

**ADMINISTRATIVE CHANGE TO
BOP 413.1, Value Management (VM)**

Locations of Changes:

Page	Paragraph	Changed	To
Throughout document		Updated format	
Throughout document		BOP-50.002	BOP 413.1 reflects new numbering system ¹
Throughout document		Updated organizational titles due to reorganizations	
Title Page		ESTABLISHMENT OF A NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA) VALUE MANAGEMENT (VM) POLICY	VALUE MANAGEMENT (VM)
1	1	To establish a National Nuclear Security Administration (NNSA) policy on the conduct of value management (VM) and uniform reporting procedures when VM is applied in a NNSA program or project.	To establish a policy on the conduct of value management (VM) and uniform reporting procedures when VM is applied in a NNSA program or project.
1	3.b.	The Naval Nuclear Propulsion Program and its contractors, where inconsistent with the authority of the Director, Naval Nuclear Propulsion Program, pursuant to Executive Order 12344, as set forth in Public Law (P.L.) 98-525, the Department of Energy National Security and Military Applications of Nuclear Energy Authorization Act of 1985, and P.L. 106-65, the National Nuclear Security Administration Act.	In accordance with the responsibilities and authorities assigned by Executive Order 12344, codified at 50 USC sections 2406 and 2511 and to ensure consistency through the joint Navy/DOE Naval Nuclear Propulsion Program, the Deputy Administrator for Naval Reactors (Director) will implement and oversee requirements and practices pertaining to this directive for activities under the Director's cognizance, as deemed appropriate.
1 4	4 7	Removed outdated and updated referenced directives	

Page	Paragraph	Changed	To
2	5.d.	After completion of a value management study and approval by the project/program manager, the study shall be included with permanent program/project files and an NNSA Value Management Report Summary (see Appendix 2) shall be furnished to the Acquisition Executive (for capital acquisition projects) and the Associate Administrator for Infrastructure and Environment.	After completion of a value management study and internal approval by the project/program manager, the study shall be included with permanent program/project files, and an NNSA Value Management Report Summary (see Appendix 2) shall be furnished to the Acquisition Executive (for capital acquisition projects), the Associate Administrator for Acquisition and Project Management, and the contracting officer.
3	5.f.	Program managers, project managers, and contracting officers shall apply the provisions of FAR Parts 48 and 52 including FAR 52.248-1, as modified, to any DOE Acquisition Regulation requirements or other applicable NNSA specific guidance.	Program managers, project managers, and contracting officers shall apply the provisions of FAR Parts 48 and 52 including FAR 52.248-1, as modified, to any DOE Acquisition Regulation (DEAR) requirements or other applicable NNSA specific guidance.
3	6.d.	<u>Contracting Officers:</u> insert a value management clause in appropriate contracts when the contract amount is expected to exceed \$100,000 pursuant to FAR 48.201 and FAR 48.202.	<u>Contracting Officers:</u> 1. insert a value management clause in appropriate contracts when the contract amount is expected to exceed \$100,000 pursuant to FAR 48.201 and FAR 48.202; 2. insert DEAR clause 970.5215-4, entitled "Cost Reduction NNSA Class Deviation (Mar 2011)," in appropriate contracts; and 3. review, approve and/or authorize Value Engineering Change Proposals submitted by the contractor and any related contract changes to scope, cost, and/or schedule.
4	7.g.		DEAR 970.5215-4 Cost Reduction NNSA Class Deviation (Mar 2011)

Page	Paragraph	Changed	To
5	9	The point of contact for the Value Management Policy is the Associate Administrator for Infrastructure and Environment (202) 586-7349	Office of Enterprise Project Management, 505-845-4561
5	Signature	Linton F. Brooks Administrator	Robert Raines Associate Administrator for Acquisition and Project Management
AP1-1	4	For ongoing Capital Acquisition projects, the Acquisition Executive, Line Management, or Federal Project Director can determine if a potential for project lifecycle improvements exists. Improvements include: determination or modification of project scope, determination or modification of project schedule, or determination or modification of project costs. If so, the Federal Project Director, in consultation with the Acquisition Executive, and/or line management, can decide, at any time during the project, to conduct a facilitated, project-enhancing study that adds value to either scope, schedule, or costs. Value management studies or other project enhancing investigations that increase project value will be included in the project files. Decisions to perform value management or other project enhancing investigations will be reviewed and approved by the Project Acquisition Executive, line manager, and/or Federal project director.	For ongoing Capital Acquisition projects, the Acquisition Executive, Line Management, or Federal Project Director can determine if a potential for project lifecycle improvements exists. Improvements include: determination or modification of project scope, determination or modification of project schedule, or determination or modification of project costs. If so, the Federal Project Director, in consultation with the Acquisition Executive, contracting officer, and/or line management, can decide, at any time during the project, to conduct a facilitated, project-enhancing study that adds value to scope, schedule, or costs. Value management studies or other project enhancing investigations that increase project value will be included in the project files. Decisions to perform value management or other project enhancing investigations will be reviewed and approved by the Project Acquisition Executive, line manager, and/or Federal project director.

