people who have wide-ranging experience in working in the industry. Based on the comments received, the Commission members concluded that there was little need to specifically require that the same M&O contractor manage the two laboratories. Data sharing and collaborating on major projects must and does occur between DOE laboratories that are managed by different M&O contractors, even if there is competition for recognition for scientific excellence because each lab has its own special core competencies. The Sandia National Laboratories collaborate with both Los Alamos and Lawrence Livermore laboratories on projects. The Department of Energy can and should break down all contractual barriers that would inhibit collaborations between any of the laboratories in the interest of national security.

In making this recommendation, the Commission members are viewing the necessity for competing the two contracts through application of their principles for competition, set forth above, to the circumstances of these two laboratories. The Commission makes no recommendation regarding other specific laboratories but urges that, on a case-by-case basis, the reality of competition must be brought into the contracting process for all of the Department of Energy's FFRDCs. Furthermore, there should be no pre-disposition for maintaining the status quo. Without competition, Congress, the public, and the laboratory employees can only speculate as to whether the current M&O contractor is the best available.

Each competition, when it occurs, must welcome all interested and qualified bidders to participate. Therefore, it is not a good idea to compete the contracts for these two laboratories, Los Alamos and Lawrence Livermore, at the same time.

**Recommendation 8. The RFI and RFP should specifically address the protection of employee benefits and the necessity of ensuring employee rights.**

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Discussion: The Commission does not view employment at a DOE laboratory as an entitlement, and implications related to employee performance are not addressed in this recommendation. However, there was unanimity from past laboratory directors in stating that as the possibility of a laboratory contract being competed increased employee anxiety increased, resulting in losses in productivity and some turbulence as employees began to look for other employment possibilities. The Commission suggests that loss of laboratory productivity may be alleviated when a decision to compete has been announced through addressing early on the issue of the employee benefit package, should there be a decision to compete the M&O contract.

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## ACRONYMS

### DEPARTMENT OF ENERGY LABORATORIES

AMES — Ames Laboratory (Not an acronym)  
ANL — Argonne National Laboratory  
BNL — Brookhaven National Laboratory  
FNAL — Fermi National Accelerator Laboratory  
INEEL or INEL — Idaho National Engineering and Environmental Laboratory  
LANL — Los Alamos National Laboratory  
LBNL — Lawrence Berkeley National Laboratory  
LLNL — Lawrence Livermore National Laboratory  
NETL — National Energy Technology Laboratory  
NREL — National Renewable Energy Laboratory  
ORNL — Oak Ridge National Laboratory  
PNNL — Pacific Northwest National Laboratory  
PPPL — Princeton Plasma Physics Laboratory  
SLAC — Stanford Linear Accelerator Center  
SNL — Sandia National Laboratories  
SRTC — Savannah River Technology Center  
TJNAF — Thomas Jefferson National Accelerator Facility

### OTHER ACRONYMS

CICA — Competition in Contracting Act  
DEAR — Department of Energy Acquisition Regulation  
DOE — Department of Energy  
FAR — Federal Acquisition Regulation  
FFRDC — Federally Funded Research and Development Center  
GAO — Government Accounting Office  
GOCO — Government-Owned Contractor-Operated  
GOGO — Government-Owned Government-Operated  
M&O — Management and Operations  
PSO — Program Secretarial Office  
RFI — Request for Information  
RFP — Request for Proposal  
SEAB — Secretary of Energy Advisory Board

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## Appendix A

### Terms of Reference

#### Use of Competitive Procedures for Department of Energy Laboratories

## Purpose

The Department of Energy's competition policy for its management and operating (M&O) contracts has not been re-examined in recent years. This Blue Ribbon Commission is asked to review the Department's laboratory competition policy to determine what criteria the Department should consider when it makes a decision either to extend or to compete its laboratory M&O contracts.

## Background

Prior to 1997, the Department's competition policy for its M&O contracts, which includes its research and development laboratories, presumed that a contract would be extended unless the Department would realize a meaningful improvement from competing it. Consistent with the Federal Acquisition Regulation (FAR) and its guidance to review M&O contracts periodically, at least once every five years, the Department evaluated the incumbent's overall performance, the potential impact of a change in contractors, and the likelihood that other qualified offerors would compete for the contract. As a result of that policy, the Department and its predecessor agencies rarely conducted a competition for the management and operation of their sites, facilities and laboratories. The previous practice received much criticism over the years, in part due to the fact that the evaluation of the M&O contractors' performance relied primarily on subjective measures and assessments.

