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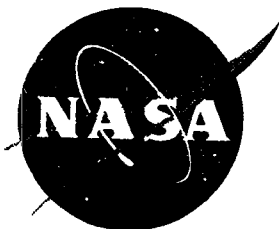
HA-96-005

**AUDIT
REPORT**

NASA VALUE ENGINEERING PROGRAM

HEADQUARTERS

JUNE 28, 1996



National Aeronautics and
Space Administration

OFFICE OF INSPECTOR GENERAL

National Aeronautics and
Space Administration

Headquarters

Washington, DC 20546-0001



JUN 28 1996

Reply to Attn of: W

TO: H/Associate Administrator for Procurement

FROM: W/Assistant Inspector General for Auditing

SUBJECT: Final Report
NASA Value Engineering Program
Assignment No. A-HQ-95-006
Report No. HA-96-005


Enclosed for your information is a copy of the subject final report. The objectives were to: 1) validate the accuracy of agency reported value engineering savings; 2) assess the adequacy of agency reported value engineering policies and procedures; and 3) evaluate NASA's use of value engineering in its streamlining efforts.

We concluded that NASA accurately reported estimated value engineering savings for contract related activities to the Office of Management and Budget (OMB) for FY 1994. The Agency has implemented a Value Engineering (VE) Program with adequate policies and procedures for contract-related activities. However, NASA had not implemented a VE program for in-house, non-contract activities. We have recommended several actions intended to improve NASA's VE program by broadening current policies to encompass in-house, non-contract projects and activities, and reporting the savings for these types of activities to OMB.

A draft report was issued for review and comment on February 29, 1996. Management provided a written response on April 3, 1996, which is summarized in the recommendation section of the report and included in its entirety as Appendix A. Management concurred with all the recommendations and the actions taken and planned are considered responsive.

We consider the actions remaining to be completed on Recommendations 2 and 3 significant and retain the authority to review the actions taken for concurrence prior to management closing the recommendations. Accordingly, please provide written notice and supporting documentation on completed corrective actions.

If you have any questions, please call Mr. Robert J. Wesolowski, Director, Audit Division-A, or me at 202-358-1232.


Debra A. Guentzel

Enclosure

cc:

H/T. Luedtke

HC/J. Horvath

JMC/P. Chait

W/M. Anderson

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NASA VALUE ENGINEERING PROGRAM

EXECUTIVE SUMMARY

INTRODUCTION

The Office of Inspector General (OIG) has completed a survey of the NASA Value Engineering Program. NASA established and implemented policies and procedures for this program to comply with the Office of Management and Budget (OMB) Circular A-131.

The Deputy Associate Administrator for Procurement is designated as the NASA Value Engineering (VE) Manager and reports to the Associate Deputy Administrator of NASA on issues related to VE in NASA acquisitions.

OBJECTIVES

The survey objectives were to:

- (1) validate the accuracy of agency reported value engineering savings;
- (2) assess the adequacy of agency reported value engineering policies and procedures; and
- (3) evaluate NASA's use of value engineering in its streamlining efforts.

RESULTS OF AUDIT

NASA accurately reported estimated value engineering savings for contract-related activities in its Fiscal Year 1994 report to OMB. The agency has implemented a Value Engineering (VE) Program for contract-related activities, which includes adequate policies and procedures, training for agency staff responsible for VE efforts, and the provision to include costs to NASA in conducting VE in annual budget requests. However, NASA had not implemented a VE program for in-house, non-contract related activities. In a prior review of NASA efforts to consolidate and streamline, we found that NASA was utilizing VE principles in many of its streamlining/reengineering activities, but had not identified them as VE to be included in its VE program.