Page	Paragraph	Changed	To
API-1	6	<p>For other ongoing programs and projects, the appropriate Deputy or Associate Administrator, interim line manager, Federal program manager, or Federal project manager can determine if a potential for project lifecycle improvements exists. If so, they can decide at any time during the program/project, in coordination with the others, to conduct a value management study to add value to the scope, schedule, or cost of the program/project.</p>	<p>For other ongoing programs and projects, the appropriate Deputy or Associate Administrator, interim line manager, Federal program manager, or Federal project manager can determine if a potential for project lifecycle improvements exists. If so, they can decide at any time during the program/project, in coordination with the contracting officer and others, to conduct a value management study to add value to the scope, schedule, or cost of the program/project.</p>
API-2	8	<p>No format or scope is specified for a NNSA value management study. Rather, a value management study can be any well-documented investigation of a project that adds or increases value to the government. However, the value management study report, at a minimum, should contain an Executive Summary, a one-page NNSA Value Management Summary Report (see Appendix 2), detailed description of analysis methodology, alternatives analysis, evaluation of best alternatives, project lifecycle results, recommendations, team members, and applicable project documentation.</p>	<p>No format or scope is specified for a NNSA value management study. Rather, a value management study can be any well-documented investigation of a project that adds or increases value to the government. However, the value management study report, at a minimum, should contain an Executive Summary, a one-page NNSA Value Management Summary Report (see Appendix 2), detailed description of analysis methodology, alternatives analysis, evaluation of best alternatives, project lifecycle results, recommendations, team members, and applicable project documentation. Value Engineering Change Proposals submitted by the contractor shall be in accordance with DEAR 970.5215-4, NNSA Class Deviation,</p>

BUSINESS OPERATING PROCEDURE

BOP 413.1

Approved: 9-19-06
Admin Change 1: 1-6-14

VALUE MANAGEMENT (VM)



NATIONAL NUCLEAR SECURITY ADMINISTRATION Office of Acquisition and Project Management

CONTROLLED DOCUMENT
AVAILABLE ONLINE AT:
<http://hq.na.gov>

OFFICE OF PRIMARY INTEREST (OPI):
Office of Enterprise Project Management

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VALUE MANAGEMENT (VM)

1. **PURPOSE.** To establish a policy on the conduct of value management (VM) and uniform reporting procedures when VM is applied in a NNSA program or project.

Value management provides increased organizational discipline within NNSA programs and projects to increase management efficiency by improving performance reliability, quality, safety, and lifecycle costs. Value management shall be considered an integral part of the overall program and project management process, and shall not be limited to determining lowest costs, but shall be used as a method for determining best value, including identifying, validating, or modifying program/project scope, schedule, and/or cost.

2. **CANCELLATION.** BOP-50.002, *Establishment of a National Nuclear Security Administration (NNSA) Value Management (VM) Policy*, dated 9-19-06.

3. **APPLICABILITY.**

- a. **NNSA Applicability.** This policy pertains primarily to project management activities and secondarily to program management activities. This policy letter applies to all NNSA elements performing work for the National Nuclear Security Administration, as provided by law and/or contract and as implemented by the appropriate contracting officer, except as provided in Section 3.b. of this Policy Letter

- b. **Equivalencies.** In accordance with the responsibilities and authorities assigned by Executive Order 12344, codified at 50 USC sections 2406 and 2511 and to ensure consistency through the joint Navy/DOE Naval Nuclear Propulsion Program, the Deputy Administrator for Naval Reactors (Director) will implement and oversee requirements and practices pertaining to this directive for activities under the Director's cognizance, as deemed appropriate.

4. **BACKGROUND.** The maintenance and application of a cost-effective value engineering process is required by Public Law 104-106, Section 4306, as codified by 41 United States Code 432 and the implementing requirements of the Office of Management and Budget (OMB) Circular A-131, *Value Engineering*. Within the Department of Energy (DOE), DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, DOE Order 430.1B, *Real Property Asset Management*; and contractual requirements pursuant to the Federal Acquisition Regulation (FAR) Part 48, *Value Engineering*, and FAR Part 52.248, *Value Engineering*, require application of value engineering processes to capital acquisition projects.

