Final Progress Report

ONE YEAR SERA AGREEMENT
And
P²AD SUPPORT SERVICES AGREEMENT

Contract Number: Contract N-20-601 and Contract N-20-602
Performance Period: August 1996 - October 1997

Sponsored By:

GEORGIA POLLUTION PREVENTION ASSISTANCE DIVISION
Suite 450
7 Martin Luther King Jr. Dr.
Atlanta GA 30334-9004

Respectfully Submitted By:

Georgia Tech Economic Development Institute
Georgia Institute of Technology
Atlanta GA 30332-0640

November 6, 1997
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1.0 Executive Summary

This document defines the scope of work and progress of the Georgia Tech Economic Development Institute (EDI) and Georgia Tech Research Institute (GTRI) in concert with the Pollution Prevention Assistance Division (P2AD) and the University of Georgia in establishing and operating the Georgia Environmental Partnership (GEP) via funding provided by the Southeastern Environmental Resources Alliance (SERA), P2AD, and in-house cost share. This program is made possible via two contracts with the Georgia Tech Research Corporation: "One Year SERA Agreement" and "P2AD Support Services Agreement". Even though these are two unique contracts with unique deliverables, for the purposes of report brevity, the delivery of effort under the agreements is combined below in a single report outlining our GEP efforts. Because these efforts are in partnership with the two other operations listed above, we acknowledge the efforts reported below involve the other members of the partnership where the lead role and source of success may well be any one of the three partners.

The following program tasks generalize the overall effort:

Task 1. Technical Assistance

EDI will provide general environmental assessments to individual companies in the form of on-site assessments at industrial facilities throughout Georgia. These assessments are designed to identify potential energy efficiency, environmental compliance, and/or pollution prevention concerns. On-site assessments will be conducted at numerous plants using EDI’s existing staff of field agents and skill center specialists.

The assessments will be preliminary in nature (feasibility grade) requiring 2-3 man days of effort each. More complex or involved assessments (requiring detailed analysis of pollution prevention concepts, measures, and technologies) will be referred to P2AD’s pollution prevention staff engineers, especially where broad application of the results in the state is desirable.

Task 2. Regional Seminars

EDI will conduct geographically based seminars. Development and planning functions will be coordinated with P2AD’s public outreach coordinators. Seminars will deal with topics germane to the needs of Georgia industries. EDI will arrange meeting space, marketing services, and informational materials through its network of regional offices.
Task 3. Industry Sector Seminars

EDI will assist P²AD in the development of three industry sector specific seminars. EDI will identify speakers and develop materials as requested by P²AD with particular emphasis on matters relating to industrial energy efficiency and environmental compliance. P²AD will assume primary responsibility for the presentation of information pertaining to pollution prevention measures and technologies. EDI, in conjunction with P²AD’s public outreach coordinators, will be responsible for the planning and logistical support for the seminars, including but not limited to, advertising, site selection, and recruitment of speakers.

Task 4. Support and Promotion

EDI will provide training, resource identification/referral and management support, where appropriate, in support of implementation projects conducted by SERA in Georgia.

EDI will prepare fact sheets on energy efficiency, environmental compliance, and pollution prevention methodologies. These fact sheets will identify common environmental management problems and provide information requirements, economic justifications, and sources for additional materials.

EDI will participate in trade shows and conferences to promote the environmental management services provided by the Georgia Partners. This task will include the operation of exhibits and information booths and the delivery of presentations at environmental conferences throughout the region.

Task 5. Industry Networks

EDI will develop a regionally based system of industry networking groups. The purpose of these groups is to promote information exchange, problem solving, and mentoring among neighboring facilities. EDI will enlist the support and assistance of trade organizations, and/or local chambers of commerce. As many as nine industry networking groups may be developed through EDI regional offices around the state.

EDI will participate in the development of a pollution prevention excellence recognition (Pollution Prevention Partners) program including promotion and award recipient(s) screening.
2.0 Project Reports, Budget Status & Program Schedules: One Year SERA Agreement

2.1 Program Progress - Activities for the August 1997 - October 1997 Quarter

This section describes activities that have occurred during the captioned quarter. A perspective of how these items compare to the goals in the contract as depicted in the program schedule is presented in Section 2.2.

