

DOE 4010. 1A
5-14-92

THIS PAGE MUST BE KEPT WITH DOE 4010. 1A, VALUE ENGINEERING.

DOE 4010. 1A, VALUE ENGINEERING, HAS REVISED DOE 4010. 1
TO REFLECT ORGANIZATIONAL TITLE, ROUTING SYMBOL, AND
OTHER EDITORIAL REVISIONS REQUIRED BY SEN-6. NO
SUBSTANTIVE CHANGES HAVE BEEN MADE. DUE TO THE NUMBER
OF PAGES AFFECTED BY THE REVISIONS, THE ORDER HAS BEEN
ISSUED AS A REVISION.

U.S. Department of Energy

Washington, D.C.

ORDER

DOE 4010.1A

5-14-92

SUBJECT: VALUE ENGINEERING

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1. PURPOSE. To implement Office of Management and Budget (OMB) Circular A-131, shown in Attachment 1 of this Order, and to establish procedures in the Department which meet the requirements of that circular.
 2. CANCELLATION. DOE 4010.1, VALUE ENGINEERING, of 2-17-89.
 3. SCOPE. The provisions of this Order apply to all Departmental Elements and contractors performing work for the Department, as provided by law and/or contract and as implemented by the appropriate contracting officer.
 4. REFERENCES.
 - a. DOE 4200.3C, MANAGEMENT OF SUPPORT SERVICE CONTRACT ACTIVITY, of 5-17-91, which provides the policy, procedures, and responsibilities for the management of support service contracts within the Department.
 - b. OMB Circular A-131, "Value Engineering," of 1-26-88, which requires that agencies shall establish value engineering (VE) programs and use VE, where appropriate, to reduce nonessential costs and improve productivity.
 - c. Executive Order 12615, "Performance of Commercial Activities," of 11-19-87, which facilitates ongoing efforts to ensure that the Federal Government acquires needed goods and services in the most economical and efficient manner.
 - d. Office of Federal Procurement Policy, "Guide for Writing and Administering Performance Statements of Work for Service Contracts," of 10-8-80, which provides OMB instructions for preparing statements of work.
 - e. FAR Part 48, "Value Engineering," of 3-2-89, which provides information on the applicability and administration of value engineering in Government contracts.
 - f. FAR Part 57.248-1, "Value Engineering," of 3-2-89, which provides information on inserting relevant clauses in supply or service contracts thereby enabling value engineering incentives under the conditions specified in FAR 48.201.

DISTRIBUTION:

All Departmental Elements

INITIATED BY:

Office of Organization, Resources
and Facilities Management

5. DEFINITIONS.

- a. Value Engineering An organized effort directed by a person trained in VE techniques to analyze 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, availability, quality, and safety. (Terms such as value analysis, value control, value improvement, value management, and functional analysis are synonymous.)
 - b. Value Engineering Change Proposal (VECP). A change proposal that is submitted by a contractor under a VE incentive or mandatory program requirement clause included in a Federal contract.
 - c. Value Engineering Proposal (VEP). A change proposal developed by employees of the Federal Government or contractor VE personnel employed by the agency to provide VE services for the contract or program.
 - d. Value Engineering Incentive (VEI) Clause. A contract clause which allows for the voluntary participation by the contractor in the development and submission of VECPs. The contract clause provides that when a VECP is accepted, any resulting savings are shared with the contractor in a preestablished - usually a percentage - basis set forth in the contract.
 - e. Value Engineering Program Requirement (VEPR). A contractual requirement that a contractor maintain a formal Value Engineering Program as a condition of contract performance. It is implemented by contract clause and is generally reserved for circumstances where substantial savings may result from a sustained value engineering effort.
 - f. Value Engineering Program Requirement (VEPR) Clause. A contract clause which requires a contractor to conduct a specific VE effort within the contract, i.e., an effort to identify and submit to the Government methods for performing more economically. In this approach, the contractor also shares in any savings resulting from the VECP, but at a lower percentage rate than under the voluntary VEI approach. This effort is generally directed at the major cost items of a system or project.
6. POLICY. The policy is to establish VE programs, and use VE, where appropriate, to reduce nonessential costs and improve productivity. These VE programs shall, at a minimum, provide for the management and procurement practices as required by OMB Circular A-131.