5. **REQUIREMENTS.**

- a. NNSA program and project managers have a responsibility to assess whether current plans and designs will achieve the “best value” for the government. These assessments can occur at any time during the program/project lifecycle, to include

program/project inception, initial planning/design, and execution/construction. Demonstration of this consideration can be accomplished in a variety of ways such as conducting a VM study, conducting a study for other purposes that includes VM objectives, or by taking credit for applicable studies conducted by other programs/projects. Program and project managers shall explicitly describe in planning documents how they expect to address and meet VM considerations and objectives.

1. Program and project managers shall apply value management whenever there appears to be potential for program and/or project lifecycle improvement at a cost commensurate with the value to be added, i.e., where the value to be added exceeds the cost of conducting the VM activity and effecting related changes to the program and/or project.
 2. The minimum dollar threshold for programs and projects requiring the application of value management is \$1 million. Lower thresholds may be established at the direction of the Acquisition Executive, line management, or the Federal Project Director for projects having major impacts on operations.
 3. For real property asset acquisition, disposition, demolition, repair, and recapitalization projects where the total value for a single item of purchase or contract is expected to be greater than \$5 million, a value management assessment shall be performed. Real estate acquisitions are excluded from value management assessments.
- b. Value management shall comply with all applicable laws, regulations, and implementing guidelines for application and use of value engineering (see 4. Background), yet takes advantage of all available VM methods and techniques.
 - c. If it is determined that a value management study should be conducted, a variety of study concepts may be applied. The study shall be a tailored, verifiable process that achieves the essential functions of a project or program at the best value for the government, consistent with the needed performance, safety, security, reliability, and maintainability (see Appendix 1 for process guidelines).
 - d. After completion of a value management study and internal approval by the project/program manager, the study shall be included with permanent program/project files, and an NNSA Value Management Report Summary (see Appendix 2) shall be furnished to the Acquisition Executive (for capital acquisition projects), the Associate Administrator for Acquisition and Project Management, and the contracting officer.
 - e. The Associate Administrator for Acquisition and Project Management is the focal point for value management and shall annually provide the NNSA value management reporting data to the DOE Director for the Office of Acquisition and Project Management.

- f. Program managers, project managers, and contracting officers shall apply the provisions of FAR Parts 48 and 52 including FAR 52.248-1, as modified, to any DOE Acquisition Regulation (DEAR) requirements or other applicable NNSA specific guidance.

6. RESPONSIBILITIES.

- a. Associate Administrator for Acquisition and Project Management (NA-APM):
 - 1) Establishes, coordinates, maintains, and documents a viable value management process that includes the application of value management/engineering-related laws, regulations, policies, and orders;
 - 2) Serves as the interface between the DOE Director for the Office of Acquisition and Project Management and the NNSA program managers, project managers, Field Office Managers, and Federal Project Directors on all issues concerning value management;
 - 3) On behalf of the Administrator, will compile and submit, to the DOE Director for the Office of Acquisition and Project Management, an annual report on program and project use of value management.
- b. Deputy and Associate Administrators: implement this policy within their organizations, ensuring that program and project managers submit timely reports (see format at Appendix 2) on applied use of value management studies to the Associate Administrator for Acquisition and Project Management.
- c. Program and project managers; Field Office Managers; and Federal Project Directors: assure value management is implemented in their respective areas and that reports of applied use of value management studies are developed and submitted to the Associate Administrator for Acquisition and Project Management.
- d. Contracting Officers:
 - 1) Insert a value management clause in appropriate contracts when the contract amount is expected to exceed \$100,000 pursuant to FAR 48.201 and FAR 48.202;
 - 2) Insert DEAR clause 970.5215-4, entitled “Cost Reduction NNSA Class Deviation (Mar 2011),” in appropriate contracts; and
 - 3) Review, approve and/or authorize Value Engineering Change Proposals submitted by the contractor and any related contract changes to scope, cost, and/or schedule.
- e. Acquisition Executives: assist with the development of supplemental policies for the use of value engineering pursuant to FAR 48.102.

