Part 48 – Value Engineering

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As used in this part—

Acquisition savings means savings resulting from the application of a value engineering change proposal (VECP) to contracts awarded by the same contracting office of its successor for essentially the same unit. Acquisition savings include—

- (1) Instant contract savings, that are the net cost reductions on the contract under which the VECP is submitted and accepted, and that are equal to the instant unit cost reduction multiplied by the number of instant contract units affected by the VECP, less the contractor's allowable development and implementation costs;
- (2) Concurrent contract savings, that are net reductions in the prices of other contracts that are definitized and ongoing at the time the VECP is accepted; and
- (3) Future contract savings, that are the product of the future unit cost reduction multiplied by the number of future contract units in the sharing base. On an instant contract, future contract savings include savings on increases in quantities after VECP acceptance that are due to contract modifications, exercise of options, additional orders, and funding of subsequent year requirements on a multiyear contract.

Collateral costs means agency costs of operation, maintenance, logistic support, or Government-furnished property.

Collateral savings means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

Contracting office includes any contracting office that the acquisition is transferred to, such as another branch of the agency or another agency's office that is performing a joint acquisition action.

Contractor's development and implementation costs means those costs the contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the contractor incurs to make the contractual changes required by Government acceptance of a VECP.

Future unit cost reduction means the instant unit cost reduction adjusted as the contracting officer considers necessary for projected learning or changes in quantity during the sharing period. It is calculated at the time the VECP is accepted and applies either—

- (1) throughout the sharing period, unless the contracting officer decides that recalculation is necessary because conditions are significantly different from those previously anticipated, or
- (2) to the calculation of a lump-sum payment, that cannot later be revised.

Instant contract means the contract under which the VECP is submitted. It does not include increases in quantities after acceptance of the VECP that are due to contract modifications, exercise of options, or additional orders. If the contract is a multiyear contract, the term does not include quantities funded after VECP acceptance. In a fixed-price contract with prospective price redetermination, the term refers to the period for which firm prices have been established.

Instant unit cost reduction means the amount of the decrease in unit cost of performance (without deducting any contractor's development or implementation costs) resulting from using the VECP on the instant contract. In service contracts, the instant unit cost reduction is normally equal to the number of hours per line-item task saved by using the VECP on the instant contract, multiplied by the appropriate contract labor rate.

Sharing base means the number of affected end items on contracts of the contracting office accepting the VECP.

Sharing period means the period beginning with acceptance of the first unit incorporating the VECP and ending at a calendar date or event determined by the contracting officer for each VECP.

Unit means the item or task to which the contracting officer and the contractor agree the VECP applies.

Value engineering proposal means, in connection with an A-E contract, a change proposal developed by employees of the Federal Government or contractor value engineering personnel under contract to an agency to provide value engineering services for the contract or program.

Subpart 48.1 - Policies and Procedures

48.101 General.

Value engineering is a formal technique where contractors may (1) voluntarily suggest more economical methods and share resulting savings or (2) be required to create programs to identify and submit more economical methods to the Government.

48.102 Policies.

- (a) As <u>41 U.S.C. 1711</u> requires, agencies must create and maintain cost-effective value engineering procedures. Agencies must offer contractors substantial financial incentives to develop and submit VECPs. Contracting offices must include value engineering provisions in appropriate supply, service, architect-engineer and construction contracts as sections 48.201 and 48.202 direct, except when the agency head grants exemptions for specific cases or contract classes.
- (b) Non-Department of Defense agencies must use the value engineering program requirement clause (52.248-1, Alternates I or II) in initial production contracts for major systems and for major systems research and development contracts. Exceptions apply when the contracting officer determines and documents that such use is inappropriate.
- (c) Department of Defense contracts must include the VE program requirement clause (52.248-1, Alternates I or II) in initial production solicitations and contracts (first and second buys) for major system acquisitions under DoD Directive 5000.1. Exceptions include:
 - (1) Cases where the prime contractor has proven effective VE work in earlier phases or similar production contracts.
 - (2) Contracts awarded through competition.