In 1995, the Department announced its intention to change its competition policy and practice for management and operating contracts. It formally changed its internal procurement regulations in 1997 to effect this change and to require that competition be the norm consistent with the Competition in Contracting Act of 1984. As a result of this change, the Department now routinely uses competitive procedures to acquire the services of a contractor to manage and operate its major facilities and sites, unless a specific justification for noncompetition exists in accordance with statutorily provided exceptions and the use of noncompetitive procedures is approved as necessary by the Secretary of Energy. The Competition in Contracting Act of 1984 contains specific statutory authority that would allow the Department of Energy to noncompetitively extend its laboratory contracts, but the application of this authority is permissive, not mandatory. Accordingly, at the expiration of the contract term, the Department routinely considers for competition the contracts for the management and operation of laboratories.

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The Department now has competed virtually every M&O contract in its inventory, except for its laboratory management contracts. It currently has 18 M&O contracts for its laboratory facilities. Of those, 8 have been competed—two of the eight laboratories competed are currently not designated as DOE Federally Funded Research and Development Centers; they are the Bettis Atomic Power Laboratory and the Knolls Atomic Power Laboratory, both of which are under the auspices of the National Nuclear Security Administration. Competition has been applied when the operator of the laboratory was a for-profit entity, whenever mission changes warranted a review of the capabilities of other offerors, or when the incumbent's performance was unsatisfactory. The contracts that have been noncompetitively extended, for the most part, have been with non-profit and educational institutions, are characterized by superior performance, and/or reflect one or more impediments to effective competition (e.g., contractor ownership of land on which the Department's facilities are sited.)

The issue of whether competition should be routinely used for research and development laboratories is subject to wide and varied opinions. The Department's current policy favoring competition has been both applauded and criticized. On one hand, both GAO and certain members of Congress have questioned the continued use of noncompetitive procedures for laboratories. On the other hand, the Department's practice of actively considering competition and its willingness to use competitive procedures has also been criticized as destabilizing to the mission of the laboratories and antithetical to the concept of a Federally Funded Research and Development Center (FFRDC).

Federal statutes and regulations provide some guidance for determining whether to compete a laboratory contract. Most notably, the Competition in Contracting Act (CICA) of 1984 and the Federal Acquisition Regulation establish a government-wide framework under which "full and open competition" for the acquisition of property and services by executive agencies is the norm. However, CICA contains seven specific statutory exceptions to competition that authorize the use of "other than" full and open competition in certain situations, including when an agency has the need to "establish and maintain an essential engineering, research, or developmental capability to be provided by an educational or other nonprofit institution or a federally funded research and development center." Notwithstanding these authorized CICA exceptions, annual provisions in the Energy and Water Development Appropriation Acts since Fiscal Year 1998 have required DOE (but not other Federal agencies) to compete the award and extension of M&O contracts unless the Secretary of Energy determines to waive that requirement and so notifies the Energy and Water subcommittees sixty days prior to contract award. Given this background and the continuing controversy over the use (or non-use) of competition procedures, the Department desires an independent assessment of its current competition policy with respect to its laboratories.

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## **Description of the Commission's Duties**

This Blue Ribbon Commission is asked to assess the Department's competitive procedures to determine the circumstances and criteria under which competition can best assist the Department in maintaining high quality, state-of-the-art research and efficient and effective operation of its government-owned research facilities. The objective of this effort is to advise the Department on an appropriate decision model based on relevant criteria and organizational status of the M&O contractor. The assessment should include a comprehensive review of applicable laws, regulations and policies pertaining to the Department of Energy's use of competition for its laboratories and the policies and practices of other Federal agencies with respect to competing laboratories.

The assessment should answer the following questions:

- When is competition appropriate? Should all contracts be competed, or if not, what criteria should be assessed in deciding to compete or to extend a laboratory contract?
- Should a formal regimen for making competition decisions be established? Or is greater flexibility desirable?
- Should different standards and decision criteria be developed according to the status of the M&O organization (non-profit, educational institution, academic consortium, or commercial entity) or the nature of the work or mission?