7. REFERENCES.

- a. Public Law 104-106, Section 4306 as codified by 41 United States Code 432.
- b. OMB Circular A-131, *Value Engineering*, May 21, 1993.
- c. DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, November 29, 2010.
- d. DOE Order 430.1B Change 2, *Real Property and Asset Management*, September 24, 2003.
- e. Federal Acquisition Regulation, Part 48, *Value Engineering*.
- f. Federal Acquisition Regulation, Part 52, *Solicitation Provisions and Contract Clauses*, Subpart 52.248, *Value Engineering*.
- g. DEAR 970.5215-4 Cost Reduction NNSA Class Deviation (Mar 2011)

8. DEFINITIONS.

- a. Program: A group of ongoing activities and related projects conducted with a defined set of resources (e.g., financial, human, and time) managed in a coordinated way to achieve mission objectives and obtain benefits not available from managing them individually.
- b. Project: A group of related activities that has a defined starting and end point and undertaken to create a unique product or service in support of a program.
- c. Value Engineering: An analysis of the functions of a program, project, system, product, item of equipment, building, facility, service, of supply of an executive agency, performed by qualified agency or contractor personnel, directed at or improving performance reliability, quality, safety, and lifecycle costs.
- d. Value Management: An organized, tailored effort directed at analyzing the functions of systems, equipment, facilities, services, and supplies for the purpose of achieving the essential functions at the best value for the government consistent with required performance, reliability, quality, maintainability, environmental protection, and safety. Value management is the organized and tailored application of value engineering to meet program/project goals.

The general role of Federal program and project management includes developing an overall strategy to meet mission requirements, establishing programmatic requirements and performance expectations, allocating resources based on organizational priorities, monitoring and assessing performance, and resolving issues that impact program/project success. Value management directly supports all of these functions.

9. CONTACT, Office of Enterprise Project Management, 505-845-4561.

BY ORDER OF THE ADMINISTRATOR

A handwritten signature in black ink, appearing to read 'RR', with a long horizontal flourish extending to the right.

Robert Raines
Associate Administrator for
Acquisition and Project Management

Appendixes:

1. Value Management Process Guidelines
2. NNSA Value Management Report Summary

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APPENDIX 1: VALUE MANAGEMENT PROCESS GUIDELINES

1. Value management is an organized analysis of a program or project to determine essential program/project scope, baseline schedule, and/or cost consistent with the required program/project performance. Other terms used to identify a value methodology, such as value analysis, value control, value improvement, value engineering, and others are considered to be synonymous with, or included within, value management for the purposes of this policy. Value Management uses a professionally applied, function-oriented, systematic team approach to analyze and improve value in products, facilities, systems, or services. It is a powerful decision making process for solving problems while improving performance and quality.
2. At the onset of any NNSA program or project, value management should be generally applied to defining the desired scope, schedule, and cost.
3. The minimum dollar threshold for programs and projects requiring the application of value management is \$1 million. However, lower thresholds may be established at the direction of the Acquisition Executive, line management, or the Federal Project Director for projects having major impacts on operations.
4. For ongoing Capital Acquisition projects, the Acquisition Executive, Line Management, or Federal Project Director can determine if a potential for project lifecycle improvements exists. Improvements include: determination or modification of project scope, determination or modification of project schedule, or determination or modification of project costs. If so, the Federal Project Director, in consultation with the Acquisition Executive, contracting officer, and/or line management, can decide, at any time during the project, to conduct a facilitated, project-enhancing study that adds value to scope, schedule, or costs. Value management studies or other project enhancing investigations that increase project value will be included in the project files. Decisions to perform value management or other project enhancing investigations will be reviewed and approved by the Project Acquisition Executive, line manager, and/or Federal project director.
5. For real property asset acquisition, disposition, demolition, repair, and recapitalization projects where the total value for a single item of purchase or contract is expected to be greater than \$5 million, a value management assessment shall be performed. Real estate acquisitions are excluded from value management assessments.
6. For other ongoing programs and projects, the appropriate Deputy or Associate Administrator, interim line manager, Federal program manager, or Federal project manager can determine if a potential for project lifecycle improvements exists. If so, they can decide at any time during the program/project, in coordination with the contracting officer and others, to conduct a value management study to add value to the scope, schedule, or cost of the program/project.
7. If it is determined that the potential for lifecycle improvement exists, then the conduct of a value management study should be considered. The study scope could vary from a facilitated program-wide study with a large team down to one or two analysts examining

