



## SURVEY REPORT

### REVIEW OF TENNESSEE CENTER FOR RESEARCH AND DEVELOPMENT KNOXVILLE, TENNESSEE

#### Utilization of Fiber Waste Stream Materials in New Business Enterprise--Phase I

Grant CO-11795-94-I-302-0808  
August 1, 1994 - May 22, 1995

OIG Report 95-42(H)  
June 20, 1995

#### I. INTRODUCTION

##### A. PURPOSE

The purposes of our review were (1) to determine the allowability of the costs claimed under the ARC grants, (2) to determine if the grant objectives were met, and (3) to determine the current status of the project.

##### B. SCOPE

Our survey included procedures to review costs incurred and claimed for reimbursement under the grant as well as costs claimed as matching funds. The initial period of performance was August 1, 1994, through April 30, 1995; but it was extended through May 22, 1995. We reviewed the grantee's reports; examined accounting and other records; and held discussions with the grantee's project director and other officials in Knoxville, Tennessee, on May 17, 1995. As a basis for determining allowable costs and compliance requirements, we used the provisions of the grant agreement, Office of Management and Budget (OMB) Circulars A-110 and A-122, and the ARC Code.

##### C. BACKGROUND

The Appalachian Regional Commission (ARC) awarded a grant to the Tennessee Center for Research and Development to plan and organize a Fiber Waste Utilization Association (FWUA), which was to enhance the utilization of fiber waste stream materials in new business enterprise. ARC Grant CO-11795-94 was for actual, reasonable, and eligible project costs, not to exceed \$50,000. The grantee was to provide \$92,383 in cash, contributed services, or in-kind contributions. The grant agreement specifically indicated that the grantee was to notify ARC if it appeared that the matching contribution could not be provided.

The tasks to be completed under the grant agreement included:

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Alabama Kentucky Mississippi North Carolina Pennsylvania Tennessee West Virginia  
Georgia Maryland New York Ohio South Carolina Virginia

1. Development of an FWUA business plan (Deliverable One)
  - a. FWUA mission, strategy, and goals
  - b. An Organizational and Operating Staff Plan, including formalizing the "teaming" working relationships between founding organizations
    - i. FWUA membership structure
    - ii. Regional office relationships
    - iii. Primary institutional and industry relationships, state governments, TVA, Oak Ridge National Laboratory, and regional industry
  - c. An Operational Plan
    - i. Waste Resource Assessment Program
      - Database development, and operation
      - Computational analyses
      - Products and services
    - ii. FWUA functions, departments, and activities
    - iii. FWUA product and service development
  - d. Schedule for Tasks and Deliverables
  - e. Budget for Tasks and Deliverables
2. Development of a Funding Plan (Deliverable Two)
  - a. State governments: Tennessee and other regional states
  - b. Federal Government: EPA, DOC, DoD, NIST-ATP
  - c. ARC
  - d. Industry
3. Planning for a computer-based Waste Resource Analysis Program (WRAP)
  - a. Tennessee Center for Research and Development's (TCRD) Center for Information Technologies
    - i. Specify requirements for WRAP data base information system (Deliverable Three)
      - Identify business functions to be supported by the system
      - Identify initial information needs for those business functions

- Develop and document a data model for housing the identified information
    - Identify information technologies for application needs of the information system
  - ii. Document existing information systems (data bases) relevant to WRAP and other FWUA functions, departments, and activities (Deliverable Four)
  - iii. Coordinate WRAP information system planning and design with University of Tennessee's (UT) WRAP functions
- b. UT's Manage Science Program
  - i. Develop technical feasibility and performance criteria for WRAP analysis tools (Deliverable Five)
  - ii. Develop a demonstration prototype for WRAP analysis capabilities (Deliverable Six)
  - iii. Develop a detailed work plan for first-year startup of analysis functions (Deliverable Seven)
  - iv. Coordinate WRAP analysis system activities with TCRD's WRAP functions

4. Formalize "teaming" contractual relationships between TCRD; UT; Martin Marietta Energy Systems, Inc. (MMES); Waste Conversion Systems Co. (WCS); and the formation of the FWUA (Deliverable Eight)

5. Form the Fiber Waste Utilization Association and the founding Industry User Group (Deliverable Nine)

## II. RESULTS OF REVIEW

### A. COST SHARE

The grant agreement indicated that a cost share of \$92,383 would be contributed to the project. At the time of our visit, the grantee had documentation for matching costs and in-kind contributions totaling \$63,996. However, the grant period had not ended; and grant work was ongoing. The grantee's project director indicated that additional cost share would be provided by TCRD, WCS, and UT. The budget and documented cost share amounts are as follows:

<u>Source</u>	<u>Budget Amount</u>	<u>Documented Amount</u>
TCRD	\$27,114	\$19,509
WCS	18,966	25,276
UT	21,302	0
MMES	<u>25,000</u>	<u>19,211</u>
Total	\$92,382	\$63,996

According to the grantee's project director, UT's Pellissippi Resource Institute worked on the project but had not provided documentation of their effort at the time of our visit. The grantee's project application indicated that UT's contribution would be provided by the Management Science Program; however, we understand that it was subsequently determined that the Pellissippi Resource Institute was better suited to address the project issues.