Specific areas to be addressed in the study include

- Assess and identify any benefits or disadvantages derived from competing laboratories. Provide the rationale for any recommendations or conclusions included in the report.
- If laboratories should be treated differently for making compete/non-compete decisions, identify and assess the criteria and other considerations that the Department might use in determining whether or not to compete a laboratory contract.
- Identify and assess potential criteria that the Department may use in deciding the types of entities that should manage and operate its laboratories.

### **Performance Expectation:**

The study should be objective and balanced and provide a basis for the Department to establish a rational policy and, as appropriate, a rigorous decision-making process for laboratory competitions or extensions. The study shall provide sufficient information and analysis to permit the Department of Energy to exercise its judgment with respect to the report's recommendations.

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## **Estimated Number and Frequency of Meetings:**

This Blue Ribbon Commission shall meet as required. In order to enhance members' knowledge and understanding of DOE contracting and competitive issues, the Department may organize site visits as needed. Additionally, the Commission may hold meetings outside of Washington, D.C. as required to fulfill its mandate.

## **Membership:**

The Blue Ribbon Commission shall have at least six members, including at least one individual who is also a member of the SEAB. The remaining members shall be appropriate experts in fields of importance to DOE, business executives, and others with knowledge pertinent to the scope and objectives of this study, representing a balance of viewpoints. The Chairman of the SEAB, in consultation with the Secretary of Energy, shall appoint the Chair, as well as all other members.

## **Duration and Termination Date:**

This Task Force shall serve for approximately six months, subject to the extension or dissolution by the Chairman of the SEAB.

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## Appendix B

### **Blue Ribbon Commission Meetings with External Stakeholders, People Making Public Comments, and Others**

Blue Ribbon Commission Meeting  
Attendees Representing M&O Contractors  
August 5, 2003

#### **University of California**

**Joseph P. Mullinix, Senior Vice President for Business & Finance, UC**  
Michael R. Anastasio, Director, Lawrence Livermore National Laboratory  
George P. (Pete) Nanos, Jr., Director, Los Alamos National Laboratory  
Bob Van Ness, Assistant Vice President for Laboratory Administration  
Mike Telson, Director for Laboratory Affairs, Washington, DC Office

#### **University of Chicago**

**Don Randel, President, University of Chicago**  
Hermann Grunder, Director, Argonne national Laboratory  
Thomas F. Rosenbaum, Vice-President for Research and for ANL

#### **Stanford University**

**Arthur Bienenstock, Vice Provost for Research (Designate)**  
Jonathan Dorfan, Director, Stanford Linear Accelerator Center  
Rachel Claus, Stanford University Counsel

#### **Princeton University**

**Will Happer, Chairman, Princeton University Research Board**  
Robert Goldston, Director, Princeton Plasma Physics Laboratory

#### **Iowa State University**

**Warren R. Madden, Vice President for Business & Finance, ISU**  
Thomas J. Barton, Director, Ames Laboratory

#### **Lockheed Martin**

**Michael F. Camardo, Executive Vice President, LM Technology Services**  
John J. Freeh, President, LM Systems Management  
C. Paul Robinson, President and Laboratories Director, Sandia  
James M. Desmond, Vice President, Energy Programs, LM Washington Operations

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## **Bechtel National Inc.**

Craig Weaver, President, Bechtel National, Energy and Environment  
Bill Shipp, Director, Idaho National Engineering and Environmental Lab

## **Westinghouse**

### **Bob Peddie, President, Westinghouse Savannah River Co.**

Todd Wright, Director, Savannah River Technology Center

## **Battelle**

### **Carl F. Kohrt, President & Chief Executive Officer, Battelle**

Donald P. McConnell, Senior Vice President, Battelle

Robert L. McGrath, Provost & Executive Vice President for Academic Affairs, SUNY

Loren W. Crabtree, Chancellor & Vice President for Academic Affairs, Univ. of  
Tennessee

## **Midwest Research Institute**

### **James L. Spigarelli, President and Chief Executive Officer, MRI**

Richard H. Truly, Executive Vice President, MRI, & Director, National Renewable  
Energy Lab

## **University Research Associates**

### **Fred Bernthal, President, URA**

Michael Witherell, Director, Fermi Lab

William Schmidt, General Counsel, URA

## **Southeastern Universities Research Association, Inc.**

### **Jerry P. Draayer, President, SURA**

Christoph Leemann, Director, Jefferson Lab

Grace Plummer, Director of Contract Relations, SURA

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## **Speaker List Public Meeting**

