

DOE/IG-0536

# INSPECTION REPORT



U.S. DEPARTMENT OF ENERGY  
OFFICE OF INSPECTOR GENERAL  
OFFICE OF INSPECTIONS

## **FOLLOW-ON INSPECTION OF THE DEPARTMENT OF ENERGY'S VALUE ENGINEERING PROGRAM**

**DECEMBER 2001**



**U.S. DEPARTMENT OF ENERGY**  
Washington, DC 20585

December 20, 2001

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman /s/  
Inspector General

SUBJECT: INFORMATION: Report on "Follow-on Inspection of the Department of Energy's Value Engineering Program"

BACKGROUND

Value Engineering is a recognized management tool which, if properly implemented and executed, can streamline operations, improve quality, and reduce costs. Through the use of methodologies such as Value Engineering, Federal agencies are realizing an average of more than \$20 in savings/costs avoidance for each dollar spent on performing the value effort.

Office of Management and Budget (OMB) Circular A-131, "Value Engineering," requires Federal departments and agencies to use Value Engineering, where appropriate, to reduce program and acquisition costs. OMB also requires Inspectors General to evaluate how well the agencies have done in their efforts to implement Value Engineering. In July 1998, the Office of Inspector General (OIG) reported the results of its audit of DOE's Value Engineering program. We found that: (1) the Department had not implemented an effective Value Engineering program; (2) several major sites had no formal Value Engineering programs or processes in place; and (3) some Value Engineering savings were not always supported or were not the result of Value Engineering activities. Management concurred with the audit recommendations and identified actions that would be taken to address the findings and recommendations.

The objective of our follow-on inspection was to determine if the Department, including the National Nuclear Security Administration, has taken appropriate action to implement an effective Value Engineering program.

RESULTS OF INSPECTION

We concluded that the Department has not fully developed and implemented an effective Value Engineering program as required by OMB Circular A-131. Further, the Department has not taken all the actions it agreed to in response to the recommendations in the July 1998 OIG report on this subject.

We observed that to varying degrees some elements of the National Nuclear Security Administration, the Office of Science, and the Office of Environmental Management employ the use of Value Engineering to increase the efficiency and performance of their programs. However, even in these organizations, Value Engineering methodologies have not been applied consistently and, for the most part, have only been applied to construction projects. As we concluded in 1998, it is our view that the Department can materially improve the performance of its programs - - - such as reducing acquisition and program costs, increasing productivity, streamlining operations, and improving quality - - - if it implements a robust and aggressive Value Engineering program. Our report includes recommendations to address the concerns raised in this report and in our 1998 report.

Although an evaluation of the Department's contractor incentive program was not a direct part of our review, a concern was raised about the lack of incentives for contractors to employ Value Engineering principles as they operate the Department's programs. The OIG has issued several reports concerning the Department's performance-based incentive program. We plan to conduct additional reviews of this area in the future.

### MANAGEMENT REACTION

Management concurred with our recommendations and identified corrective actions that, if fully implemented, would be responsive to the recommendations.

Attachment

cc: Deputy Secretary  
Under Secretary for Energy, Science and Environment  
Administrator, National Nuclear Security Administration  
Director, Office of Management, Budget and Evaluation/Chief Financial Officer

# FOLLOW-ON INSPECTION OF THE DEPARTMENT OF ENERGY'S VALUE ENGINEERING PROGRAM

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## Overview

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### INTRODUCTION AND OBJECTIVE

Value Engineering is defined by Office of Management and Budget (OMB) Circular A-131, "Value Engineering," dated May 21, 1993, as an organized effort directed at analyzing the functions of systems, equipment, facilities, services, and supplies for the purpose of achieving the essential functions at the lowest life-cycle cost consistent with required performance, reliability, quality, and safety. These organized efforts can be performed by both in-house agency personnel and by contractor personnel. However, according to the Department of Energy's (DOE) draft "Project Management Practices" dated October 2000, "value engineering studies are led by an individual trained in value engineering."

Public Law 104-106, the Federal Acquisition Reform Act of 1996, requires Federal agencies to establish and maintain cost effective Value Engineering procedures and processes to reduce program and acquisition costs. OMB Circular A-131 requires Federal departments and agencies to use Value Engineering as a management tool, where appropriate, to reduce program and acquisition costs. OMB also requires Inspectors General to evaluate how well the agencies have done in their efforts to implement Value Engineering.