Subpart 48.2 - Contract Clauses

48.201 Clauses for supply or service contracts.

- (a) General. The contracting officer must add a value engineering clause to solicitations and contracts exceeding the simplified acquisition threshold, except as noted in paragraphs (a)(1) through (5) and paragraph (f). Without approval from the chief of the contracting office, a value engineering clause must not be included in solicitations and contracts for:
 - (1) Research and development except full-scale development;
 - (2) Engineering services from nonprofit organizations;
 - (3) Personal services (see part 37);
 - (4) Product or component improvement, unless the value engineering incentive applies only to areas not covered by improvement provisions;
 - (5) Commercial products without special packaging or other requirements; or
 - (6) Contracts exempted by the agency head from part 48 requirements.
- (b) Value engineering incentive. To create a value engineering incentive, the contracting officer must add clause 52.248-1, Value Engineering, to solicitations and contracts with exceptions noted in paragraph (a) and considerations in paragraph (e)(1) of this section.
- (c) Value engineering program requirement.
 - (1) For mandatory value engineering efforts (when substantial government savings may result from sustained, specified effort levels), the contracting officer must use the clause with Alternate I, noting considerations in paragraph (e)(2) of this section.
 - (2) The government may specify the value engineering program requirement in the solicitation. In negotiated contracts, contractors may propose it in their offers as a negotiation topic. The program requirement must appear as a separate line item in the contract Schedule.
- (d) Value engineering incentive and program requirement.
 - (1) When both a value engineering incentive and program requirement are appropriate, the contracting officer must use the clause with Alternate II, noting considerations in paragraph (e)(3) of this section.
 - (2) The contract must limit the value engineering program to clearly defined performance areas listed by line item. Alternate II applies a value engineering program to those specified areas and a value engineering incentive to all other contract areas.

- (e) When calculating collateral savings costs more than the benefits, the head of the contracting activity may determine the contracting officer must use the clause with:
 - (1) Alternate III for value engineering incentives;
 - (2) Alternate III and Alternate I for value engineering program requirements; or
 - (3) Alternate III and Alternate II for combined incentives and program requirements.
- (f) *Architect-engineer contracts*. For contracts requiring specific value engineering effort in architect-engineer work, the contracting officer must add clause 52.248-2, Value Engineering Architect-Engineer. Clause 52.248-1, Value Engineering, must not appear in architect-engineer solicitations and contracts.
- (g) For engineering-development contracts and those with early production units, the contracting officer must modify clause 52.248-1 by:
 - (1) Replacing the text in paragraph (i)(3)(i) of the clause with language about quantities delivered over 36-60 months during peak production; and
 - (2) Revising the first sentence in paragraph (3) of the definition of "acquisition savings" with similar language about quantities over 36-60 months during peak production.
- (h) For extended production periods (like ship construction or major systems), when agency procedures require sharing future contract savings on all units delivered under contracts awarded during the sharing period, the contracting officer must modify clause 52.248-1 by revising its paragraph (i)(3)(i) and the first sentence under paragraph (3) of the definition of "acquisition savings" with language about contracts awarded during the sharing period.

48.202 Clause for construction contracts.

Insert the clause 52.248-3, Value Engineering-Construction, in construction solicitations and contracts exceeding the simplified acquisition threshold, unless creating an incentive contract. This clause must not appear in incentive-type construction contracts. When computing and tracking collateral savings costs more than the benefits, as determined by the head of the contracting activity, the contracting officer must use the clause with its Alternate I.

Part 52 – Solicitation Provisions and Contract Clauses

52.248 [Reserved]

52.248-1 Value Engineering.

52.248-2 Value Engineering-Architect-Engineer.

52.248-3 Value Engineering-Construction.

52.248 [Reserved]

52.248-1 Value Engineering.

As prescribed in 48.201, insert the following clause:

VALUE ENGINEERING (JUN 2020)

- (a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any net acquisition savings realized from accepted VECP's, in accordance with the incentive sharing rates in paragraph (f) of this clause.
- (b) Definitions.

Acquisition savings, as used in this clause, means savings resulting from the application of a VECP to contracts awarded by the same contracting office or its successor for essentially the same unit. Acquisition savings include-

- (1) Instant contract savings, which are the net cost reductions on this, the instant contract, and which are equal to the instant unit cost reduction multiplied by the number of instant contract units affected by the VECP, less the Contractor's allowable development and implementation costs;
- (2) Concurrent contract savings, which are net reductions in the prices of other contracts that are definitized and ongoing at the time the VECP is accepted; and
- (3) Future contract savings, which are the product of the future unit cost reduction multiplied by the number of future contract units in the sharing base. On an instant contract, future contract savings include savings on increases in quantities after VECP acceptance that are due to contract modifications, exercise of options, additional orders, and funding of subsequent year requirements on a multiyear contract.