1. University of Texas System

Dr. Juan Sanchez, Vice President for Research  
Mr. Viqar Ahmad, Director of University Initiatives

2. DOE National Laboratories Improvement Council

Jack Anderson, Chair, NLIC  
Jerry Bellows, National Renewable Energy Laboratory

3. Accenture

Brad Englert, Managing Partner, U.S. Higher Education Practice

4. Science Applications International (SAIC)

Don Bauer

5. University of California Science and Technical Employees Assoc.—Submitted letter;  
provided to members by Dr. Craig Reed, Executive Director, SEAB, and Designated  
Federal Official

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## **Blue Ribbon Commission People Interviewed by Telephone Regarding Use of Competition for DOE Labs**

- I. Past Lab Directors
  1. John Brown –Los Alamos
  2. Harold Agnew –Los Alamos (now Gen. Atomic)
  3. Allen Schreisheim –Argonne
  4. Johnny Foster –Livermore
  5. Mike May –Livermore (now Stanford)
  6. Jack Marburger—BNL and now OSTP
  7. Alvin Trivelpiece—ORNL
  8. Al Narath—Sandia
  9. Sig Hecker—Former Laboratory Director and current Senior Laboratory Fellow, LANL
  
- II. Others Connected with DOE & NNSA
  10. Charlie Curtis
  11. Bill Martin
  12. Bill White
  13. Dick Atkinson—University of California
  14. Bob Galvin—Galvin Report
  15. Larry Welch—IDA
  16. Bob Stevens—Lockheed
  
- III. Other Agencies
  17. DOD—Dr. Ron Sega; Al Schaffer
  18. MITRE—Martin Faga
  18. HHS—National Cancer Institute/Jack Campbell; John Eaton
  19. NSF—National Center for Atmospheric Research—  
Contact Brian Mannion at NSF
  
  20. NASA/JPL—Chris Scolese; Tom Luedtke

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## APPENDIX C

<b>DOE M&amp;O Contractor Obligated Funds for FY 2002 and 2003</b>			
<b>Laboratory</b>	<b>Contractor</b>	<b>FY 2002 Obligations (\$M)</b>	<b>FY 2003 Obligations (\$M)</b>
<b><u>FFRDCs</u></b>			
Ames National Laboratory	Iowa State University	\$ 30.40	\$ 23.80
Argonne National Laboratory	University Of Chicago	\$ 530.80	\$ 525.40
Bettis Atomic Power Laboratory	Bechtel Bettis Inc.	\$ 343.80	\$ 334.80
Brookhaven National Laboratory	Brookhaven Science Associates	\$ 460.10	\$ 440.90
Fermi National Accelerator Center	Universities Research Association	\$ 309.20	\$ 316.30
Idaho Nat Engr & Environ Laboratory	Bechtel B&W Idaho LLC	\$ 681.90	\$ 809.70
Knolls Atomic Power Laboratory	Lockheed Martin-KAPL Inc.	\$ 258.50	\$ 277.60
Lawrence Berkeley National Laboratory	University Of California	\$ 471.80	\$ 456.50
Lawrence Livermore National Laboratory	University Of California	\$ 1,562.10	\$ 1,509.70
Los Alamos National Laboratory	University Of California	\$ 1,968.70	\$ 1,984.70
National Renewable Energy Laboratory	Midwest Research Institute	\$ 178.80	\$ 229.90
Oak Ridge National Laboratory	University of Tennessee/Battelle	\$ 803.00	\$ 808.00
Pacific Northwest National Laboratory	Battelle Memorial Institute	\$ 470.40	\$ 555.70
Princeton Plasma Physics Laboratory	Princeton University	\$ 74.70	\$ 69.00
Sandia National Laboratories	Lockheed Martin-Sandia Corp.	\$ 1,852.00	\$ 2,027.30
Savannah River Tech. Center	Westinghouse Savannah River Corp.	\$ 130.60	\$ 131.40
Stanford Linear Accelerator Center	Stanford University	\$ 210.70	\$ 230.90
TJ Nat'l Accelerator Facility	Southeastern Univ Res. Assoc.	\$ 108.30	\$ 98.70
	<b>Subtotal</b>	<b>\$ 10,445.80</b>	<b>\$ 10,830.30</b>
<b><u>Other M&amp;O &amp; Site &amp; Facility Management Contracts</u></b>			
EM M&I Contract	Bechtel Jacobs Co LLC	\$ 476.30	\$ 391.60
Ohio Closure Contract	CH2MHill Mound	n.a.	\$ 85.60
Mgt & Operation of OCRWM Program	Bechtel SAIC Co.	\$ 188.30	\$ 265.20
Hanford Tank Waste Treatment Plant	Bechtel National Inc.	\$ 646.00	\$ 654.00
EM Restoration Phase In	Bechtel Hanford Inc.	\$ 125.80	\$ 110.20
Environ Restoration of Columbia River	Washington Closure Co LLC	n.a.	\$ 2.70
Paducah and Portsmouth Facilities	Bechtel Jacobs Co LLC	n.a.	\$ 97.40
Savannah River Site	Westinghouse Savannah River Corp.	\$ 1,288.70	\$ 1,347.30
Strategic Petroleum Reserve	DynMcDermott Petroleum Operations	n.a.	\$ 119.20
Strategic Petroleum Reserve	DynMcDermott Petroleum Operations	\$ 158.10	\$ 37.40
Kansas City Plant	Honeywell International Inc.	\$ 444.90	\$ 477.20