In July 1998, the Office of Inspector General (OIG) reported the results of its audit of DOE's Value Engineering program. The OIG reported that: (1) the Department had not implemented an effective Value Engineering program; (2) several major sites had no formal Value Engineering programs or processes in place; and (3) some Value Engineering savings were not always supported or were not the result of Value Engineering activities. According to the OIG audit report, as a result, the intended Value Engineering goals of reducing costs, increasing productivity, streamlining operations, and improving quality might not have been achieved to the fullest extent possible. Management concurred with the OIG audit report recommendations.

On June 25, 1999, the Deputy Secretary of Energy announced a series of Secretarial reforms to strengthen and improve management of the Department's construction and other major projects. Under the Department's Project Management Reform Initiative, it was determined that in order to complete projects successfully, safely and within budget, improved project management performance must be achieved. The Office of Engineering and Construction Management (OECM), under the auspices of the Office of the Chief Financial Officer (now the Office of Management, Budget and Evaluation), was established to lead this initiative.

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Consequently, the objective of our inspection was to determine if the Department, including the National Nuclear Security Administration, has taken appropriate action to implement an effective Value Engineering program.

## **BACKGROUND**

Value Engineering is a management tool that can be used alone or with other management techniques and methodologies, such as lifecycle costing, design-to-cost, etc., to improve operations and reduce costs. It contributes to the overall management objectives of streamlining operations, improving quality, and reducing costs, and can result in the increased use of environmentally sound and energy-efficient practices and materials.

In August 1991, an audit of Value Engineering in the Federal government by the President's Council on Integrity and Efficiency concluded that more can and should be done by Federal agencies to realize the benefits of Value Engineering. In addition, reports issued by the General Accounting Office (GAO) and agency Inspectors General have consistently concluded that greater use of Value Engineering would result in additional savings to the Federal government.

Under the Government Performance and Results Act of 1993, annual performance plans are to establish performance goals and measures covering a given fiscal year and provide direct linkage between an agency's longer-term goals and day-to-day activities. According to a June 2000 GAO report on the Department's performance plans, titled "Observations on the Department of Energy's Fiscal Year 1999 Accountability Report and Fiscal Year 2000/2001 Performance Plans," GAO does not believe the Department has adequately addressed the challenge of completing large projects. GAO believes that many of the Department's remedies focus on procedures rather than desired outcome, which is to complete large projects on time and within cost estimates.

SAVE, International, is an international society devoted to the advancement and promotion of value methodologies, such as Value Engineering. SAVE reports that through use of value methodologies, U.S. Government agencies are realizing an average of more than \$20 in savings/costs avoidance for each dollar spent on performing the value effort. The Army Corps of Engineers, the Department of the Interior, and the Department of State have confirmed that the historical return on investment for these agencies from value efforts is \$20 in savings/cost avoidance for each dollar spent. The Federal Highway Administration reported that the Federal Highway program has achieved a return of more than \$100 for each dollar spent on value efforts during the period 1997-2000. The most recent report to OMB by DOE showed \$8 in savings/cost avoidance for each dollar spent on value efforts in 1998.

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**OBSERVATIONS AND CONCLUSIONS**

We concluded that the Department, including the National Nuclear Security Administration, has not fully developed and implemented an effective Value Engineering program. The Department has not fully implemented requirements of OMB Circular A-131 for establishing and maintaining a Value Engineering program and reporting accomplishments. In addition, the Department has not fully implemented the recommendations in the July 1998 OIG audit report on the Department's Value Engineering program.

To varying degrees some elements of the National Nuclear Security Administration, the Office of Science, and the Office of Environmental Management employ the use of Value Engineering to increase the efficiency and performance of their programs. However, Value Engineering has not been applied consistently throughout these organizations and, for the most part, has only been applied to construction projects. We believe, however, that the Department will not realize the full benefits of the Value Engineering methodology, which include reducing acquisition and program costs, increasing productivity, streamlining operations, and improving quality, unless and until the requirements in OMB Circular A-131 for an effective Value Engineering program are implemented.

Although the Department's performance-based incentive program was not part of our review, a concern was raised about the lack of incentives for contractors to ensure the use of Value Engineering to reduce the cost of construction projects, equipment, systems, services, and supplies. The OIG has issued numerous reports concerning the Department's performance-based incentive program.

