

AUDIT
REPORT

EXPERIMENTAL BREEDER REACTOR II
TERMINATION ACTIVITIES



JUNE 2000

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL
OFFICE OF AUDIT SERVICES

June 27, 2000

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman (Signed)
Inspector General

SUBJECT: INFORMATION: Audit Report on "Experimental Breeder Reactor II Termination Activities"

BACKGROUND

In February 1994, Congress directed that the Department of Energy immediately terminate its Advanced Liquid Metal Reactor Program (Reactor Program) and close the Experimental Breeder Reactor II (EBR II). The Reactor Program was a scientific effort to test and develop advanced nuclear reactor technology using EBR II. The Reactor Program and EBR II are located at the Argonne National Laboratory-West site in Idaho. The Office of Nuclear Energy, Science and Technology (Nuclear Energy), is the Headquarters program office responsible for this effort. To date, the Department has provided about \$444 million for termination activities, of which about \$55 million has been spent specifically on EBR II closure. The objective of the audit was to determine whether the Department and Nuclear Energy had taken action to achieve the expeditious closure of EBR II.

RESULTS OF AUDIT

In the six years that have elapsed since the Department was directed to close EBR II, Nuclear Energy has not taken appropriate action to achieve this objective. The audit disclosed that Nuclear Energy did not prioritize funding, mandate the use of project management principles or properly evaluate the performance of EBR II closure activities. Specifically, Nuclear Energy did not set funding priorities in its program guidance to Argonne, but instead provided lump sum funding for the major activities occurring at the Argonne site. Also, until December 1999, Nuclear Energy had not required Argonne to implement established project management practices to control, monitor and report the scope, progress, cost and results of work performed for EBR II closure activities. For example, Argonne was not required to prepare or use resource loaded, task oriented baseline schedules; a baseline change control process; or cost variance reports for EBR II closure activities. Further, Nuclear Energy had not required Argonne to conduct additional quality assurance tests of the waste associated with the EBR II. Subsequently, the waste was found not to have met the specifications for appropriate disposal, requiring additional testing of the waste, and ultimately, the reprocessing of 60 barrels of sodium waste which has increased project costs by approximately \$1.5 million. As a result of these deficiencies, the effectiveness and efficiency of the EBR II closure activities could not readily be evaluated.

The report included a series of recommendations designed to ensure that the EBR II is closed promptly and efficiently. Due to the size, complexity and cost of the closure effort, one of our primary recommendations was that the EBR II's termination process be managed using the Department's formal project management principles.

MANAGEMENT REACTION

Management generally agreed with the audit findings. However, Department officials responding to a draft of this report did not agree with our position that the closure of EBR II should have been managed using project management principles. Nonetheless, management informed us that they had initiated corrective

actions to incorporate project management principles. Management's reaction to the recommendations and the position of the Office of Inspector General are more fully described in the report itself.

Attachment

cc: Deputy Secretary
Under Secretary

EXPERIMENTAL BREEDER REACTOR II TERMINATION ACTIVITIES

TABLE OF CONTENTS

Overview

Introduction and Objective	1
Conclusions and Observations.....	2

Management of Termination Activities

Details of Finding	3
Recommendations and Comments	8

Appendix

Scope and Methodology.....	12
----------------------------	----

OVERVIEW

INTRODUCTION AND OBJECTIVE

The Office of Nuclear Energy, Science and Technology (Nuclear Energy) provides funding and program guidance¹ to the Chicago Operations Office for the Argonne National Laboratory-West (Argonne West) site in Southeastern Idaho. The Argonne West site, among other activities, supported the Advanced Liquid Metal Reactor program. The Advanced Liquid Metal Reactor program was a scientific effort to test and develop advanced nuclear reactor technology using the Experimental Breeder Reactor II (EBR II).

In February 1994, Congress directed the Department of Energy to immediately terminate the Advanced Liquid Metal Reactor program at Argonne West. Congressional direction identified its expectation that the program, which consisted mainly of the EBR II, be terminated "as soon as possible." Beginning in Fiscal Year (FY) 1995, Nuclear Energy provided funding to Argonne West under the title of "Termination Costs," and subsequently "Termination Activities". These titles were misleading because in addition to the EBR II closure activities, the "Termination" funding was also intended and used for maintaining the infrastructure of the Argonne West site, and for a Research & Development (R&D) demonstration project for the processing of sodium bonded fuel. However, Nuclear Energy has requested a change in this title in its FY 2001 budget request. To date, Nuclear Energy has provided approximately \$444 million to Argonne West for these activities. Based on input from Argonne West, Nuclear Energy estimates that approximately \$55 million of the \$444 million has been provided for EBR II closure activities.