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Pantex Plant	BWXT Pantex LLC	\$ 404.20	\$ 424.10
Waste Isolation Pilot Plant	Westinghouse TRU Solutions LLC	\$ 118.90	\$ 125.00
Mgt & Operation of Y-12 Plant	BWXT Y-12 LLC	\$ 574.90	\$ 707.40
Nevada Test Site	Bechtel Nevada Inc.	\$ 409.30	\$ 434.50
Tank Farms Assoc w/River Protection	CH2MHill Hanford Group Inc	\$ 277.60	\$ 363.80
West Valley Project	West Valley Nuclear Services	\$ 91.30	\$ 85.40
Hanford Site	Fluor Daniel Hanford Inc.	\$ 646.10	\$ 636.30
Fernald Environmental Mgt Project	Fluor Fernald Inc.	\$ 227.40	\$ 317.80
Rocky Flats Closure	Kaiser Hill LLC	\$ 651.00	\$ 676.90
Subtotal		<b>\$6,728.8</b>	<b>\$7,359.0</b>
<b>TOTAL</b>		<b>\$17,174.6</b>	<b>\$18,189.3</b>

**Notes:**

The dollar figures reflect actual obligations made in either fiscal year 2002 and 2003. In addition to funds appropriated to the Department of Energy, the obligated amounts include funds provided by other Federal and non-Federal agencies under the Work for Others program.

SRTC is not a direct-funded operation. All work is performed using funding provided by others, e.g., EM and NNSA program funding, as well as Work for Others funding from non-DOE sources.

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## Appendix D

### Number of M&O Contractor Employees at the DOE National Laboratories FY 2002 and FY 2003 Full Time Equivalents (FTE)

Laboratory	M&O Contractor	FY 2002	FY 2003
<b><i>Office of Science<sup>17</sup></i></b>			
Ames	Iowa State University	290	331
Argonne	University of Chicago	3,969	3,918
Brookhaven	Brookhaven Science Assoc.	2,855	2,872
FermiLab	University Research Assoc.	2,199	2,248
Lawrence Berkeley	University of California	2,884	2,906
Oak Ridge	Univ. of Tennessee-Battelle	1,923	2,019
Pacific Northwest	Battelle Memorial Institute	2,786	2,769
Princeton Plasma Physics	Princeton University	387	419
Stanford Linear Accel. Center	Stanford University	1,558	1,587
Thomas Jefferson National Acceleratory Facility	Southeastern University Research Association	724	709
<b><i>National Nuclear Safety Administration<sup>18</sup></i></b>			
Los Alamos	University of California	7,802	8,388
Lawrence Livermore	University of California	7,459	7,865
Sandia	Lockheed-Martin	8,042	8,327
<b><i>Other PSO Labs (Energy Efficiency and Renewable Energy and Environmental Management)</i></b>			
National Renewable Energy Lab <sup>19</sup>	Midwest Research Institute	884	924
Idaho National Environmental and Engineering Lab	Bechtel B&S Idaho LC	5,669	5,560
Savannah River Tech Center <sup>20</sup>	Westinghouse	968	992
<b>Total</b>		<b>50,399</b>	<b>51,834</b>

<sup>17</sup> The FTE totals for the Office of Science laboratories were provided by the Office of Science and are from the laboratories' Institutional Plans. The numbers do not include subcontractors. Additional subcontractor employees and guest researchers work at the sites, but these numbers vary depending on ongoing laboratory activities, construction projects, and various support requirements.

