

**MEMORANDUM REPORT ON REVIEW OF  
CITY OF BEATTYVILLE  
BEATTYVILLE, KENTUCKY**

**Geotechnical Study for Construction of the  
Crystal Lake Dam and Reservoir**

**ARC Grant No: CO-12267-95-I-302-0803**

**September 1, 1995 through January 1, 1997**

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**Report Number: 97-25 (H)**

**Date: April 28, 1997**

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Prepared By:

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Under Contract Number J-9-G-5-0010 with the  
U.S. Department of Labor  
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Office of Audit

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TO: Appalachian Regional Commission (ARC)  
Office of Inspector General (OIG)

FROM: Tichenor & Associates  
Woodbridge, Virginia

REPORT FOR: The Federal Co-Chairman  
ARC Executive Director  
OIG Report No. 97-25(H)

SUBJECT: Memorandum Review Report on City of Beattyville, Geotechnical Study  
for Construction of the Crystal Lake Dam and Reservoir, Beattyville,  
Kentucky. Grant No: CO-12267-95-I-302-0803, ARC Contract No. 95-  
141.

PURPOSE: The purpose of our review was to determine if (a) the total funds claimed for reimbursement by the City of Beattyville for the Geotechnical Study for Construction of the Crystal Lake Dam and Reservoir were expended in accordance with the ARC approved grant budgets and did not violate any restrictions imposed by the terms and conditions of the grants; (b) the accounting, reporting and internal control systems provided for disclosure of pertinent financial and operating information; and (c) the objectives of the grants had been met.

BACKGROUND: ARC awarded Grant Number CO-12267-95-I-302-0803 to the City of Beattyville for the period September 1, 1995 through January 1, 1997. Total grant funding was for actual, reasonable, and eligible project costs, not to exceed \$165,000. ARC required that the grant be matched with \$10,000, in cash, contributed services, or in-kind contributions, as approved by ARC. As of the date of our report, ARC made two progress payments to the City of Beattyville totaling \$135,549. The Grantee submitted the final request for reimbursement to ARC on December 26, 1996, in the amount of \$29,451.

The City of Beattyville plans to build an impoundment to create a reservoir to provide a safe, unpolluted domestic water source and a major recreational area to attract tourism into the area. The funding for the project was to provide the Geotechnical Study for Construction of the

Crystal Lake Dam and Reservoir which included design work by Kenvirons, Inc. and a geological survey to be performed by Fuller, Mossbarger, Scott and May Engineers to determine the exact location of the impoundment and a cost estimate for construction of the impoundment on Clear Creek in Lee County. The preliminary work consisted of the following three phases: 1) a study to determine if the area was affected by coal mining subsidence and oil well leakage; 2) geological survey to determine the exact location of the impoundment and 3) design of the impoundment to determine the cost of construction. The first phase was completed in the form of a private engineering study. Phases two and three relate to the funding provided by ARC.

SCOPE: We performed a program review of the grant as described in the Purpose, above. Our review was based on the terms of the grant agreement and on the application of certain agreed-upon procedures previously discussed with the ARC OIG. Specifically, we determined if the tasks listed above had been performed, if the accountability over ARC funds was sufficient as required by the applicable Office of Management and Budget (OMB) Circulars, and if the City of Beattyville had complied with the requirements of the grant agreement. In addition, we discussed the program objectives and performance with personnel from the engineering firm, Kenvirons, Inc., which performed the design work. Our results and recommendations are based on those procedures.

RESULTS: The following results were based on our review performed at the offices of the City of Beattyville in Beattyville, Kentucky, the engineering firm of Kenvirons, Inc. in Frankfort, Kentucky, and the subcontracted engineering firm of Fuller, Mossbarger, Scott and May Engineers, Inc. (FMSM), in Lexington, Kentucky, on January 27 through 29, 1997.

**A. Incurred Costs**

The City of Beattyville incurred total program costs of \$180,361. They claimed reimbursable costs from ARC, for the period September 25, 1995 to December 26, 1996, of \$165,000 and matching costs of \$10,000. We reviewed the total costs incurred and determined that the funds had generally been expended as reported by the City of Beattyville. However, we determined the following with respect to the total incurred costs:

- Kenvirons, Inc. did not use the appropriate fee schedule for one invoice;
- FMSM charged for services incurred prior to the grant award; and,
- the City of Beattyville had not made the \$10,000 matching payment as of January 29, 1997.

These costs are discussed below.

1. Incorrect Fee Schedule Used by Engineer

The engineering firm, Kenvirons, Inc., charged fees for the work performed based on a pre-established fee schedule by type of service. The fee schedule was modified to reflect new prices effective July 1, 1996. However, Kenvirons used the modified fee schedule to price the services on its final invoice, which was for the period of May 12, 1996 to September 14, 1996. Although this period encompassed both the original and the modified fee schedules, Kenvirons used only the new prices for all services performed, including those incurred prior to July 1, 1996. This resulted in charges of \$645 over those which would have been calculated using the original fee schedule for the period through July 1, 1996.