The objective of the EBR II closure activities was to shut down, defuel, and place EBR II in an industrially, radiologically, and environmentally safe and stable state that would require minimal surveillance prior to eventual decontamination and decommissioning. Specific tasks included defueling the reactor as well as draining, processing and disposal of the sodium coolant. In December 1996, Argonne West successfully completed the defueling of the EBR II reactor. Although not approved by Nuclear Energy, Argonne West's original anticipated completion date for EBR II closure was September 1998. In an approved project plan dated December 1998, Argonne West revised this completion date to January 2002. Currently, Argonne West estimates that the EBR II closure activities will be completed in March 2002.

¹ Program guidance is the direction provided from each of the Department's Program Managers to the Operations Office responsible for the Management & Operating contractor that identifies to the contractor the work to be performed, performance expectations, measurements and other pertinent information such as funding limitations or allocations.

A previous Office of Inspector General audit titled the *Follow-Up Audit of Program Administration by the Office of Science* (DOE/IG-0457) assessed R&D activities that were funded and managed similar to the EBR II termination. That report indicated that the Office of Science did not use objective measures of performance, such as milestones, and the Department relied upon annual performance reviews by its program managers in the evaluation of R&D projects. More intense management practices were perceived to limit flexibility and inhibit creativity.

The objective of the audit was to determine whether Nuclear Energy had taken action to achieve the expeditious closure of the EBR II.

CONCLUSIONS AND OBSERVATIONS

Although directed by Congress to terminate the Advance Liquid Metal Reactor program and close the EBR II, Nuclear Energy has not taken appropriate actions, over the six years of the project, to achieve the expeditious closure of the EBR II. Specifically, Nuclear Energy did not approve the Project Management Plans submitted by Argonne West until December 1998, require Argonne West to track costs by activity, or require additional testing in Argonne West's Quality Assurance process. Instead Nuclear Energy funded, managed, and evaluated the EBR II work as a research activity, rather than a project for closure activities. As a result, Nuclear Energy has little assurance that the work performed, and the costs incurred to date by Argonne West will achieve the timely and efficient closure of EBR II.

The audit identified issues that management should consider when preparing its yearend assurance memorandum on internal controls.

(Signed)

Office of Inspector General

MANAGEMENT OF TERMINATION ACTIVITIES

Department Actions

Over the six years of the project, Nuclear Energy did not take appropriate actions to achieve the expeditious closure of EBR II. Specifically, Nuclear Energy did not approve the Project Management Plans submitted by Argonne West until December 1998, require Argonne West to track costs by termination activity, or require additional testing in Argonne West's Quality Assurance (QA) process for EBR II closure activities.

At Nuclear Energy's request, Argonne West prepared and submitted numerous project management and termination plans. However, Nuclear Energy did not approve any of the plans for implementation until December 1998. Argonne West had submitted a project management plan as early as July 1995 that identified the appropriate project management principles and controls for the EBR II closure. Included in the plan was an explanation of the work to be accomplished, the quality assurance techniques to ensure success of the work, and controls to evaluate the efficiency in meeting both cost and schedule expectations. However, Nuclear Energy did not approve the plan and Argonne West did not apply the project management principles contained in that plan. In fact, from February 1995 to May 1998, Argonne West submitted, at Nuclear Energy's request, a total of two project management plans and four termination plans without receiving written approval or direction from Nuclear Energy for their application.

Nuclear Energy officials acknowledge that they did not provide Argonne West with written approvals or written direction to implement the plans. However, Nuclear Energy officials stated that they coordinated program objectives, schedules and scope within the Department and with Congress at least once a year and with Argonne West more frequently through meetings, teleconferences, and video conferences. Nuclear Energy officials also stated that they verbally directed Argonne West to implement the approved December 1998 plan that was submitted and briefed to Congress in April 1999 by both Nuclear Energy and Argonne West management.

In addition to not formally approving project or termination plans, Nuclear Energy did not require Argonne West to track costs by activity. In fact, Argonne West did not maintain budgets nor accumulate costs for the EBR II closure activities. The accounting system at Argonne West accumulated and reported costs based on the organizational structure of the laboratory, not the unique activities, such as those associated with EBR II. Consequently, Argonne West was able to provide the Office of Inspector General with cost data by organization; however, cost data by activity was not readily available.

