

## Environmental Protection Agency

## Pt. 35, Subpt. E, App. C-1

upon past experience for existing treatment works or some other rational method that can be demonstrated to be applicable.

(3) The grantee shall review user charges annually and revise them periodically to reflect actual treatment works operation and maintenance costs.

(4) The user charge system must generate sufficient revenue to offset the cost of all treatment works operation and maintenance provided by the grantee.

(5) The user charge system must be incorporated in one or more municipal legislative enactments or other appropriate authority. If the project is a regional treatment works accepting wastewaters from treatment works owned by others, then the subscribers receiving waste treatment services from the grantee shall have adopted user charge systems in accordance with these guidelines. Such user charge systems shall also be incorporated in the appropriate municipal legislative enactments or other appropriate authority.

(g) *Model user charge systems.* The user charge system adopted by the applicant must result in the distribution of treatment works operation and maintenance costs to each user (or user class) in approximate proportion to his contribution to the total wastewater loading of the treatment works. The following user charge models can be used for this purpose; however, the applicant is not limited to their use. The symbols used in the models are as defined below:

$C_T$  = Total operation and maintenance (O. & M.) costs per unit of time.

$C_u$  = A user's charge for O. & M. per unit of time.

$C_s$  = A surcharge for wastewaters of excessive strength.

$V_c$  = O&M cost for transportation and treatment of a unit of wastewater volume.

$V_u$  = Volume contribution from a user per unit of time.

$V_T$  = Total volume contribution from all users per unit of time.

$B_c$  = O&M cost for treatment of a unit of biochemical oxygen demand (BOD).

$B_u$  = Total BOD contribution from a user per unit of time.

$B_T$  = Total BOD contribution from all users per unit of time.

$B$  = Concentration of BOD from a user above a base level.

$S_c$  = O&M cost for treatment of a unit of suspended solids.

$S_u$  = Total suspended solids contribution from a user per unit of time.

$S$  = Concentration of SS from a user above a base level.

$P_c$  = O&M cost for treatment of a unit of any pollutant.

$P_u$  = Total contribution of any pollutant from a user per unit of time.

$P_T$  = Total contribution of any pollutant from all users per unit of time.

$P$  = Concentration of any pollutant from a user above a base level.

(1) *Model No. 1.* If the treatment works is primarily flow dependent or if the BOD, suspended solids, and other pollutant concentrations discharged by all users are approximately equal, then user charges can be developed on a volume basis in accordance with the model below:

$$C_u = C_T/V_T(V_u)$$

(2) *Model No. 2.* When BOD, suspended solids, or other pollutant concentrations from a user exceed the range of concentration of these pollutants in normal domestic sewage, a surcharge added to a base charge, calculated by means of Model No. 1, can be levied. The surcharge can be computed by the model below:

$$C_s = [B_c(B) = S_c(S) = P_c(P)]V_u$$

(3) *Model No. 3.* This model is commonly called the "quantity/quality formula":

$$C_u = V_c V_u = B_c B_u = S_c S_u = P_c P_u$$

(h) *Other considerations.* (1) Quantity discounts to large volume users will not be acceptable. Savings resulting from economies of scale should be apportioned to all users or user classes.

(2) User charges may be established based on a percentage of the charge for water usage only in cases where the water charge is based on a constant cost per unit of consumption.

[39 FR 5270, Feb. 11, 1974]

### APPENDIX C-1 TO SUBPART E OF PART 35—REQUIRED PROVISIONS—CONSULTING ENGINEERING AGREEMENTS

1. General
2. Responsibility of the Engineer
3. Scope of Work
4. Changes
5. Termination
6. Remedies
7. Payment
8. Project Design
9. Audit; Access to Records
10. Price Reduction for Defective Cost or Pricing Data
11. Subcontracts
12. Labor Standards
13. Equal Employment Opportunity
14. Utilization of Small or Minority Business
15. Covenant Against Contingent Fees
16. Gratuities
17. Patents
18. Copyrights and Rights in Data

#### 1. GENERAL

(a) The owner and the engineer agree that the following provisions apply to the EPA grant-eligible work to be performed under

this agreement and that such provisions supersede any conflicting provisions of this agreement.

(b) The work under this agreement is funded in part by a grant from the U.S. Environmental Protection Agency. Neither the United States nor the U.S. Environmental Protection Agency (hereinafter, "EPA") is a party to this agreement. This agreement which covers grant-eligible work is subject to regulations contained in 40 CFR 35.936, 35.937, and 35.939 in effect on the date of execution of this agreement. As used in these clauses, the words "the date of execution of this agreement" mean the date of execution of this agreement and any subsequent modification of the terms, compensation or scope of services pertinent to unperformed work.