Collateral savings, as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

Contracting office includes any contracting office that the acquisition is transferred to, such as another branch of the agency or another agency's office that is performing a joint acquisition action.

Contractor's development and implementation costs, as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

Future unit cost reduction, as used in this clause, means the instant unit cost reduction adjusted as the Contracting Officer considers necessary for projected learning or changes in quantity during the sharing period. It is calculated at the time the VECP is accepted and applies either-

- (1) Throughout the sharing period, unless the Contracting Officer decides that recalculation is necessary because conditions are significantly different from those previously anticipated; or
- (2) To the calculation of a lump-sum payment, which cannot later be revised.

Government costs, as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistics support. The term does not include the normal administrative costs of processing the VECP or any increase in this contract's cost or price resulting from negative instant contract savings.

Instant contract, as used in this clause, means this contract, under which the VECP is submitted. It does not include increases in quantities after acceptance of the VECP that are due to contract modifications, exercise of options, or additional orders. If this is a multiyear contract, the term does not include quantities funded after VECP acceptance. If this contract is a fixed-price contract with prospective price redetermination, the term refers to the period for which firm prices have been established.

Instant unit cost reduction means the amount of the decrease in unit cost of performance (without deducting any Contractor's development or implementation costs) resulting from using the VECP on this, the instant contract. If this is a service contract, the instant unit cost reduction is normally equal to the number of hours per

line-item task saved by using the VECP on this contract, multiplied by the appropriate contract labor rate.

Negative instant contract savings means the increase in the cost or price of this contract when the acceptance of a VECP results in an excess of the Contractor's allowable development and implementation costs over the product of the instant unit cost reduction multiplied by the number of instant contract units affected.

Net acquisition savings means total acquisition savings, including instant, concurrent, and future contract savings, less Government costs.

Sharing base, as used in this clause, means the number of affected end items on contracts of the contracting office accepting the VECP.

Sharing period, as used in this clause, means the period beginning with acceptance of the first unit incorporating the VECP and ending at a calendar date or event determined by the contracting officer for each VECP.

Unit, as used in this clause, means the item or task to which the Contracting Officer and the Contractor agree the VECP applies.

Value engineering change proposal (VECP) means a proposal that-

- (1) Requires a change to this, the instant contract, to implement; and
- (2) Results in reducing the overall projected cost to the agency without impairing essential functions or characteristics; *provided*, that it does not involve a change-
 - (i) In deliverable end item quantities only;
 - (ii) In research and development (R&D) end items or R&D test quantities that is due solely to results of previous testing under this contract; or
 - (iii) To the contract type only.
- (c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in paragraphs (c)(1) through (8) of this clause. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:
 - (1) A description of the difference between the existing contract requirement and the proposed requirement, the comparative advantages and disadvantages of each,

- a justification when an item's function or characteristics are being altered, the effect of the change on the end item's performance, and any pertinent objective test data.
- (2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.
- (3) Identification of the unit to which the VECP applies.
- (4) A separate, detailed cost estimate for (i) the affected portions of the existing contract requirement and (ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under the Subcontracts paragraph of this clause.
- (5) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.
- (6) A prediction of any effects the proposed change would have on collateral costs to the agency.
- (7) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.
- (8) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.
- (d) *Submission*. The Contractor shall submit VECP's to the Contracting Officer, unless this contract states otherwise. If this contract is administered by other than the contracting office, the Contractor shall submit a copy of the VECP simultaneously to the Contracting Officer and to the Administrative Contracting Officer.
- (e) Government action.
 - (1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it will not be liable for any delay in acting upon a VECP.
 - (2) If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any

VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

- (3) Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause and made either before or within a reasonable time after contract performance is completed. Until such a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.
- (f) Sharing rates. If a VECP is accepted, the Contractor shall share in net acquisition savings according to the percentages shown in the table below. The percentage paid the Contractor depends upon-
 - (1) This contract's type (fixed-price, incentive, or cost-reimbursement);
 - (2) The sharing arrangement specified in paragraph (a) of this clause (incentive, program requirement, or a combination as delineated in the Schedule); and
 - (3) The source of the savings (the instant contract, or concurrent and future contracts), as follows:

Contractor's Share of Net Acquisition Savings (Figure in Percent)							
Contract Type	Incentive (Voluntary)		Program Requirement (Mandatory)				
	Instant Contract Rate	Concurrent and Future Contract Rate	Instant Contract Rate	Concurrent and Future Contract Rate			
Fixed-price (includes fixed-price-award- fee; excludes other	*50	*50	25	25			

Contractor's Share of Net Acquisition Savings (Figure in Percent)						
fixed-price incentive contracts)						
Incentive (fixed-price or cost) (other than award fee)	(**)	*50	(**)	25		
Cost-reimbursement (includes cost-plus- award-fee; excludes other cost-type incentive contracts)	***25	***25	15	15		

^{*} The Contracting Office may increase the Contractor's sharing rate to as high as 75 percent for each VECP.

(g) Calculating net acquisition savings.

(1) Acquisition savings are realized when (i) the cost or price is reduced on the instant contract, (ii) reductions are negotiated in concurrent contracts, (iii) future contracts are awarded, or (iv) agreement is reached on a lump-sum payment for future contract savings (see paragraph (i)(4) of this clause). Net acquisition savings are first realized, and the Contractor shall be paid a share, when Government costs

^{**} Same sharing arrangement as the contract's profit or fee adjustment formula.

^{***} The Contracting Office may increase the Contractor's sharing rate to as high as 50 percent for each VECP.

and any negative instant contract savings have been fully offset against acquisition savings.

- (2) Except in incentive contracts, Government costs and any price or cost increases resulting from negative instant contract savings shall be offset against acquisition savings each time such savings are realized until they are fully offset. Then, the Contractor's share is calculated by multiplying net acquisition savings by the appropriate Contractor's percentage sharing rate (see paragraph (f) of this clause). Additional Contractor shares of net acquisition savings shall be paid to the Contractor at the time realized.
- (3) If this is an incentive contract, recovery of Government costs on the instant contract shall be deferred and offset against concurrent and future contract savings. The Contractor shall share through the contract incentive structure in savings on the instant contract items affected. Any negative instant contract savings shall be added to the target cost or to the target price and ceiling price, and the amount shall be offset against concurrent and future contract savings.
- (4) If the Government does not receive and accept all items on which it paid the Contractor's share, the Contractor shall reimburse the Government for the proportionate share of these payments.
- (h) Contract adjustment. The modification accepting the VECP (or a subsequent modification issued as soon as possible after any negotiations are completed) shall-
 - (1) Reduce the contract price or estimated cost by the amount of instant contract savings, unless this is an incentive contract;
 - (2) When the amount of instant contract savings is negative, increase the contract price, target price and ceiling price, target cost, or estimated cost by that amount;
 - (3) Specify the Contractor's dollar share per unit on future contracts, or provide the lump-sum payment;
 - (4) Specify the amount of any Government costs or negative instant contract savings to be offset in determining net acquisition savings realized from concurrent or future contract savings; and
 - (5) Provide the Contractor's share of any net acquisition savings under the instant contract in accordance with the following:
 - (i) Fixed-price contracts-add to contract price.
 - (ii) Cost-reimbursement contracts-add to contract fee.

- (i) Concurrent and future contract savings.
 - (1) Payments of the Contractor's share of concurrent and future contract savings shall be made by a modification to the instant contract in accordance with paragraph (h)(5) of this clause. For incentive contracts, shares shall be added as a separate firm-fixed-price line item on the instant contract. The Contractor shall maintain records adequate to identify the first delivered unit for 3 years after final payment under this contract.
 - (2) The Contracting Officer shall calculate the Contractor's share of concurrent contract savings by-
 - (i) Subtracting from the reduction in price negotiated on the concurrent contract any Government costs or negative instant contract savings not yet offset; and
 - (ii) Multiplying the result by the Contractor's sharing rate.
 - (3) The Contracting Officer shall calculate the Contractor's share of future contract savings by-
 - (i) Multiplying the future unit cost reduction by the number of future contract units scheduled for delivery during the sharing period;
 - (ii) Subtracting any Government costs or negative instant contract savings not yet offset; and
 - (iii) Multiplying the result by the Contractor's sharing rate.
 - (4) When the Government wishes and the Contractor agrees, the Contractor's share of future contract savings may be paid in a single lump sum rather than in a series of payments over time as future contracts are awarded. Under this alternate procedure, the future contract savings may be calculated when the VECP is accepted, on the basis of the Contracting Officer's forecast of the number of units that will be delivered during the sharing period. The Contractor's share shall be included in a modification to this contract (see paragraph (h)(3) of this clause) and shall not be subject to subsequent adjustment.
 - (5) Alternate no-cost settlement method. When, in accordance with section of the Federal Acquisition Regulation (FAR), the Government and the Contractor mutually agree to use the no-cost settlement method, the following applies:
 - (i) The Contractor will keep all the savings on the instant contract and on its concurrent contracts only.