<sup>18</sup> FTE totals are actual data for laboratory employees only. Source: NNSA History Files and September 2003 Employment Input from NNSA Labs. It should be noted that the NNSA laboratories subcontract for support activities. For example, LANL has a site support contract with a joint venture company that provides broad technical site services ranging from facility maintenance to custodial services. All NNSA laboratories are encouraged to outsource non-mission functions.

<sup>19</sup> Includes Indirect and Direct FTEs. NREL does not subcontract out any major functions, such as Security and Maintenance.

<sup>20</sup> Includes Facility Operations and Controller personnel.

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## APPENDIX E

### Reviews of Lawrence Livermore National Laboratory Conducted During 2003<sup>21</sup>

Level of Review	Number	Performer		Frequency	Delivery Vehicle <sup>22</sup>	Time to Prepare	Disposition <sup>23</sup>
		Internal	External				
Special Reviews ordered by Congress (GAO, IG, Other)	42		IG	As Requested	Reports, Briefings	Varies	DOE, NNSA, Congress
	21		GAO	As Requested	Reports, Briefings	Varies	DOE, NNSA, Congress
	1		NRC	One-time	Briefing	36 days	Congress
Other Agencies (OSHA, EPA, DNFSB Other)	7		DNFSB		Reports, Briefings		NA-1, Site Office to provide corrective actions when necessary
Reports/reviews mandated by DOE Orders & Directives <b>LSO Reviews of LLNL</b>	2 (Nuclear Safety - USQ)	LSO		As Needed	Reports	2 weeks each	LSO and EM/HQ
	2 (S&S)	LSO		Annual	Reports, Briefings	6 Weeks	DOE
	9 (LDRD)	LSO		Annual	Reports	12 days	DRC Report & LLNL Self-Assessment

<sup>21</sup> Source: DOE LLNL Site Office

<sup>22</sup> Report, Visit/Briefing, Both

<sup>23</sup> Who receives the report and how used

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	4 (Nuclear Materials Inventory Mgmt)	LSO		3 Quarterly & 1 Annual	Reports	3 weeks for quarterly, 5 months for annual	HQ, LSO & DNFSB
	4 (LSO reviews of LLNL performed for USAF, NIH, DARPA, and DHS)	LSO		As requested	Reports	2 hours each	USAF, NIH, DARPA, and DHS
	44 (Construction per DOE Order)	LSO		Various	Reports, Briefings	170 hours total	HQ, LSO, LLNL
	8 (Programmatic Reviews done for HQ)	LSO		Annual	Reports, Briefings	1 day each	HQ and LSO
	1 (Inst Review of PU facility)	LSO/HQ		As required	Report	4 weeks	DNFSB, HQ, LSO
	6 (Compliant DSA/TSR reviews)	LSO		Initial/Annual	SERs	4 weeks per review	EM/HQ, HQ, DNFSB, LSO
	1 (LSO readiness assessment for Heavy	LSO		As required	Report	2 weeks	LSO, HQ

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	Element facility)						
	1 (LSO review of DWTF ORR)	LSO		As required	Report	15 weeks	EM/HQ, LSO
	1 (WIPP Mobile Vendor ORR)	LSO		As required	Report	8 weeks	EM/HQ, LSO
	1 (PAAA review of overexposure)	LSO		One-time	Report, briefings	1 man year	HQ, LSO, LLNL
	1 (LSO formal evaluation of emergency mgmt exercise)	LSO		As required	Report	2 weeks	LLNL, LSO
	1 (LSO eval of LLNL Physics & Advanced Technologies Directorate's Self-Assessment Program)	LSO		One-time	Report	3 months	LLNL, LSO
External Industry Partners (Work for Others, etc.)	1 (WFO)	LSO		Annual	Reports, Briefings	2 days	DOC