Value Engineering Program Should Be Expanded. NASA has not established policies and procedures to implement a value engineering program for in-house, non-contract related activities. This occurred because neither Circular A-131 nor the Federal Acquisition Regulations (FAR), Part 48, provide specific guidance on how agencies should implement VE for in-house, non-contract related activities. Lacking such guidance, NASA managers decided not to implement Agency policies. As a result, NASA is not fully complying with the Circular, and is not reporting and getting credit for the savings and benefits achieved by the in-house activities that are using VE principles. (Page 7)

Reengineering Efforts Not Reported As VE. NASA had used VE principles to reengineer many of its operations and functions but had not identified these activities for inclusion in its VE program. This was because, as discussed above, NASA had implemented a program and policy that only included contractor activities. As a result, the agency was not reporting and taking credit for the savings and benefits achieved by its in-house, non-contract activities that were using value engineering principles. (Page 8)

Annual Value Engineering Plan Not Developed. NASA did not prepare an annual value engineering plan for either Fiscal Year (FY) 1994 or FY 1995. The coordinator stated that the small number of contractors submitting proposals did not make it cost effective to spend the time and effort preparing a plan. As a result, NASA did not fully comply with the Circular and had not considered all potential candidates for VE. (Page 10)

RECOMMENDATIONS

We recommend that the NASA Value Engineering (VE) Manager:

- (1) Request clarification and specific guidance from OMB on implementing value engineering for in-house, non-contract related activities and revise the NASA directives to include that information.
- (2) Coordinate with the designated VE focal points to identify estimated savings from on-going, in-house activities which are utilizing VE principles, and include that data in the FY 1996 annual report.
- (3) Coordinate with the designated VE focal points to develop a FY 1996 annual plan that includes both contract and in-house activities.

INTRODUCTION

Value Engineering (VE) originated as an outgrowth of the material shortages prevalent during World War II. During the war, industry of necessity turned to alternative materials, designs, and manufacturing processes as substitutes for prewar practices. Many of these substitutes functioned as well or better than the original and often at a reduced cost. General Electric (GE) noticed these results and commissioned a study of the wartime manufacturing experience. As a result of that study, GE institutionalized the functional analysis and creativity that characterized the wartime manufacturing effort under the title of "value analysis." Because "value analysis" was a tool used primarily by engineers, the term eventually evolved into "value engineering."

Based upon GE's success, many other companies and Government agencies adopted the new discipline in the 1950s as a means of reducing costs. To formalize the Government's adoption, the 1984 publication of the Federal Acquisition Regulation (FAR) included value engineering. The FAR, Part 48, defined value engineering as, "an organized effort 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." There are two approaches to VE as stated in the FAR. The first is an incentive approach in which contractor participation is voluntary and the contractor uses its own resources to develop and submit any VE proposals. The second approach is a mandatory program in which the Government requires and pays for a specific value engineering effort. NASA was granted a waiver from the FAR requirements for value engineering until 1988, when Circular A-131, *Value Engineering (VE)*, was issued.

The Circular was issued to implement a Governmentwide VE program. It required value engineering to be used by Federal departments and agencies to identify and reduce nonessential procurement and program costs. In March 1989, after the Circular was issued, the President's Council on Integrity and Efficiency (PCIE) initiated an audit of VE in the Federal Government. Inspectors General from five Federal departments participated in the audit. The audit also included previous audit work done by the General Services

Administration (GSA). The audit reports issued by the OIGs concluded that more needed to be done by the agencies to maximize the opportunity to reduce costs through the effective implementation of VE. Consequently, the PCIE recommended that OMB revise and reissue the Circular to strengthen and provide more definitive guidance for implementing VE.

In response to the PCIE recommendation, the OMB revised and reissued Circular A-131 on May 21, 1993. A requirement was added in the revision for IGs to audit agency value engineering programs within 2 years after issuance. The IG audit is expected to validate the accuracy of reported savings and assess the adequacy of agency policies, procedures and implementation of the Circular.

NASA DIRECTIVES

To comply with Circular A-131 requirements, NASA established its VE policies and procedures in *NASA Management Instruction (NMI) 5148.1B*, *NASA Value Engineering Program* and the *NASA Value Engineering Procurement Guide*. The Guide established the official NASA definition of value engineering as:

an organized effort directed at analyzing the function(s) of hardware, software, services, and facilities for the purpose of achieving the necessary function(s) at the lowest Life Cycle Cost.

