

INFORMAL NOTE

DATE: May 6, 2002

NOTE TO: Ray Orbach
Jim Decker
Milt Johnson
Jim Turi

FROM: G. LEAH DEVER

SUBJECT: Letter to the Honorable Sonny Callahan with a semi-annual report on the status of the facilities and infrastructure program at the Department's science laboratories

ACTION: Recommend Dr. Ray Orbach sign the attached letter.

In the Fiscal Year 2002 Energy and Water Development Appropriations Act, Public Law 107-66 (House Report 107-112, page 116), the Committee directed the Department of Energy to provide a semi-annual report on the status of the new Facilities and Infrastructure (F&I) program established by Congress to improve the facilities and infrastructure at the Department's science laboratories. The attached report fulfills that requirement. The F&I program was funded at \$10 million in FY 2002 and the Office of Science (SC) allocated all these funds to the cleanup and removal of excess facilities. In the FY 2003 budget, SC proposed merging the F&I program with SC's existing Multi-program Energy Laboratories Facilities Support (MEL-FS) program and renaming it the Science Laboratories Infrastructure (SLI) program.

Congressional staff has shown continued interest in the Department's efforts to improve the state of facilities and infrastructure at the Department's laboratories, including those managed by the SC. The attached report addresses this interest.

The Honorable Sonny Callahan
Chairman, Subcommittee on Energy
and Water Development
Committee on Appropriations
U. S. House of Representatives
Washington, DC 20515-6020

Dear Mr. Chairman:

In response to the Conference Report to accompany the Energy and Water Development Appropriations, 2002, the Department of Energy is to prepare a semi-annual report on the status of the facilities and infrastructure program at the Department's science laboratories. The enclosed report fulfills that requirement. Most of the information in the report has been presented to Mr. Kevin Cook of your staff.

If you have further questions, please contact me, or have a member of your staff contact Mr. Dan Brouillette, Assistant Secretary, Office of Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,

Raymond L. Orbach
Director
Office of Science

Enclosures

cc: The Honorable Peter J. Visclosky
Ranking Minority Member

DMichlewicz
SC-82

/ /02

JYates
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LDever
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DStrait
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SC-3

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JDecker
SC-2

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ROrbach
SC-1

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**REPORT ON THE STATUS OF THE FACILITIES AND INFRASTRUCTURE
PROGRAM AT SCIENCE LABORATORIES
APRIL 2002**

Background

In the Fiscal Year 2002 (FY 2002) Energy and Water Development Appropriations Act, P.L. 107-66, Congress provided \$10,000,000 for a new Facilities and Infrastructure (F&I) program to improve the facilities and infrastructure at the Department's science laboratories. It directed that at least 25 percent of this funding be used to dispose of excess facilities that will provide the greatest impact on reducing long-term costs and risk.

The Act incorporated the requirement from House Report 107-112 (page 116) that the Department provide a semi-annual report on the status of the F&I program to the Committee on Appropriations. Specifically, the Act requires that:

“The Department is to provide a semi-annual report to the Committee on the status of the facilities and infrastructure program. The report should include the current priority list of proposed facilities and infrastructure projects including cost and schedule requirements. For each site, the report is to include: a current ten-year site plan that demonstrates the reconfiguration of its facilities and infrastructure to meet its missions and to address its long-term operational costs and return on investment; the current budget for all facilities and infrastructure funding in this program; as well as all funding for maintenance and infrastructure upgrades funded through other parts of the budget; and the current status of each facilities and infrastructure project compared to the original baseline cost, schedule, and scope.”

Reporting

Eliminating excess facilities eliminates risks associated with them, frees up budget resources (e.g., costs of surveillance and maintenance (S&M)) needed to build new facilities, and maintain or rehabilitate existing ones, and makes valuable land available for new science facilities. Excess facilities can be eliminated by transferring, selling or demolishing them, or, when more economical, by cleaning them up for beneficial use. To expedite the elimination of excess facilities, the Office of Science (SC) allocated the entire \$10 million F&I funding (\$9.960 million after general reduction) to their cleanup and demolition. Furthermore, to institutionalize this effort, SC established a new Excess Facilities Disposition subprogram under the Science Laboratories Infrastructure (SLI) program - formerly the Multi-program Energy Laboratories- Facility Support (MEL-FS) program - and expanded it to SC single-program laboratories and SC Office of Fusion Energy Sciences legacy facilities at the Lawrence Livermore National Laboratory (LLNL), in addition to the SC multi-program laboratories.