2.1.1 On-Site Assessments

The primary mission of this quarter has been to conclude the contract deliverables and initiate the new contract. Ongoing activity has been to provide on-site assessments, in-plant consultations, workshops/seminars and the development of on-site assessment tools. Also, we have continued internal training of GEP field agents. The individuals listed below from Georgia Tech Economic Development Institute (EDI) and Georgia Tech Research Institute (GTRI) compose the GEP/EDI team:

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<thead>
<tr>
<th>Name</th>
<th>Phone Number</th>
<th>City, State</th>
<th>Office</th>
</tr>
</thead>
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<tr>
<td>John Adams (Program Coordinator)</td>
<td>(404)894-4138</td>
<td>Atlanta, GA</td>
<td></td>
</tr>
<tr>
<td>Jerry Zolowski</td>
<td>(706)272-2702</td>
<td>Dalton, GA</td>
<td></td>
</tr>
<tr>
<td>Larry Alford</td>
<td>(770) 960-2153</td>
<td>Morrow Office</td>
<td></td>
</tr>
<tr>
<td>Mike Brown</td>
<td>(404)894-6107</td>
<td>Atlanta, GA</td>
<td></td>
</tr>
<tr>
<td>Steve Cowart</td>
<td>(912)384-1121</td>
<td>Douglas, GA</td>
<td></td>
</tr>
<tr>
<td>Karen Fite</td>
<td>(706)542-8901</td>
<td>Athens Office</td>
<td></td>
</tr>
<tr>
<td>Bill Meffert</td>
<td>(404)894-3844</td>
<td>Atlanta, GA</td>
<td></td>
</tr>
<tr>
<td>Paul Schlumper</td>
<td>(404)894-8082</td>
<td>Atlanta, GA</td>
<td></td>
</tr>
<tr>
<td>Tianna Marynell</td>
<td>(706) 737-1414</td>
<td>Augusta Office</td>
<td></td>
</tr>
<tr>
<td>Ed Hardison</td>
<td>(912)430-4188</td>
<td>Albany, GA</td>
<td></td>
</tr>
<tr>
<td>Chris Downing</td>
<td>(770)412-4081</td>
<td>Griffin, GA</td>
<td></td>
</tr>
<tr>
<td>Randy Green</td>
<td>(912) 275-6543</td>
<td>Dublin, GA</td>
<td></td>
</tr>
<tr>
<td>Robert Hitch</td>
<td>(706)568-2482/(770) 535-5728</td>
<td>Columbus &amp; Gainesville, GA</td>
<td></td>
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<tr>
<td>George Lee</td>
<td>(912)751-6190</td>
<td>Macon, GA</td>
<td></td>
</tr>
<tr>
<td>Deann Desai</td>
<td>(404)894-2483</td>
<td>Atlanta, GA</td>
<td></td>
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<tr>
<td>Roc Tshirhart</td>
<td>(404)894-8045</td>
<td>Atlanta, GA</td>
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<tr>
<td>Russ Ray</td>
<td>(404)894-8058</td>
<td>Atlanta, GA</td>
<td></td>
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<tr>
<td>Jim Walsh</td>
<td></td>
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<tr>
<td>Melanie Largin</td>
<td>(770) 387-4084</td>
<td>Cartersville GA</td>
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</table>
This listing of individuals above has been expanded to maintain good coverage of the state. They have been selected for their location, technical background and resources they bring to the program. Because of widely varying backgrounds of GEP staff, an internal training program of technical sessions conducted every few months is underway in an effort to standardize the services offered by each of the team members. These sessions have been held on December 12, 1996, April 24-25, September 30, 1997 with sessions planned for December 11, March 12, 1998, June 16, and August 18. In addition, all staff members are invited and encouraged to attend the numerous workshops produced by GEP and advertised on our web site.

Headed by Bob Hitch, GEP has completed an industry specific pollution prevention audit tool which will further enable field agents (with minimal pollution prevention expertise) to offer a consistent framework for in-plant assessments. Please see the binder attached.

Also in-process is an energy usage assessment tool under the direction of Chris Downing. This tool is presently in the beta test stage with the more skillful GEP members using them during their regular in-plant consultations. Final modifications will be incorporated during the fall based on the experiences of the in-plant testing. After a training session tentatively scheduled for the December 11, 1997 GEP technical session, the tool will be available for use by all GEP members. We even plan to market both tools to other state pollution prevention divisions and NIST manufacturing extension partnerships. Note: The tools are not designed to offer the level of detail that is typically provided by experts, but it will offer a greater depth and level of consistency for initial client consultations.

In-plant assessments are made in coordination with Pollution Prevention Assistance Division (P^2AD). The general practice has been established to route facility assistance requests through P^2AD. These requests are then evaluated with EDI responding to those requests forwarded for field agent support. In addition, field agents respond to local requests as a matter of routine. These routine requests involve a wide range of support from locating recycling vendors to developing model Title V Air Permit applications for carpet manufacturers.