NASA uses the incentive clause (voluntary) approach in implementing its VE program for contracts. The clause provides that, when a value engineering change proposal (VECP) is submitted by a contractor, and accepted by NASA, any resulting savings are shared with the contractor based on a preestablished ratio specified in the VE clause. A VECP is a proposal that requires a change to the contract and results in reducing the overall projected cost to NASA without impairing essential functions. With this approach the contractor's participation is voluntary and uses its own resources to develop and submit a VECP.

The Deputy Associate Administrator for Procurement (Code H) is the designated NASA VE Manager and reports directly to the Associate Deputy Administrator on issues related to VE in NASA acquisitions. The VE manager has delegated the day to day responsibilities to a VE coordinator. NMI 5148.1B states that the Center Directors are to designate a senior member of the Center management structure to act as focal point for Center VE activities. The Program Associate Administrators are to also designate a senior staff member to monitor

and advise on aspects of value engineering as it affects projects and programs under their cognizance. Presently, there is only one focal point at each Center and Headquarters most of whom are procurement personnel. The coordinator stated that he did not think two separate focal points were necessary because there is not the same degree of value engineering activity occurring at each center.

VE ACTIVITY

Based upon data provided by the VE coordinator, there were 415 active contracts in FY 1994 that contained the voluntary VE clause. The potential value of those contracts was \$30 billion. The voluntary approach does not require or guarantee contractor submission of an acceptable VECP. According to the coordinator, past experience has demonstrated that the agency's mission precludes the opportunity for a large number of contractors to submit VE proposals. Only five VE proposals were submitted during FY 1994, of which 2 were approved by NASA; 2 remained under review at the time the report was submitted to OMB; and 1 was returned for additional information. NASA reported VE savings totaling \$5.8 million for the two proposals reported to OMB in FY 1994.

During our review of NASA's VE program, we were told by the coordinator that NASA planned to contact its top 10 contractors (as defined by contract dollar award) and ask each to complete a survey questionnaire regarding their experience with VE at NASA. The purpose of the survey is to determine why contractors do not submit more VECPs and to identify actions NASA can take to encourage more contractor participation. The data will be used to reassess the implementation of NASA's VE program.

OBJECTIVES, SCOPE, AND METHODOLOGY

OBJECTIVES

The survey objectives were to:

- (1) Validate the accuracy of agency reported value engineering savings;
- (2) Assess the adequacy of agency reported value engineering policies and procedures; and
- (3) Evaluate NASA's use of value engineering in its streamlining efforts.

SCOPE AND METHODOLOGY

The survey covered contract-related value engineering efforts identified and reported to OMB by NASA for Fiscal Year 1994 as well as in-house, non-contract related streamlining/reengineering efforts completed between January 1992 and June 1994. We evaluated the accuracy of the data reported to OMB by comparing the savings reported by each center from value engineering proposals with the total amount in the OMB report. We reviewed Federal and NASA policies and procedures for applying value engineering, as well as audit reports and studies of other Federal agencies related to VE. The work included interviews with both NASA and contractor personnel.

MANAGEMENT CONTROLS REVIEWED

The significant internal controls reviewed included the following:

- (1) the agency's overall written policies and procedures for implementing its value engineering program;
- (2) review and approval of value engineering proposals submitted by contractors; and
- (3) the value engineering manager's review of reported savings.

AUDIT FIELD WORK

Audit work was conducted from July 1995 to September 1995 and was performed in accordance with generally accepted government auditing standards. It included examinations and tests of applicable records, documents, and internal controls considered necessary to achieve the objectives.

OBSERVATIONS AND RECOMMENDATIONS

OVERALL EVALUATION

Our review disclosed that NASA accurately reported estimated Value Engineering (VE) Program savings for contract-related activities in its FY 1994 report to OMB. The agency has implemented adequate policies and procedures for contract-related activities. However, it had not implemented a VE program for in-house, non-contract related activities. NASA was also utilizing value engineering principles in many of its streamlining/reengineering activities. However, these kinds of activities were not included in the VE program and related savings were not reported.