- (ii) The Government will keep all the savings resulting from concurrent contracts placed on other sources, savings from all future contracts, and all collateral savings.
- (j) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount, as specified in paragraph (h)(5) of this clause, by a rate from 20 to 100 percent, as determined by the Contracting Officer, of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price, target price, target cost, or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer will be the sole determiner of the amount of collateral savings.
- (k) Relationship to other incentives. Only those benefits of an accepted VECP not rewardable under performance, design-to-cost (production unit cost, operating and support costs, reliability and maintainability), or similar incentives shall be rewarded under this clause. However, the targets of such incentives affected by the VECP shall not be adjusted because of VECP acceptance. If this contract specifies targets but provides no incentive to surpass them, the value engineering sharing shall apply only to the amount of achievement better than target.
- (I) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract-valued at or above the simplified acquisition threshold, as defined in FAR 2.101 on the date of subcontract award, and may include one in subcontracts of lesser value. In calculating any adjustment in this contract's price for instant contract savings (or negative instant contract savings), the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs, and any value engineering incentive payments to a subcontractor, clearly resulting from a VECP accepted by the Government under this contract. The Contractor may choose any arrangement for subcontractor value engineering incentive payments, provided, that the payments shall not reduce the Government's share of concurrent or future contract savings or collateral savings.
- (m) *Data*. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

These data, furnished under the Value Engineering clause of contract_____, shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to

use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations.

If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in part 27 of the Federal Acquisition Regulation.)

(End of clause)

Alternate I (Apr 1984). If the contracting officer selects a mandatory value engineering program requirement, substitute the following paragraph (a) for paragraph (a) of the basic clause:

(a) *General*. The Contractor shall (1) engage in a value engineering program, and submit value engineering progress reports, as specified in the Schedule and (2) submit to the Contracting Officer any resulting value engineering change proposals (VECP's). In addition to being paid as the Schedule specifies for this mandatory program, the Contractor shall share in any net acquisition savings realized from accepted VECP's, in accordance with the program requirement sharing rates in paragraph (f) of this clause.

Alternate II (Jan 2015). If the contracting officer selects both a value engineering incentive and mandatory value engineering program requirement, substitute the following paragraph (a) for paragraph (a) of the basic clause:

(a) *General*. For those line items designated in the Schedule as subject to the value engineering program requirement, the Contractor shall (1) engage in a value engineering program, and submit value engineering progress reports, as specified in the Schedule and (2) submit to the Contracting Officer any resulting VECP's. In addition to being paid as the Schedule specifies for this mandatory program, the Contractor shall share in any net acquisition savings realized from VECP's accepted under the program, in accordance with the program requirement sharing rates in paragraph (f) of this clause. For remaining areas of the contract, the Contractor is encouraged to develop, prepare, and submit VECP's voluntarily; for VECP's accepted under these remaining areas, the incentive sharing rates apply. The decision on which rate applies is a unilateral decision made solely at the discretion of the Government.

Alternate III (Apr 1984). When the head of the contracting activity determines that the cost of calculating and tracking collateral savings will exceed the benefits to be derived in a

contract calling for a value engineering incentive, delete paragraph (j) from the basic clause and redesignate the remaining paragraphs accordingly.

52.248-2 Value Engineering-Architect-Engineer.