Current priority list of proposed facilities and infrastructure projects including cost and schedule requirements

The current priority list of excess facilities disposal projects is shown in Table 1. It lists the laboratory, the project tracking number, the title of the facility eligible for cleanup for reuse or disposal, the estimated cost of cleanup for reuse or disposal, the square footage of excess space that will be cleaned up, the annual S&M savings from the cleanup of the facility, and the fiscal year in which the facility is expected to be cleaned up.

The facilities listed in Table 1 are either non-contaminated, or the contamination is too low for them to be candidates for high-priority cleanup by the Office of Environmental Management (EM). Table 1 shows that there is a backlog of 71 cleanup projects (some projects involve more than one facility) with a total estimated cost of approximately \$36 million, an area of approximately 850,000 square feet, and an annual S&M cost of approximately \$3.4 million. In addition to projects at SC laboratories, the list includes four projects involving demolition of Magnetic Fusion Energy legacy facilities at the LLNL whose construction was funded by SC. Also, all 11 projects at the Lawrence Berkeley National Laboratory (LBNL) are associated with the partial cleanup of the old Bevatron accelerator components from Building 51, allowing reuse of portions of the facility.

In addition to the facilities listed in Table 1, there are 29 process-contaminated facilities at SC laboratories, with a total area of approximately 840,000 square feet and an annual S&M cost of approximately \$2.1 million, that SC had proposed to transfer to EM. The estimated cost for their decontamination and demolition (D&D) is approximately \$175 million (including full D&D of the Bevatron). These facilities are not currently within the scope of the SLI Excess Facilities Disposition subprogram because of the expectation that they will be transferred to EM. Also, the Excess Facilities Disposition subprogram does not address active buildings that are occupied but need to be replaced. Such buildings will be replaced as part of requests for new construction under SC's Laboratory Facilities Support construction subprogram, which is also under the SLI program.

The primary drivers for disposal of non- or slightly contaminated facilities are mission needs and risk reduction, rather than reduction of S&M costs. Indeed, at some sites [e.g., Brookhaven National Laboratory (BNL) and LBNL] the S&M savings are negligible. Because the drivers for disposition vary from site to site, SC relied on each site to prioritize the projects taking into consideration cost savings, risk reduction and mission impact. It then funded the highest priority projects at each site based on an allocation formula that took into consideration each laboratory's needs in terms of required funding and total square footage of excess space, relative to the total SC backlog. This prioritization will result in the cleanup and removal of approximately 47 percent (406,000 sq. ft./855,000 sq. ft.) of the excess square footage backlog for approximately 28 percent (\$9.96 million/\$35.6 million) of the funding backlog in FY 2002. In addition to projects funded by the Excess Facilities Disposition subprogram, approximately 173,000 square feet of excess facility space will be cleaned up and removed by the laboratories using

indirect funding. These projects are also included in Table 1. All of the FY 2002 projects are expected to be completed this fiscal year or at the beginning of FY 2003.

The FY 2003 funding request for the Excess Facilities Disposition program is \$5.055 million. As indicated in Table 1, it is currently estimated that these funds will allow for cleanup and removal of an additional 114,000 square feet of excess/unusable space resulting in annual savings of approximately \$518,000 in S&M costs. However, it should be noted that individual projects and amounts are subject to revision based on evolving program priorities, including risk reduction, footprint reduction, cost savings, and availability of space/land for new research facilities. They are also subject to change based on more detailed planning and experience gained from disposition of FY 2002 projects (e.g., better estimates of costs, changes in project sequences, etc.). SC's goal is to eliminate the identified excess facilities backlog by FY 2006.

Current ten-year site plans

To better address infrastructure modernization needs supporting the missions of SC and the Department, SC requested its laboratories to develop and submit by September 29, 2000, a Strategic Facilities Plan (SFP) for each laboratory. The plans submitted in response to the SC request are summarized in the enclosed report, Infrastructure Frontier, A Quick Look Survey of the Office of Science Laboratory Infrastructure, April 2001. This report, and the Strategic Facilities Plans, can also be viewed on the Web at <http://www.science.doe.gov/SC-80/sc-82/labs21>. In addition, the more detailed laboratory Site Master Plans forming the basis for the SFPs, are available from the respective laboratories.

The ten-year SFPs, covering the period FY 2002 through FY 2011, focus on fully modernizing the laboratories to a vision that SC refers to as the "Laboratories of the 21st Century." They address existing and expected infrastructure deficiencies; site layout and development problems (including site cleanup, as appropriate); recognition of the laboratory as a preferred working environment; removal, replacement, and upgrade of nonfunctional buildings and equipment to modern standards; and anticipated mission support needs during the next 10 years. In developing the plans, each laboratory engaged its senior program managers to help define the infrastructure goals and improvements needed to support current and anticipated program activities.