(c) The owner's rights and remedies provided in these clauses are in addition to any other rights and remedies provided by law or this agreement.

## 2. RESPONSIBILITY OF THE ENGINEER

(a) The engineer shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all designs, drawings, specifications, reports, and other services furnished by the engineer under this agreement. The engineer shall, without additional compensation, correct or revise any errors, omissions, or other deficiencies in his designs, drawings, specifications, reports, and other services.

(b) The engineer shall perform such professional services as may be necessary to accomplish the work required to be performed under this agreement, in accordance with this agreement and applicable EPA requirements in effect on the date of execution of this agreement.

(c) The owner's or EPA's approval of drawings, designs, specifications, reports, and incidental engineering work or materials furnished hereunder shall not in any way relieve the engineer of responsibility for the technical adequacy of his work. Neither the owner's nor EPA's review, approval or acceptance of, nor payment for, any of the services shall be construed to operate as a waiver of any rights under this agreement or of any cause of action arising out of the performance of this agreement.

(d) The engineer shall be and shall remain liable, in accordance with applicable law, for all damages to the owner or EPA caused by the engineer's negligent performance of any of the services furnished under this agreement, except for errors, omissions or other deficiencies to the extent attributable to the owner, owner-furnished data or any third party. The engineer shall not be responsible for any time delays in the project caused by circumstances beyond the engineer's control. Where innovative processes or techniques (see 40 CFR 35.908) are recommended by the engineer and are used, the engineer shall be

liable only for gross negligence to the extent of such use.

## 3. SCOPE OF WORK

The services to be performed by the engineer shall include all services required to complete the task or Step in accordance with applicable EPA regulations (40 CFR part 35, subpart E in effect on the date of execution of this agreement) to the extent of the scope of work as defined and set out in the engineering services agreement to which these provisions are attached.

## 4. CHANGES

(a) The owner may, at any time, by written order, make changes within the general scope of this agreement in the services or work to be performed. If such changes cause an increase or decrease in the engineer's cost of, or time required for, performance of any services under this agreement, whether or not changed by any order, an equitable adjustment shall be made and this agreement shall be modified in writing accordingly. The engineer must assert any claim for adjustment under this clause in writing within 30 days from the date of receipt by the engineer of the notification of change, unless the owner grants a further period of time before the date of final payment under this agreement.

(b) No services for which an additional compensation will be charged by the engineer shall be furnished without the written authorization of the owner.

(c) In the event that there is a modification of EPA requirements relating to the services to be performed under this agreement after the date of execution of this agreement, the increased or decreased cost of performance of the services provided for in this agreement shall be reflected in an appropriate modification of this agreement.

## 5. TERMINATION

(a) Either party may terminate this agreement, in whole or in part, in writing, if the other party substantially fails to fulfill its obligations under this agreement through no fault of the terminating party. However, no such termination may be affected unless the other party is given (1) not less than ten (10) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate and (2) an opportunity for consultation with the terminating party before termination.

(b) The owner may terminate this agreement, in whole or in part, in writing, for its convenience, if the termination is for good cause (such as for legal or financial reasons, major changes in the work or program requirements, initiation of a new step) and the engineer is given (1) not less than ten (10) calendar days written notice (delivered by

## Environmental Protection Agency

## Pt. 35, Subpt. E, App. C-1

certified mail, return receipt requested) of intent to terminate, and (2) an opportunity for consultation with the terminating party before termination.

(c) If the owner terminates for default, an equitable adjustment in the price provided for in this agreement shall be made, but (1) no amount shall be allowed for anticipated profit on unperformed services or other work, and (2) any payment due to the engineer at the time of termination may be adjusted to the extent of any additional costs the owner incurs because of the engineer's default. If the engineer terminates for default or if the owner terminates for convenience, the equitable adjustment shall include a reasonable profit for services or other work performed. The equitable adjustment for any termination shall provide for payment to the engineer for services rendered and expenses incurred before the termination, in addition to termination settlement costs the engineer reasonably incurs relating to commitments which had become firm before the termination.

(d) Upon receipt of a termination action under paragraph (a) or (b) of this section 5., the engineer shall (1) promptly discontinue all services affected (unless the notice directs otherwise), and (2) deliver or otherwise make available to the owner all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as the engineer may have accumulated in performing this agreement, whether completed or in process.

(e) Upon termination under paragraph (a) or (b) of this section 5., the owner may take over the work and prosecute the same to completion by agreement with another party or otherwise. Any work the owner takes over for completion will be completed at the owner's risk, and the owner will hold harmless the engineer from all claims and damages arising out of improper use of the engineer's work.