**EDI/GEP on-site assessments performed and/or in-progress this contract year include:**

- Ga. Plantation Shutter Company — Facility Compliance Assessment
- Foster Lumber Company — New Facility Compliance Assessment
- SmithKline Beecham Laboratories - Energy and waste minimization study
- Marriott Marquis - Energy and waste minimization study
- Engineered Fabrics Inc. - Energy and waste minimization study
- E.J. Footware - Energy and waste minimization study
- Panolam Industries, Inc. - Energy and waste minimization study
- Rockwell International - Energy and waste minimization study
EDI/GEP on-site assessments performed and/or in-progress this contract year include (continued):

Allied-Signal Laminate Systems - Energy and waste minimization study
Food Ingredients Technology - Energy and waste minimization study
Riverbend Finishing - Energy and waste minimization study
Purafil - Energy and waste minimization study
Pak-Lite - Energy and waste minimization study
Thomas Packing - Energy and waste minimization study
Dittler Brothers, Inc. - Energy and waste minimization study
American Dehydrated Foods - Energy and waste minimization study
House Parts, Inc. - Energy and waste minimization study
Springs Industries - Energy and waste minimization study
Shaw Industries - Energy and waste minimization study
Atlas Roofing, Inc. - Energy and waste minimization study
U.S. Gypsum Corp. - Energy and waste minimization study
Horton Homes, Inc. - Indoor air emissions analysis
Southeastern Forge Inc. - Energy and waste minimization study
Lacey Mills - Energy and waste minimization study
World Carpets Inc. / Manuf. - Energy and waste minimization study
World Carpets Inc. / Spinning - Energy and waste minimization study
United Controls Int'l - Energy and waste minimization study
BASF - Energy and waste minimization study
Blue Circle Aggregates - Energy and waste minimization study
Caron Spinning - Energy and waste minimization study
Toppan Interamerica, Inc. - Energy and waste minimization study
Ru Wood, Inc. - Wood waste reuse consultation
Carrier Transicold - ISO 14001 Baseline audit
AT&T - ISO 14001 Gap Analysis
Harrell Manufacturing, Inc. - Environmental compliance consultation
Sunnyland Farms - Stormwater consultation
AAA Cleaning, Inc. - Recycle pecan hulls consultation
Rustan, Inc. - Wastewater treatment consultation
Rogers Finishing - Air emissions consultation
Blue Circle Cement - ISO 14001 gap analysis
J.H. Williams Co. - ISO14001 audit
Picon - Environmental compliance & 7(c)1 audit
Pratt & Whitney - Energy and Waste min. Assessment
Tom's Foods - Waste min. Assessment
Rogers' Finishing - Energy/waste audit and Prep of a Generic Stormwater Pollution Prevention Plan
Foster Lumber - New Plant assistance
City of Roberta - Recycle Depot Design
EDI/GEP on-site assessments performed and/or in-progress this contract year include (continued):

S & C Supply – New facility design energy and waste considerations
Southeast Paper – Waste movement paper logistics

2.1.2 Sector Specific Training

For sector specific training endeavors, see the various sections below.

2.1.3 Regional Seminars

Group technology transfer preparation and production for state regions is as indicated below:

“ISO 14000 Overview”, 2/11
“ISO 14000 International Standards Systems Documentation”, 02/11-12
“Power Demand Management”, 2/11, 5/15
“Boilers and Steam Systems”, 2/20, 4/22, 05/06
“SARA Title III Workshop”, April '1997
“Solvent Management”, April ’97
“The New Wetlands Rules”, April
“Solvent Reduction in the Carpet Industry”, February 6

2.1.4 Awareness Events

EDI provides ongoing support to P²AD by participating in awareness events via manning our GEP trade show booth. This quarter the booth was not manned at any events.

2.1.6 Database Information Input

The environmental database development effort is headed by the University of Georgia. EDI provides support to the effort. The leader in support of this effort for EDI is John Adams. Support for this project component is as requested/as needed and ongoing.
2.1.7 Savannah River Plant and SERA Interface

Support for this project component is as requested/as needed and ongoing. Support for this program component is headed by John Adams. During this quarter, Mr. Adams attended two SERA meetings.

2.1.8 Project Administration

The program is administered by John Adams. He is responsible for day to day administrative functions, resource allocation, and reporting.

2.2 Program Schedule

Exhibit 2.2.A, attached, summarizes EDI’s performance on the program, effective August 1, 1996. It also shows the contract deliverables and current program status.