## Details of Findings

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OMB policy states that Federal agencies shall use Value Engineering as a management tool, where appropriate, to ensure realistic budgets, identify and remove nonessential capital and operating costs, and improve and maintain optimum quality of program and acquisition functions. According to the OMB policy, senior management will establish and maintain Value Engineering programs, procedures and processes to provide for the aggressive, systematic development and maintenance of the most effective, efficient, economical and environmentally-sound arrangements for conducting the work of agencies, and to provide a sound basis for identifying and reporting accomplishments.

### **OMB Policy Not Fully Implemented**

We found that the Department has not fully implemented requirements of OMB Circular A-131 for establishing and maintaining a Value Engineering program and reporting accomplishments.

OMB Circular A-131 defines minimum agency responsibilities for ensuring that systemic Value Engineering improvements are achieved. Among these responsibilities are: designating a senior management official to monitor and coordinate agency efforts; developing criteria and guidelines; providing training; ensuring funding for conducting Value Engineering efforts; developing annual plans for use of Value Engineering; and reporting annually to OMB on Value Engineering activities.

At the time of our review, many of these responsibilities had not been implemented. For example, a senior management official had not been designated; criteria and guidelines for Value Engineering had not been developed; a formal training program for Value Engineering had not been established; funds necessary for conducting agency Value Engineering efforts had not been included in annual budget requests to OMB; annual plans had not been developed for use of Value Engineering; and DOE had not submitted reports to OMB in FY 1999 and FY 2000 on its Value Engineering activities.

A list of the minimum agency responsibilities established by OMB Circular A-131 for Value Engineering, as well as the status of the Department's actions to implement the responsibilities, is shown in Appendix B.

Responsibility for many of the project management functions performed by the former DOE Office of Field Integration, which included responsibility for the Department's Value Engineering program, were assumed by OECM. In July 2000, OECM signed a Memorandum of Agreement with the Department's National Energy Technology Laboratory (NETL) for NETL to serve as the lead Federal support group

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to OECM for Value Engineering initiatives. According to the Agreement, NETL will establish and lead a DOE-wide Value Engineering Team. NETL will also, among other things, develop/update DOE policy and guidance on Value Engineering to establish a strong working knowledge of Value Engineering methodology, theory, and practices within the Department; develop the Value Engineering chapter of the proposed DOE Program and Project Management Manual; host Value Engineering methodology training and lessons-learned workshops; develop methodologies for computing and reporting Value Engineering-related savings; and establish annual and long-term goals and objectives for Value Engineering along with performance measures.

**1998 OIG Audit  
Recommendations Not  
Fully Implemented**

Despite the NETL initiatives, we found that none of the recommendations in the 1998 OIG audit report on the Department's Value Engineering program have been fully implemented.

According to the July 1998 OIG audit report, titled "The U.S. Department of Energy's Value Engineering Program," HQ-B-98-01, the Department had not fully developed and implemented an effective Value Engineering program. The report recommendations included corrective actions to improve the Department's Value Engineering program, such as clarifying the requirement for use of Value Engineering in DOE orders and other guidance; establishing annual and long-term goals and objectives and performance measures; ensuring guidance adequately addresses methodologies for computing and reporting savings; expanding application of Value Engineering beyond construction projects in order to realize the full benefit of the Value Engineering methodology; developing training in Value Engineering; and ensuring adequate guidance to implement a Value Engineering program is provided to program offices, including guidance on an approach to funding the Value Engineering program.

As stated previously, DOE management concurred with the recommendations in the 1998 OIG audit report and agreed to take corrective actions. Management stated that teams of field, Headquarters and contractor personnel had been established and would develop by November 1, 1998, an in-depth action plan responsive to the OIG recommendations. According to the response, management intended to implement as many of the actions as possible by November 1, 1998, or have an established schedule to complete the remaining actions.

As of September 6, 2001, however, corrective actions on the 1998 OIG audit report recommendations had not been completed. All the recommendations were open in the Department's Audit Report Tracking System (DARTS). Actions by the Department to implement

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recommendations from the 1998 OIG audit report are discussed in Appendix C.

The following is the status of selected recommendations:

**Guidance Not Clarified  
Regarding Use of Value  
Engineering**

According to the 1998 OIG audit report, the Department needs to clarify the requirement for Value Engineering in DOE O 430.1, "Life-Cycle Asset Management," (LCAM 430.1), which was issued in August 1995. DOE 430.1 required the use of a ". . . process tool, such as Value Engineering, to improve efficiency and cost effectiveness." The OIG recommended clarifying the requirement for Value Engineering in LCAM 430.1 and other Departmental guidance.

We determined that there were two DOE orders containing references to Value Engineering that were issued subsequent to the 1998 OIG audit report. We reviewed these orders to determine whether either order clarified the requirements for Value Engineering. The two orders were DOE O 430.1A, "Life-Cycle Asset Management," dated October 14, 1998, which cancelled LCAM 430.1, and DOE O 413.3, "Program and Project Management for the Acquisition of Capital Assets," issued October 13, 2000. We noted that neither DOE O 430.1A, which contained the same language regarding Value Engineering as LCAM 430.1, nor DOE O 413.3, which cancelled portions of DOE O 430.1A, contained a specific requirement regarding the use of Value Engineering.

**Goals, Objectives,  
And Performance  
Measures Not  
Developed**

According to the 1998 OIG audit report, the Department's Value Engineering program "was not fully effective because responsible officials had not developed adequate policies and procedures and annual plans as required by OMB Circular A-131, or established goals and objectives for the program." The OIG recommended that annual and long-term goals and objectives and performance measures be established for the DOE Value Engineering program.

According to management comments in DARTS, annual and long-term goals and objectives and performance measures will be developed by OECM as resources become available. OECM officials acknowledged that Value Engineering has not been a high priority for OECM. These officials attribute this to limited resources in OECM, which assumed responsibility for the 1998 OIG audit recommendations and other project management responsibilities following the dissolution of the Office of Field Integration.

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**Value Engineering Savings/Cost Avoidance Not Reported**

According to the 1998 OIG audit report, some field activities had not consistently computed or reported Value Engineering savings. The OIG recommended that Department guidance on Value Engineering application adequately address methodologies for computing and reporting savings.

From discussions with DOE officials at selected DOE sites, we learned that some field activities are not consistently computing or reporting Value Engineering savings. Although some DOE sites are conducting Value Engineering studies, the results of those studies have not been uniformly collected by the field offices and reported to Headquarters, largely, according to officials at some field sites, because Headquarters officials have not asked for the results. We contacted officials at the Albuquerque Operations Office (Albuquerque), the Idaho Operations Office (Idaho), the Oakland Operations Office (Oakland), the Oak Ridge Operations Office (Oak Ridge), and the Richland Operations Office (Richland) regarding their Value Engineering activities. Although officials at each site reported the use of Value Engineering studies, as illustrated by Table 1 below, we were unable to accurately determine the savings/cost avoidance resulting from some of these studies.

**Table 1: Value Engineering Savings/Cost Avoidance at Selected Sites**

Field Site	FY 98 Savings/Avoidance (\$M)	FY 99 Savings/Avoidance (\$M)	FY 00 Savings/Avoidance (\$M)
Albuquerque	1.5	<sup>1</sup>	<sup>1</sup>
Idaho	48.99	47.3	2.99
Oakland	6.11	0	0
Oak Ridge	13.88	<sup>1</sup>	<sup>1</sup>
Richland	9.48	74.96	23.35 <sup>2</sup>
Total	79.51	Not determined	Not determined

**Use of Value Engineering Not Expanded Beyond Construction Projects**

We determined that the focus of current Department guidance regarding Value Engineering is on the use of Value Engineering activities for construction projects, even though Value Engineering has much broader application.

A further review of the two DOE orders with references to Value Engineering indicates that the Department's policy appears to emphasize the use of Value Engineering for construction projects,

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<sup>1</sup> Site reported that savings/cost avoidance figures were not available for FY 1999 and FY 2000 in a format that would allow comparison with FY 1998 figures.

<sup>2</sup> One contractor reported \$23.4 million in savings/cost avoidance resulting from Value Engineering studies. Another major contractor was not required to report savings/cost avoidance resulting from Value Engineering studies. Therefore, a site total was not available.