OMB A-87, Attachment A, Section D. 30., Profession Service Costs, paragraph b., states, in part:

"In determining the allowability of costs for services...the following factors are relevant....(8) Adequacy of the contractual agreement for the service (e.g., description of the service, estimate of time required, rate of compensation...),"

In addition, OMB A-87, Attachment A, Section A. 2. b., Policy Guides, states:

"The governmental unit assumes the responsibility for seeing that Federal funds have been expended and accounted for consistent with the underlying agreements and program objectives."

RECOMMENDATION

We recommend that the engineer review its billings to ensure the proper fee schedule was used to invoice services and adjust billings to account for the noted overcharge. We also recommend that for the future the City of Beattyville establish policies and procedures to review all invoices prior to payment to ensure their accuracy.

2. Work Performed Prior to Grant Award

The engineering subcontractor, FMSM, charged the City of Beattyville \$2,360 for services performed prior to the award of the grant, September 1, 1995. A representative from FMSM stated that the services were for help in writing the ARC proposal. The City of Beattyville, however, did not obtain ARC approval to charge costs for the preparation of the grant proposal to the grant as direct costs, nor did they obtain approval to charge costs incurred prior to the grant award. These costs are unallowable for reimbursement or as match in accordance with the ARC Code, Appendix 18-3, 2. Use of Grant Funds, which states, in part:

"Grant assistance and matching contributions shall:

(c) not be used to reimburse for work performed or services provided prior to the grant period;"

In addition, with respect to the grant proposal costs, OMB A-87, Attachment B, 34., Proposal Costs, states, in part:

"Proposal costs should normally be treated as indirect costs... However, proposal costs may be charged directly to Federal awards with the prior written approval of the Federal awarding agency."

RECOMMENDATION:

We recommend that the City of Beattyville reduce the total allowable grant costs by \$2,360. However, since total costs incurred exceeded the approved grant budget, we do not recommend that the costs be refunded to ARC, if the City of Beattyville contributes the required match, as discussed below. In addition, we recommend that the City of Beattyville establish policies and procedures to review all invoices prior to payment to ensure that costs are within the scope of the agreement and the grant.

3. Required Match Not Met

The City of Beattyville is required to match the ARC funds with \$10,000 in cash, contributed services, or in-kind contributions. Due to the nature of the project, the required match was in the form of cash only. The City of Beattyville has not yet made their cash contribution. While the City of Beattyville provided documentation for a \$3,000 payment to the grant writer and a \$119 payment to the State of Kentucky for aerial photographs of the proposed site, neither of these payments are considered matching costs within the scope of the grant project. The City of Beattyville stated that it is waiting for the engineers final invoice, at which time it will pay all costs not reimbursed by ARC, thus fulfilling the matching requirement.

The ARC grant, Article 3-1 states, in part:

"In applying for this ARC assistance, Grantee has represented to ARC that there would be contributed to the project \$10,000 in cash, contributed services or in-kind contributions. Grantee shall make a good faith effort to assure the contribution of such amount to this project. Further, Grantee will advise ARC if at any time it appears such matching donation will not be forthcoming for project support."

RECOMMENDATION:

We recommend that the City of Beattyville provide evidence that total payments to the engineer include the matching payment of \$10,000. If the City of Beattyville is unable to make its matching payment, ARC should be notified and a resolution should be negotiated.

**B. Internal Controls**

We determined that the City of Beattyville's internal control policies and procedures for assuring that grant costs were properly accumulated, supported and reported were not adequate as discussed below.

1. Lack of Policies and Procedures to Review Vendor Invoices

We discussed the City of Beattyville's payment process to determine if the invoices are adequately reviewed, prior to payment and reporting to ARC, to determine that costs are reasonable, allowable and allocable. We determined that the City of Beattyville's policies and procedures do not include a review process. The City of Beattyville simply receives the invoice from the engineer, claims the amount for reimbursement from ARC, and remits the funds received from ARC back to the engineer in payment. The City of Beattyville does not request the engineer to provide supporting documentation for the invoices and does not review the invoices to determine the reasonableness, allowability or accuracy of the invoices.

The Common Rule, Subpart C, .40 Monitoring and Reporting Program Performance, states, in part:

"(a) *Monitoring by grantees.* Grantees are responsible for managing the day-to-day operations of grant and subgrant supported activities. Grantees must monitor grant and subgrant supported activities to assure compliance with applicable Federal requirements..."

In addition, OMB A-87, Attachment A, Section A. 2. b., Policy Guides, states:

"The governmental unit assumes the responsibility for seeing that Federal funds have been expended and accounted for consistent with the underlying agreements and program objectives."

RECOMMENDATION:

We recommend that the City of Beattyville establish policies and procedures to ensure adequate review of invoices is performed prior to payment. This review should include requesting

supporting documentation for an invoice and reviewing the invoice and documentation to ensure all costs are reasonable, allowable, allocable and accurate.

