



The Construction Incentive Program

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Introduction

Under the Federal Water Pollution Control Act, EPA has awarded billions of dollars in grants for the construction of wastewater treatment facilities. In an effort to minimize these costs, EPA has developed a program to encourage cost-savings during construction. The EPA's Construction Incentive (CI) Program provides an opportunity for contractors to capitalize on their construction experience by reducing a facility's construction costs without compromising its reliability or performance.

General Program Description

Contractors on EPA construction grant projects are encouraged to propose changes in the project that will:

- provide at least \$50,000 gross capital savings, and
- result in a net savings over the life of the project.

If the proposed changes submitted in a Construction Incentive Change Proposal (CICP) result in net capital savings of \$1 million or less, the contractor receives fifty percent of the savings. When the net capital savings exceed \$1 million, the contractor receives \$300,000, plus twenty percent of the savings.

The contractor can propose changes in either construction techniques or materials at any time during construction. These changes require the approval of both the design engineer and the reviewing agency. Although the CI program is voluntary, the contractor may only participate in the program if the Construction Incentive Clause has been included in the approved contract documents. The CI Clause may not be added to the documents after bids are received on a project.

Conclusion

The Construction Incentive Program provides an excellent opportunity for municipalities to reduce construction costs on their projects by sharing the savings with the contractors.

CICP Examples

Keokuk, Iowa

A CICP in Keokuk, Iowa, involving structural modifications to the design of a pretreatment facility produced a gross capital cost savings of 1.3 percent. The modifications included: (1) the replacement of drilled piers with driven HP pilings, (2) the substitution

of lightweight vermiculite concrete with a structural cap for the standard concrete fill, and (3) grit channel modifications to avoid demolition of existing concrete.

Virginia Beach, Virginia

A CICP for an outfall for the Hampton Roads Sanitation District in Virginia Beach, Virginia resulted in a 1.5 percent gross capital cost savings through the use of an alternate construction method for joining the prestressed concrete pipe.

To assist in the understanding of this program, the complete EPA Construction Grants Program CI Clause has been reproduced below:

CONSTRUCTION INCENTIVE CLAUSE

I. PURPOSE

This clause defines a "construction incentive change proposal" (CICP) and establishes the policy and procedures for the application of CICPs in the construction grant process of the EPA construction grants program.

II. CICP

A. Definition: A CICP is a formally written proposal for a change order during the construction of a wastewater treatment project funded under the EPA construction grants program. A CICP must be initiated, developed and identified as such by the contractor or subcontractor. A CICP must result in a gross capital savings of \$50,000 or more.

A CICP must result in a net capital cost reduction while causing no increase in the total life cycle cost of the project and meeting the following conditions.

- 1. The required function, reliability and safety of the project will be maintained.*
- 2. The proposed change will not result in any contract rebidding.*

3. The proposed change must be in compliance with Section 204(a)(6) of the Federal Water Pollution Control Act Amendments of 1972 which prohibit proprietary and restrictive specifications for bids in connection with construction grant projects.
4. The proposed change will not cause undue interruption of the contract work.
5. The proposed change must be in compliance with local permits and regulations.

B. Applicability: All contracts for the construction of wastewater treatment projects funded under the EPA construction grants program.

C. Content: A CICP must contain pertinent information and supporting documents for evaluation by the involved contracting authority. As a minimum, the following information should be included.

1. Name of individuals associated with the development and preparation of the CICP.
2. A detailed description with duly signed plans and specifications of the present design and the proposed changes. Clear identification of any advantages and disadvantages for each change.
3. A detailed procedure and schedule for implementing the proposed change. This should include all necessary contract amendments and the latest date the CICP could be approved for implementation.
4. A summary of estimated costs to include the following:
 - a. project construction costs before and after the CICP. This should be a detailed estimate identifying the following items for each trade involved in the CICP;

1. quantities of materials and equipment,
 2. unit prices of materials and equipment,
 3. labor hours and rates for installation,
 4. subcontractor and prime contractor mark-ups;
- b. operation and maintenance costs before and after the CICP;
 - c. costs for implementing the CICP not included in item 4a above;
 - d. contractor's share of the savings based on paragraph III below;
 - e. other data as required in the construction grants regulations for change orders (40 CFR Parts 33 and 35);
 - f. time required for executing the proposed change.

To the extent indicated below, contractors may restrict the Environmental Protection Agency's and the project owner's use of any construction incentive change proposal or the supporting data submitted pursuant to this program. Suggested wording for inclusion in CICPs is provided below:

"The data furnished pursuant to the construction incentive clause of contract # shall not be disclosed beyond that which is necessary to accomplish the review, or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate change proposals submitted under said clause. This restriction does not limit the Government's right to use information contained in the data if it is or has been obtained, or is otherwise available, from the contractor, or from another source, without limitations. If such a proposal is accepted by

the owner under said contract after the use of the data in such an evaluation, the United States Environmental Protection Agency and the project owner shall have the right to duplicate, use, and disclose any data reasonably necessary to the full utilization of such proposal as accepted, in any manner and for any purpose whatsoever, and have others do also."

The grantee may, subject to approval by the reviewing agency, modify, accept or reject the CICIP. However, if a CICIP is modified or is not acted upon within the timeframe specified in the CICIP, the contractor may withdraw, in part or in whole, the CICIP. In any event, the grantee will not be liable for the cost of developing the CICIP withdrawn or rejected.

When a CICIP is accepted by the grantee, the processing procedure for change orders should be used and approval of the CICIP by the reviewing agency is required. When a CICIP is rejected, the contractor may not appeal to the EPA.

III. SHARING PROVISIONS

Construction Cost Sharing

Upon acceptance of a CICIP, the contractor will share the net capital savings pursuant to this contract based on the formula below. Computation for the net savings is to be based on the following formula:

Net Capital Savings = (Initial construction cost - revised construction cost) - (CICIP development cost + CICIP implementation cost)

The CICIP implementation cost should include, when appropriate, the consultant's fee for reviewing and redesigning the changes. However, costs for processing the CICIP incurred by the grantee, and the reviewing agency are excluded.

The contractor's cost for developing the CICIP is limited to that directly associated with the preparation of the CICIP package. When approved, such costs will be

reimbursed to the contractor. However, any costs which cannot be satisfactorily substantiated will be rejected and will not be subject to reimbursement.

Sharing Formula

- A. when the total cumulative net capital savings based on the computation above is \$1 million or less, the contractor will receive 50 percent of the savings.
- B. when the total cumulative net capital savings exceed \$1 million, the contractor's share will be computed based on the following formula:

$$y = .2x + 300,000$$

where

y = contractor's share in dollars

x = total net capital savings in dollars

for example, if the total net capital saving is \$3,572,000:

$$\begin{aligned} y &= .2(\$3,572,000) + 300,000 \\ &= \$1,014,400 \end{aligned}$$