Also, Nuclear Energy did not require Argonne West to include additional testing in its QA process to ensure that the waste products associated with EBR II closure activities met waste disposal specifications. According to Nuclear Energy officials, Argonne West conducted QA testing to verify the chemistry basis of the treatment process, and performed the legally required QA sampling of the waste products. However, this sampling proved to be insufficient for this "first of a kind" treatment process. In the absence of sufficient QA testing, 942 barrels of sodium waste were processed in FY 1999 until Argonne West inadvertently discovered that the sodium waste did not meet the specifications for disposal. Once this problem was discovered, the 942 barrels had to be tested to determine the extent of the "unacceptable" waste. Upon completion of the testing, approximately 60 barrels had to be reprocessed in order to meet the disposal specifications identified for the waste.

Subsequent to the discovery of unacceptable waste, Nuclear Energy directed Argonne West to engage the services of outside consultants to provide independent review and assistance to the laboratory regarding the technical basis and operating parameters of the treatment process, project management and quality assurance. Nuclear Energy also directed Argonne West to revise its QA process to include 100 percent testing to evaluate whether the waste is within the specified parameters for disposal.

Project Management Requirements

The decision to terminate the Advanced Liquid Metal Reactor program was ordered by the 103rd Congress in its congressional record of February 22, 1994. In that decision, Congress directed that "the Secretary of Energy shall take such actions as are necessary to terminate, as soon as possible, the advanced liquid metal reactor program of the Department of Energy."

The directives for the application of project management principles were initially established by DOE Order 4700.1, Project Management Systems, and subsequently in DOE Order 430.1A, Life Cycle Asset Management. The project management system assures the application of sound management principles to provide a disciplined, systematic and coordinated approach to project management resulting in efficient planning, organization, coordination, budgeting, management, review, and control of Departmental projects.

The project management system fosters the concept of baseline management, accountability and performance assessment while providing a basis for determining priorities among programs and

relating these priorities to resource availability. The project management plan is used to document the plans, organization and systems that will be utilized for the project. Inherent in the project management plan is a description of the management structure to be utilized, and the controls to be applied to evaluate the work and measure progress and performance. Specifically, the system uses baseline change controls, testing and evaluation, and cost and schedule monitoring controls to ensure the direction, results and efficiency of the work.

Lack of Management Controls

Nuclear Energy funded, managed, and evaluated the EBR II closure activities as a Research & Development (R&D) activity instead of directing these activities as a project. Specifically, Nuclear Energy did not prioritize funding, mandate the use of project management techniques, or properly evaluate the performance of EBR II closure activities.

Funding

Even with Congress' decision to close EBR II, Nuclear Energy's program guidance continued to provide lump sum funding for major activities occurring at the Argonne West site without establishing well defined funding priorities for the EBR II closure. The program guidance provided by Nuclear Energy to the Chicago Operations Office for Argonne West aggregated the termination activities under the same umbrella work plan, and funded the activities from a lump sum dollar amount. However, the program guidance should have focused on the priority of the EBR II closure by specifying the amount of funds provided for that activity. While aggregation and lump sum funding of R&D activities is common in Departmental program guidance, it is not appropriate to group unrelated activities, such as R&D with work that requires application of project management principles.

For FY 1995 through FY 1999, Nuclear Energy did not set funding priorities in its program guidance and allowed Argonne West to allocate funds based upon its preferences. Nuclear Energy provided funding to Argonne West for termination activities without specifying the amounts to be allocated to the EBR II closure. As a result, Nuclear Energy direction did not reflect the priority established by the Congressional decision and informally delegated the responsibility for funds allocation to Argonne West.

Project Management

Additionally, Nuclear Energy did not require Argonne West to manage the EBR II closure activities as a project, even though the conditions were appropriate for the application of project management principles to control, monitor and report the scope, progress, cost and results of the work performed. For example, Nuclear Energy did not require Argonne West to prepare or use resource-loaded, task-oriented baseline schedules, a baseline change control process, or cost variance reports for EBR II closure activities. In addition, the cost accounting system used at Argonne West accumulated actual costs by organizational element and could not easily identify costs incurred for the EBR II termination activities. Argonne West could not project the budgeted costs, nor identify the actual costs of the EBR II termination activities.