2. Engineer Did Not Maintain Timesheets

In order to determine the reasonableness and allowability of costs billed by the engineers, we selected a sample of timesheets to support the engineering invoices for review. Kenvirons, Inc. was unable to provide the timesheets to support the labor costs billed. They stated that timesheets are not maintained. Rather, after time is downloaded into the computer, all timesheets are destroyed due to limited storage space. Therefore, we were unable to verify the hours charged by the engineer.

The Common Rule, Subpart C, Post Award Requirements, .20 (b), Standards for Financial Management Systems, states, in part:

" The financial management systems of other grantees and subgrantees must meet the following standards:

(6) *Source Documentation.* Accounting records must be supported by such source documentation such as cancelled checks, paid bills, payrolls, time and attendance records, contract and subgrant award documents, etc."

RECOMMENDATION:

We recommend that Kenvirons, Inc. revise its retention policies to keep all time sheets for work performed which is funded by the Federal Government in order to comply with regulations or that the source documentation is provided to the City of Beattyville for safekeeping until the grant has been closed out by ARC.

3. FMSM's Charges for Subsistence Did Not Agree with Established Fee Schedule

FMSM's fee schedule states that lodging and meal costs incurred while away from the office are reimbursable at actual cost. However, we noted that FMSM charged a flat rate per day of \$50 for these costs. Our review disclosed that the use of the flat rate instead of the actual costs did not result in a significant difference in costs. However, the established method of compensation should be followed, unless agreed to in writing by both parties, in accordance with OMB A-87, Attachment A, Section D. 30., Professional Service Costs.

RECOMMENDATION

We recommend that the engineer adhere to its documented fee schedule in billing costs.



4. Fee Schedules Not Based on Actual, Allowable Costs

We reviewed both Kenvirons, Inc.'s and FMSM's fee schedules and actual cost records and determined that the fee schedule used for this project was not computed using actual cost history. According to representatives from both firms, the fee schedules were based on a combination of actual direct labor rates and overhead and on the current market and competitor's prices. Therefore, we performed a review of actual labor and overhead costs to determine if the fees charged by the firms were reasonable or resulted in excess profit. We calculated the profit of each firm as shown in the table below.

ENGINEER	AMOUNT INVOICED	ACTUAL COST INCURRED	PROFIT \$	PROFIT %
Kenvirons, Inc.	\$ 66,877	\$ 56,292	\$ 10,585	18.80
FMSM	\$ 77,356	\$ 73,470	\$ 3,886	5.29

We also reviewed one month's indirect rate and corresponding cost pool for each engineer and determined that the indirect cost pools included unallowable costs such as entertainment, contributions and possible unallowable costs included in meals, vehicles, and bonuses. Thus, it appears that the use of both engineers' rates would result in the recovery of unallowable costs or in excessive profits if these unallowable costs were removed from the indirect rate computation without an adjustment to the total amount invoiced.

OMB A-87, Attachment A, Section D. 1., Total Cost. states:

"The total cost of a federally-supported program is comprised of the allowable direct cost of the program, plus its allocable portion of allowable indirect costs, less applicable credits."

In addition, the Common Rule, Subpart C,.22, Allowable Costs, states:

"(a) *Limitation on use of funds.* Grant funds may be used only for:

(1) The allowable costs of the grantees, subgrantees and cost-type contractors, including allowable costs in form of payments to fixed-price contractors; and

(2) Reasonable fees or profit to cost type contractors but not any fee or profit (or other increment above allowable costs) to the grantee or subgrantee."

RECOMMENDATION

We recommend that the engineers calculate a separate indirect rate for all Federally-funded work which does not include unallowable costs in the cost pool. In addition, we recommend that the engineers either perform future work funded by the Federal government on a lump sum or cost-plus-fixed-price basis, or develop a separate fee schedule for Federally-funded work which is based on direct labor, an indirect rate as discussed above, and a reasonable profit.


**C. Program Results**

Our review of the City of Beattyville's support for the Geotechnical Study for Construction of the Crystal Lake Dam and Reservoir indicated that all objectives and specific tasks identified in the grant, and summarized above, were achieved except for the final design drawings review which is to be done by Kenvirons, Inc.

DISCUSSION:

We discussed these issues with the Mayor of the City of Beattyville during an exit conference held on February 12, 1997. The Mayor stated that he did not believe the City of Beattyville had the ability or expertise to review engineering fees to determine the reasonableness. He also stated that meeting the matching requirement would not be a problem and payment would be made as soon as it was required.

A copy of the draft report was provided to the City of Beattyville for review and comment. The Mayor contacted us on April 21, 1997, and stated that he concurred with the recommendations and would provide the support for the payment of matching costs to ARC. He also stated that the City of Beattyville does not have the expertise to review the costs or billing methods of the consultants, and relied on them to perform the work and prepare the billings as required.

  
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