- one specific aspect of the program. Such a value management study shall include a definition of the function being reviewed, method of information gathering, analysis of alternatives, evaluation of the best alternatives, and a report of the findings.
8. No format or scope is specified for a NNSA value management study. Rather, a value management study can be any well-documented investigation of a project that adds or increases value to the government. However, the value management study report, at a minimum, should contain an Executive Summary, a one-page NNSA Value Management Summary Report (see Appendix 2), detailed description of analysis methodology, alternatives analysis, evaluation of best alternatives, project lifecycle results, recommendations, team members, and applicable project documentation. Value Engineering Change Proposals submitted by the contractor shall be in accordance with DEAR 970.5215-4, NNSA Class Deviation,
 9. A value management study or other project enhancing investigation should only be performed when it is determined that the potential for lifecycle improvement, including anticipated implementation costs, exceeds the expected cost of the study. If a value management study is deemed to not be cost effective, this decision with the supporting documentation is to be included in the program /project files. Some cost-effective options for value management studies include:
 - a. Completed alternative studies that address alternatives to the scope, schedule, risk, and/or cost of the project (alternative analyses).
 - b. Lessons learned from similar projects which had value management studies or value enhancing investigation performed, and the improvements have been utilized in this program's/project's design and baseline.
 - c. The technology is proven and/or previously subjected to one or more value management studies or value enhancing investigations; structure, system, and component costs are low; or technology has little impact to program/project scope or schedule.
 - d. The estimated cost of the program/project is at or below standard cost as determined by using national, or other comparative measure.
 - e. The technology is advanced and is undergoing other development or feasibility studies and a value management study would add no value.
 - f. A capital acquisition project is in the construction phase, on schedule and within budget, and it is determined that a study or investigation would add little value.
 10. A value management study or other program/project enhancing investigation can be conducted at any time during the development of a program/project. However, to have the greatest potential for providing value, it is recommended that studies, analyses, and investigations be performed as early in a program or project as practical before commencing detailed design.

11. The value management study team should use a structured process to identify target program/project activities and determine the best approach to achieving the best value for the government.
12. The selection of the study team members is important for the success of the value management study. The composition of the team will vary according to the organization and function(s) of the program/project. An effective facilitator and subject matter experts for specific program/project technology and integrated disciplines, who have not been previously directly involved with the program/project, are preferred team members.
13. Although initial cost and schedule savings are important, the overall program/project scope, baseline schedule, and lifecycle cost, which includes: reliability, availability, maintainability, and inspectability (RAMI); are the prime considerations in a value management study.
14. Value management studies are to be conducted using conventional analysis techniques and led by a member trained in facilitation methodologies, functional analysis, and/or value management.
15. Once completed and approved by the program manager, the study should be provided to line management and Deputy or Associate Administrator for review.
16. After management review of any value management study, the appropriate program manager, project manager, Field Office Manager, and/or Federal Project Director shall send the one-page NNSA Value Management Summary Report to the Acquisition Executive (for capital acquisition projects) and the Associate Administrator for Acquisition and Project Management. Reports should be provided as soon as available, but no later than September 15 of each year.
17. The Associate Administrator for Acquisition and Project Management will collect and deliver all NNSA Value Management Report Summaries for NNSA programs/projects to the DOE Director for the Office of Acquisition and Project Management designee no later than October 1 of each year. The DOE Director for the Office of Acquisition and Project Management will include the report summary data in the annual Department of Energy Value Engineering report submitted to the Office of Management and Budget.
18. The Associate Administrator for Acquisition and Project Management shall enter results from value management studies into the NNSA program and site Lessons Learned process, as appropriate. A Lessons Learned database will be maintained and related information will be provided at least annually to NNSA program and project managers and line management.
19. The value management study or other actions to address value management are to be maintained as part of the permanent program/project documentation.
20. The Associate Administrator for Acquisition and Project Management will serve as the interface between the value engineering lead for the DOE Director for the Office of Acquisition and Project Management and the National Nuclear Security Administration.

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**APPENDIX 2: NNSA VALUE MANAGEMENT
REPORT SUMMARY**

I. Title, Site/Location, and Dates Performed:

(Enter the VM study title, location, program/project name, and study dates.)

II. Results:

(One or two sentences and sub-bullets, as appropriate)

III. Team Recommendations and Implementation Status:

(Summarize the team's recommendations/proposals, management's endorsement/approval, and implementation status)

IV. Problem and Objective:

(Describe the pre-study problem and/or drivers and study objectives)

V. Sponsor/Program:

(Enter the sponsor and/or funding organization)

VI. Team Composition: # Total *(Enter total number of team member)*

- Project Personnel: #
- Outside Experts: #
- Regulator/Stakeholders: #
- VM Facilitators/Leads: # *(Indicate certification, as appropriate)*

(Identify the team composition breakdown in the four categories above)

VII. Estimated Savings/Avoidance

- Cost:
- Schedule:
- Scope:
- Risk: