

1972

DEPARTMENT OF THE ARMY
Office of the Chief of Engineers
Washington, D. C. 20314

ER 11-1-21

DAEN-ECM

Regulation
No. 11-1-21

14 January, 1972
~~1 December 1971~~

ARMY PROGRAMS
Value Engineering

1. Purpose. This regulation provides objectives, responsibilities, guidance, and progress reporting instructions for operating the Chief of Engineers Value Engineering (VE) Program.
2. Applicability. Applies to the Office, Chief of Engineers and to all Corps of Engineers Divisions, Districts, installations and activities.
3. References.
 - a. DOD Handbook 5010.8-H, "Value Engineering", 12 September 1968
 - b. BOB Circular A-44, "Establishment of a Management Improvement Program Applicable to all Government Operations", 16 February 1970
 - c. AR 11-26, "Value Engineering", ~~24 June 1970~~
 - d. AR 11-20, "Army Cost Reduction Program", ~~September 1971~~
 - e. EP 11-1-3, "Value Engineering Officers' Operational Guide", ~~15 June 1969~~
 - f. Armed Services Procurement Regulation, ~~1 January 1969~~
 - g. ER 11-1-1, "Corps of Engineers Management Improvement Program", ~~27 December 1971~~
 - h. Corps of Engineers Booklet, "The Construction Contractor and Value Engineering", 1 September 1971
 - i. ER 1175-1-1, APP IV, "Cost Reduction Programs", ~~1 January 1969~~
 - j. ER 37-2-10, "Accounting and Reporting-Civil Works Activities", ~~1 April 1969~~
 - k. ER 37-345-10, "Accounting and Reporting-Military Activities", ~~1 March 1969~~
4. Definition. Value engineering is a systematic effort directed at analyzing the function of Army systems, operations, equipment, facilities, procedures, methods, and supplies to achieve the required function at the lowest total cost of effective ownership, consistent with requirements for performance, reliability, quality, and maintainability.

This regulation supersedes ER 11-1-21, 1 Dec 70

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5. Background. The Corps of Engineers Value Engineering Program operates to apply the value engineering methodology formally as a means to reduce costs to a level lower than that ordinarily expected by good management and engineering practices. Guidelines are provided by the Office of Management and Budget for value engineering in Civil Works and by the Department of Defense for value engineering in military programs and work for independent agencies in the Government Executive Branch. This ER expands on these guidelines for operation of the Corps VE Program.

6. Relationship of VE to the Army Cost Reduction Program.

a. The Corps Value Engineering Program is a reporting area of the Army Cost Reduction Program in respect to the use of common reporting guidelines and forms. Beyond this, Value Engineering is a separate, identifiable program operating with an organization having definite policies and guidelines for direction, appraisal, and control. Value engineering is monitored at DOD level by a DOD Value Engineering Committee which guides VE activity in the Army, Navy, Air Force and DSA. Monitorship of VE at the DA level is by the Office of Chief of Research and Development.

b. Value engineering is the only area in the Army Cost Reduction Program oriented toward the engineering discipline; all other areas are oriented primarily toward more efficient management and administrative procedures. VE is a specific, precise methodology defining the area while all other areas are identified as broad activities in which numerous methodologies can be applied.

7. Policy. VE will be applied actively in Civil Works and military-funded activities and in the performance of work for others.

8. Responsibilities.

a. In the Office, Chief of Engineers:

(1) The Engineer Comptroller is manager of the VE Program and provides overall staff supervision of Corps-wide VE activities by coordination with the Directors of Civil Works, Military Construction, and Military Engineering.

(2) The Directors of Civil Works, Military Construction, and Military Engineering provide technical supervision of VE activity within their programs and coordinate their VE activity with the Engineer Comptroller and other Directors.

b. In Corps of Engineers field activities, Division and District Engineers, and Commanders of the Topographic Command, WES, and the Construction Engineering Research Laboratory will establish a VE Program and each will appoint, as a minimum, one Value Engineering Officer (VEO) to direct VE in accordance with this regulation.

9. Objectives.

a. Value engineering will be developed as a permanent and integral part of Corps activities.

b. Value engineering activity by contractors will be stressed as an important cost reduction source.

c. Value engineering methodology will be applied on all possible occasions to achieve consideration of the maximum number of alternatives for maximum cost reduction.

10. Monetary Goals. Prior to each fiscal year, VE saving quotas will be assigned to Corps field offices for Civil Works, Army, and Air Force funds to inform offices of required effort to meet Corps of Engineers goals. Quotas will be assigned for other funds when required to direct effort toward specific programs.

11. Organization.

a. OCE organization consists of a Value Engineering Officer in the Management Analysis Division of the Office, Engineer Comptroller, a Value Engineering Staff in the Construction Division, Military Construction Directorate, and a Value Engineer in the Engineering Management Branch, Engineering Division, Civil Works Directorate.

b. In Divisions and Districts the VEO will be full or part time depending on the amount of effort required to convert opportunities for value engineering into savings. The VEO is a special assistant to the Division or District Engineer and will have entrance to any organizational element. Value Engineering Proposals pertaining to a Technical Division's activity will require approval of the Technical Division Chief. In area and resident engineer offices, the area/resident engineer will be the initial point of contact on all value engineering matters within his scope of responsibility. When a large work force exists within the area or resident office, the area/resident engineer may appoint one of his subordinates as the VE point of contact.

c. The Topographic Command, WES, the Construction Engineering Research Laboratory and Huntsville Division will locate the Value Engineering Officer in the organizational element performing activities containing major opportunities for applying value engineering.

12. Functions Performed by the VEO. (Use EP 11-1-3 for guidance in performance of duties.)

a. Plans, organizes, directs, appraises, and controls the value engineering activity in accordance with this regulation.

b. Assures that VE methodology is applied on all possible occasions to analyze the function of systems, operations, equipment, facilities, procedures, methods, and supplies for the purpose of achieving the necessary

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function at the lowest total cost of effective ownership consistent with requirements for performance, reliability, quality, and maintainability.

c. Provides continuing motivation for application of value engineering in all activities.

d. Establishes procedures for accomplishing value engineering in all activities.

e. Promotes a unified team work effort of organizational elements.

f. Provides value engineering information to participating activities.

g. Organizes and conducts a continuing formal VE training program.

h. Keeps informed of new materials and methods which can reduce costs.

i. Develops and reports results of VE studies applicable to the Corps Value Engineering Program.

j. Evaluates cost saving ideas generated by the Corps-wide VE program and incorporates ideas into local program.

k. Expedites technical review and action on Value Engineering Change Proposals submitted by contractors and prepares required reports.

l. Reviews and analyzes progress reports for appraisal and direction of program.

13. Qualifications of the VEO. Value Engineering Officers will be educated or experienced in one of the engineering disciplines and will have the capacity to accept delegated authority and operate a VE program that complies with the policy, objectives, and guidance of this regulation and its references. This will not preclude the utilization of technical and administrative personnel other than engineers, who can be very effective in the practice of VE, on value engineering teams. (Also see paragraph II-2, EP 11-1-3).

14. Costs of VE.

a. All value engineering costs will be accounted for as productive or nonproductive VE effort in accordance with provisions of ER 37-2-10 and ER 37-345-10. Such costs will be deducted from gross VE cost reductions to show the net return to the Corps. In all programming and budgeting activities, it is important that recognition be given to the fact that project cost reductions from VE proposals are offset by the VE effort of Government forces. Thus, overall project costs will be reduced, as a result of adopted VE proposals, only to the extent of the net cost savings after consideration of the offsetting VE effort.

b. For military, Civil Works and Postal Service construction, VE costs incurred prior to award of a construction contract will be initially charged to clearing account 459.99, "Value Engineering Prior to Award of Construction Contract," under the revolving fund or to an appropriate clearing account under the Carrier Fund. Separate subdivisions of account 459.99 will be maintained for military, civil and postal service VE costs. Costs will be accumulated by military line item, civil works project feature or postal service project and charged to construction line item, project feature or postal service project upon award. For items not awarded, the VE costs will be distributed on an equitable basis to open items of construction work on which VE savings were effected and will be identified as nonproductive VE costs. Costs of value engineering incurred subsequent to the award of a construction contract will be initially charged to the clearing account to develop gross costs but will be immediately charged out to appropriate line items or projects. Value engineering includes costs of redesign resulting from the value engineering program. References are paragraphs 6-2c(3) and 6-3h, ER 37-345-10 for Military Construction and paragraphs 7-22n.2 and 8-4e(3), ER 37-2-10 for Civil Works Construction and Postal Service Construction.

c. Costs of VE training and workshops will be paid from the gross savings generated from studies conducted during the sessions. The office performing the project that is studied will be charged for the VE costs conforming with the accounting procedure described in the preceding paragraph "b".

15. Additional Value Engineers. Operating Divisions, Districts, and separate installations will use a portion of gross VE savings to employ additional full time value engineers, when it is determined that additional full time effort is warranted, to the point of diminishing returns from employment of additional value engineers.

16. General Guidance.

a. Value Engineering is a DOD-wide program of high priority consisting of Army, Navy, and Air Force programs that are integrated for cooperative purposes to achieve maximum cost reductions for the Government. Outside the DOD but within the Government Executive Branch, the Office of Management and Budget emphasizes VE as a cost reduction technique. The Corps of Engineers performs work for all DOD Services and occasionally for other agencies within the Executive Branch; therefore, VE will be applied to all of this work, selecting VE projects in accordance with opportunities for maximum cost reductions.

b. VE studies shall adhere to the prescribed steps of the methodology and shall supplement the analysis of alternatives that is part of normal management or design procedures. Each in-house VE study will be identified in advance and the resultant VE proposal will, as a minimum, describe in writing the original means of performing the function and the proposed means that is the basis for lower overall cost. This advance identification and follow-on documentation will expedite the audit of the action. Reports of in-house actions required by paragraph 24 of this ER will

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serve as advance identification of a VE study and will be used to inform auditors that the VE study was a definite supplement to normal procedures. Follow-on documentation may best be presented by a properly executed VE Workbook and Proposal Summary Book. (See EP 11-1-3, Appendices II & III).

c. The essential condition that must exist before VE may be initiated is a means to perform a function. When this condition exists VE should be performed as early as practicable. The following describes the application of in-house VE in the various Corps programs and activities.

(1) In Military Construction, VE may be applied as soon as an approved concept exists that satisfies the functional criteria of the project. From this point, the application of VE, including that performed concurrently with subsequent design review phases which constitute the normal design review cycle through final design and construction, may generate reportable VE savings. To qualify for reporting, VE applied to a Government-developed concept or design (i.e., a concept or design developed by Government forces) must be applied on a concept or design that is approved. Approval of a Government-development concept must be by the originator, whether it be a using agency or the Corps of Engineers. Approval of a Government-developed design (e.g., a definitive or preliminary design) must be by the person having approval authority within the designing office, or higher echelons. VE applied to a design developed by an Architect-Engineer contractor is reportable when such design satisfies the functional criteria as determined in a review by the responsible Government office.

(2) In Postal Service Construction. VE is similar to the application of VE in Military Construction as outlined in the preceding paragraph. VE will not be applied to Postal Service peculiar facilities features. These include, but are not limited to: Lookout Galleries, Lobbies, Lockboxes and Plant Security items. Value Engineering proposals, originating from both construction contractors and in-house effort, will be forwarded to ~~OCE~~ review and approval. ~~AS~~ (DAEN-MCZ-MB) In time-sensitive situations, proposals may be submitted telephonically by calling the Project Management Branch of the Postal Construction Support Office.

(3) In Civil Works, VE may be applied as soon as a concept or design has been approved in the general design memorandum (GDM) stage. However, the concept or design must be described in sufficient detail in the GDM to establish definitely the parameters that are changed in the VE study. In some exceptional cases, VE may be performed on a design presented in the GDM prior to OCE approval by contacting the OCE Civil Works Directorate to obtain an opinion as to whether VE is feasible and will qualify as a valid action. Designs shown in approved feature design memorandums normally will be in sufficient detail to establish the "before" condition. VE will continue from general design and feature design through contract award, construction and operation and maintenance. Civil Works economic feasibility (cost-benefit) studies will not be construed as VE and VE will not be substituted for these studies.

(4) In Research and Development, VE is usually applied during R&D which has an objective of product improvement. R&D of this type is conducted extensively in Corps laboratories and specialized organizations and installations. In some instances Divisions and Districts may perform a function that is essentially R&D to prepare for a future project. VE is encouraged in R&D as a source of large payoffs. A design will usually exist with a know capability for performing a function. Therefore all Corps organizations conducting R&D on existing designs should value engineer concurrently with the search for product improvement.

(5) In map production and distribution, VE may be applied without special restriction, conforming with the guidelines of this ER.

d. Early application of VE is advised in conformance with the principle that VE pays off in larger cost reductions when practiced during early phases of a project. This will result in VE prior to budget formulation and generate savings beyond the current year in the budget and future budget years. Award of the annual plaque by the Chief of Engineers to the Division having the best performance record in the application of value engineering will consider the total of all savings, "realized" and "estimated", credited to the Division for the fiscal year, i.e., savings credited to a particular fiscal year whether the action was reported in the current year or the prior two years will be totaled.

e. It is advantageous to utilize available manpower for VE effort not only to increase savings but as a means to reduce E&D and S&A dollar costs. The latter can be accomplished by placing personnel charged normally to E&D or S&A on VE teams where their time will become a direct charge to projects as VE effort. When the VE charges as a percentage of project cost reduction exceed E&D or S&A percentages, there will also be a reduction in the E&D and S&A percentages. Personnel should be appointed to VE teams by Special Orders as a positive and effective approach to the VE study. Assignment of VE studies and associated costs should be maintained on ENG Form 3013, Work Order/Completion Report.

f. The majority of VE savings will be generated in the construction mission of the Corps, but VE opportunities exist also in activities such as procurement, supply, operation and maintenance. VE methodology, application and reporting in these activities will follow the guidance of this ER.

g. Contractors are a source of significant cost reductions. Their participation in the value engineering program will be encouraged and informal assistance will be provided to them in responding to the Value Engineering Incentive contained in contracts. (Use Corps of Engineers Booklet, "The Construction Contractor and Value Engineering," to assist in carrying out this guidance.)

h. Contracting officers will use the Value Engineering Incentive that applies to instant contract savings. Subject to the exception in ASPR, paragraph 1-1702.3(a), Contracting Officers will include an Incentive Clause in all contracts in excess of \$100,000 and in any contract of \$100,000 or less where there is a potential for Value Engineering cost reductions.

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i. Prompt processing of Value Engineering Change Proposals is required and when a Value Engineering Change Proposal submitted by a contractor is not accepted or rejected within 30 days after receipt, the submitter will be notified of the proposal status and expected decision date.

j. Public Law 91-190 and EM 1110-2-38 require that Civil Works projects be designed to preserve or enhance the environment of the project site. Frequently this means that additional features may be added to project designs solely for environmental or esthetic purposes. In many cases these features could be deleted by VE on a strictly functional basis; however this would defeat the purpose of these features. Therefore, as a general rule, VE will not be applied to esthetic or environmental features of a project except when it can be shown that the resulting design, after VE, is as pleasing from an environmental or esthetic viewpoint as the original design.

17. Progress Reporting Procedures.

a. VE accomplishments and progress will be appraised from information reports originating at the level of the VE action and passing through channels to the highest authorities, i.e., DOD for VE actions in military programs, the Office of Management and Budget for VE actions in the Civil Works program and OCE for Non-Defense programs.

b. VE progress and accomplishments will be reported through channels to HQDA (DAEN-ECM). Report packages will be segregated to cover Army, Air Force, Civil Works and Postal Service savings separately. Each of the separate four packages will contain:

(1) DA Form 3770-R (original only), summarizing savings.

(2) DA Form 3769-R (original only), breaking out program, associated period savings and number of actions, i.e. Army: MCA, PEMA, SAFEGUARD, O&M,A, etc.; Civil Works: Construction General, O&M,G, etc. This breakout is required to analyze VE productivity in the various programs and the total of program savings will equal line 6 of DA Form 3770-R.

(3) DA Form 3768 (original and two copies) for actions valued over \$50,000 in any of the three program years.

(4) DA Form 3768 (original and two copies) for actions less than \$50,000 that are contractor VECP's or are recommended for Corps-wide distribution.

c. The four report packages will be prepared by the VEO and transmitted to the Cost Reduction Coordinator for inclusion in the periodic cost reduction reports forwarded to OCE pursuant to ER 11-1-1. Reports will be prepared three times a year covering periods ending ~~30 December~~, 31 December, 31 March and 30 June. Due dates for receipt in OCE are 15 calendar days after the end of the report period.

18. Reporting Guidance.

a. High quality VE descriptions on DA Forms 3768 will expedite the validation procedure and provide informative documentation for DOD-wide distribution. Do not write in a narrative style; treat the description as a summary of a technical analysis. Value Engineering Officers will review each DA Form 3768 for clarity and accuracy of content.

b. Accuracy in the reporting of savings can be maintained by using the budgeting-authorization-appropriation-funding cycle used in obtaining funds from Congress as background. The budget for a fiscal year is submitted to Congress in the Spring immediately before 1 July beginning the fiscal year. Congress authorizes projects and appropriates funds in the following Winter well past the beginning of the fiscal year. VE that pays-off by a reduction of the budget is reported as a budget-year savings for the covered fiscal year. After the budget is closed, subsequent productive VE on an already budgeted project will pay-off as a reduction in the demand for funds made available through the appropriation resulting from the budget submission. The cost reduction will be realized as current-year savings for the covered fiscal year.

c. An action that reduces the dollar amount of a budget submission produces a budgeted savings. An action that reduces the dollar amount of funds programmed for a contract produces a current-year savings. The preceding is the only criteria to be used in making entries of savings in the blocks on DA Form 3768 associated with the current, budget or future-budget years. The type of savings (current or budget) is independent of the date of the VE action. There is the incidental relationship that a VE action will always precede a budget submission to produce a budgeted savings, but there is also the exception that a VE action taken before a budget submission can be too late to include its effect in the budget. Therefore, the budget will contain a higher amount than required and the whole amount eventually funded will not be required, becoming a current year saving at contract award. Actions taken after budget submission should reduce the requirement to expend all of the funded amount and the reduction is a current year saving at contract award. After contract award, VE actions (in-house or contractor) will reduce the contract amount by modification resulting in current-year savings. The test of a saving to establish it as budgeted or current-year savings discards the date of the VE and focuses on whether or not a budget was reduced.

d. A VE action is reportable in a fiscal year when it is known that (i) the budget for the future year(s) is reduced, (ii) the contract is awarded at a reduced price, or (iii) the contract is modified to reduce the price. When one of the three events produced by the action occurs, a report is made in the fiscal year the event takes place and not when the VE action takes place. The delay of a report that should be made for a budget reduction to a report associated with contract award indicating a current-year saving is unacceptable as it is a misrepresentation that funds are available when they were never budgeted and appropriated. The timeliness test for reporting a VE action is the requirement that a report must

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be submitted at the first occurrence of either of the following in a fiscal year: (i) budget reduction, (ii) contract award, or (iii) contract modification.

e. VE cost reductions for other Departments (Air Force and Navy) will be reported only as realized savings limited to the current year, as the Corps is rarely in a position to value engineer interdepartmental projects prior to budget formulation and does not have program information for the budget and future budget years.

f. Evidence of savings from VE in R&D is not related directly to the preparation of a future budget and will seldom relate to available funds because R&D usually precedes its benefits in terms of years. Therefore, the savings accrue primarily in the years beyond the current year and are calculated by multiplying unit VE savings by an estimate of the number of applications.

19. Audit and Validation of VE Actions. VE actions will be audited and validated by Corps auditors. The audit will insure that:

a. Value engineering has been practiced and that the action is not a design review or an economic analysis of the type inherent in the management procedure. See paragraphs 16b and 16c.

b. Savings are calculated and reported correctly for the affected program year, i.e., current year, budget year and/or future budget year. See paragraphs 18b and 18c.

c. Disposition of the savings is accurately reported. See paragraphs 18b, 18c and 18d for background.

d. The action is effective. For current-year savings, the action is effective when a contract is awarded or modified in the current year. For budget-year savings, the action is effective when the saving reduces the budget submitted to Congress. For future-budget-year savings, the action is effective when there is reasonable assurance that the project will be budgeted the year following the current year and that a contract will be awarded in the second year following the current year. Future-budget-year savings are difficult to forecast and validate and their reporting should be minimized. See paragraph 18d.

20. Effectiveness of the VE Program. VEO's should appraise the effectiveness of their programs by using the following performance indicators based on fiscal year data in addition to the comparison of validated savings with the monetary goals assigned by OCE.

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a. Ratio of net savings to VE costs—The minimum ratio for a satisfactory VE program is 10 dollars of net savings to 1 dollar of VE effort. The Corps-wide ratio is approximately 20:1, calculated from VE cost reports submitted to OCE through F&A channels and periodic reports of VE savings from the field.

b. Number of contractor VECP's on hand over 60 days—The objective is to maintain a zero level. VECP's on hand over 60 days must be expedited.

c. Number of VECP's submitted by contractors—The Department of the Army has assigned the Corps a goal of 275 VECP's to be obtained from military contractors (Civil Works excluded) in a fiscal year. Meeting of this goal requires that each District and Operating Division with a military mission obtains a minimum submission of 30 VECP's from contractors during the fiscal year.

d. Percentage of VE savings to workload—The Corps-wide standard is 2.2% for Civil Works VE, using obligations for Construction General and O&M, General as a measure of workload. The Corps-wide standard is 2.7% for Military VE, using contract awards for Military construction as a measure of workload. The high percentage attained by a Division to merit award of the annual VE plaque for outstanding performance will range from 6% to 7%, using total Civil Works and Military VE savings as a percentage of total Civil Works and Military workload.

21. Distribution of Information on Corps of Engineers VE Activity. DA Forms 3768, describing individual VE actions, submitted to OCE and determined by OCE to have Corps-wide applicability will be assembled and published in EP 1-1-3. This Engineer Pamphlet will be distributed throughout the Corps and to other DOD and Government agencies. Requests for information beyond that contained in EP 1-1-3 will be directed to the office where the VE action originated.

22. Awards. Civilian and Military personnel performing value engineering will be rewarded in accordance with AR 672-20. Corps personnel also may be considered for within-grade quality step increases for sustained high quality performance under provisions of the Federal Salary Reform Act of 1962, when such performance meets the criteria of CPR 990-2.

23. Special Reports on Contractor Participation.

a. To ascertain industry's response to the Value Engineering Incentive, reports, separate from those described in paragraph 17, will be prepared on Value Engineering Change Proposals (VECP's) submitted by contractors. Districts and Operating Divisions will furnish:

(1) Quarterly Listing of Contractors submitting Value Engineering Change Proposals (RCS DAEN-ECM-4 formerly ENGEC-M-4), in accordance with Appendix A.

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(2) Details of VECP's (RCS DD-I&L(Q)686), for actions over \$50,000, in accordance with Appendix B. Negative reports are not required.

b. Reports will be prepared in an original and one copy and will be submitted directly to the HQDA(DAEN-ECM), not later than the fifth working day after the quarterly period. Information copies will be furnished to Division offices by Districts. Negative reports are required for RCS DAEN-ECM-4, but not for RCS DD-I&L(Q)686.

24. Reports of In-house Action. In order to monitor in-house value engineering activity and provide for timely dissemination of VE actions applicable to other offices, Districts Operating Divisions and TOPOCOM will furnish a quarterly summary in accordance with Appendix C (RCS DAEN-MCC-17 formerly ENGMC-C-17). Reports will be an original and one copy and will be submitted directly to the HQDA(DAEN-ECM), not later than the fifth working day after the quarterly period in the same package with the report required by paragraph 23. Negative reports are required.

25. Training.

a. VE courses are available at the Army Management Engineering Training Agency (AMETA) Rock Island, Illinois and often AMETA provides instruction sponsored by the Army, Navy, or Air Force at various installations throughout the United States. Requests for attendance should be sent to HQDA(DAEN-EPC-D).

b. OCE will provide a short orientation course on request to DAEN-MCC.

c. OCE will provide a 4-hour (minimum) VE workshop for executives on request to DAEN-MCC.

d. OCE sponsors a construction oriented, 40-hour workshop in value engineering in each Division or District area indicating a need. Courses will be scheduled annually based upon a survey by OCE of Division needs.

e. VEO's will develop and conduct orientation courses to promote and maintain an effective VE Program.

26. Value Engineering Services. A capability is available in the Military Construction Directorate in OCE and in the Value Engineering Services Office of the Department of Defense to provide value engineering assistance in construction as well as other areas. The assistance is available to augment the existing field capability to conduct VE studies. Resultant savings will be credited to the submitting activity. Projects recommended for this service should be forwarded to HQDA(DAEN-ECM), in the format of Appendix D, using the following guidelines:

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- a. Projects should be selected that offer maximum cost reductions, determined by volume, unit cost, and susceptibility to analysis.
- b. Projects should fully explain those features that are essential and those that are merely desirable.
- c. Each project should show name, title, and organizational location of individual who will be the contact point for preliminary project review and project effort if selected.

FOR THE CHIEF OF ENGINEERS:

4 Appendices
APP A - Quarterly
Contract Listing
APP B - Details of VECF's
APP C - Reports of In-house
Actions
APP D - Request for VE Service

RICHARD F. McADOO
Colonel, Corps of Engineers
Executive

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~~APP A~~

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APPENDIX A

INSTRUCTION FOR PREPARING QUARTERLY LISTING-CONTRACTORS SUBMITTING VECP'S

1. Enter a two part number consisting of the last two digits of the fiscal year and the sequential number; e.g., the first item reported after 30 June 1969 would be 70-1; the second, 70-2, etc.
2. Enter contractor's name and mailing address. Those contractors submitting more than one VECP should have an entry for each submission, but provide address only once.
3. Enter, as appropriate: Army, Navy, Air Force, Postal Service, NASA, RDTE, Civil or other similar identification. Group Civil Works VECP's together on separate sheets.
4. Indicate whether VECP was approved, rejected, or withdrawn during quarter, or if on hand at end of quarter. Add asterisk (*) to status description if VECP was submitted during report quarter.
5. Enter the total estimated net reduction in the cost of performing the contract as proposed by the contractor, including both the contractor's share and the Government's share of the net savings.
6. Enter the total negotiated net reduction in the cost of performing the contract, including both the contractor's share and the Government's share of the net savings. Do not make an entry until negotiations are complete and shares definitely established.
7. Enter the current estimate of the Government's share of the net reduction in the cost of performing the contract. An estimate is required for disapproved and withdrawn VECP's as well as approved VECP's. Indicate by note the contractual sharing arrangement if other than a 50/50 split.
8. Enter "yes" for proposals on-hand over 60 days when approved, disapproved, or withdrawn. Also, enter "yes" for proposals on-hand over 60 days at the end of the quarter.
9. Under each entry, briefly describe the VECP. Include project description and contract number; part, component or assembly affected; and before and after summary of the action.

QUARTERLY LISTING-CONTRACTORS SUBMITTING VECP's
RCS DAEN-ECM-4

Reporting Office: _____ Qtr: _____ FY: _____
 No.(1) _____ Contractor(2) _____ Cate- gory(3) _____ Status(4) _____ \$ Value Proposed(5) _____ \$ Value Approved(6) _____ Govt Share(7) _____ On Hand Over 60 Days(8) _____

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APPENDIX A

(TO BE TYPED AS REQUIRED)

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APPENDIX B

DETAILS OF VALUE ENGINEERING CHANGE PROPOSAL
(Total Estimated Net Cost Reduction Over \$50,000)
RCS DD-I&L(Q) 686

Office: _____ Fiscal Quarter Ending: _____

Reporting Agency: Office, Chief of Engineers

1. Project Description, Line Item No. and Station:
2. Part, component, or assembly:
3. Description of VE change:
4. Date submitted:
5. a. Check one:
 Approved _____ Disapproved _____ Withdrawn by Contractor _____
 b. Date:
6. Processing time in calendar days (Item 4 to Item 5b):
7. a. Contractor's name;
 b. Contractor's address;
 c. Contract number:
8. Estimated net cost reduction from VECP:
 a. Contractor's share: \$ _____
 b. Government's share \$ _____
 c. Total: \$ _____
9. If disapproved, give reason:
10. Remarks:

(TO BE TYPED AS REQUIRED)

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INSTRUCTIONS FOR PREPARING "DETAILS OF VALUE ENGINEERING CHANGE PROPOSALS"

General. Report "Details" for each VECP whose estimated cost reduction (Item 8c) exceeds \$50,000, regardless of its disposition.