VALUE ENGINEERING PROGRAM SHOULD BE EXPANDED

NASA has not established policies and procedures to implement a value engineering program for in-house, non-contract related activities. This occurred because neither Circular A-131 nor the Federal Acquisition Regulations (FAR), Part 48, provide specific guidance on how agencies should implement VE for non-contract related activities. Lacking such guidance, NASA managers decided not to implement Agency policies. As a result, NASA is not fully complying with the Circular, and is not reporting and getting credit for the savings and benefits achieved by its in-house, non-contract activities that are using value engineering principles.

OMB Circular A-131 requires agencies to develop criteria and guidelines for establishing a VE program covering both in-house agency activities and contractor activities. The provisions of the Circular are implemented in the FAR which applies only to contracts and contractor activities. Although the Circular does not provide specific guidance for implementing in-house, non-contract agency activities, it does establish the minimum responsibilities of an agency (EXHIBIT 1). OMB personnel told us they expect NASA and other agencies to apply VE techniques to all programs and projects, wherever possible.

We found that NASA had implemented a VE program, establishing specific policies and procedures, for contractor activities. These policies and procedures were established in NMI 5148.1B and the NASA Value Engineering Procurement Guide. However, the agency had not developed guidelines to implement specific policies and procedures, either in the above documents or elsewhere, for including in-house, non-contract activities in its VE program.

NASA had not addressed non-contract activities for two primary reasons. First, the Circular did not provide specific guidance on how agencies should implement VE for such activities. Without specific guidance, agency VE officials were not compelled to establish procedures for in-house, non-contract activities. Second, Code H officials did not believe that it is a Code H responsibility to coordinate and report non-contract activities.

By not including in-house, non-contract activities in its VE program, NASA has only partially complied with the OMB policies and has missed the opportunity to have a more effective, comprehensive program. Although the Circular did not give agencies specific guidance on how to implement VE for in-house, non-contract activities, the lack of such guidance should not have prevented NASA from implementing reasonable procedures.

We agree that the Circular could be clarified to provide agencies better guidance for in-house, non-contract efforts regarding VE. However, NASA can take some corrective actions now to improve the VE program pending any subsequent changes to the Circular.

RECOMMENDATION 1

The NASA VE Manager should request clarification and specific guidance from OMB on implementing value engineering for in-house, non-contract related activities and revise the NASA directives to include that information.

Management's Response

Concur. The VE coordinator has discussed the recommendation with OMB. OMB plans to convene a team to review this and other aspects of Circular A-131. NASA has expressed interest in being a part of the team.

Evaluation of Management's Response

Management actions are considered responsive to the recommendation.

REENGINEERING EFFORTS NOT REPORTED AS VE

NASA had used VE principles to reengineer many of its operations and functions but was not including these activities within its VE program. This was because, as discussed above, NASA had implemented a program and policy that only included contractor activities. As a result, the agency was not reporting and taking credit

for the savings and benefits achieved by its in-house activities that were using value engineering principles.

As stated earlier, the primary purpose of OMB Circular A-131 is to encourage wider application of VE to both in-house, non-contract and contractor activities to increase government savings. NASA, at the time of our audit, had many in-house, non-contract efforts on-going to streamline, reengineer, and downsize its programs and operations. Although VE principles were being used in many of these efforts, they were not identified as VE and were, therefore, not included in the VE program and statistics.

For example, NASA has an initiative to improve its financial management systems using commercial software. The project is called the Integrated Financial Management Project (IFMP). The first phase of the new system involves five major business processes. These are: procurement, core financial, employee attendance tracking, travel, and budget. Prior to deciding what the system requirements should be, each process was reengineered to reflect what the agency anticipated the procedures to be in the long term. The plan was to procure a system and software that best fit each newly reengineered business process and to integrate these into a single, overall system.

In reengineering these business processes, NASA used an approach called "Business Process Reengineering (BPR)." This approach, which has been widely used in private industry to downsize, is aimed at dramatically improving operating effectiveness through the redesign of critical business processes and supporting business systems. In our opinion, this is basically the same as using VE principles and demonstrates that NASA is using VE in its in-house activities. Therefore, NASA should be including this effort, as well as other initiatives such as those shown in EXHIBIT 2, in the VE program and report to OMB.

RECOMMENDATION 2

The NASA VE Manager should coordinate with Center and Headquarters VE focal points to identify the estimated savings from on-going, in-house activities which are utilizing VE principles, and include that data in the FY 1996 annual report.