7. RESPONSIBILITIES.

- a. Director of Administration and Human Resource Management (AD-1), has the overall responsibility for the effective implementation of OMB Circular A-131.
- b. Director of Organization, Resources and Facilities Management (AD-10), through the Director of Facilities and Real Property Management (AD-14), shall establish a VE program (in accordance with the procedures listed below), including the establishment of an advisory VE Steering Committee consisting of appropriate Headquarters and field program managers.
- c. Director of Procurement, Assistance and Program Management (PR-1), through the Cognizant Contracting Officers, shall ensure that the contractual aspects of the Department's VE program are appropriately implemented.
- d. Heads of Departmental Elements shall ensure that the policies and procedures identified in OMB Circular A-131 and this Order are carried out for activities under their jurisdiction.
- e. VE Steering Committee, an advisory body composed of selected Heads of Departmental Elements, recommends VE criteria and guidelines to the Director of Facilities and Real Property Management for possible Departmentwide application; and provides-technical input, advice, and assistance on VE program planning. A list of the current VE Steering Committee membership is as follows:

Director of Administration and Human Resource Management
Assistant Secretary for Nuclear Energy
Assistant Secretary for Fossil Energy
Assistant Secretary, Conservation and Renewable Energy
Assistant Secretary for Defense Programs
Assistant Secretary for Environment, Safety, and Health
Assistant Secretary for Environmental Restoration and Waste Management
Director of Civilian Radioactive Waste Management
Director of Energy Research
Director of Naval Reactors
Manager, DOE Albuquerque Field Office
Manager, DOE Chicago Field Office
Manager, DOE Fernald Field Office
Manager, DOE Idaho Field Office
Manager, DOE Nevada Field Office
Manager, DOE Oak Ridge Field Office
Manager, DOE Richland Field Office
Manager, DOE San Francisco Field Office
Manager, DOE Savannah River Field Office

Director, Morgantown Energy Technology Center
Director, Pittsburgh Energy Technology Center
Administrator, Bonneville Power Administration
Administrator, Western Area Power Administration

8. PROCEDURES. This Order requires all Departmental Elements to establish a VE program and use VE, where appropriate, to reduce nonessential costs and improve productivity.
- a. Establish Criteria and Guidelines. Establish criteria and guidelines to identify those programs and projects that are most appropriate for VE studies.
- (1) AD-14 shall review and evaluate the criteria and guidelines developed by the field elements and approved by Headquarters or Power Marketing Administrations' program offices.
 - (2) Heads of Headquarters program offices shall review and approve the field elements' criteria and guidelines.
 - (3) Heads of Field Elements shall develop specific criteria and guidelines for programs and projects and, through delegated contracting authority to contracting officers, perform the procurement practices described in OMB Circular A-131.
 - (4) Heads of Power Marketing Administrations' program offices shall review and approve the field elements' criteria and guidelines.
- b. Budgeting for VE. Heads of Field Elements shall develop and include in their annual budgets funding as appropriate to support VE programs under their jurisdiction.
- c. Promotion and Training. Promote, through training and other programs, the potential of VE to reduce unnecessary costs.
- (1) AD-14 shall coordinate the development of Departmental training programs and other promotional activities including the recognition of exemplary VE accomplishments by Departmental in-house and/or contractor personnel.
 - (2) Heads of Headquarters program offices shall participate as appropriate in Departmental training programs.
 - (3) Heads of Field Elements shall utilize training programs which have been authorized by AD-14 and/or develop and provide other training as appropriate.
- d. Perform VE Studies. Heads of Field Elements shall perform VE studies as early in the design process as feasible and implement study recommendations as appropriate.

e. Report Annual Summary VE Program Information.

- (1) AD-14 shall review Headquarters and field elements' annual VE reports, consolidate them into a Departmental report, and submit that report to OMB in accordance with OMB Circular A-131.
- (2) Heads of Headquarters program offices shall review and concur with field organizations' reports as appropriate"
- (3) Heads of Field Elements shall prepare an annual VE report in the format shown in Attachment 2 of this Order.
- (4) Heads of Field Elements' reports shall be submitted annually to AD-14 by November 15 of each year.