Item 1. Project Description, Line Item No.* and Station*: Self explanatory

Item 2. Part, component, or assembly: Enter part, component, or assembly affected by VECP. Examples: Conduits, girders, roofing, exterior doors, sanitary waste piping, floor slabs.

Item 3. Description of VE Change: Give brief account of change.

Item 4. Date submitted: Enter date when contractor transmitted the VECP to an appropriate Government representative, such as the contracting officer or plant representative.

Item 5. a. Check whether approved, disapproved, or withdrawn by contractor.

b. Enter date on which a Government representative gave official notification to the contractor of the Government's decision to approve or disapprove the VECP. In the case of an approved VECP, this date reflects the point at which the contractor is authorized to proceed to implement the approved change. If withdrawn by the Contractor, enter the date on which withdrawn.

Item 6. Processing time in calendar days: Enter calendar days elapsed from Item 4 to Item 5b.

Item 7. Enter contractor's name, address, and contract number.

Item 8. Estimated net cost reduction from VECP:

a. Contractor's share: Enter the contractor's estimated share of cost reductions on the instant contract. Use best estimate available at the time the VECP is approved, disapproved, or withdrawn; round off to the nearest \$1,000.

b. Government's share: Enter the Government's estimate share of cost reductions on the instant contract. Use the same basis for estimating the Government's share of savings as is used in estimating the contractor's share. Round off to the nearest \$1,000.

c. Enter sum of Items 8a and 8b.

* Not required for Civil Works projects.

QUARTERLY SUMMARY OF
 VALUE ENGINEERING IN-HOUSE ACTIONS (1)
 (RCS DAEN-MCC-17)

Reporting Office: _____

Fiscal Quarter Ending: _____

No.(2)	Category(3)	Date Initiated(4)	Date Completed(5)	Approved or Disapproved(6)	Est \$ Saving Current FY(7)	Est \$ Saving Total Effect (9)
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NOTES: (10)

INSTRUCTIONS

- (1) Report only actions initiated, approved or disapproved during report quarter.
- (2) Enter a two-part number consisting of the last two digits of the fiscal year and the sequential number. Also enter this number on corresponding DA Form 3768.
- (3) Enter, as appropriate: Army, Air Force, Navy, Postal Service, Civil, or other similar identification. List Civil Actions on separate sheet.
- (4) Enter date study initiated.
- (5) Enter date study completed.
- (6) Indicate whether action approved or disapproved by reviewing authority, and date.
- (7) If study completed, enter estimated net savings to the Government for the current fiscal year.
- (8) Enter total-effect savings; i.e., sum of savings for the current year, budget year, and future budget year.
- (9) Complete (5) thru (8) only as applicable action is completed.
- (10) Give brief description of each item studied. Note in particular if action is applicable to other Divisions and Districts.

C-1

APPENDIX C

(TO BE TYPED AS REQUIRED)

ER 11-1-21
 1-Dec-71
14 Nov 72

ER 11-1-21

APP B

~~1 Dec 71~~

14 Jan 72

Item 9. If disapproved, give reason: Give a brief account of reason for disapproval. Where the contractor has been invited to resubmit the VECP with certain changes or additional supporting data, so indicate.

Item 10. Remarks: Use to explain any unusual delay in processing the VECP or any other items requiring fuller explanation.

ER 11-1-21
~~1 Dec 71~~
14 Jan 72

APPENDIX D

REQUEST FOR
CONSTRUCTION VALUE ENGINEERING SERVICES

1. Project title
2. Construction feature
3. Status of feature
In design _____ Ready for construction _____
Standard design _____ Other _____
4. Description:
 - a. General characteristics (Provide a photograph, artists conception, or drawing, if available).
 - b. Broad purpose
 - c. Functions (Indicate essential and desirable)
5. Present Cost per unit
6. Annual Maintenance Cost per unit
Annual Repair Cost per unit
7. Quantity
 - a. Current Fiscal Year _____
 - b. FY plus 1 _____
 - c. FY plus 2 _____
 - d. FY plus 3 _____
8. Date by which study must be completed to optimize savings.
9. Desired cost reduction per unit.

(TO BE TYPED AS REQUIRED)