Management's Response

Concur. Pending the revision of Circular A-131, Code H has devised a short term measure which will be employed beginning with the FY 1996 VE report to OMB. Code H will use the information collected annually by the Office of Policy and Plans (Code Z) for the Administrator's Report Card as the basis for the in-house portion of the report.

Evaluation of Management's Response

Management's action taken pending the revision of Circular A-131 is considered responsive to the recommendation.

ANNUAL VE PLAN NOT DEVELOPED

NASA did not prepare an annual value engineering plan for either FY 1994 or FY 1995. The coordinator stated that the small number of contractors submitting proposals did not make it cost effective to spend time and effort preparing a plan. As a result, NASA did not fully comply with the Circular and had not considered all potential candidates for VE.

OMB Circular A-131 requires that agencies develop annual plans for using VE in the agency. The plan should identify both in-house and contract projects and programs to which VE will be applied in the next fiscal year and the estimated potential savings of each. An effective planning process would permit the agency to identify and evaluate all the projects, programs, systems, and products to which VE principles could be applied and decide which ones would result in the greatest savings.

At the time of our audit field work, NASA had not developed an annual plan. According to the VE Manager the problem was that VE at NASA is of low priority. The coordinator told us that the small number of contractors submitting proposals did not make it cost effective to spend the time and effort preparing a plan. Subsequent to our initial audit work, Code HK prepared a listing of all active contracts with the VE clause and their estimated cost. The coordinator stated that in his view the list is a plan for the contracts having the potential for VE application.

In our opinion, such a listing did not meet the requirements of a VE plan because the list only included contracts. To develop an effective plan, there should be coordination with both contracting officers and the VE focal points to identify all in-house, non-contract and contractor activities with VE potential. Action is needed to develop an

effective annual plan and to maximize use of VE throughout the agency.

RECOMMENDATION 3

The NASA VE Manager should coordinate with the designated VE focal points to develop a FY 1996 annual plan that includes both contract and in-house activities.

Management's Response

Concur. Code H has rewritten NMI 5148.1B, NASA Value Engineering Program, to include guidance for planning annual VE activities for both contract and in-house, non-contract activities. The rewrite will appear as part of the NASA Procedures and Guidelines (NPG) 5101.10, which is awaiting approval by Code A.

***Evaluation of
Management's Response***

Management's rewrite of the NMI for NASA's Value Engineering Program to include in-house, non-contract activities is considered responsive to the recommendation.

**OMB MINIMUM REQUIREMENTS FOR AN AGENCY VALUE ENGINEERING
PROGRAM**

1. **Designate a senior management official to monitor and coordinate agency VE efforts.**
2. **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.**
3. **Assign responsibility to the senior management official to grant waivers of the requirement to conduct VE studies on certain programs and projects.**
4. **Provide training in VE techniques to agency staff responsible for coordinating and monitoring VE efforts as well as staff responsible for developing, reviewing, analyzing, and carrying out VE proposals, change proposals, and evaluations.**
5. **Ensure that funds for conducting VE are included in the agency's annual budget requests to OMB.**
6. **Maintain files on programs/projects/systems/products that meet agency criteria for requiring the use of VE techniques. Documentation should include reasons for granting waivers of VE studies on projects/programs which met agency criteria. Reasons for not implementing recommendations made in VE proposals should also be documented.**
7. **Adhere to the FAR acquisition requirements including the VE-clauses.**
8. **Develop annual plans for using VE in the agency. At a minimum, the plans should identify both the in-house and contractor projects, programs, systems, products, etc., to which VE techniques will be applied in the next fiscal year, and the estimated costs of these projects. Annual plans will be made available for OMB review upon request.**
9. **Report value engineering activities annually to OMB in the prescribed format.**