In December 1999, Nuclear Energy made the decision to require Argonne West to submit baselines, work breakdown structures, and establish budgeted costs for the EBR II closure activities. Additionally in its FY 2000 supplemental program guidance dated March 2000, Nuclear Energy prioritized the activities to be accomplished; however, Nuclear Energy's supplemental program guidance still did not identify how the funds should be allocated among the EBR II termination activities. With Nuclear Energy's decision, Argonne West has realigned their cost accounting system to track costs based upon the specific activities. By taking these actions, project management principles have been established to allow for concurrent evaluation of the work, which can be expressed in terms of cost and schedule variances.

Performance Evaluation

Nuclear Energy did not implement the proper methodology to evaluate Argonne West's performance of the EBR II closure. Instead, Nuclear Energy evaluated the EBR II closure activities as an R&D activity. R&D activities are evaluated through program manager reviews, which are subjective in nature. Individual R&D activities are assessed and compiled to obtain a rating for each program. Each program rating is then compiled to determine the overall rating of the laboratory. This contrasts with project evaluations, which use objective measures, such as milestones and variance reports, to evaluate the progress of the project. This type of evaluation places accountability upon the contractor to meet schedule, cost and technical milestones. Further, all the performance measures in the Presidential Performance

Agreements with the Secretary of Energy were not included in the program guidance for EBR II closure activities. Two performance measures were either not included as performance measures in program guidance or were altered. Specifically, the Department of Energy's (Department) FY 1997 Presidential Performance Agreement required the conversion of 30,000 gallons of Fermi I sodium into sodium carbonate by September 1997. However, this milestone was omitted from the program guidance. As a result, this measure was not used to identify unsuccessful performance when Argonne West was unable to convert the 30,000 gallons of Fermi I sodium.

Also, the Department's FY 1999 Presidential Performance Agreement included a performance target to "complete the conversion and *disposition* of 100 percent of the secondary sodium coolant from the Experimental Breeder Reactor II." However in the FY 1999 program guidance, the performance measure applied by Nuclear Energy required only the completion of the sodium processing and did not mention completing the sodium *disposition*. Delays in the *disposition* of the sodium, which may have been identified by additional testing, were not in the evaluation of performance because it was never established as a performance measure. Therefore, unsuccessful performance may not result in unsatisfactory ratings, or impact the incentive fees paid to Argonne National Laboratory.

**Delay of
Termination**

Nuclear Energy has little assurance that the work performed, and the costs incurred to date by Argonne West will achieve the timely and efficient closure of EBR II. Nuclear Energy could not compare the EBR II closure budgeted performance to actual performance due to the absence of an approved schedule and budget, and an accounting system capable of identifying and reporting costs. Because of these deficiencies, the timeliness, and actual costs of the work performed by Argonne West for the EBR II closure could not be quantified. Further, these deficiencies prevented the evaluation of the efficiency and effectiveness of the activity. Since the December 1998 plan approved by Nuclear Energy, the EBR II closure schedule has slipped approximately 2 months and the sodium processing delay has increased project costs approximately \$1.5 million.

Furthermore, schedule slippage of the EBR II closure activities is not reflected in Argonne National Laboratory's overall performance ratings. For example, in FY 1998 and FY 1999 the Nuclear Energy program at Argonne West received the lower ratings of "Excellent" yet Argonne National Laboratory's overall rating for its Science & Technology program remained at "Outstanding."

Despite the opportunity to apply objective measures as endorsed by the Government Performance and Results Act of 1993, Nuclear Energy used the subjective evaluations of its program managers that did not appear to adversely affect the Argonne National Laboratory overall ratings or fee, even though performance in one particular area was clearly unacceptable.

Nuclear Energy officials stated that the methodology used to evaluate Argonne West's performance was established by the laboratory's Lead Program Secretarial Officer (Office of Science) which primarily funds R&D activities. Also, that the Office of Science weighs the ratings by all Program Secretarial Officers according to organizational funding levels. Nuclear Energy stated that its low comparative funding levels reduces the impact of Nuclear Energy's rating on the laboratory's overall rating and performance fee. However, Nuclear Energy stated that they are working with the Office of Science and the Chicago Operations Office to change the performance evaluation approach so that Nuclear Energy's ratings will carry more impact on the laboratory's overall ratings.