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even though the definition of Value Engineering includes the analysis of equipment, systems, services and supplies, as well as facilities. Specifically:

- DOE O 430.1A, which applies to all physical assets in the Department, states that the process for physical asset acquisition . . . shall ensure, among other things, the “use of a process tool, such as value engineering, to improve efficiency and cost-effectiveness . . . .” [Emphasis added.] In addition to land, physical assets include structures, utilities, motor vehicles, equipment and components.
- DOE O 413.3, which provides project management direction for the acquisition of capital assets, states that: “Value engineering yields the greatest cost savings when applied during the planning and design phases of a project. Value engineering should also be used during the construction phase of a project.” [Emphasis added] In addition to land, capital assets include structures, equipment, and information technology (e.g., hardware, software and applications).

We also reviewed the draft “Program and Project Management” document and the draft “Project Management Practices” document, which were issued for review and use by the Department in October 2000. As with the DOE orders, the emphasis of these documents also appears to be the use of Value Engineering for construction projects. For example, the draft “Program and Project Management” document states that “the optimum timing for the use of VE [Value Engineering] is between conceptual and preliminary design.” Meanwhile, in the discussion of when to perform a Value Engineering study, the draft “Project Management Practices” document states that “since a value engineering study can result in recommending some significant changes in project direction . . . the optimum timing for a value engineering study is between the completion of the conceptual design and the initiation of the detailed design.”

As previously mentioned, OECM has augmented its staff with technical expertise from NETL, which has devised a strategy for implementation of a Value Engineering program. However, we were told by a NETL official that this strategy will not be completely implemented until the end of 2002.

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**RECOMMENDATIONS**

We believe that the Department will not realize the full benefits of the Value Engineering methodology, which include reducing acquisition and program costs, increasing productivity, streamlining operations, and improving quality, unless and until the minimum requirements in OMB Circular A-131 for an effective Value Engineering program are implemented.

Therefore, we recommend that the Director, Office of Management, Budget and Evaluation/Chief Financial Officer, take appropriate action to establish an effective Department-wide Value Engineering program by:

1. Ensuring that the requirements of OMB Circular A-131 for establishing and maintaining a Value Engineering program, to include the accurate reporting of accomplishments, are fully implemented, and
2. Ensuring that the recommendations in the 1998 OIG audit report on the Department's Value Engineering program are implemented in a timely manner.

We also recommend that the Under Secretary for Energy, Science and Environment:

3. Designate a senior official with responsibility for executing the Value Engineering program for programs and projects under the Under Secretary's cognizance. As a minimum, the designated official should:
  - a. Conduct evaluations of Value Engineering practices at Headquarters and field sites and identify appropriate corrective actions,
  - b. Develop and disseminate Value Engineering lessons learned, and
  - c. Establish a cost threshold for capital acquisitions and ensure that Value Engineering studies are conducted, as appropriate, for acquisitions exceeding the established threshold.

In addition, we recommend that the Administrator, National Nuclear Security Administration:

4. Designate a senior official with responsibility for executing the Value Engineering program for programs and projects under

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the Administrator's cognizance. As a minimum, the designated official should:

- a. Conduct evaluations of Value Engineering practices at Headquarters and field sites and identify appropriate corrective actions,
- b. Develop and disseminate Value Engineering lessons learned, and
- c. Establish a cost threshold for capital acquisitions and ensure that Value Engineering studies are conducted, as appropriate, for acquisitions exceeding the established threshold.

## **MANAGEMENT COMMENTS**

Management concurred with our recommendations.

In comments dated November 6, 2001, to our draft report the NNSA Associate Administrator for Management and Administration stated that NNSA will work with the Director, Office of Management, Budget and Evaluation/Chief Financial Officer, on the development of policies related to the Value Engineering program. Further, NNSA will continue taking the measurable steps to implementing a Value Engineering program on capital projects managed through the Associate Administrator for Facilities and Operations. According to the Associate Administrator for Management and Administration, it is the intent of NNSA to define and implement an effective Value Engineering program and to develop the reporting process to ensure it is an integral part of NNSA's program and project management. He stated that NNSA would issue a policy letter in FY 2002 that will define the process and reporting requirements for Value Engineering efforts within NNSA.

In comments dated December 6, 2001, to our draft report the Director, Office of Management, Budget and Evaluation/Chief Financial Officer, stated that his Office will continue developing policies related to the Value Engineering program, as well as taking measurable steps to implement the same program for the entire Department in accordance with the requirements contained in OMB Circular A-131. Regarding Recommendations 1 and 2, he stated that his Office will establish a Departmental Value Engineering policy that will meet the requirements of OMB Circular A-131 and that is applicable to all the Department's systems, equipment, facilities, services, and supplies for the purpose of achieving the essential functions at the lowest life-cycle

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cost consistent with required performance, reliability, quality and safety. Regarding Recommendations 3 and 4, he stated that a designated senior official would be responsible for executing the Value Engineering program for programs and projects under their cognizance. According to the Director, the estimated target for completion of corrective actions regarding the recommendations is December 2002.

**INSPECTOR  
COMMENTS**

We believe that the corrective actions identified by management, if fully implemented, will be responsive to our recommendations.

## Appendix A

### Scope and Methodology

Our review was conducted during the period June to October 2001. As part of our review, we interviewed Headquarters officials in the Department of Energy's (DOE) Office of Engineering and Construction Management, Office of Environmental Management, Office of Science, Office of Defense Programs, and Office of Procurement and Assistance Management. We also interviewed DOE and DOE contractor officials at the Idaho Operations Office, the Oakland Operations Office, the Oak Ridge Operations Office, the Richland Operations Office, the Savannah River Operations Office, the Ohio Field Office, the Rocky Flats Field Office, and the National Energy Technology Laboratory. Furthermore, we interviewed Federal officials at the Office of Management and Budget, the Department of State, the Department of the Interior, and the Army Corps of Engineers.

We collected, reviewed, and analyzed extensive documentation on the Value Engineering Program, including:

- Office of Management and Budget Circular A-131, "Value Engineering,"
- Public Law 104-106, "The Federal Acquisition Reform Act of 1996,"
- DOE O 413.3, "Program and Project Management for the Acquisition of Capital Assets," dated October 13, 2000,
- DOE O 430.1, "Life-Cycle Asset Management," issued in August 1995,
- DOE O 430.1A, "Life-Cycle Asset Management," dated October 14, 1998,
- DOE Order 4010.1A, "Value Engineering," dated May 14, 1992,
- Office of Inspector General Audit Report No. HQ-B-98-01, "The U.S. Department of Energy's Value Engineering Program," dated July 1998,
- General Accounting Office Report No. GAO/RCED-00-209R, "Observations on the Department of Energy's Fiscal Year 1999 Accountability Report and Fiscal Year 2000/2001 Performance Plans," dated June 30, 2000,

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- National Research Council Report, “Improving Project Management in the Department of Energy,” dated July 1, 1999, and
  - Draft DOE “Value Engineering Implementation Strategy,” dated June 1, 2001.

The inspection was conducted in accordance with the “Quality Standards for Inspections” issued by the President’s Council on Integrity and Efficiency.

## Appendix B

### OMB CIRCULAR A-131 REQUIREMENTS

The Department of Energy's (DOE) draft implementation strategy includes actions that would bring DOE into compliance with OMB A-131 requirements. The table below shows the current status of DOE with regard to the requirements.

Requirement	DOE Status
a. Designate a senior management official to monitor and coordinate agency Value Engineering (VE) activities.	There is no written designation, but the Director, Office of Engineering and Construction Management (OECM), is the designated official by virtue of responsibilities.
b. Develop criteria and guidelines for both in-house personnel and contractors to identify programs/projects with the most potential to yield savings from the application of VE techniques.	Criteria and guidelines do not exist.
c. Assign responsibility to the senior management official designated pursuant to [a.] above, to grant waivers of the requirement to conduct VE studies on certain programs and projects. This responsibility may be delegated to other appropriate officials.	No one is designated to grant waivers.
d. Provide training in VE techniques to agency staff responsible for coordinating and monitoring VE efforts and for staff responsible for developing, reviewing, analyzing, and carrying out VE proposals, change proposals, and evaluations.	No formal VE training is provided.
e. Ensure that funds necessary for conducting agency VE efforts are included in annual budget requests to the Office of Management and Budget (OMB).	Specific funds for VE efforts are not included in the annual budget to OMB. Efforts are funded from the individual projects.
f. Maintain files on projects/programs/systems/products that meet agency criteria for requiring the use of VE techniques.	OECM does not maintain files on VE, but various field offices keep files.
g. Adhere to the acquisition requirements of the FAR, including the use of VE clauses set forth in Parts 48 and 52.	DOE officials state that FAR clauses are used as appropriate.
h. Develop annual plans for using VE in the agency.	DOE does not have annual plans for VE.
i. Report annually to OMB on VE activities.	DOE did not report to OMB on VE activities for FY 1999 or FY 2000.