REINVENTION EFFORTS IDENTIFIED AS VALUE ENGINEERING BY
APPLYING THE OMB DEFINITION

REINVENTION INITIATIVE	RESULTS ACHIEVED
1. Consolidation and Modernization of the Mission Control Center (JSC)	Reduced operating costs.
2. Service Request Processing System (ARC)	Reduced Processing time and eliminated unnecessary paperwork.
3. Reduce the labor hours required to certify operational employees for Spacehab missions (MSFC)	Purchased commercially available Computer Assisted Instruction (CAI) Software packages.
4. Automate the submission of the monthly contractor financial report (MSFC)	Reduced the amount of information processing support required by the FMD and improve the timeliness of reporting.
5. Streamline procedures for acquisitions between \$25,000 and \$500,000 (MSFC)	Eliminated unnecessary documentation.
6. Automate Small Purchase System (Agencywide)	Reduce the turn around time by having the customer make the small purchase by a computer virtual system.
7. Reduce energy consumption (KSC)	KSC received \$220,000 cash rebate from the local utility company.
8. An operational initiative focusing on reduction of mission processing time and cost (KSC)	Reduced the number of labor hours per mission by 40% with an associated annual cost avoidance of \$150 million.
9. A work team used the CI process to investigate the flight welding process for hypergol maintenance facility (KSC)	Improved the welding success rate.
10. Travel funding and accountability system reengineering (Code B)	Develop process allowing domestic travel vouchers to be processed by Code BFH in 3 days or less.

National Aeronautics and
Space Administration
Headquarters
Washington, DC 20546-0001



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Reply to Attn of HK

TO: W/Assistant Inspector General for Auditing

FROM: H/Deputy Associate Administrator for Procurement

Subject: Draft Report
NASA Value Engineering Program
Assignment No. A-HQ-95-006

Thank you for the opportunity to review the subject report. We found it did not accurately reflect what we had agreed to during discussions. We also found factual errors in the report and its Executive Summary. We have, never-the-less, concurred with the recommendations and have implemented the corrective actions set forth below.

Our comments and recommended changes to the report are as follows:

Executive Summary

1. Page 1, paragraph 3, Results of Audit, line 8. Delete the text which reads "In addition, NASA was utilizing VE principles in many of its streamlining/reengineering activities, but had not included them in its VE program."

This statement suggests that Code H believed VE tools were not in use within the agency simply because we were not reporting them for "credit" to the Office of Management and Budget (OMB). As explained to the audit team, the reason we have not yet reported in-house, non-contract related activities to OMB is because Circular A-131 Value Engineering, provides no guidance on how to do so. The Service Contract Review, a VE type activity that Code H participated in, was used to illustrate this point.

NASA has expressed this concern on more than one occasion to OMB. We believe that: 1) the reporting requirements should be streamlined and ambiguities eliminated to make it easier for technical people to provide information; 2) objective standards should be developed for determining what activities should be reported as in-house VE; and 3) authorization given to report savings in other than dollar terms where these figures are not readily available.

The report fails to recognize that NASA received in-house VE benefits in both FY 1994 and FY 1995 under this approach even though it did not receive formal "recognition" for those efforts.

This point should be made in the report.

2. Page 2, paragraph 2, Reengineering Efforts Not Reported As VE. This paragraph should be deleted based on the discussion above.

3. Page 2, paragraph 3, Annual Value Engineering Plan Not Developed. We acknowledge that NASA did not prepare a written annual value engineering plan for either Fiscal Year (FY) 1994 or FY 1995. We did not say that this "was because the coordinator did not consider the effort cost effective due to the small number of contracts submitted as VE." This statement should be deleted.

Introduction

1. Page 5, paragraph 1. Delete lines 3 - 7 which reads "NASA has chosen, for the most part, to designate only one focal point at each Center and Headquarters because the VE coordinator does not believe that there is enough VE activity within the agency to justify the number of people separate designations would require."

NASA Management Instruction (NMI) 5148.1B, NASA Value Engineering Program, establishes the designation of a single VE focal point at each NASA installation, not the VE coordinator's beliefs, as stated in the report.

2. Page 5, paragraph 3. Delete "Due to the issues raised regarding NASA's VE program during our review..." and change "20" contractors to "10" contractors.

The audit team was advised that Code H planned to contact the top 10, not 20, NASA contractors to survey their experience with VE at the agency. This survey is independent of the audit and not, as the report states, "due to issues raised regarding NASA's VE program ..."