RECOMMENDATIONS

We recommend that the Director of the Office of Nuclear Energy, Science, and Technology:

1. Take actions necessary to ensure that the EBR II is closed "as soon as possible."
2. Evaluate activities funded through the program and immediately apply the project management principles contained in DOE Order 430.1A Life Cycle Asset Management when appropriate.
3. Take action to identify the amount of funds to be allocated to each of the distinct activities funded through the "Termination Costs": EBR II closure activities, R&D demonstration project, and site infrastructure.
4. Establish objective measures of performance and include presidential performance measures for the EBR II closure activities for use in evaluating contractor performance.
5. Continue to work with the Office of Science to modify the current performance ratings system for EBR II closure activities.

**MANAGEMENT
REACTION**

Management generally agreed with the finding and embraced all actions recommended in the report. In responding to the report, management recognized that some of its practices in past years were deficient in certain areas. For example, plans submitted in the first several years of the project were not formally approved. However, management stated that its approach has changed and is evidenced with the approval of the EBR II Closure Plan in December 1998. Management stated that the recommended actions are appropriate and that many of the actions necessary to correct the deficiencies noted were already in process prior to the audit being conducted. Since management has already begun to implement many of the corrective actions, management believes that the appropriate recommendation would be for Nuclear Energy to continue on its current path.

Although management agreed with the finding and recommendations, they had a basic disagreement with one Office of Inspector General position presented in the audit report. Management does not agree that it would have been more appropriate to manage the development work associated with sodium processing as a project rather than as a research and development (R&D) activity. Prior to the current fiscal year, critical-path elements of the EBR II closure activity were principally R&D and were appropriately managed as such. The EBR II Closure project consists of removal of the spent nuclear fuel, removal and disposition of sodium coolant, and facility closure. Included in the sodium disposition activity is the processing of 87,000 gallons of EBR II primary sodium, 17,000 gallons of EBR II secondary sodium, and 77,000 gallons of sodium from the Fermi-I reactor. Several western European countries dispose of their sodium into the sea because of the difficulty of processing this material. Management did not consider this approach to be environmentally acceptable, and therefore initiated a technology development activity. The processing of radioactive metallic sodium for land disposal as sodium hydroxide is a "first-of-a-kind" technology development and engineering effort and is clearly an R&D activity rather than a routine project activity. This R&D has proven to be complex, with an initial methodology abandoned in favor of a second. Because this effort began with the first principles of chemistry, developed the treatment process and engineered the equipment to apply the chemistry on a production scale for the first time, Nuclear Energy appropriately managed this effort as an R&D activity.

Since the closure activities have now moved from an R&D phase to a project phase, management of the activity has also changed. The report should reflect that Nuclear Energy has made significant changes in the management of this project. The report does not convey that management has taken many appropriate actions as evidenced by the successes achieved. This includes completing the removal of fuel from the EBR II reactor ahead of schedule and under budget. With the sodium treatment development work now completed management's FY 2000 program guidance directs Argonne West to implement project management tools consistent with those recommended in the audit report.

The audit report states that "Nuclear Energy has little assurance that the work performed, and the costs incurred to date by Argonne West will achieve the timely and efficient closure of EBR II." Management disagrees with this statement. Implementing the types of cost tracking tools discussed does not necessarily provide a greater level of assurance of effective expenditure of costs for work performed for research and development activities. The sodium processing activity had too many technical development hurdles to lend itself to accurate estimates of schedule, cost, and budgeted work. Therefore, these activities were not conducive to traditional project management controls. Management believes that it obtained assurance of efficient and timely closure through its validation of the EBR II Closure Plan approved in December 1998.

Management agrees with the Office of Inspector General position on the imposition of additional quality assurance (QA). The difficulties Argonne-West encountered in sodium processing caused a two month delay in the project that could have been mitigated through additional process testing. Management attributes this error principally to incomplete knowledge of the phase diagram of sodium properties. Additional QA testing of the processed sodium would have revealed this deficiency in the basic scientific assumptions.

Management agrees that the report is accurate in that Argonne West has been accumulating costs by organization rather than by activity, but they have provided Nuclear Energy cost data by activity when requested. Management agrees that costs should be reported by activity, and requested in the FY 2000 program guidance that this be implemented. Additionally, management agrees that program guidance has provided a single funding level, but the report does not convey that Nuclear Energy has increased the amount of detail provided in its program guidance to Argonne West over the past two years.

AUDITOR COMMENTS

Management's comments are responsive to the recommendations. Management indicated that they would develop an action plan by the mid-July 2000, that would address the recommendations in the report. Although management has taken some positive steps within the last two years to begin correcting many of the deficiencies noted in the report, our report focused on the Department's efforts since the inception of the closure project. Since there are actions the Department needs to take to satisfy the recommendations, a formal action plan is still needed to assist management in controlling and tracking the activities necessary to close EBR II "as soon as possible."

Management's disagreement stems from the fact that its philosophy is to manage EBR II closure activities as it has managed all other activities at the site – as an R&D activity. Traditionally, activities at the Argonne West site focused on R&D programs in the areas such as nuclear safety and decommissioning and decontamination technologies. However, management should have realized that the EBR II closure activities were not in the same "mold" as past Argonne West activities. From the beginning, the EBR II closure activities should have been managed as a project using approved baselines, work breakdown structures, and a baseline change control process. Additionally, management should have established budgeted costs for these activities and prepared cost variance reports to evaluate their progress. All the activities necessary to close EBR II should have been subjected to these proven techniques for successfully managing Department projects.

We recognize that implementing a cost tracking system does not ensure the effective expenditure of costs; however, the implementation of a cost tracking system does provide management with a necessary tool for evaluating actual versus budgeted costs for a project. Additionally, cost information is vital in estimating whether project costs are in line with scheduled milestones for a project. Management stated that they obtained assurance of efficient and timely closure of EBR II through the validation and approval of the December 1998 EBR II Closure Plan. However, the approval on this plan occurred approximately 46 months after Congress' direction to close EBR II. Therefore, management cannot determine with any degree of certainty that the level of effort and costs spent over the first 46 months of this project were appropriate to ensure the expeditious closure of the EBR II.

APPENDIX

SCOPE

The audit was performed from March 20 to June 2, 2000, at Idaho Falls, Idaho; Argonne, Illinois; and Department Headquarters. We reviewed EBR II closure activities performed from October 1994 to March 2000.

METHODOLOGY

To accomplish the audit objective, we:

- Reviewed applicable Department Orders, laws and regulations;
- Interviewed personnel at Headquarters, Chicago Operations Office, Argonne Area Office-West, and Argonne National Laboratory; and
- Reviewed EBR II Termination Plans, Project Management Plans, Nuclear Energy Program Guidance, Presidential Performance Agreements, Nuclear Energy Program Evaluations of activities at Argonne West, and other applicable documentation.

The audit was performed in accordance with generally accepted Government auditing standards for performance audits and included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Accordingly, we assessed the internal controls over the closure activities of the EBR II at Argonne West. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of the audit. We did not extensively rely on computer-generated data.

We held an exit conference with the Office of Nuclear Energy, Science and Technology on June 14, 2000.

CUSTOMER RESPONSE FORM

The Office of Inspector General has a continuing interest in improving the usefulness of its products. We wish to make our reports as responsive as possible to our customers' requirements, and, therefore, ask that you consider sharing your thoughts with us. On the back of this form, you may suggest improvements to enhance the effectiveness of future reports. Please include answers to the following questions if they are applicable to you:

1. What additional background information about the selection, scheduling, scope, or procedures of the audit would have been helpful to the reader in understanding this report?
2. What additional information related to findings and recommendations could have been included in this report to assist management in implementing corrective actions?
3. What format, stylistic, or organizational changes might have made this report's overall message more clear to the reader?
4. What additional actions could the Office of Inspector General have taken on the issues discussed in this report which would have been helpful?

Please include your name and telephone number so that we may contact you should we have any questions about your comments.

Name _____ Date _____

Telephone _____ Organization _____

When you have completed this form, you may telefax it to the Office of Inspector General at (202) 586-0948, or you may mail it to:

Office of Inspector General (IG-1)
Department of Energy
Washington, DC 20585

ATTN: Customer Relations

If you wish to discuss this report or your comments with a staff member of the Office of Inspector General, please contact Wilma Slaughter at (202) 586-1924.

The Office of Inspector General wants to make the distribution of its reports as customer friendly and cost effective as possible. Therefore, this report will be available electronically through the Internet at the following address:

U.S. Department of Energy, Office of Inspector General, Home Page
<http://www.ig.doe.gov>

Your comments would be appreciated and can be provided on the Customer Response Form attached to the report.