The grantee's records indicated that they received \$25,0900 in cash from MMES and that WCS had provided in-kind contributions of \$25,276.04 through April 28, 1995. According to the grantee's project director, WCS was expected to submit additional documentation for cost incurred after April 28, 1995.

**Recommendation:** We recommend the grantee obtain evidence of the cost share contributed by UT and any additional cost share provided by WCS. We also recommend the grantee notify ARC promptly if the total cost share provided is less than the amount specified by the grant agreement.

#### Grantee Comment

TCRD has obtained evidence of the cost share from UT and additional cost share information from WCS. It is apparent that the cost share specified by the grant agreement will be exceeded.

#### Auditor Comment

The additional information should be provided to ARC program staff in order to facilitate finalization of claims.

### B. OVERHEAD/GENERAL AND ADMINISTRATIVE COSTS

The grantee determined that budgeted costs for overhead and general and administrative (G&A) expenses applicable to the ARC project differed substantially from actual costs and indicated that they would make adjustments to claimed costs based on the actual costs.

1. Overhead Costs--The grantee's approved budget provided for total overhead costs for the project of \$23,661 (118 percent of direct labor). However, the grantee indicated that actual overhead expenses appeared to be about 58 percent of direct labor costs for 1994. The grantee claimed overhead costs to ARC at the 118-percent rate for the period August 1 through December 31, 1994, and at the 43 percent in January and February 1995. The grantee indicated they will determine an overhead cost rate for the grant period based on actual costs and adjust their claimed overhead costs at grant closeout.

2. G&A Costs--The approved budget also provided for G&A costs for the project of \$12,175 (14 percent of direct costs and overhead). The grantee claimed G&A costs at the 14 percent rate for August 1 through December 31, 1994; however, they determined that the G&A rate for 1995 would be higher. They claimed G&A costs at the rate of 16.31 percent

for January and February 1995 and indicated that they would determine actual expenses during the grant period and adjust their G&A costs based on the actual expenses.

**Recommendation:** We recommend that the grantee continue their efforts to determine actual overhead and G&A costs and adjust their final claim to reflect those amounts.

Grantee Comment

TCRD will make adjustments on their final invoices to reflect the actual indirect costs incurred.

Auditor Comment

ARC program staff should review the invoices prior to processing final payments.

C. QUESTIONED COSTS

We are questioning \$474.09 that was charged to the grantee's Direct Cost Travel account for travel and other expenses for an official of WCS. The supporting documentation indicated the expenses were incurred from July 14 through September 14, 1994; however, we were unable to determine the date some of the costs were incurred because of inadequate documentation. The grant period did not begin until August 1, 1994; and costs incurred before that time would be unallowable. We provided copies of the supporting documentation to the ARC program official.

**Recommendation:** We recommend that the grantee contact the ARC program official to resolve the issue of \$474.09 in questioned costs.

Grantee Comment

TCRD will ask the program official to waive the questioned costs due to the fact that TCRD will have provided more than the specified cost share amount.


Auditor Comment

ARC program staff should make a determination with respect to the eligibility of questioned costs.

D. PROJECT STATUS

At the time of our review, the project director indicated that all deliverables had been completed except for a couple of elements of Deliverable Five regarding the development of technical feasibility and performance criteria for WRAP analysis tools. The grantee expected that all program requirements would be completed by the end of the grant period. A draft final report was substantially complete with final review by project participants expected to be completed on a timely basis.

The ARC grant covered the planning and organization of the grantee's project (Phase I). Phase II will involve solicitation of funds and business startup.

  
Hubert N. Sparks  
Inspector General

Attachment



June 26, 1995

Mr. Hubert N. Sparks  
Inspector General  
Appalachian Regional Commission  
1666 Connecticut Avenue, NW  
Washington, DC 20235

Dear Mr. Sparks,

We have reviewed the draft survey report as you provided. We have the following comments for consideration for inclusion in the final report.

Cost Share-

TCRD has obtained evidence of the cost share from the University of Tennessee and additional cost share information from WCS. It is apparent that the cost share specified by the grant agreement will be exceeded.

Indirect costs-

TCRD will make adjustments on their final invoices to reflect the actual indirect costs incurred.

Questioned costs-

TCRD will ask the program official to waive the questioned costs due to the fact that TCRD will have provided more than the specified cost share amount.

We appreciate the professional manner in which the auditor performed the survey, and the opportunity to include our comments.

Yours very truly,

A handwritten signature in black ink, appearing to read 'Michael W. Howard', is written over a faint, dotted line that serves as a signature line.

Michael W. Howard