Observations and Recommendations

1. Page 8, paragraph 1, lines 5 - 8 should be deleted. The second reason given in the report for Code H not developing written policies and procedures to implement a value engineering program for in-house, non-contract related activities is incorrect.

The reason we have not done so does not include "managers" beliefs that VE is not applicable to most NASA projects and programs because they are largely research and development (R&D) oriented. This argument helps to explain why NASA receives so few Value Engineering Change Proposals (VECPS) from its contractors, even when it uses the voluntary VE clause as has been done in over 415 active contracts. The argument, however, is not applicable to NASA's in-house, non-contract related activities.

2. Paragraphs 2 and 3, page 8 should also be deleted based on this same rationale.

3. Paragraph 2, page 9, the phrase "not being viewed as VE" and "were, therefore" which

appear on lines 6 and 7 should be deleted. Please refer to the rationale we provided under item 1 comments to the Executive Summary.

4. Paragraphs 3 and 4, on page 9 do not identify savings in the format required by OMB Circular A-131. Likewise, Exhibit 2, merely lists an amalgamation of activities attributed to in-house VE efforts. The "results achieved" column runs the gamut from "reduced operating costs" to "improved the welding success rate." While we support this type of simple, easy to report format, savings are required to be converted into the format prescribed in the circular before they can be reported. VE savings identified in both examples should be quantified accordingly or deleted from the report.

5. Paragraph 1, page 10, delete the phrase that begins on line 2 "because the coordinator did not consider the effort cost effective due to the small number of contracts for which VE proposals were submitted." This statement was not made by the coordinator.

6. Paragraph 4, page 10, delete the sentence that begins on line 2 "We were told by the coordinator that there were too few contracts for which VE proposals were submitted to make it worth the effort to prepare such a plan." Also delete the last sentence from the same paragraph which reads "The coordinator provided that list to us and explained that it was considered to be NASA's VE plan."

The statement in line 2 was not made by the coordinator. It also incorrectly implies that Code H believes there is a dependent relationship between the number of VE proposals NASA receives each year and our requirement to report in-house, non-contract related activities to OMB.

The last sentence takes data (the list of active contracts for which VE clauses are included), provided to support our position that NASA has an "active" VE program in its contracts area, and incorrectly suggests that it represents NASA's in-house VE planning. We refer you to the discussion on planning efforts provided in response to Recommendation 3.

Recommendations

1. **Recommendation 1** The NASA VE Manager should request clarification and specific guidance from OMB on implementing value engineering for in-house, non-contract related activities and revise the NASA directives to include that information.

Response We concur. The VE coordinator has discussed this recommendation with OMB Deputy Associate Administrator Dave Muzio. Mr. Muzio advised that he would shortly convene a team to review this and other aspects of OMB Circular A-131. NASA expressed its concerns and interest in being a part of the team when it is formed. We consider this recommendation closed.

2. **Recommendation 2** The NASA VE Manager should coordinate with Center and Headquarters VE focal points to identify the estimated savings from on-going, in-house activities which are utilizing VE principles, and include that data in the FY 1996 annual report.

Response We concur. Pending revision of Circular A-131 which, in our opinion, is the best solution to our internal, non-contract related activities reporting concerns, Code H has devised a cost effective short-term measure which we will employ beginning with our FY 1996 VE report to OMB. We plan to use information collected annually by Code Z for the Administrator's Report Card as the basis for the in-house portion of the report. We consider this recommendation closed.

3. **Recommendation 3** The NASA VE Manager should coordinate with the designated VE focal points to develop a FY 1996 annual plan that includes both contract and in-house activities.

3. **Response** We concur. Our rewrite of NMI 5148.1B NASA Value Engineering Program (which will appear as a part of NASA Procedures and Guidelines (NPG) 5101.10) does this. Appendix B-1 and B-2 of the guidance will provide Code H with sufficient information to plan annual VE activities for both contract and in-house activities. NPG 5101.10 is in Code A for approval. We consider this recommendation closed.

Questions regarding this response may be directed to Mr. Ron Crider at 358-0428.


Tom Luedtke