2.3 Budget Summary

Exhibit 2.3.A, attached, depicts EDI’s cost performance on the program, effective October 31. The chart represents current and planned expenditures.

3.0 Project Reports, Budget Status & Program Schedules: P²AD Support Services Agreement

3.1 Program Activities for the May 1997 - July 1997 Quarter

3.1.1 On-site Assessments

On-site assessments completed in concert with P²AD for the program to date include:

- Atlanta Film Converting
  Initial Visit: 4/18/96
  Project Completion: 6/24/96

- American Dehydrated Foods
  Initial Visit: 04/03/97
  Project Completion: June 1997
Fresh Express
Initial Visit: 09/25/96
Project Completion: December 1996

World Carpets Manufacturing of Dalton
Initial Visit: 10/30/96
Project Completion: May 1997

World Carpets Spinning of Dalton
Initial Visit: 10/30/96
Project Completion: May 1997

Blue Circle Aggregates
Initial Visit: 12/13/96
Project Completion: March 1997

Blue Circle Cement
Initial Visit: 01/14/96
Project Completion: April 1997
Assistance Ongoing

Lacey Mills
Initial Visit: 4/23/97
Project Completion: June 1997

Ongoing assessments to be produced in concert with P2AD include:

Engineered Fabrics
Initial Visit: August 1997
Anticipated Completion: October 1997

Marriott Marquis
Initial Visit: August 1997
Anticipated Completion: October 1997

Blue Circle Cement Recycle Committee
Initial Work Began: March 1997
Anticipated Completion: Ongoing
3.1.2 Pollution Prevention Workshops

Workshops produced in concert with P^2AD for the program to date include:

"Wood Finishers and Furniture Manufacturers and Furniture Manufacturers Workshop and Teleconference"
  Conducted on: 9/18/96 and 9/25/96
  Total Attendance: 134

"Georgia Printer Partnership - Increasing Profits and Reducing Waste"
  Conducted on: 01/21/97
  Attendance: 63

"Shop Talk – Metal Finishing Made a Little Easier"
  Conducted May 28, 1997
  Attendance: 41

"Successful and Emerging Environmental Technologies in the Pulp and Paper Industry"
  September 18-19, 1997
  Attendance: 58
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<th>Task</th>
<th>Description</th>
<th>Month (1)</th>
<th>Project Totals</th>
<th>Project Goals</th>
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(2) Ongoing support as needed

One Year SERA Agreement
Program Schedule and Accomplishments

Table 2.2.A
Exhibit 2.3.A
One Year SERA Agreement Budget Summary

![Graph showing cumulative expenditures, cost share, and budget over program months.](image)
3.1.3 Industry Networks

Development and production of pollution prevention networks in industry was launched this year. Eight sites for the initial network development efforts. Network meeting sites has been expanded to 13 locations. This endeavor is being lead by Ms. Deann Desai. Year one network development activity includes:

Round One Theme: *SARA Reporting & Pollution Prevention Partners Program*

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Round Two Theme: *Form R Reporting & Pollution Prevention Partners Program*

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<td>LaGrange</td>
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Round Three Theme: Risk Management Planning

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<td>10/14/97</td>
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<td>W. Atlanta</td>
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Attendance at the network meetings in total is 200-250 persons.

3.1.4 Pollution Prevention Partners (P³) Certification Program

Support for this project component is ongoing on an as needed basis. The EDI field agents have been made aware of the program and brochures have been distributed to each office. Additional training is planned to enable field agents to provide in-plant support, verification, and applicant recruitment. Support for this program component is headed by John Adams.

3.2 Program Schedule

Exhibit 3.2.A, attached, summarizes EDI’s performance on the program, effective October 31. It also shows the contract deliverables and current program status.

3.3 Budget Summary

Exhibit 3.3.A and Exhibit 3.3.B, attached, summarizes EDI’s cost performance on the program, effective October 31. The chart represents current and planned expenditures.

4.0 Plans for the Next Quarter

Activities planned for next quarter include continuation and completion of the activities listed above. Initiate the follow-on contract. Efforts will also be focused on developing/establishing industry networks utilizing the information gained this quarter and providing a higher rate of deployment of on-site assessments.
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<th>Description</th>
<th>Month(1)</th>
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(2) Ongoing support as needed.

**P2AD Support Services Agreement**

**Program Schedule and Accomplishments**

Table 3.2.A
Exhibit 3.3.A
P2AD Support Services Agreement

[Graph showing cumulative expenditures and cumulative budget over program months]
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Pollution Prevention Support Services
Program Budget Expenditure Summary
Exhibit 3.3.B