(f) If, after termination for failure of the engineer to fulfill contractual obligations, it is determined that the engineer had not so failed, the termination shall be deemed to have been effected for the convenience of the owner. In such event, adjustment of the price provided for in this agreement shall be made as paragraph (c) of this clause provides.

### 6. REMEDIES

Except as this agreement otherwise provides, all claims, counter-claims, disputes, and other matters in question between the owner and the engineer arising out of or relating to this agreement or the breach of it will be decided by arbitration if the parties hereto mutually agree, or in a court of competent jurisdiction within the State in which the owner is located.

### 7. PAYMENT

(a) Payment shall be made in accordance with the payment schedule incorporated in this agreement as soon as practicable upon submission of statements requesting payment by the engineer to the owner. If no such payment schedule is incorporated in this agreement, the payment provisions of paragraph (b) of this clause shall apply.

(b) The engineer may request monthly progress payments and the owner shall make them as soon as practicable upon submission of statements requesting payment by the engineer to the owner. When such progress payments are made, the owner may withhold up to ten (10) percent of the vouchered amount until satisfactory completion by the engineer of work and services within a step called for under this agreement. When the owner determines that the work under this agreement or any specified task hereunder is substantially complete and that the amount of retained percentages is in excess of the amount considered by him to be adequate for his protection, he shall release to the engineer such excess amount.

(c) No payment request made under paragraph (a) or (b) of this clause shall exceed the estimated amount and value of the work and services performed by the engineer under this agreement. The engineer shall prepare the estimates of work performed and shall supplement them with such supporting data as the owner may require.

(d) Upon satisfactory completion of the work performed under this agreement, as a condition precedent to final payment under this agreement or to settlement upon termination of the agreement, the engineer shall execute and deliver to the owner a release of all claims against the owner arising under or by virtue of this agreement, other than such claims, if any, as may be specifically exempted by the engineer from the operation of the release in stated amounts to be set forth therein.

### 8. PROJECT DESIGN

(a) In the performance of this agreement, the engineer shall, to the extent practicable, provide for maximum use of structures, machines, products, materials, construction methods, and equipment which are readily available through competitive procurement, or through standard or proven production techniques, methods, and processes, consistent with 40 CFR 35.936-3 and 35.936-13 in effect on the date of execution of this agreement, except to the extent to which innovative technology may be used under 40 CFR 35.908 in effect on the date of execution of this agreement.

(b) The engineer shall not, in the performance of the work under this agreement, produce a design or specification which

would require the use of structures, machines, products, materials, construction methods, equipment, or processes which the engineer knows to be available only from a sole source, unless the engineer has adequately justified the use of a sole source in writing.

(c) The engineer shall not, in the performance of the work under this agreement, produce a design or specification which would be restrictive in violation of section 204(a)(6) of the Clean Water Act. This statute requires that no specification for bids or statement of work shall be written in such a manner as to contain proprietary, exclusionary, or discriminatory requirements other than those based upon performance, unless such requirements are necessary to test or demonstrate a specific thing, or to provide for necessary interchangeability of parts and equipment, or at least two brand names or trade names of comparable quality or utility are listed and are followed by the words "or equal." With regard to materials, if a single material is specified, the engineer must be prepared to substantiate the basis for the selection of the material.

(d) The engineer shall report to the owner any sole-source or restrictive design or specification giving the reason or reasons why it is necessary to restrict the design or specification.

(e) The engineer shall not knowingly specify or approve the performance of work at a facility which is in violation of clean air or water standards and which is listed by the Director of the EPA Office of Federal Activities under 40 CFR part 15.

#### 9. AUDIT; ACCESS TO RECORDS

(a) The engineer shall maintain books, records, documents, and other evidence directly pertinent to performance on EPA grant work under this agreement in accordance with generally accepted accounting principles and practices consistently applied, and 40 CFR 30.605, 30.805, and 35.935-7 in effect on the date of execution of this agreement. The engineer shall also maintain the financial information and data used by the engineer in the preparation or support of the cost submission required under 40 CFR 35.937-6(b) in effect on the date of execution of this agreement and a copy of the cost summary submitted to the owner. The U.S. Environmental Protection Agency, the Comptroller General of the United States, the U.S. Department of Labor, owner, and [the State water pollution control agency] or any of their duly authorized representatives shall have access to such books, records, documents, and other evidence for inspection, audit, and copying. The engineer will provide proper facilities for such access and inspection.

(b) The engineer agrees to include paragraphs (a) through (e) of this clause in all his

contracts and all tier subcontracts directly related to project performance that are in excess of \$10,000.

(c) Audits conducted under this provision shall be in accordance with generally accepted auditing standards and established procedures and guidelines of the reviewing or audit agency(ies).

(d) The engineer agrees to the disclosure of all information and reports resulting from access to records under paragraphs (a) and (b) of this clause, to any of the agencies referred to in paragraph (a), provided that the engineer is afforded the opportunity for an audit exit conference and an opportunity to comment and submit any supporting documentation on the pertinent portions of the draft audit report and that the final audit report will include written comments of reasonable length, if any, of the engineer.

(e) The engineer shall maintain and make available records under paragraphs (a) and (b) of this clause during performance on EPA grant work under this agreement and until 3 years from the date of final EPA grant payment for the project. In addition, those records which relate to any "Dispute" appeal under an EPA grant agreement, to litigation, to the settlement of claims arising out of such performance, or to costs or items to which an audit exception has been taken, shall be maintained and made available until 3 years after the date of resolution of such appeal, litigation, claim, or exception.

#### 10. PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA

*(This clause is applicable if the amount of this agreement exceeds \$100,000.)*

(a) If the owner or EPA determines that any price, including profit, negotiated in connection with this agreement or any cost reimbursable under this agreement was increased by any significant sums because the engineer or any subcontractor furnished incomplete or inaccurate cost or pricing data or data not current as certified in his certification of current cost or pricing data (EPA form 5700-41), then such price, cost, or profit shall be reduced accordingly and the agreement shall be modified in writing to reflect such reduction.

(b) Failure to agree on a reduction shall be subject to the remedies clause of this agreement.

*(Note: Since the agreement is subject to reduction under this clause by reason of defective cost or pricing data submitted in connection with certain subcontracts, the engineer may wish to include a clause in each such subcontract requiring the subcontractor to appropriately indemnify the engineer. It is also expected that any subcontractor subject to such indemnification will generally require substantially similar indemnification for defective cost or pricing data required to be submitted by his lower tier subcontractors.)*

## Environmental Protection Agency

## Pt. 35, Subpt. E, App. C-1

### 11. SUBCONTRACTS

(a) Any subcontractors and outside associates or consultants required by the engineer in connection with services under this agreement will be limited to such individuals or firms as were specifically identified and agreed to during negotiations, or as the owner specifically authorizes during the performance of this agreement. The owner must give prior approval for any substitutions in or additions to such subcontractors, associates, or consultants.

(b) The engineer may not subcontract services in excess of thirty (30) percent (or \_\_\_\_\_ percent, if the owner and the engineer hereby agree) of the contract price to subcontractors or consultants without the owner's prior written approval.

### 12. LABOR STANDARDS

To the extent that this agreement involves "construction" (as defined by the Secretary of Labor), the engineer agrees that such construction work shall be subject to the following labor standards provisions, to the extent applicable:

(a) Davis-Bacon Act (40 U.S.C. 276a—276a-7);

(b) Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333);

(c) Copeland Anti-Kickback Act (18 U.S.C. 874); and

(d) Executive Order 11246 (Equal Employment Opportunity);

and implementing rules, regulations, and relevant orders of the Secretary of Labor or EPA. The engineer further agrees that this agreement shall include and be subject to the "Labor Standards Provisions for Federally Assisted Construction Contracts" (EPA form 5720-4) in effect at the time of execution of this agreement.

### 13. EQUAL EMPLOYMENT OPPORTUNITY

In accordance with EPA policy as expressed in 40 CFR 30.420-5, the engineer agrees that he will not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, or national origin.

### 14. UTILIZATION OF SMALL AND MINORITY BUSINESS

In accordance with EPA policy as expressed in 40 CFR 35.936-7, the engineer agrees that qualified small business and minority business enterprises shall have the maximum practicable opportunity to participate in the performance of EPA grant-assisted contracts and subcontracts.

### 15. COVENANT AGAINST CONTINGENT FEES

The engineer warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an

agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees. For breach or violation of this warranty the owner shall have the right to annul this agreement without liability or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

### 16. GRATUITIES

(a) If it is found, after notice and hearing, by the owner that the engineer, or any of the engineer's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise), to any official, employee, or agent of the owner, of the State, or of EPA in an attempt to secure a contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this agreement, the owner may, by written notice to the engineer, terminate the right of the engineer to proceed under this agreement. The owner may also pursue other rights and remedies that the law or this agreement provides. However, the existence of the facts upon which the owner bases such findings shall be in issue and may be reviewed in proceedings under the remedies clause of this agreement.

(b) In the event this agreement is terminated as provided in paragraph (a) hereof, the owner shall be entitled: (1) To pursue the same remedies against the engineer as it could pursue in the event of a breach of the contract by the engineer, and (2) as a penalty, in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the owner) which shall be not less than 3 nor more than 10 times the costs the engineer incurs in providing any such gratuities to any such officer or employee.

### 17. PATENTS

If this agreement involves research, developmental, experimental, or demonstration work and any discovery or invention arises or is developed in the course of or under this agreement, such invention or discovery shall be subject to the reporting and rights provisions of subpart D of 40 CFR part 30, in effect on the date of execution of this agreement, including appendix B of part 30. In such case, the engineer shall report the discovery or invention to EPA directly or through the owner, and shall otherwise comply with the owner's responsibilities in accordance with subpart D of 40 CFR part 30. The engineer agrees that the disposition of rights to inventions made under this agreement shall be in accordance with the terms and conditions of appendix B. The engineer shall include appropriate patent provisions to achieve the purpose of this condition in all subcontracts

involving research, developmental, experimental, or demonstration work.

#### 18. COPYRIGHTS AND RIGHTS IN DATA

(a) The engineer agrees that any plans, drawings, designs, specifications, computer programs (which are substantially paid for with EPA grant funds), technical reports, operating manuals, and other work submitted with a step 1 facilities plan or with a step 2 or step 3 grant application or which are specified to be delivered under this agreement or which are developed or produced and paid for under this agreement (referred to in this clause as "Subject Data") are subject to the rights in the United States, as set forth in subpart D of 40 CFR part 30 and in appendix C to 40 CFR part 30, in effect on the date of execution of this agreement. These rights include the right to use, duplicate, and disclose such subject data, in whole or in part, in any manner for any purpose whatsoever, and to have others do so. For purposes of this clause, "grantee" as used in appendix C refers to the engineer. If the material is copyrightable, the engineer may copyright it, as appendix C permits, subject to the rights in the Government in appendix C, but the owner and the Federal Government reserve a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, and use such materials, in whole or in part, and to authorize others to do so. The engineer shall include appropriate provisions to achieve the purpose of this condition in all subcontracts expected to produce copyrightable subject data.

(b) All such subject data furnished by the engineer pursuant to this agreement are instruments of his services in respect of the project. It is understood that the engineer does not represent such subject data to be suitable for reuse on any other project or for any other purpose. If the owner reuses the subject data without the engineer's specific written verification or adaptation, such reuse will be at the risk of the owner, without liability to the engineer. Any such verification or adaptation will entitle the engineer to further compensation at rates agreed upon by the owner and the engineer.

#### APPENDIX C-2 TO SUBPART E OF PART 35—REQUIRED PROVISIONS—CONSTRUCTION CONTRACTS

##### SUPPLEMENTAL GENERAL CONDITIONS

1. General
2. Changes
3. Differing Site Conditions
4. Suspension of Work
5. Termination for Default; Damages for Delay; Time Extensions
6. Termination for Convenience
7. Remedies
8. Labor Standards

9. Utilization of Small or Minority Business
10. Audit; Access to Records
11. Price Reduction for Defective Cost or Pricing Data
12. Covenant Against Contingent Fees
13. Gratuities
14. Patents
15. Copyrights and Rights in Data
16. Prohibition Against Listed Violating Facilities
17. Buy American

##### 1. GENERAL

(a) The owner and the contractor agree that the following supplemental general provisions apply to the work to be performed under this contract and that these provisions supersede any conflicting provisions of this contract.

(b) This contract is funded in part by a grant from the U.S. Environmental Protection Agency. Neither the United States nor any of its departments, agencies or employees is a party to this contract. This contract is subject to regulations contained in 40 CFR 35.936, 35.938, and 35.939 in effect on the date of execution of this contract.

(c) The owner's rights and remedies provided in these clauses are in addition to any other rights and remedies provided by law or under this contract.

##### 2. CHANGES

(a) The owner may, at any time, without notice to the sureties, by written order designated or indicated to be a change order, make any change in the work within the general scope of the contract, including but not limited to changes—

- (1) In the specifications (including drawings and designs);
- (2) In the method or manner of performance of the work;
- (3) In the owner-furnished facilities, equipment, materials, services, or site; or
- (4) Directing acceleration in the performance of the work.

(b) Any other written order or an oral order (which terms as used in this paragraph (b) shall include direction, instruction, interpretation, or determination) from the owner, which causes any such change, shall be treated as a change order under this clause, if the contractor gives the owner written notice stating the date, circumstances, and source of the order and if the contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the owner shall be treated as a change under this clause or shall entitle the contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the contractor's cost of, or the time required for, the performance of any part of the work under this