The SFPs identify a need for almost \$2 billion of capital investment projects (i.e., Line Items, General Plant Projects and General Purpose Equipment) over the ten-year period. The plans also identify excess facilities disposal needs; projects that may be candidates for alternative financing; and plans for funding maintenance (indirect funded).

To update this planning information, SC requested its laboratories to include summary updates in the "Site and Facilities" section of their FY 2002 Institutional Plans. The updates are to include ten-year funding plans, covering the period FY 2004 to FY 2013,

for Line Items, General Plant Projects, General Purpose Equipment, excess facilities disposition, and maintenance for modernizing the laboratories. The draft institutional plans will be available by September 2002; the final plans are due in December 2002. The laboratories will also submit supporting details to SC for use in updating the April 2001 Quick Look Survey previously mentioned. In addition, in response to Congressional direction to develop ten-year site infrastructure plans for all sites not slated for closure, SC is participating with other Program Offices in revising DOE Order 430.1A, Life Cycle Asset Management, to identify corporate requirements for ten-year site plans. Since the order will not be completed until late 2002, it will affect plans in 2003 and beyond.

Current budget for all facilities and infrastructure funding

The President's request for all SC funding for facilities and infrastructure in FY 2003 is listed in Table 2, including the funding under the Facilities and Infrastructure (Excess Facilities Disposition) subprogram. Please note that Table 2 includes funding for SC facilities at Lawrence Livermore National Laboratory, Sandia National Laboratories and "All Others" in order to show the total SC budget for facilities and infrastructure. This information was also provided to Congress in the Department's Facilities & Infrastructure Crosscut.

Current status of each project

After funding is allocated to each project, as described above, each laboratory assigns a project manager who reports monthly on the status of the project to the DOE Site Office project manager, providing an assessment of status and performance. The Site Office project manager, in turn, provides an assessment to the SC Headquarters program manager on a quarterly basis. Based on this analysis and reporting, and frequent informal communication, SC manages the Excess Facilities Disposition subprogram.

During execution, the Site Office project manager approves changes to approved cost, scope, and schedule baseline, except when the changes are significant (e.g., 10 percent or greater). The SC program manager approves these changes.

The current status of the projects funded by the SC Excess Facilities Disposition subprogram in FY 2002 is summarized in Table 3. Please note that some of the projects listed individually in Table 1 have been combined in Table 3 to facilitate project management. This is reflected in project numbers in Table 3 corresponding to one or more project tracking numbers in Table 1.

Because the project funding was provided via financial plans in January 2002, most of the projects are still in the planning and procurement stages. Only three projects (*Bldg. 318 Demolition* at BNL, *Removal of the Heavy Ion Spectrometer System (HISS) Magnet and One Bldg.* at LBNL, and *Bldg.9201-3 Cleanout and Stabilization* at Oak Ridge National Laboratory) have progressed to the cleanup/demolition stage.



Building 318 at Brookhaven National Laboratory prior to demolition. This 24,708 square foot building was constructed of wood in 1941 and provided office space for the Oceanographic and Atmospheric Sciences Division. It was 61 years old.

Demolition of Building 318 at BNL



Removal Nears Completion



Removal of 106 ton HISS Magnet top piece at LBNL Bevatron

Of the 16 FY 2002 projects, 14 are within original baseline cost, scope, and schedule; however, one project has a small scope variance. A more accurate measurement of the area to be cleaned up in the LBNL project *Removal of Motor Generators from Bldg. 51* revealed that it is 3,300 square feet, instead of the originally estimated 4,000 square feet.

The two projects that are not within the original baseline are at Oak Ridge National Laboratory (ORNL). The estimated-at-completion cost of the three projects grouped under the *Demolition of Buildings 2013, 2506 and 6003* (project # 02-ORNL-3) is projected to be \$2.275 million, instead of the original estimate of \$1.65 million, due to uncharacterized hazards in these buildings. To accommodate the cost increase, the *Bldg. 5500 Cleanout and Stabilization* project (02-ORNL-2) was deferred and its funds reallocated.

Overall, the Office of Science is satisfied with the management systems in place, and project execution progress to date, and expects nearly all projects to be completed by the end of FY 2002, as planned. Because of the inherent uncertainty in making the estimates for disposal projects prior to detailed characterization of conditions and contaminants, it is anticipated that there will be additional changes to the baseline cost, scope, and schedule as work progresses, and the cost estimates may need to be refined.