As prescribed in 48.201(f), insert the following clause:

VALUE ENGINEERING-ARCHITECT-ENGINEERING (MAR 1990)

- (a) General. The Contractor shall (1) perform value engineering (VE) services and submit progress reports as specified in the Schedule; and (2) submit to the Contracting Officer any resulting value engineering proposals (VEP's). Value engineering activities shall be performed concurrently with, and without delay to, the schedule set forth in the contract. The services shall include VE evaluation and review and study of design documents immediately following completion of the 35 percent design state or at such stages as the Contracting Officer may direct. Each separately priced line item for VE services shall define specifically the scope of work to be accomplished and may include VE studies of items other than design documents. The Contractor shall be paid as the contract specifies for this effort, but shall not share in savings which may result from acceptance and use of VEP's by the Government.
- (b) *Definitions*. "Life cycle cost," as used in this clause, is the sum of all costs over the useful life of a building, system or product. It includes the cost of design, construction, acquisition, operation, maintenance, and salvage (resale) value, if any.

Value engineering, as used in this clause, means 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.

Value engineering proposal, as used in this clause, means, in connection with an A-E contract, a change proposal developed by employees of the Federal Government or contractor value engineering personnel under contract to an agency to provide value engineering services for the contract or program.

- (c) Submissions. After award of an architect-engineering contract the contractor shall-
 - (1) Provide the Government with a fee breakdown schedule for the VE services (such as criteria review, task team review, and bid package review) included in the contract schedule;
 - (2) Submit, for approval by the Contracting Officer, a list of team members and their respective resumes representing the engineering disciplines required to complete

- the study effort, and evidence of the team leader's qualifications and engineering discipline. Subsequent changes or substitutions to the approved VE team shall be submitted in writing to the Contracting Officer for approval; and
- (3) The team leader shall be responsible for pre-study work assembly and shall edit, reproduce, and sign the final report and each VEP. All VEP's, even if submitted earlier as an individual submission, shall be contained in the final report.
- (d) *VEP preparation*. As a minimum, the contractor shall include the following information in each VEP:
 - (1) A description of the difference between the existing and proposed design, the comparative advantages and disadvantages of each, a justification when an item's function is being altered, the effect of the change on system or facility performance, and any pertinent objective test data.
 - (2) A list and analysis of design criteria or specifications that must be changed if the VEP is accepted.
 - (3) A separate detailed estimate of the impact on project cost of each VEP, if accepted and implemented by the Government.
 - (4) A description and estimate of costs the Government may incur in implementing the VEP, such as design change cost and test and evaluation cost.
 - (5) A prediction of any effects the proposed change may have on life cycle cost.
 - (6) The effect the VEP will have on design or construction schedules.
- (e) *VEP acceptance*. Approved VEP's shall be implemented by bilateral modification to this contract.

(End of clause)

52.248-3 Value Engineering-Construction.

As prescribed in 48.202, insert the following clause:

VALUE ENGINEERING-CONSTRUCTION (OCT 2020)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) of this clause.

(b) *Definitions*. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

Collateral savings, as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

Contractor's development and implementation costs, as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

Government costs, as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

Instant contract savings, as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) of this clause).

Value engineering change proposal (VECP) means a proposal that-

- (1) Requires a change to this, the instant contract, to implement; and
- (2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; *provided*, that it does not involve a change-
 - (i) In deliverable end item quantities only; or
 - (ii) To the contract type only.
- (c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in paragraphs (c)(1) through (7) of this clause. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:
 - (1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a

justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.

- (2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.
- (3) A separate, detailed cost estimate for (i) the affected portions of the existing contract requirement and (ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) of this clause.
- (4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.
- (5) A prediction of any effects the proposed change would have on collateral costs to the agency.
- (6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.
- (7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.
- (d) *Submission*. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.
- (e) Government action.
 - (1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it will not be liable for any delay in acting upon a VECP.
 - (2) If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

(3) Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing-

- (1) *Rates*. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by-
 - (i) 45 percent for fixed-price contracts; or
 - (ii) 75 percent for cost-reimbursement contracts.
- (2) *Payment*. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to-
 - (i) Accept the VECP;
 - (ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and
 - (iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.
- (g) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.
- (h) *Subcontracts*. The Contractor shall include an appropriate value engineering clause in any subcontract of \$75,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) of this clause, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall

exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; *provided*, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) *Data*. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

These data, furnished under the Value Engineering-Construction clause of contract_____, shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations.

If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in part 27 of the Federal Acquisition Regulation.)

(End of clause)

Alternate I (Apr 1984). When the head of the contracting activity determines that the cost of calculating and tracking collateral savings will exceed the benefits to be derived in a construction contract, delete paragraph (g) from the basic clause and redesignate the remaining paragraphs accordingly.