APPENDIX E

COST COMPARISON PROCEDURES

E-1. General. The revised Cost Comparison Handbook (CCH), contained in Part IV of the Supplement to OMB Circular A-76, provides the basic guidance for conducting CA cost comparisons. This appendix provides detailed instructions for Corps of Engineers activities to supplement the OMB guidance. These instructions also incorporate guidance issued by DOD and DA. Standard cost factors will be used for all CA studies.

E-2. Cost Comparison Form (CCF). All costs of in-house and contractor performance will be recorded on either ENG Form 4843A-R, Cost Comparison of In-house and Contract Performance (RCS CSCOA-116) or ENG Form 4843B-R, Cost Comparison of Expansions, New Requirements and Conversions to In-house Performance (RCS CSCOA-116).

a. Line entries in this Appendix refer to ENG Form 4843A-R. The instructions for completing ENG Form 4843B-R are contained in chapter 5 of the CCH, except that directions for lines 16 through 19 of the CCF (ENRC) in that chapter shall be used for completing lines 17 through 20 of ENG Form 4843B-R.

b. A separate cost comparison form (CCF) will be required for each type of contract option used (i.e., Government-owned, contractor-operated (GOCO) with Government-furnished equipment (GFE), GOCO without GFE, Contractor-owned, contractor-operated (COCO) with GFE, COCO without GFE). Thus, up to four CCFs could be required since each kind of contract method affects some CCF lines differently.

E-3. Common (Wash) Costs. Cost comparisons will include all significant costs of both Government and contract performance. The only exceptions are common costs that continue to exist whether an activity is performed under in-house or contract operation. These common costs will be omitted from the cost comparison calculations. These costs include Government-furnished supplies, equipment, facilities, and certain services such as utilities, maintenance support, and security clearances that will be provided under both in-house or contract modes of operation. Nevertheless, although common costs need not be computed, they must be identified in the cost comparison documentation.

E-4. Documentation. As a minimum, documentation for each CCF line will include the following:

a. Methodology for computing the estimated cost,

b. Data sources,

c. Rationale for any omissions,

d. Identification of individual components included in the total cost element value.

E-5. Development of Government (In-House) Performance Costs (lines 1-6).

a. The guidance given below for lines 1, 2 and 3 applies to costs that are 100 percent attributable to the activities under study. Costs that are not 100 percent attributable to the studied activities are overhead costs and are discussed in paragraph E-5f.

b. Inflation.

(1) In-house cost elements will be escalated to the first period of performance, using factors published by the Comptroller of the Army (COA). Usually the beginning of the first period of performance coincides with the beginning of the first FY for which a contract would be let. If it does not, the costs must be prorated for the number of months remaining in that FY. Outyear periods will be inflated using factors also published by the COA. These factors are published periodically and become mandatory based on instructions in the transmittal documents.

(2) If approved pay raises that differ from the projected rates are announced before bid opening (or before closing date for receipt of best and final offers), the CCF will be revised to incorporate the approved rates.

(3) Personnel strength and workload during the outyear periods will be assumed at the first year's level unless otherwise documented in the performance work statement (PWS) and management study. Any outyear changes will be supported with the projected requirements for revised staffing levels, workload, and other resources.

(1) All personnel costs must be recorded in an organized manner such as on the Personnel Cost Worksheet, Illustration 2-1 in the CCH, so that calculations can be followed easily by the independent reviewers.

(2) Personnel costs will be based on current general schedule (GS) and wage board (WB) rates in effect at the time of bid opening (for formal advertising) or closing date for receipt of best and final offer (for negotiated procurement). Estimates based on historical costs will generally be estimated using the last full FY's accounting reports or more recent cost data. Exceptions to this policy may be made if current cost information is not available or does not reflect a normal operating level for projection of CA cost estimates. All cost data will be inflated to match the performance periods shown on either ENG Form 4843A-R or ENG Form 4843B-R using current inflation factors.

(3) Base pay will be calculated using the latest approved pay rates with adjustments for budgeted or known pay increases. Base pay for wage board (WB) employees, civilian firefighters, and law enforcement officials will be adjusted to include nightwork and environmental differentials. Personnel costs will be based on the positions established in the most efficient organization (MEO). The in-step rate will be calculated using the Government-wide representative rate for all pay grades (step 5 for General Schedule (GS) and step 4 for WB). Locally determined average steps may be used when the Government-wide average steps will substantially understate or overstate base pay.

(4) The only exception to this policy is the costing of temporary employees at step 1 who will remain in temporary appointments in the MEO. Step 1, however, can only be used for GS employees (WB employees are entitled to step increases regardless of the nature of their appointments), and only when the FOA can demonstrate to the satisfaction of the independent reviewers that long-term use of GS temporaries in the MEO is practical and feasible. One reason such usage might not be feasible is that permanent employees, in the transition to the MEO, have more rights than temporary employees for retention, and if permanent employees fill temporary positions as a result of a reduction-in-force (RIF) or priority placement, they are paid at their permanent rates. Because of this and the other restrictions, step 5 will be used in almost

all cases for calculating GS employee costs, and step 4 will always be used for WB employees.

(5) When computing the annual cost of a Federal Wage System (FWS) employee, such as a WB employee, the hourly rate will be multiplied by 2087 hours to obtain the annual rate. When the computation of an hourly rate is necessary for GS or general manager (GM) employees, the scheduled annual wage will be divided by 2087 to determine the hourly rate.

(6) Fringe benefits will be calculated using standard percentage rates applied to civilian base pay and additional entitlements. The latest rates are listed below as an example, although they are subject to change.

(a) Applicable to permanent positions (full-time and part-time):

Fringe Benefit Factor	Cost as % of Payroll
*Retirement (regardless of fund)	21.70
Health and life insurance	4.70
Other benefits (work disability, unemployment programs, bonuses, awards)	1.80
FICA Medicare	1.45
	29.65

*Thrift plan contributions for permanent employees will not be included on either ENG Form 4843A-R or ENG Form 4843B-R. The same factor must be used regardless of which retirement fund the employee is enrolled in.

(b) Applicable to intermittent and temporary positions: the only portion of the standard fringe benefit factor to be applied here is the Medicare portion of OASDI (1.45%).

(7) Other pay and entitlements under line 1 consist of the following:

(a) Additional entitlements--off-site pay, location allowances, hardship pay, uniform allowances, incentive pay, cost-of-living differential, and hazardous duty pay and nightwork differential (for GS employees).

(b) Overtime and other premium pay--expected annual costs to be incurred for overtime, holiday pay, Sunday pay, and other premium pay.

(8) Inflation of personnel costs subject to economic adjustment clauses could increase in-house costs vis-a-vis contractor costs in an unfair manner. This would occur if portions of contractor-submitted prepriced options were not subject to inflation because of adjustment clauses, such as those in provisions of the Service Contract Act (SCA) or the Davis-Bacon Act. For example, contracts subject to the SCA include a clause that provides for adjustments to accommodate labor cost increases necessitated by future minimum wage determinations. When this situation exists, labor costs for Government employee in occupational categories compatible with those subject to the SCA will be omitted from the inflation calculations. Determinations of what in-house positions are subject to the Fair Labor Standards Act will be made in consultation with personnel and procurement offices.

d. Material and supply costs (line 2).

(1) Include only materials and supplies that would not be provided as Government-furnished material (GFM) under contract operations since these costs represent common (wash) items. As previously stated, only include costs on this line that are 100 percent attributable to the activities under study. Costs that are not 100 percent attributable to the studied activities are overhead costs and are discussed in paragraph E-5f.

(2) Material and supply costs should be recorded in a format similar to the CCH illustration for estimating material and supply costs.

(3) The cost of materials and supplies will be developed using the latest standard prices or latest local purchase prices, plus markups for centralized Government sources of supply. CA markups must be applied using standard percentage factors. The latest factors are listed below as an example, even though they are subject to change.

Sources of Supply	Markup (%)
General Services Administration (GSA): Wholesale and stores direct delivery	11.0
Retail	23.0
Nonstores direct delivery and schedules	5.0
DOD (all services): Wholesale stock fund	24.0
Direct delivery	13.4
Local procurement	None

e. Other specifically attributable costs (line 3). As previously stated, the guidance below applies to costs that are 100 percent attributable to the activities under study. Costs that are not 100 percent attributable to the studied activities are overhead costs and are discussed in paragraph E-5f.

(1) Depreciation.

(a) General depreciation is the method used to spread the cost of tangible capital assets (such as plant, machinery, and equipment with unit prices exceeding $1,000) over an asset's useful life. Land is not a depreciable asset because it has an unlimited life. Its costs should not be included with asset costs that are subject to depreciation. Land improvements, however, such as surfaced areas and fencing, are depreciable, as are utility lines, sewers, etc. Facilities listed on the National Register of Historic Places are not depreciated. Include only depreciation costs for assets used solely for in-house operations since Government-furnished property will be considered as wash cost. The Corps of Engineers Management Information System (COEMIS) cost records cannot be used to develop costs of project-owned assets because they are expensed to projects entirely in the year of acquisition. Also, any amount for "provision for plant replacement" should be excluded from cost computations. This surcharge to ensure fund availability for capital assets for use in future operations should not be applied to current operations.

(b) In computing depreciation assume that residual value is equal to the disposal values listed in Appendix C of the CCH except when engineering appraisals, such as those in ER 37-2-10, would be more accurate. The latter may be used--with documented justification--in place of

Appendix C values. In either case, the full basis for depreciation will be the original cost plus the cost of capital improvements (if any) less the residual value. The basis for depreciation will then be divided by the useful life (as projected for the CA study) to determine the annual depreciation. The annual depreciation must then be multiplied by the years in service, to include the contract out-years, in order to account for accumulated depreciation during the life of the contract.

(c) Costs for depreciation are not inflated for the outyears. These costs must be excluded before applying inflation factors to outyear periods.

(2) Rent. Rent is the annual cost of renting or leasing commercial facilities and equipment, or of using facilities and equipment of other military departments and Federal agencies. When the actual charges are not available from the agency providing the assets, and a GSA-billed Standard Level User Charge (SLUC) is available, SLUC should be used as the rental cost.

(3) Maintenance and Repair. These are the costs incurred to maintain facilities and equipment in operating condition. Include only costs which would be discontinued if the CA work center were to be converted to contract performance. The costs of maintenance and repair of real property will be distributed to organizational elements based on square feet occupied, possibly modified for differences in types or conditions of such property, while annual costs of maintaining equipment in operating condition will be prorated based on usage. Capital improvements that add value to an asset are excluded from maintenance and repair costs; they are accounted for under depreciation.

(4) Utilities. This category includes charges for fuel, electricity, telephone, water, etc. that would be discontinued if the in-house activity were converted to contract. In cases where the Government would supply utilities to a contractor, determine if there would be any change (such as removal of automatic voice network (AUTOVON) or Federal Telecommunications System (FTS) lines) in the quantity or type of service, and account for differences in Government costs. The costs of utilities will be distributed on a unit of measure basis (e.g., square feet, number of telephone lines or instruments) that varies directly with consumption.

(5) Insurance. Since the Government is self-insured, fire, casualty, and liability losses are computed as follows:

(a) Casualty losses--supplies and materials. Multiply the average inventory value of supplies that would not be provided to a contractor as GFM by .0005. The average inventory value may be determined, assuming a 30-day stockage level, by dividing the annual value of supplies and materials by 12 (360 days per year/30-day stockage level = 12). If the 30-day stock level is inappropriate, a similar computation should be used to compute the appropriate average inventory value.

(b) Casualty losses--facilities and equipment. Multiply the net book value of tangible capital assets that would not be provided to a contractor as GFE by .0005. If GFE is provided, no computation is necessary as it is a wash cost. Neither the USACE nor the Army has developed factors for Government self-insurance reserves as described in the CCH, Part IV, paragraph 6c.

(c) Liability losses. Multiply total personnel costs (CCH line 1 and the personnel cost portion of line 4) by .0007.

(6) Travel. Include only the expected annual cost of travel and transportation that would be eliminated if the activities were to beconverted to contract operation.

(7) Other costs.

(a) The cost of minor items (i.e., durable items, such as audiovisual and office equipment, with current replacement cost per unit of less than $1,000) will be estimated at ten percent of the total replacement cost (including source of supply markups) of all such minor items on hand that would not be provided to a contractor. These costs will not be inflated for the outyears. Adjustments to CCF lines must be made to exclude such costs before applying inflation factors to outyear periods.

(b) The cost of augmentation contracts that are included in the PWS require special attention. These purchased services may contain labor costs subjectto economic price adjustment clauses. If so, the applicable labor portion will not be escalated by outyear inflation factors. In addition, purchased services will be offset for potential Federal income tax revenue by applying the appropriate rate in Appendix D of the CCH to the total cost of purchased services.

(c) As provided in paragraph 3-7d, the work included in augmentation contracts may be included in the PWS written for the CA study. If so, the cost of these contracts and the Governmental contract administration costs for these contracts should be included as "Other Costs" on line 3.

(d) If it is intended that the work in these contracts be brought in-house if the Government's bid were less than a contractor's bid, an estimate of the workyears necessary to perform the work currently contracted for must be included in the MEO and costed appropriately.

(e) The costs of other purchased services will be entered on Line 3 also. Other purchased services include costs such as printing, reproduction, packing, crating, consultant fees, and other services that would be eliminated if CA work were to be converted to contract.

f. Overhead costs (line 4). Costs incurred in support of the CA activities, not 100 percent allocable to the activities being studied, will be classified as overhead. Overhead will not be calculated for studies of ten or fewer full-time equivalents (FTE). Overhead costs will be based on whole positions that can be eliminated or reallocated to support other functions in the event of contract performance. The two major categories of overhead are as follows:

(1) Operations overhead. This category encompasses costs incurred in the first supervisory work center one level above and in support of the activities under study. The operations overhead work center will vary based on the activities under study and may not be placed precisely in the one level above position.

(2) General and administrative overhead. This category includes all other work centers that provide support to the activities under study, and for which contracting would have a "whole position impact." Examples are personnel offices, contracting offices, and comptroller offices.

g. Additional costs (line 5). This category covers any Government costs that would not continue to exist under contract performance and that would not be classified properly under CCF lines 1-4. These are costs that result from unusual or special circumstances. Entries in line 5 must be supported by detailed explanations of the costs and the computation methods used.

h. Total in-house costs (line 6). Enter the sum of CCF lines 1 through 5.

E-6. Development of Contract Performance Costs (lines 7-14).

a. Contract price (line 7). Any entry on this line will be supported by a firm bid or offer. The CCH provides guidance for recording the contract price for each type of contract. Inflation that bidders include in the contract price will depend on whether the contract proposals are subject to economic price adjustment clauses.

b. Contract administration (line 8).

(1) The CCH specifies the methodology for computing the number of FTEs and costs required for contract administration. The cost of contract administration includes personnel costs and fringe benefits of the positions identified in the study.

(2) Table 3-2 shows representative staffing requirements as established by the CCH. Lower contract administration factors may be used if justified by terms of the quality assurance plan. Contract administration staffing that exceeds the established FTE limits requires an ASA-level waiver.

(3) Contract administration and other recurring Government costs resulting from contract performance will be inflated by the same factors used in the Government's in-house cost estimate.

(4) When augmentation contracts will be cancelled should it be decided that a function will be performed by contract, but will not be cancelled should an in-house decision result, the entry on line 8 for contract administration should be calculated as follows:

(a) Determine the workyears being devoted to accomplishing the augmentation contract work; add these workyears to those in the most efficient organization (e.g., 8 in-house workyears in the current MEO + 5 augmentation workyears = 13 total workyears for the CA being studied).

(b) Compare the total workyears (e.g., 13 in the above example) to the in-house staffing ranges given in Table 3-2 to determine the contract administration workyears allowed for costing purposes. Calculate the cost of the allowable contract administration workyears and record these costs on line 8, Contract Administration. Do not record any additional personnel costs associated with augmentation contracts on any other line.

c. Additional costs (line 9). This line will be used only in unusual and infrequent circumstances. When it is used there must be supporting documentation describing the nature of and need for the additional costs, as well as details on how the costs were computed.

d. One-time conversion costs (line 10).

(1) Inflation. One-time conversion costs will not be inflated. Although these costs will be prorated over the five performance periods on the CCF, they generally will be incurred during the first period of performance and are not subject to out-year inflation.

(2) Material related costs. The cost factors below may be used, if more precise costs are not known, to estimate the costs associated with disposal or transfer of excess Government material that result from a conversion to contract performance.

Cost Factors	% of Current Replacement Costs
Packing, crafting, and handling	3.50
Transportation	3.75

When material is disposed of or transferred to another Government facility, the estimated recovery, or original material cost in the case of an intergovernmental transfer, less the cost of disposal or transfer, will be treated as a one-time gain or loss.

(3) Labor-related separation costs. The CCH contains the rationale for computing severance pay and other separation costs such as permanent change of station (PCS) relocation, retraining, and early retirement. A factor of

two percent of total personnel base pay costs of permanent and temporary employees in direct and overhead activities is specified in the CCH. The base pay figure must be adjusted for anticipated pay changes that would occur before separation. Intermittent positions are not eligible for severance pay and will be excluded from the calculation.

(4) Other transition costs. Contractors are expected to provide full performance from the first day of actual contract operation. Government personnel will not be retained to help the contractor phase in to full performance after this conversion date. Therefore there will not normally be costs of this type to be entered.

e. Gain or loss on disposal/transfer of assets (line 11). If more precise costs are not known, the same factors given in E-6d(2) above (i.e., 3.50 percent for disposal or transfer of materials for packing, crating, and handling costs, and 3.75 percent for transportation costs) may be used. The estimated disposal value minus the disposal or transfer costs will result in a net disposal value to be entered as a gain or loss to the cost of contracting.

f. Federal income tax (Deduct) (line 12). Refer to the CCH.

g. Social Security (OASDI) and thrift plan costs (Deduct) line 13. To provide for consistency of comparison between Government and contractor retirement system costs, the contractor's contributions for Social Security (except the Medicare portion of 1.45%) and any thrift/profit sharing plan should be excluded from the contractor's price for cost comparison purposes only. If the apparent low bidder claims thrift plan or OASDI contributions on line 13, he will be given 5 working days in which to produce documentation substantiating the amount claimed for thrift/profit sharing and OASDI. These identified contributions will be entered on line 13 as a deduction from contract costs. If the contractor wins the competition, the contract price on line 7 will be used for contract payment purposes.

h. Total: Contract costs (line 14). Use instructions in OMB Transmittal Memorandum #4 dated October 29, 1986, subject: Revised Procedure forComparing Retirement Costs.

E-7. <u>Remaining Cost Elements (lines 15-18)</u>. Refer to the CCH for all instructions for these lines.