BY ORDER OF THE SECRETARY OF ENERGY:



DONALD W. PEARMAN, JR.
Acting Director
Administration and Human
Resource Management



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON D.C. 20503

January 26, 1988

CIRCULAR NO. A-131

TO THE HEADS OF EXECUTIVE DEPARTMENTS AND ESTABLISHMENTS

SUBJECT: Value Engineering

1. Purpose. The purpose of this Circular is to require the use of value engineering, as appropriate, by Federal Departments and agencies to identify and reduce nonessential procurement and program costs. The Circular requires agency heads to establish and improve their use of value engineering programs.

2. Background. Value engineering in the Federal Government is a means some Federal contractors and Government entities to change the plans, designs and specifications for Federal programs and projects. These changes are intended to lower the Government's costs for goods and services and maintain necessary quality levels.

- a. Prior Reports. Over the last several years, reports issued by the General Accounting Office (GAO) and many Inspectors Generals (IGs) have consistently concluded that greater use of value engineering would result in substantial savings to the Government. While some Federal agencies have value engineering programs, other agencies have not utilized value engineering fully. Even for agencies with established programs, the GAO and IG reports conclude that much more can and should be done to realize the benefits of value engineering.
- b. Identified Impediments. The impediments that are frequently noted in these reports and that have prevented a greater use of value engineering include:
 - (1) Failure of senior management to allocate the necessary resources, both in effort and in funds, to establish and run value engineering programs;
 - (2) Absence of good criteria for selecting projects and programs for value engineering studies;

- (3) Failure to properly perform value engineering studies;
 - (4) Inadequate attention by agency management to reviewing and implementing the recommendations made in value engineering studies.
- c. Other Problems. Many of the problems noted in the GAO and IG reports are attitudinal. A common observation in many of the reports is that there are few incentives to use value engineering or other cost cutting techniques to save money on fully funded Federal programs and projects. Obviously, programs should be developed, critically reviewed and administered in the most cost effective manner possible. Value engineering and other management techniques must ensure realistic project budgets and identify and remove nonessential capital and operating costs.

3 . Definitions.

- a. Agency. AS used in this Circular, the term "agency" means any executive department, military department, government corporation, government controlled corporation or other establishment of the executive branch of the Federal government.
- b. Value Engineering An organized effort directed by a Person trained in value engineering techniques to analyze 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.
- c. Value Engineering Change Proposal (VECP). A change proposal that is submitted by a contractor under a value engineering incentive or program requirement clause included in a Federal contract.
- d. Value Engineering Proposal. A change proposal developed by employees of the Federal Government or contractor value engineering personnel employed by the agency to provide value engineering services for the contract or program.

4. Policy. Agencies shall establish value engineering programs and use value engineering, where appropriate, to reduce nonessential costs and improve productivity. Value

engineering programs of agencies shall, at a minimum, provide for the following management and procurement practices.

- a. Management Practices. Value engineering programs must be tailored to the mission and organizational structure of each agency. For example, the cost and program/project size usually indicate the potential for value engineering. In most agencies, a relatively few programs or projects comprise the majority of costs and value engineering efforts should be concentrated on these programs and projects. Therefore, agencies shall:
 - (1) Emphasize, through training, evaluation and other programs, the potential of value engineering to reduce unnecessary costs.
 - (2) Establish a single entity within the agency to manage and monitor value engineering efforts, encourage the use of value engineering and maintain data on the program. This function shall achieve the purposes of this circular. Value engineering training shall be provided to the person responsible for the value engineering function and to other personnel responsible for developing, reviewing and analyzing value engineering actions.
 - (3) Report and update the name, address and telephone number of the person responsible for each agency's value engineering program to the Office of Federal Procurement Policy, Office of Management and Budget.
 - (4) Ensure that funds necessary for operating agency value engineering programs are included in annual budget requests, and provide annual summary value engineering program information to the Office of Management and Budget as requested.
 - (5) Establish criteria and guidelines to identify those programs and projects that are most appropriate for value engineering studies. The criteria and guidelines should recognize that the potential savings are generally greatest during the planning, design, and other early phases of project/program development.

- (6) Require that files be documented to explain why value engineering studies were not performed or required for any programs/projects meeting the agency criteria.
- (7) Establish guidelines to evaluate and process value engineering proposals.

b. Procurement Practices. Present procurement policies and practices for the use of value engineering are set forth in Parts 48 and 52 of the Federal Acquisition Regulation (FAR). Part 48 provides two basic incentive approaches for using value engineering. The first approach uses a Value Engineering Incentive (VEI) clause. In this approach the contractor's participation is voluntary and the contractor uses its resources to develop and submit VECPs. A contract clause provides that when a VECP is accepted any resulting savings are shared with the contractor on a preestablished - usually a percentage - basis set forth in the contract.

The second approach, uses a Value Engineering Program Requirement (VEPR) clause and requires the contractor to conduct a specific value engineering effort within the contract, i.e., an effort to identify and submit to the Government methods for performing more economically. In this second approach, the contractor also shares in any savings resulting from the VECP, but at a lower percentage rate than under the voluntary approach. This effort generally is directed at the major cost items of a system or project.

The FAR presently permits agency heads to exempt their agencies from using value engineering provisions in contracts. The authority to totally exempt agencies from using value engineering provisions will be rescinded and the FAR will be modified to require that contracting activities include value engineering provisions in contracts except where exemptions are granted on a case-by-case basis or for specific classes of contracts. One time agency-wide exemptions will no longer be permitted. In addition, agency contracting activities will:

- (1) Actively elicit VECPs from contractors.
- (2) Promote value engineering through contractor meetings and the dissemination of promotional

and informational literature regarding the value engineering provisions of contracts.

- (3) Establish guidelines for processing value engineering change proposals and require that contract files list all change proposals requiring more than 45 days to accept or reject.
- (4) Document all contract files to explain the rationale for accepting or rejecting value engineering change proposals.
- (5) Use the value engineering clauses provided in the FAR for appropriate supply, service, architect-engineer and construction contracts.
- (6) Use the value engineering program requirement clause (FAR 52.248-1 alternatives I or II) in initial production contracts for major systems programs and for contracts for research and development except where the controlling program officer determines and documents the file to reflect that such use is not appropriate (see Section 4 of Public Law 93-400, as amended (41 U.S.C. 403) for definitions of major systems) .

5. Sunset Review. The policies contained in this Circular will be reviewed by the Office of Management and Budget three years from the date of issuance.

6 Inquiries. Further information on the Circular may be obtained by contacting the Office of Federal Procurement Policy, 726 Jackson Place, NW, Washington, DC 20503, Telephone (202) 395-6803.


James C. Miller III
Director

Format for DOE Annual Feeder Report

Submitting Field Element - DOE Albuquerque Field Office

Reporting period - FY 1987

Contact Person and telephone number - Jerry Wilson, FTS 844-3291

- A. Estimated Total amount of funds invested in VE this FY - \$ 375K
 - 1. Funds invested in DOE-sponsored programs - \$375K
 - 2. Funds invested by contractors (VECP costs) - \$0
 - B. Estimated VE savings achieved this FY - \$ 20 Million (M)
 - 1. Savings achieved by implemented DOE-sponsored studies - \$ 20M
 - 2. Savings generated by accepted VECPS - \$ 0
 - c. Total employees assigned to VE - Federal 1 Contractor 0
 - 1. Number of full-time employees - Federal 1 Contractor 0
 - 2. Number of FTEs - Federal 1 Contractor 0
 - D. Number of Department employees receiving 8 hours or more of VE training this FY - Federal 42 Contractor 76
 - E. Number of Department employees receiving under 8 hours of VE training this FY - Federal 22 Contractor 0
 - F. Number of VE proposals received this FY - VEPS 135 VECPS 0
 - G. Number of VE proposals approved this FY - VEPs 70 VECPS 0
1. Funds Invested. Estimates should include salaries and overhead expenses of value engineering employees, value engineering training costs, costs for contracting for value engineering services, VEP or VECP development and implementation costs, and any other costs directly associated with your value engineering program. Overhead may be estimated at 50% of salaries.
2. Savings. Savings are defined as a reduction in or the avoidance of expenditures that would have been incurred except for the value engineering program. Savings should be reported in the year incurred; i.e., in the year that the reduction or cost avoidance actually occurs. Recurring savings resulting from a specific VE effort should be reported for a maximum of three years - the initial year and the two subsequent years. Procurement savings resulting from value engineering efforts should be calculated in accordance with FAR 52.248-1(g).