## Appendix C

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### STATUS OF 1998 OIG AUDIT RECOMMENDATIONS

In July 1998, the Office of Inspector General (OIG) issued a report on the results of its audit of the Department's Value Engineering program. The report, titled "The U.S. Department of Energy's Value Engineering Program," HQ-B-98-01, contained recommendations for corrective actions to improve the Department's Value Engineering program. These actions included, among other things, clarifying the requirement for use of Value Engineering in DOE orders and other guidance; establishing annual and long-term goals and objectives and performance measures; ensuring guidance adequately addresses methodologies for computing and reporting savings; expanding application of Value Engineering beyond construction projects in order to realize the full benefit of the Value Engineering methodology; developing training in Value Engineering; and ensuring adequate guidance to implement a Value Engineering program is provided to program offices, including guidance on an approach to funding the Value Engineering program.

As of September 6, 2001, corrective actions on the 1998 OIG audit report recommendations had not been completed. All the recommendations were open in the Department's Audit Report Tracking System (DARTS). The following is the status of actions by the Department to address the specific OIG audit report recommendations as reported by the Department in its most recent DARTS status report dated March 31, 2001, and in discussions with program officials:

The 1998 OIG audit report recommended that the then Director, Office of Field Management:<sup>3</sup>

- clarify the requirement for Value Engineering application in LCAM 430.1 and other Departmental guidance,
- ensure that recently developed Departmental guidance on Value Engineering application adequately address:
  - procedures on processing proposals
  - guidance on those cost savings initiatives that will be acceptable as Value Engineering efforts;
  - methodologies for computing and reporting savings; and,
  - documentation required to support such savings.

In its DARTS status report, the Department reported that DOE Order 413.3, "Program and Project Management for the Acquisition of Capital Assets" and the draft Project Management Manual were issued for use on October 13, 2000. Additional guidance related to Value Engineering is under development and will be included in the final draft of the Manual before it is put into the directives review process in October 2001.

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<sup>3</sup> The Office of Field Management was renamed the Office of Field Integration.

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The 1998 OIG audit report recommended that the then Director, Office of Field Management:

- Establish annual and long term goals and objectives and performance measures for the DOE Value Engineering program, and
- Develop, in conjunction with the program offices, a strategy/annual plan that includes those programs and projects that may better benefit from the application of Value Engineering techniques. Application of Value Engineering should be expanded beyond construction projects in order to realize the full benefit of the Value Engineering methodology.

In its DARTS status report, the Department reported that OECM, which assumed the Office of Field Integration responsibilities for Value Engineering when the Office of Field Integration was dissolved, would accomplish these recommendations as resources become available. We note, however, that the draft Value Engineering implementation strategy prepared by OECM addresses only capital acquisitions, and, therefore, is not consistent with the 1998 OIG audit report recommendation to expand the application of Value Engineering beyond construction projects.

The 1998 OIG audit report recommended that the then Director, Office of Field Management:

- Develop Value Engineering competencies and training requirements and ensure that agency staff involved with Value Engineering application are adequately trained.

In its DARTS status report, the Department reported that Value Engineering competencies and training requirements would be integrated into the Project Management Career Development Program, which will be a two-year effort.

The 1998 OIG audit report recommended that the then Director, Office of Field Management:

- Work with the Office of the Deputy Secretary to ensure sufficient guidance to implement a Value Engineering program is provided to the program offices consistent with OMB Circular A-131. The approach for funding the Value Engineering program shall be included in this guidance.

In its DARTS status report, the Department reported that, in conjunction with the recommendations for clarification of Value Engineering requirements and guidance, the revision to the draft Project Management Manual would further develop procedures for implementing Value Engineering.

The 1998 OIG audit report also recommended that the then Deputy Assistant Secretary for Procurement and Assistance Management work with the Office of Field Management to identify procurement policy changes necessary to implement the Department's Value Engineering program.

In its DARTS status report, the Department reported that this depends on whether any recommendations proposed by OECM are approved and whether the approved recommendations require any procurement policy changes.

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